Napa County

1195 THIRD STREET
SUITE 310
NAPA, CA 94559

Agenda

Wednesday, December 3, 2025
9:00 AM

Board of Supervisors Chambers
1195 Third Street, Third Floor
Napa, CA 94559

Planning Commission

District 1, Kara Brunzell (Vice-Chair)
District 2, Walter Brooks
District 3, Molly Moran Williams
District 4, Pete Richmond
District 5, Megan Dameron (Chair)

Brian D. Bordona, Director
Laura Anderson, County Counsel
Michael Parker, Planning Manager
Alexandria Quackenbush, Meeting Clerk
Angie Ramirez Vega, Meeting Clerk
Aime Ramos, Meeting Clerk

How to Watch or Listen to the Napa County Planning Commission Meetings

The Napa County Planning Commission will continue to meet pursuant to the annually adopted meeting calendar available at the following link:

https://www.napacounty.gov/DocumentCenter/View/35930/2025-Planning-Commission-Meeting-Calendar?bidId=

The Napa County Planning Commission meets as specified in its adopted annual calendar on the first and third Wednesdays of the month at 9:00 A.M. at 1195 Third Street, Suite 310, Napa, California 94559. The meeting room is wheelchair accessible. Assistive listening devices and interpreters are available through the Clerk of the Planning Commission. Requests for disability related modifications or accommodations, aids or services may be made to the Clerk of the Planning Commission's office no less than 72 hours prior to the meeting date by contacting (707) 253-4417 or meetingclerk@countyofnapa.org.

The Napa County Planning Commission realizes that not all County residents have the same ways to stay engaged, so several alternatives are offered. Remote Zoom participation for members of the public is provided for convenience only. In the event that the Zoom connection malfunctions for any reason, the Planning Commission reserves the right to conduct the meeting without remote access.

Please watch or listen to the Planning Commission meeting in one of the following ways:

1. Attend in-person at the Board of Supervisors Chambers, 1195 Third Street, Napa, Third Floor.
2. Watch online at https://napa.legistar.com/calendar.aspx (click the "In Progress" link in the "Video" column).
3. Watch on Zoom using the attendee link: https://countyofnapa.zoom.us/j/87621457786. Make sure the browser is up-to-date.
4. Listen on Zoom by calling 1-669-900-6833 (Meeting ID: 876-2145-7786).
5. Watch on your TV - Napa Valley TV Channel 28.

If you are unable to attend the meeting in person and wish to submit a general public comment or a comment on a specific agenda item, please do the following:

1. Email your comment to meetingclerk@countyofnapa.org. Emails will not be read aloud but will still become part of the public record and shared with the Planning Commission.
2. Use the Zoom attendee link: https://Countyofnapa.zoom.us/j/87621457786. Make sure the browser is up-to-date. When the Chair calls for the item on which you wish to speak, click "raise hand". Please limit your remarks to three minutes.

3. Call the Zoom phone number: 1-669-900-6833. (Meeting ID: 876-2145-7786). When the Chair calls for the item on which you wish to speak, press *9 to raise hand. Please limit your remarks to three minutes.

   Please note that phone numbers in their entirety will be visible online while speakers are speaking

For more information, please contact us via telephone at (707) 253-4417 or send an email to meetingclerk@countyofnapa.org

ANY MEMBER OF THE AUDIENCE DESIRING TO ADDRESS THE COMMISSION:

ON A MATTER ON THE AGENDA
Please proceed to the podium when the matter is called and, after receiving recognition from the Chair, give your name and your comments or questions. In order that all interested parties have an opportunity to speak, please be brief and limit your comments to the specific subject under discussion. Time limitations shall be at the discretion of the Chair or Commission, but is generally limited to three minutes.

ON A MATTER NOT ON THE AGENDA
Public comment is an opportunity for members of the public to speak on items that are not on the agenda but are within the subject matter jurisdiction of the Commission. Public comment is limited to three minutes per speaker, subject to the discretion of the Chair. Comments should be brief and focused, and speakers should be respectful of one another who may have different opinions. Please remember this meeting is being recorded and broadcast on live television. The County will not tolerate profanity, hate speech, abusive language, or threats. Also, while public input is appreciated, the Brown Act prohibits the Commission from taking any action on matters raised during public comment that are not on the agenda.

1. CALL TO ORDER; ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. CITIZEN COMMENTS AND RECOMMENDATIONS

The Commission invites Citizen comments and recommendations concerning current issues and future prospects of a planning nature which are within the jurisdiction of the Planning Commission. Anyone who wishes to speak to the Commission on such a matter, if it is not on the agenda, may do so at this time.

4. APPROVAL OF MINUTES

A. Approval of minutes from the regular meeting of November 5, 2025. **25-1971**

Attachments: 11-5-25 Draft Minutes.pdf

5. AGENDA REVIEW

6. DISCLOSURES

7. PUBLIC HEARING ITEMS

A. STEVEN CONTURSI / ARROW AND BRANCH WINERY / USE PERMIT MAJOR MODIFICATION P23-00057-MOD **25-1962**

CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigated Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures. Mitigation measures are proposed for the following areas: Biological Resources and Noise. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Request: Approval of a Use Permit Major Modification to include the following:
an increase in wine production from 30,000 gallons per year to 45,000 gallons per year, increase employment, increase daily tours and tastings by appointment only, increase marketing events, expansion of an existing winery building to create additional production and accessory space, construction of an covered terrace with outdoor tasting, installation of an approximately 81,000 gallon process water storage tank, and reconfiguration of existing parking.

The project is located on an approximately 10.09-acre site within the Agricultural Preserve (AP) zoning district with a General Plan land use designation of Agricultural Resource (AR) at 5215 Solano Ave, Napa, CA 94558; APN: 034-190-040-000.

Staff Recommendation: Adopt the Initial Study/Mitigated Negative Declaration prepared for the project and approve Use Permit Major Modification No. P23-00057-MOD, as conditioned.

Staff Contact: Matt Ringel, Planner III,
Matthew.ringel@countyofnapa.org, (707) 299-1351

Applicant Contact: Steven Contursi, 1042 North Pacific Coast Hwy, Laguna Beach, CA 92651

Applicant Representative Contact: Donna Oldford, Plans 4 Wine, 2620 Pinot Way, St. Helena, CA 94558; dboldford@aol.com; (707) 204-5794

Attachments:
Attachment A - Recommended Findings
Attachment B - Recommended Conditions of Approval PC
Attachment C - Initial Study and Mitigated Negative Declaration
Attachment D - Applicant's Response Letter
Attachment E - Environmental Noise Assessment Addendum
Attachment F - Public Comment

B. E&P TECHNOLOGY WAY - BUILDINGS A & B / DENNIS PAULLEY / USE PERMIT APPLICATIONS #P22-00307 and #P22-00308 **25-1945**

CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigated Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures. Mitigation measures are proposed for the following areas: Biological Resources, Cultural Resources, and Transportation. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (State Clearinghouse Number #2024100855) 2024100855)

Request: Approval of two separate Use Permit applications to allow the construction of two separate projects and buildings: Building A - a 450,000 gallon per year wine production and storage facility within a proposed 143,312 sf building (P22-00307-UP) and Building B - speculative warehouse/office uses within a proposed 66,915 sf building (P22-00308-UP).

The Building A project proposes winery uses that will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 sf of covered outdoor work area will be located on the north side of the building. The proposal also includes 129 parking spaces and eight (8) spaces for semi-trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court. Tours, tastings, and marketing events are not proposed with this application and will not occur as part of this permit. The applicant is also requesting a variation to the development regulations of the Specific Plan to reduce the required 40-foot average building setback along the south property line to approximately 31-feet.

The Building B project proposes to allow warehouse and office uses within the proposed 66,915 sf building. The proposal also includes 82 parking spaces. Access will be provided via two (2) new access driveways off Technology Way on the far west and east sides of the project site. The warehouse uses are consistent with allowable warehouse uses as outlined in Napa County Code Industrial Park zoning district (18.40.020) and the Napa Valley Business Park Specific Plan (NVBPSP.)

The City of American Canyon will provide both projects with water service . Napa Sanitation District (NSD) will provide sewer. Both buildings will be sprinklered for fire protection.

There are three parcels comprising the two project sites: Building A is

proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031& -032), which will be merged as required by a condition of approval. Both sites are located in the NVBPSP area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.

Staff Recommendation: Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program and approve the Use Permit with the proposed conditions of approval.

Staff Contact: Sean Kennings, Contract Planner, (415) 533-2111, or sean@lakassociates.com

Applicant Contact: Mike Kelley, 5150 Fair Oaks Blvd, Suite 101-219, Carmichael, CA 94608, (916) 956-0524

CONTINUED FROM THE NOVEMBER 20, 2024, PLANNING COMMISSION MEETING.

Attachments:
A. Revised Recommended Findings
B. Revised Conditions of Approval & Final Agency Approval Memos - Building A
C. Revised Conditions of Approval & Final Agency Approval Memos - Building B
D. Revised Initial Study/Mitigated Negative Declaration & MMRP
E. Use Permit Application Packets
F. Biological Resource Analysis
G. Transportation Impact Study
H. Water Supply Reports
I. Geotechnical Investigation
J. Stormwater Control Plans
K. Graphics
L. NVBPSP Wineries
M. California Department of Fish & Wildlife letter dated November 15, 2024
N. Adams Broadwell Joseph & Cardoza letter dated November 19, 2024
O. Water Audit California letter dated November 19, 2024
P. Other Public Comments
Q. First Carbon Solutions response to comments memo dated November 10, 2025
R. Staff Memo dated November 20, 2025

8. ADMINISTRATIVE ITEMS

A. Staff requests the Planning Commission receive a presentation on Historic Preservation from Christine Madrid French, Executive Director of Napa County Landmarks, and Kara Brunzell, Architectural Historian and Principal of Brunzell Historical. **25-1885**

9. DIRECTOR OR DIRECTOR'S DESIGNEE REPORT

- DISCUSSION OF ITEMS FOR THE DECEMBER 17, 2025 REGULAR MEETING

- BOARD OF SUPERVISORS ACTIONS

- OTHER DEPARTMENT ACTIVITIES

- CODE COMPLIANCE REPORT

- ZONING ADMINISTRATOR ACTIONS

- OTHER PENDING PROJECTS' STATUS

10. COMMISSIONER COMMENTS/COMMITTEE REPORTS

11. ADJOURNMENT

I HEREBY CERTIFY THAT THE AGENDA FOR THE ABOVE STATED MEETING WAS POSTED AT A LOCATION FREELY ACCESSIBLE TO MEMBERS OF THE PUBLIC AT THE NAPA COUNTY ADMINISTRATIVE BUILDING, 1195 THIRD STREET, NAPA, CALIFORNIA ON 11/21/25 BY 4:00 P.M. A HARDCOPY SIGNED VERSION OF THE CERTIFICATE IS ON FILE WITH THE CLERK OF THE COMMISSION AND AVAILABLE FOR PUBLIC INSPECTION.

AIME RAMOS(By e-signature)
Aime Ramos, Clerk of the Commission

Napa County

Board Agenda Letter

1195 THIRD STREET
SUITE 310
NAPA, CA 94559
www.napacounty.gov

Main: (707) 253-4580

Planning Commission | **Agenda Date:** 12/3/2025 | **File ID #:** 25-1971

TO: Napa County Planning Commission

FROM: Brian D. Bordona, Director, Napa County Planning Building & Environmental Services

REPORT BY: Charlene Gallina, Supervisor Planner

SUBJECT: Approval of Minutes

RECOMMENDATION

Approval of minutes from the regular meeting of November 5, 2025.

EXECUTIVE SUMMARY

The Clerk requests approval of minutes from the regular meeting of November 5, 2025.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

BACKGROUND AND DISCUSSION

Only Commission members who attended the November 5, 2025, meeting may vote on the minutes.

Meeting Minutes

Napa County Planning Commission

District 1, Kara Brunzell (Vice-Chair)	Brian D. Bordona, Director
District 2, Walter Brooks	Laura Anderson, County Counsel
District 3, Molly Moran Williams	Michael Parker, Planning Manager
District 4, Pete Richmond	Alexandria Quackenbush, Meeting Clerk
District 5, Megan Dameron (Chair)	Angie Ramirez Vega, Meeting Clerk

Wednesday, November 5, 2025	**9:00 AM**	**Board of Supervisors Chambers 1195 Third Street, Third Floor**

1. CALL TO ORDER / ROLL CALL

Commissioners Present: Megan Dameron, Kara Brunzell, Walter Brooks, Molly Moran Williams
Commissioners Recused: Pete Richmond

2. PLEDGE OF ALLEGIANCE

3. CITIZEN COMMENTS AND RECOMMENDATIONS

Two comments received.

4. APPROVAL OF MINUTES

Motion by Commissioner Brooks to approve minutes for the October 15, 2025, regular meeting as presented, seconded by Commissioner Moran Williams
Vote: Carried 4-0-1
Yes: Brooks, Moran Williams, Brunzell, Dameron
No: None
Recused: Richmond

5. AGENDA REVIEW

Michael Parker gave the agenda review.

6. DISCLOSURES

Yes: Brooks, Brunzell, Moran Williams, Dameron
No: None
Recused: Richmond

7. PUBLIC HEARING ITEMS

A. TODD SHALLAN / SILVERADO RESORT & SPA PROJECT / USE PERMIT MINOR MODIFICATION NO. P24-00141-MM

CEQA STATUS: Consideration and possible adoption of Categorical Exemptions Classes 1 and 4: It has been determined that this type of project does not have a significant effect on the environmental and is exempt from the California Environmental Quality Act (CEQA). [See Class 1 ("Existing Facilities") and Class 4 ("Minor Alterations to Land") which may be found in the guidelines for the implementation of the California Environmental Quality Act at 14 CCR §15301, §15304(a), §15304(b), and §15304(f); as well as Napa County's Local Procedures for Implementing the California Quality Act, Appendix B, Class 1: Existing Facilities, Subsection 3]. The project site is not included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5.

REQUEST: Approval of a Use Permit Minor Modification to construct an event pavilion and an event lounge. An Exception to the Road and Street Standards is also requested to permit a firetruck turnaround and emergency vehicle access road to be located greater than 50 feet from the event lounge.

STAFF RECOMMENDATION: Find the project categorically exempt from CEQA and approve the Minor Modification to Use Permit as conditioned.

STAFF CONTACT: Trevor Hawkes, Supervising Planner, 1195 Third St, Suite 210, Napa, CA 94559; (707) 253-4388; trevor.hawkes@countyofnapa.org

APPLICANT CONTACT: Todd Shallan, Vice President, 1600 Atlas Peak Rd, Napa, CA 94598; (707) 257-5430; todd.shallan@silveradoresort.com

APPLICANT REPRESENTIVE CONTACT: Scott Greenwood-Meinert, 700 Main Street, Suite 301, Napa, CA, 94558; (415) 772-5741; sgreenwood-meinert@coblentzlaw.com

OTHER REPRESENTATIVE CONTACT: Christina Nicholson, P.E., 1665 2nd Street, Napa, 94559; (707) 773-7829; cnicholson@sherwoodengineers.com

CONTINUED FROM OCTOBER 15, 2025, PLANNING COMMISSION MEETING

Chair Dameron opened public comment, eight comments were received, Chair Dameron closed public comment.

Motion by Commissioner Moran Williams finds the project categorically exempt based on the recommended Findings 1-4 in Attachment A; 2. Approve the Napa County Road and Street Standards Exception Request based on the recommended Findings 5-6 in Attachment A, and subject to the recommended Conditions of Approval in Attachment B.3. Approve Use Permit Minor Modification Application No. P24-00141-MM, based on recommended Findings 7-14 in

Attachment A, and subject to the recommended Conditions of Approval in Attachment B as amended, seconded by Commissioner Brunzell
Vote: Carried 4-0-1
Yes: Moran Williams, Brunzell, Brooks, Dameron
No: None
Recused: Richmond

8. ADMINISTRATIVE ITEMS – NONE

9. DIRECTOR OR DIRECTOR'S DESIGNEE REPORT

DISCUSSION OF ITEMS FOR THE ***AUGUST 6, 2025 REGULAR MEETING***
Michael Parker discussed potential items for the November 19, 2025, meeting.
BOARD OF SUPERVISORS ACTIONS - None
OTHER DEPARTMENT ACTIVITIES - None
CODE COMPLIANCE REPORT
Michael Parker reported on Code Compliance actions
ZONING ADMINISTRATOR ACTIONS - None
OTHER PENDING PROJECT'S STATUS
Michael Parker reported on community workshops happening in November.

10. COMMISSIONER COMMENTS / COMMITTEE REPORTS

Commissioner Brooks asked clarifying questions and initiated a general discussion regarding the Airport Land Use Commission.

11. ADJOURNMENT

Meeting adjourned at 11:54am

_____
ANGIE RAMIREZ VEGA, Meeting Clerk

1195 THIRD STREET
SUITE 310
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www.napacounty.gov

Main: (707) 253-4580

Planning Commission | **Agenda Date:** 12/3/2025 | **File ID #:** 25-1962

TO: Napa County Planning Commission

FROM: Brian D. Bordona, Director Planning, Building and Environmental Services

REPORT BY: Matt Ringel, Planner III

SUBJECT: Arrow and Branch Winery Use Permit Major Modification (P23-00057-MOD)

RECOMMENDATION

STEVEN CONTURSI / ARROW AND BRANCH WINERY / USE PERMIT MAJOR MODIFICATION P23-00057-MOD

CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigated Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures. Mitigation measures are proposed for the following areas: Biological Resources and Noise. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Request: Approval of a Use Permit Major Modification to include the following:

an increase in wine production from 30,000 gallons per year to 45,000 gallons per year, increase employment, increase daily tours and tastings by appointment only, increase marketing events, expansion of an existing winery building to create additional production and accessory space, construction of an covered terrace with outdoor tasting, installation of an approximately 81,000 gallon process water storage tank, and reconfiguration of existing parking.

The project is located on an approximately 10.09-acre site within the Agricultural Preserve (AP) zoning district with a General Plan land use designation of Agricultural Resource (AR) at 5215 Solano Ave, Napa, CA 94558; APN: 034-190-040-000.

Staff Recommendation: Adopt the Initial Study/Mitigated Negative Declaration prepared for the project and

approve Use Permit Major Modification No. P23-00057-MOD, as conditioned.

Staff Contact: Matt Ringel, Planner III, Matthew.ringel@countyofnapa.org, (707) 299-1351

Applicant Contact: Steven Contursi, 1042 North Pacific Coast Hwy, Laguna Beach, CA 92651

Applicant Representative Contact: Donna Oldford, Plans 4 Wine, 2620 Pinot Way, St. Helena, CA 94558; dboldford@aol.com; (707) 204-5794

EXECUTIVE SUMMARY

Proposed Actions:

That the Planning Commission:

1. Adopt the revised Initial Study/Mitigated Negative Declaration and revised Mitigation Monitoring and Reporting Program (MMRP) based on recommended Findings 1-7 in Attachment A;

2. Approve the Use Permit Major Modification (P23-00057-MOD) based on recommended Findings 8-12 in Attachment A, and subject to the recommended Conditions of Approval in Attachment B.

Discussion:

The project was last heard at the September 17, 2025, Planning Commission meeting. At the hearing members of the public and Commissioners provided comments and raised questions regarding topics such as groundwater use, noise, habitat restoration, and potential water tank leakage. The Commission requested that the hearing be continued to a date uncertain. The prior staff report and attachments are available via the following link:

https://napa.legistar.com/LegislationDetail.aspx?ID=7649916&GUID=C097C2F9-A7B6-40A9-98AE-E7D21C025671&Options=&Search=

Since the last hearing, there have been no changes to the applicant's project request to allow for the physical and operational modifications; however, the applicant has worked with Staff to address the public and Commission's concerns. The applicant has updated the project scope to include a 10% reduction in groundwater use, noise monitoring conditions, a habitat restoration plan, and measures to prevent potential

water tank leakage into Dry Creek.

The proposed project includes the increase of wine production from 30,000 gallons to 45,000 gallons per year, an expansion of production space, an expansion of space for accessory uses (wine tasting and offices), an increase of one full time employee from four (4) to five (5) full-time employees, and an increase to the winery's existing by appointment visitation and marketing programs. Additionally, the proposal includes the construction of an outdoor terrace for wine tasting (Business & Professions Code §23358, 23390 and 23396.5), with a second-floor outdoor patio above the terrace, landscaping improvements, relocation and reconfiguration of onsite parking, and the construction of an 81,000 gallon process water storage tank. The project includes approximately 1,500 cubic yards of earthwork for structural pads and exterior improvements. Staff has reviewed the proposed project and supports granting approval, subject to the attached recommended Findings and recommended Conditions of Approval included in Attachments A and B respectively. Wineries are conditionally permitted uses within the Agricultural Preserve (AP) zoning district. The project is located within one (1) mile of seven (7) existing wineries and is surrounded with residential homes. The majority of the project's proposed disturbance area has previously been disturbed and includes the existing winery. With the implementation of a process wastewater system that uses treated water to offset an existing groundwater use for approximately four (4) acres of on-site vineyards, the proposed project would decrease groundwater demand from an existing demand of 3.97 acre-feet per year (AFY) to 3.57 AFY.

Based on the reasons stated above, staff recommends approval of the project, subject to the recommended Conditions of Approval.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigated Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures. Mitigation measures are proposed for the following areas: Biological Resources and Noise. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

BACKGROUND AND DISCUSSION

The project was last heard at the September 17, 2025, Planning Commission meeting. At the hearing members of the public and Commissioners provided comments and raised questions regarding topics such as groundwater use, noise, habitat restoration, and potential water tank leakage.

Water - A Tier I Water Availability Analysis was prepared by Applied Civil Engineering (ACE), dated July 7, 2025, and a Tier III Water Availability Analysis was prepared by Richard C. Slade & Associates LLC (RCS), dated July 8, 2025. As directed by the County's Water Availability Analysis Guidance Document of May 2015 (WAA) and the Interim Well Standards (January 2024), the reports include Tier 1 calculations for the existing and proposed groundwater uses and a groundwater recharge analysis, a Tier 2 well interference analysis, and a Tier 3 surface water interference analysis.

The Tier 1 analysis considered existing uses onsite to include the winery, landscaping irrigation, vineyard irrigation, and the neighbor's well that is located on the parcel. The Arrow and Branch Winery currently uses 3.97 AFY and the Silenus Winery Easement Well uses approximately 8.5 AFY. The existing groundwater usage of the parcel is estimated at 12.47 acre-feet per year (AFY).

Following the September 17, 2025, Planning Commission hearing, the applicant has proposed a 10% reduction in groundwater demand for the proposed winery. The winery currently uses 3.97 AFY and the applicant proposes reducing the groundwater demand to 3.57 AFY. The proposed groundwater demand reduction will be achieved through the following measures:

1) Increase the amount of recycled winery process wastewater used to offset vineyard irrigation demand. The previous proposal included recycling at least 0.41 AFY of treated process wastewater to be used for vineyard irrigation. The represented 42% of the total amount of winery process wastewater expected to be generated by the winery (0.968 AFY). By increasing the percentage of winery process wastewater that is beneficially re-used to 84%, an additional 0.4 AFY of vineyard irrigation demand can be offset, therefore providing the additional savings needed to meet up to 10 percent reduction in groundwater pumping volume.

2) Implement vineyard irrigation system audit and scheduling efficiency upgrades.

3) Implement winery processing Best Management Practices (BMPs) to reduce water uses including one or more of the following: high temp and high-pressure washing systems, squeegees to clean floors and limit house wash-down water use, recycling of cleaning waters.

The proposed project would decrease groundwater use by 0.4 AFY compared to existing conditions.

Source of Demand	**Existing (AFY)**	**Proposed (AFY)**	**Difference (AFY)**
Primary Residence	0	0	0
Vineyard Irrigation	3	2.19	-0.81
Landscaping Irrigation	0.2	0.2	0
Winery (Visitation, Marketing, and Employees)	0.77	1.18	+0.41
Silenus Easement Well, located on project parcel. Usage is via easement	8.5	8.5	0
Total	**12.47**	**12.07**	**-0.40**

Sanitary Waste Disposal - An Onsite Wastewater Feasibility Study, dated September 9, 2023, was prepared by Applied Civil Engineering which outlines the required wastewater system to meet the needs of the proposed increases in winery production, employees, visitation, and marketing programs. The Onsite Wastewater Feasibility Study proposes and recommends that the disposal of the treated winery process wastewater be via irrigation of the onsite vineyard. The study analyzed the potential of using approximately 4 acres vineyard that is located to the west of the new winery structure and outside of the well setbacks. In order to accommodate differences in the timing of wastewater generation, irrigation demand, and limitations of wet weather application of treated wastewater, a storage tank will be required. The proposed project includes an 81,000-gallon process wastewater storage tank. The analysis assumes that during the summer, the treated water will be

used to offset the irrigation needs of the vineyard, and in the winter application of treated winery process wastewater will not occur to prevent runoff. Applied Civil Engineering's study concludes that the proposed wastewater system could support a maximum 0.829 AFY with the proposed 81,000 gallon tank and 4 acres of vineyard irrigation, which is a higher capacity than the proposed 0.81 AFY proposed within their request; therefore, the proposed system could support the proposed irrigation system as designed.

Noise - Illingworth & Rodkin prepared an October 18, 2023, Noise Assessment for the proposed project. The study reviewed the proposed project's potential impacts to noise resources and concluded as follows:

Tasting and Marketing Activities: Marketing events would occur on a western outdoor patio and inside the winery structure. Outdoor amplified music is prohibited, so the primary noise source associated with the event would be raised conversations and acoustic instruments. Napa County's noise threshold is 45 dBA L50. Outdoor events held in the covered patio area could be as close as approximately 460, 380, 200, 175, and 190 feet from the property lines of adjacent property lines of residences 1, 2, 3, 4, and 6. Outdoor visitation and marketing events with 30 guests and background music are estimated to meet Napa County's 45 dBA threshold, with estimated noise levels of 29, 31, 38, 39, and 39 dBA from Residences 1, 2, 3, 4, and 6. Additionally, outdoor visitation and marketing events with 125 guests and background music are estimated to meet Napa County's 45 dBA threshold, with estimated noise levels of 35, 37, 44, 45, and 45 dBA from Residences 1, 2, 3, 4, and 6. Visitation and marketing events with acoustic, non-amplified music performances, are estimated to produce 40, 42, 49, 50, and 50 dBA from Residences 1, 2, 3, 4, and 6. As the noise threshold is 45 dBA, the estimated noise for acoustic music will be greater than allowed by Napa County's noise criteria. In order to mitigate any potential impacts to noise, mitigation measure NOISE-1 has been implemented to restrict outdoor music performances.

Illingworth & Rodkin prepared a September 5, 2025, Noise Assessment Addendum for the proposed project, which defined and clarified the difference between "non-amplified background music", which would meet Napa County's Noise Ordinance, and "non-amplified music performances", which would not meet Napa County's Noise Ordinance.

- Non-amplified background music typically takes the form of one or a few musicians (typically string instruments, piano, vocalists, or similar) performing at lower sound levels which do not compete or interfere with guest conversations. The sound levels at the adjacent residential property lines due to events held at the covered outdoor patio with non-amplified background music played during events with up to 125 guests would not exceed the County noise limits at the closest noise sensitive residential uses to the project.

- Non-amplified music performances typically involve a larger musical group (i.e., a quartet or larger, which may include strings, brass, drums, piano, and/or vocals) performing at higher sound levels and acting as the focus of the event. The sound levels at the adjacent residential property lines due to events held at the covered outdoor patio with non-amplified music performances would exceed the County noise limits at the closest noise sensitive residential uses to the project.

Due to this clarification, staff has updated NOISE-1 as follows:

NOISE-1: Outdoor visitation and marketing shall not include acoustic music performances. <u>Acoustic music performances are defined as a musical group of four or more, or individuals playing brass and/or drum instruments).</u>

The applicant also proposes a noise monitoring program, as detailed in Attachment D. Staff has updated the proposed noise monitoring program to allow for an enforcement mechanism.

Condition of Approval 4.20.c. - Noise Monitoring

1. The permittee shall hire a qualified acoustical engineer to conduct noise monitoring prior to and during two (2) 30 person and one (1) 125 person marketing events with non-amplified background music held at the outdoor covered terrace. These measurements shall be at five locations. The first at a distance of approximately 50 feet from the edge of the covered terrace (towards the adjacent residential uses), and the other four (4) at the property lines of Residences 3, 4, 6, and 7 as identified by Figure 1 of the "1st Event Sound Monitoring Plan" memo, prepared by Illingworth & Rodkin, Inc. All Sound levels measurements would be made using pre and post calibrated Type 1 sound level meters with ½-inch pre-polarized condenser microphones and windscreens. The internal clocks of these meters shall be synchronized to allow for simultaneous measurement.

2. The acoustical engineer shall prepare a report and the permittee shall submit the results of the noise monitoring to the Napa County Planning Division within one year of the initiation marketing events at the covered terrace as approved by this permit.

3. The Planning Commission shall hold a publicly noticed monitoring hearing on this approval approximately six (6) months after the submittal of the noise monitoring report for Arrow and Branch Winery. The hearing shall focus on noise impacts, if any. Prior to the issuance of a permit for the proposed building expansion, the permittee shall submit a $2,000 monitoring deposit to the Planning Division to fund (or, as the case may be, partially fund) staff time associated with the required monitoring hearing. The permittee shall be responsible for promptly reimbursing the Planning Division in the event that the monitoring costs exceed $2,000.

Restoration Plan - The applicant has proposed to restore a portion of the property that was previously impacted by tree and vegetation removal. The proposed restoration area is located between the top of bank of Dry Creek, proposed barrel storage expansion, and is within the stream setback. The applicant proposes to work with the California Department of Fish and Wildlife and other agencies to develop a restoration plan that is consistent with the Napa County Conservation Regulations.

Condition of Approval 6.15.e. has been incorporated, to encompass this proposal.

6.15 - OTHER CONDITIONS APPLICABLE TO THE PROJECT PERMITTING PROCESS

e. The permittee shall obtain a Water Quality Certification from the Regional Water Quality Control Board and all necessary permits/agreements from the California Department of Fish and Wildlife or demonstrate that the appropriate jurisdictions have determined that referenced applications are not required for riparian restoration within the stream setback. Prior to the issuance of grading/building permits, the permittee shall submit verification to the PBES department that the necessary permits have been obtained or verification from the appropriate jurisdictions that the referenced permit is not required.

Potential Water Tank Leakage - During the September 17, 2025, Planning Commission Hearing, members of the public and Commissioners voiced a concern regarding the potential leakage of the proposed 81,000 water tank. The applicant has updated the scope of their project to include design and operation measures to ensure that the water tank does not leak and to protect the area in the event that the tank does so. Staff has incorporated the proposed activities as Condition of Approvals 6.15.f and 9.9.a-c.

6.15 - OTHER CONDITIONS APPLICABLE TO THE PROJECT PERMITTING PROCESS

f. The 81,100 gallon treated process wastewater irrigation storage tank shall be designed in compliance with the California Building Code structural and seismic requirements.

9.9 - OTHER CONDITIONS APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY

a. Prior to final occupancy, the permittee shall install a high-level alarm on the treated process wastewater irrigation tank to sound when the tank achieves two-thirds capacity. The alarm shall notify winery personnel when the tank is nearing capacity level, to implement an irrigation cycle to lower the tank water level, as needed to accommodate upcoming winery activities' water use.

b. Prior to final occupancy, the permittee shall prepare a daily visual inspection program to be implemented, that will inspect the treated process wastewater irrigation tank for leakage at least once each day during normal operating hours.

c. Prior to final occupancy, the permittee shall obtain all of the necessary permits to install a soil berm (6 inches to 9 inches tall) around the side of the treated process wastewater irrigation tank nearest to Dry Creek and construct the soil berm. The soil berm shall not be located with the site's designated Stream Setback.

Environmental Analysis - Staff prepared an Initial Study and Mitigated Negative Declaration (SCH# 2025080635) that evaluated the environmental impacts of the project and did not identify any potentially significant effects with the incorporation of mitigation measures for Biological Resources and Noise.

California Environmental Quality Act (CEQA) guideline §15073.5(c)(4) outlines that recirculation of a Mitigated Negative Declaration is not required with the addition of new information which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration. With no significant environmental effects anticipated, and with the project's consistency with adopted County policies and regulations, staff believes that the necessary findings for the project can be made and recommends approval of the Use Permit as proposed and subject to the conditions.

Public Comments - At the time of staff report preparation and since the September 17th Planning Commission

hearing, three public comment has been received with concerns about the proposed project.

Decision Making Options:

As noted in the Executive Summary Section above, staff recommends that the Planning Commission approve the project as proposed, subject to the Findings and Conditions of Approval in Attachment and B, respectively. However, staff has provided the following options for consideration by the Planning Commission.

Option 1 - Approve Applicant's Proposal (Staff Recommendation)

Disposition - This action would approve the project as proposed, allowing the winery expansion and increased operation of a 45,000-gallon per year winery with related tours and tastings and marking program that would allow up to 34 guests per day, seven days per week. The requested Use Permit would increase vehicle trips and miles, and wastewater generation at the property, in addition to adding winery development area. New construction would be compliant with Napa County zoning code regulations for winery developments, including minimum setbacks from property lines and public roads, maximum lot coverage, and maximum building height. With implementation of mitigation measures pertaining to biological and noise resources, potential environmental impacts of the project would be less than significant, and additional Conditions of Approval would be enforced with the intention of preserving public health, safety, welfare and convenience.

Staff recommends this option as the request is consistent with the Zoning Ordinance and applicable General Plan policies.

Action Required - Follow the proposed action listed in Executive Summary. If conditions of approval are to be amended, specify conditions to be amended at the time the motion is made.

Option 2 - Modify the Applicant’s Proposal and Reduce Visitation

Disposition - Should the Planning Commission determine that the intensity of the visitation and marketing plan should be reduced, the Commission may take action to reduce the number of daily, weekly, or yearly visitors and/or reduce the number of proposed marketing events and/or reduce the hours of visitation.

Action Required - Follow proposed actions listed in the Executive Summary and amend scope and project specific conditions of approval to reduce the maximum daily visitation and/or number of marketing events. If significant revisions to the Conditions of Approval are required, the item may need to be continued to allow staff adequate time to prepare the revised conditions.

Option 3 - Deny Applicant's Proposal

Disposition - In the event the Commission determines that the project does not or cannot meet the required findings for the granting of a Use Permit Major Modification, Commissioners should identify what aspect or aspects of the project are in conflict with the required findings. State Law requires the Commission to adopt findings, based on the General Plan and County Code, setting forth why the proposed Use Permit Major Modification is not being approved.

Action Required - Commission would move to deny the project.

Option 4 - Continuance Option

The Commission may continue an item to a future hearing date at its own discretion.

Attachments:

A - Recommended Findings

B - Recommended Conditions of Approval and Agency Memos

C - Initial Study/Mitigated Negative Declaration

D - Applicant’s Response Letter

E - Environmental Noise Assessment Addendum

F - Public Comment

“A”

Recommended Findings

PLANNING COMMISSION HEARING – DECEMBER 3, 2025
RECOMMENDED FINDINGS

ARROW AND BRANCH WINERY USE PERMIT MAJOR MODIFICATION
P23-00057-MOD
5215 Solano AVE, NAPA, CA 94558
APN 034-190-040-000

ENVIRONMENTAL:

The Planning Commission (Commission) has received and reviewed the proposed Mitigated Negative Declaration pursuant to the provisions of the California Environmental Quality Act (CEQA) and of Napa County's Local Procedures for Implementing CEQA, and makes the following findings. That:

1. The Planning Commission has read and considered the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program (MMRP) prior to taking action on said Mitigated Negative Declaration and the proposed project.

2. The Mitigated Negative Declaration and MMRP is based on independent judgment exercised by the Commission.

3. The Mitigated Negative Declaration and MMRP was prepared and considered in accordance with the requirements of the California Environmental Quality Act (CEQA).

4. There is no substantial evidence in the record as a whole, that the project will have a significant effect on the environment provided that measures to mitigate potentially significant impacts to biological resources and noise are incorporated into the project approval.

5. There is no evidence, in considering the record as a whole that the proposed project will have a potential adverse effect on wildlife resources or habitat upon which the wildlife depends.

6. The site of this proposed project is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 and is not within the boundaries of any airport land use plan.

7. The Secretary of the Commission is the custodian of the records of the proceedings on which this decision is based. Records are located at the Napa County Planning, Building, and Environmental Services Department, 1195 Third Street, Ste 210, Napa, California.

USE PERMIT:

The Commission has reviewed the Use Permit Major Modification request in accordance with the requirements of Napa County Code and makes the following findings:

8. The Commission has the power to issue the approval for the Use Permit Major Modification request under the Zoning Regulations in effect as applied to the property;

   Analysis: The project is consistent with Agricultural Preserve (AP) zoning district regulations. A winery (as defined in Napa County Code Section 18.08.640) and uses in connection with a winery (see Napa County Code Section 18.16.030) are permitted in an AP zoned district with an approved use permit. Major Modifications to Use Permits for wineries located in the AP zoning district require Planning Commission Approval (Napa County Code Sections 18.16.030, 18.124.010, and 18.124.130). There is no companion action necessary for the requested Use Permit Major Modification that would require action by the Board of Supervisors. The project complies with the requirements of the Winery Definition Ordinance (Ord. No. 947, 1990) and the remainder of the Napa County Zoning Ordinance (Title 18, Napa County Code) as applicable.

9. The procedural requirements for a Use Permit Major Modification set forth in Chapter 18.124 of Napa County Code (zoning regulations) have been met;

   Analysis: The use permit application for a Major Modification to the Use Permit has been appropriately filed, noticed, and public hearing requirements of County Code Sections 18.124.040.B and 18.136.040 have been met. The public hearing notice and intent to adopt a Mitigated Negative Declaration was posted and published in the Napa Valley Register on November 20, 2025, and copies of the notice were forwarded to property owners within 1,000 feet of the Property.

10. The grant of the Use Permit Major Modification, as conditioned, will not adversely affect the public health, safety or welfare of the County;

    Analysis: Granting the Use Permit Major Modification for the project as proposed and conditioned will not adversely affect health, safety or welfare of the County. Applicable County divisions and departments have reviewed the project and commented regarding the proposed site access, grading, drainage, the existing septic system capacity, parking, building permits, and fire protection. Conditions are recommended which will be incorporated into the project to assure the protection of the public health, safety, and welfare.

11. The proposed Use Permit Major Modification complies with the applicable provisions of Napa County Code and is consistent with the policies and standards of the Napa County General Plan;

    Analysis: <u>Compliance with the Zoning Ordinance</u> The project is consistent with the AP zoning district regulations. A winery (as defined in the Napa County Code Section 18.08.640) and uses in connection with a winery (refer to Napa County Code Section 18.16.030) are permitted in the AP zoning district subject to an approved use permit. The proposed project includes the expansion of an existing winery facility and expansion of an existing visitation and marketing program. The project, as conditioned, complies with the Napa County Winery Definition Ordinance (WDO) and all other requirements of the Zoning Code as applicable.

Analysis: Compliance with the General Plan As proposed and conditioned, the requested Use Permit is consistent with the overall goals and policies of the 2008 Napa County General Plan. The General Plan land use designation for the subject parcel is Agricultural Resource (AR). General Plan Agricultural Preservation and Land Use Goal AG/LU-1 guides the County to "preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County." General Plan Goal AG/LU-3 states that the County should "support the economic viability of agriculture, including grape growing, winemaking, other types of agriculture, and supporting industries to ensure the preservation of agricultural lands." Goal AG/LU-3 and Policy AG/LU-2 recognize wineries as agricultural uses. The use of the property for fermenting and processing grape juice into wine supports the economic viability of agriculture within the County, consistent with Goal AG/LU-3 and Policy AG/LU-4 ("The County will reserve agricultural lands for agricultural use including land used for grazing and watershed/open space…"). By allowing the proposed agricultural use, the requested Use Permit supports the economic viability of the existing vineyards and agricultural product processing, consistent with Economic Development Goal E-1 and Policy E-1. The "Right to Farm" is recognized throughout the General Plan and is specifically called out in Policy AG/LU-15 and in Chapter 2.94 of the County Code. "Right to Farm" provisions ensure that agriculture remains the primary land use in Napa County and is not threatened by potentially competing uses or neighbor complaints. Napa County's adopted General Plan reinforces the County's long- standing commitment to agricultural preservation, urban centered growth, and resource conservation.

Applicable Napa County General Plan goals and policies:

Goal AG/LU-1: Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County.

Goal AG/LU-3: Support the economic viability of agriculture, including grape growing, winemaking, other types of agriculture, and supporting industries to ensure the preservation of agricultural lands.

Policy AG/LU-4: The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development. Policy AG/LU-8: The County's minimum agricultural parcel sizes shall ensure that agricultural areas can be maintained as economic units.

Policy AG/LU-15: The County affirms and shall protect the right of agricultural operators in designated agricultural areas to commence and continue their agricultural practices (a "right to farm"), even though established urban uses in the general area may foster complaints against those agricultural practices. The "right to farm" shall encompass the processing of agricultural products and other activities inherent in the definition of agriculture provided in Policy AG/LU-2.

Goal CON-10: Conserve, enhance and manage water resources on a sustainable basis to attempt to ensure that sufficient amounts of water will be available for the uses allowed by this General Plan, for the natural environment, and for future generations.

Goal CON-11: Prioritize the use of available groundwater for agricultural and rural residential uses rather than for urbanized areas and ensure that land use decisions recognize the long-term availability and value of water resources in Napa County.

Policy CON-53: The County shall ensure that the intensity and timing of new development are consistent with the capacity of water supplies and protect groundwater and other water supplies by requiring all applicants for discretionary projects to demonstrate the availability of an adequate water supply prior to approval. Depending on the site location and the specific circumstances, adequate demonstration of availability may include evidence or calculation of groundwater availability via an appropriate hydrogeological analysis or may be satisfied by compliance with County Code "fair-share" provisions or applicable State law. In some areas, evidence may be provided through coordination with applicable municipalities and public and private water purveyors to verify water supply sufficiency.

Policy CON-55: The County shall consider existing water uses during the review of new water uses associated with discretionary projects, and where hydrogeological studies have shown that the new water uses will cause significant adverse well interference or substantial reductions in groundwater discharge to surface waters that will alter critical flows to sustain riparian habitat and fisheries or exacerbate conditions of overdraft, the County shall curtail those new or expanded water uses.

Policy CON-72: The County shall seek to reduce the energy impacts from new buildings by applying Title 24 energy standards as required by law and providing information to the public and builders on available energy conservation techniques, products, and methods available to exceed those standards by 15 percent or more.

Policy CON-77: All new discretionary projects shall be evaluated to determine potential significant project-specific air quality impacts and shall be required to incorporate appropriate design, construction, and operational features to reduce emissions of criteria pollutants regulated by the state and federal governments below the applicable significance standard(s) or implement alternate and equally effective mitigation strategies consistent with BAAQMD's air quality improvement programs to reduce emissions. In addition to these policies, the County's land use policies discourage scattered development which contributes to continued dependence on the private automobile as the only means of convenient transportation. The County's land use policies also contribute to efforts to reduce air pollution.

Policy CON-81: The County shall require dust control measures to be applied to construction projects consistent with measures recommended for use by the BAAQMD [Bay Area Air Quality Management District].

Goal E-1: Maintain and enhance the economic viability of agriculture.

Policy E-1: The County's economic development will focus on ensuring the continued viability of agriculture in Napa County.

Policy SAF-20: All new development shall comply with established fire safety standards. Design plans shall be referred to the appropriate fire agency for comment as to:
1) Adequacy of water supply.
2) Site design for fire department access in and around structures.
3) Ability for a safe and efficient fire department response.
4) Traffic flow and ingress/egress for residents and emergency vehicles.
5) Site-specific built-in fire protection
6) Potential impacts to emergency services and fire department response

12. The proposed use would not require a new water system or improvement causing significant adverse effects, either individually or cumulatively, on an affected groundwater basin in Napa County, unless that use would satisfy any of the other criteria specified for approval or waiver of a groundwater permit under Section 13.15.070 or 13.15.080 of the Napa County Code.

Analysis: The subject property is not located in a "groundwater deficient area" as identified in Section 13.15.010 of the Napa County Code, and is consistent with General Plan Conservation Policies CON-53 and CON-55 which require that applicants, who are seeking discretionary land use approvals, prove that adequate water supplies are available to serve the proposed use without causing significant negative impacts to shared groundwater resources. Based on the submitted Tier I Water Availability Analysis (WAA) by Applied Civil Engineering and Tier III WAA by Richard C. Slade & Associates LLC, the subject 10.09 acre parcel has an estimated groundwater recharge of 3.027 acre-feet per year (AFY). The parcel currently includes two wells, the project well and the Silenus Easement Well. Water Demand Calculations submitted for the project indicate the water demand for existing uses on the property as 12.47 AFY which includes: vineyard irrigation (3 AFY), landscape irrigation (0.2 AFY), a winery visitation program (0.77 AFY), and a neighbor's well that is located on the project parcel (8.5 AFY). The proposed groundwater demand would use the following: vineyard irrigation (2.19 AFY), landscape irrigation (0.2 AFY), a winery visitation program (1.18 AFY), and a neighbor's well that is located on the project parcel (8.5 AFY). The proposed project will decrease groundwater usage by 0.4 AFY compared to existing conditions.

The proposed project would not increase groundwater use beyond existing conditions, due to the modification of the winery's process wastewater system to irrigate vines which would offset the project's proposed expansion to the winery's production, visitation, marketing, and employee programs. The project has been conditioned to implement a Groundwater Demand Management Program that will monitor and report well meter readings to the County. The project will not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater level.

Therefore, the project is considered not to have the potential to significantly impact groundwater resources. Since the projected water demand for Well 1 and the Silenus Easement Well are equivalent to the existing conditions on the parcel, the requested Use Permit Major Modification is consistent with General Plan Goals CON-10 and CON-11, as well as the policies mentioned above that support reservation and sustainable use of groundwater for agricultural and related purposes. The project will not require a new water system or other improvements that would have a negative impact on local groundwater.

“B”

Recommended Conditions of Approval

PLANNING COMMISSION HEARING – DECEMBER 3, 2025
RECOMMENDED CONDITIONS OF APPROVAL

ARROW AND BRANCH WINERY USE PERMIT MAJOR MODIFICATION
P23-00057-MOD
APN 034-190-040-000

This permit encompasses and shall be limited to the project commonly known as **Arrow and Branch Winery**, located at **5215 Solano Ave, Napa**. Part I encompasses the Project Scope and general conditions pertaining to statutory and local code references, project monitoring, and the process for any future changes or activities. Part II encompasses the ongoing conditions relevant to the operation of the project. Part III encompasses the conditions relevant to construction and the prerequisites for a Final Certificate of Occupancy. It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and guests of the winery to ensure compliance is achieved.

Where conditions are not applicable or relevant to this project, they shall be noted as "Reserved" and therefore have been removed.

When modifying a legally established entitlement related to this project, these conditions are not intended to be retroactive or to have any effect on existing vested rights except where specifically indicated.

PART I

1.0 PROJECT SCOPE

The permit encompasses and shall be limited to:

1.1 Approval to modify an existing 30,000 gallon per year winery, previously approved under P12-00440-UP, P13-00435-VMM, P15-00357-VMM, P16-00382-VMM, and P21-00087-MM to allow the following:

a. Increase production capacity from 30,000 gallons per year to 45,000 gallons per year;
b. Expansion of an existing winery building, including the construction of approximately 3,529 square feet of additional production space, for a total of 13,797 square feet of production space, and construction of approximately 3,929 square feet for additional accessory uses, for a total of 4,308 square feet for accessory uses;
c. Excavation of approximately 1,500 cubic yards of spoils associated with the construction of proposed structural pads and exterior improvements;
d. Increase employment from four (4) full-time employees to five (5) full-time employees;
e. Visitation, tours and tastings, and a marketing plan as set forth in Conditions of Approval (COAs) Nos. 4.1 through 4.3 below;
f. On-premises consumption of wines produced on-site within the outdoor hospitality area, labeled as 'Covered Terrace', and identified on Sheet A1.01 of the

Site Plans, prepared by Taylor Lombardo Architects, dated August 3, 2023, in accordance with Business and Professions Code Sections 23358, 23390 and 23396.5 (AB 2004);

g. Relocation and reconfiguration of onsite parking (no change in number of parking spaces);

h. On-site domestic and process wastewater treatment systems, including the installation of an approximately 81,000 gallon process water storage tank;

i. Riparian restoration between Dry Creek and the proposed barrel storage building; and

j. Landscaping, and other improvements associated with wineries.

The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials and shall comply with all requirements of the Napa County Code (the County Code). It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or change in winery use or alternative locations for fire suppression or other types of water tanks shall be approved in accordance with the County Code and may be subject to the permit modification process.

2.0 STATUTORY AND CODE SECTION REFERENCES

All references to statutes and code sections shall refer to their successor as those sections or statutes may be subsequently amended from time to time.

3.0 MONITORING COSTS

All staff costs associated with monitoring compliance with these conditions, previous permit conditions, and project revisions shall be borne by the permittee and/or property owner. Costs associated with conditions of approval and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged to the property owner or permittee. Costs shall be as established by resolution of the Board of Supervisors in accordance with the hourly consulting rate established at the time of the monitoring and shall include maintenance of a $500 deposit for construction compliance monitoring that shall be retained until issuance of a Final Certificate of Occupancy. Violations of conditions of approval or mitigation measures caused by the permittee's contractors, employees, and/or guests are the responsibility of the permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of a compliance deficiency is found to exist by the Planning Commission at some time in the future, the Planning Commission may institute the program at the applicant's expense (including requiring a deposit of funds in an amount determined by the Commission) as needed until compliance assurance is achieved. The Planning Commission may also use the data, if so warranted, to commence revocation proceedings in accordance with the County Code.

PART II

4.0 OPERATIONAL CHARACTERISTICS OF THE PROJECT

Permittee shall comply with the following during operation of the winery:

4.1 GENERAL PROVISIONS

Consistent with the County Code, tours and tastings and marketing may occur at a winery only where such activities are accessory and "clearly incidental, related, and subordinate to the primary operation of the winery as a production facility."

Tours and tastings (defined below) may include food and wine pairings, where all such food service is provided without charge except to the extent of cost recovery and is incidental to the tasting of wine. Food service may not involve menu options and meal service such that the winery functions as a café or restaurant.

Retail sales of wine shall be permitted as set forth in the County Code.

4.2 TOURS AND TASTINGS/VISITATION

Tours and tastings shall be by appointment only and shall be limited to the following:

a. Frequency: 7 days per week, Monday through Sunday
b. Maximum number of persons per day: 34
c. Maximum number of persons per week: 238
d. Hours of visitation: 10:00 a.m. to 6:00 p.m.
e. Daily tours and tastings shall not occur on days with marketing events

"Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to persons who have made unsolicited prior appointments for tours or tastings. To the maximum extent feasible, scheduling of visitors shall not occur during peak travel times 4:00 p.m to 6:00 p.m.

A log book (or similar record) shall be maintained to document the number of visitors to the winery (for either tours and tastings or marketing events), and the dates of the visits. This record of visitors shall be made available to the Planning, Building and Environmental Services (PBES) Department upon request.

4.3 MARKETING

Marketing events shall be limited to the following:

a. **Small Event**
   1. Frequency: 12 times per year
   2. Maximum number of persons: 30
   3. Time of Day: 10:00 a.m. to 10:00 p.m. (including clean-up)

b. **Large Event**
   1. Frequency: 2 times per year

2. Maximum number of persons: 125
3. Time of Day: 10:00 a.m. to 10:00 p.m. (including clean-up)
4. Visitors shall be brought to the site via a shuttle or bus service

"Marketing of wine" means any activity of a winery which is conducted at the winery on a prearranged basis for the education and development of customers and potential customers with respect to wine which can be sold at the winery on a retail basis pursuant to the County Code. Marketing of wine may include cultural and social events directly related to the education and development of customers and potential customers provided such events are clearly incidental, related and subordinate to the primary use of the winery. Marketing of wine may include food service, including food and wine pairings, where all such food service is provided without charge except to the extent of cost recovery.

Business events are similar to cultural and social events, in that they will only be considered as "marketing of wine" if they are directly related to the education and development of customers and potential customers of the winery and are part of a marketing plan approved as part of the winery's Use Permit. To be considered directly related to the education and development of customers or potential customers of the winery, business events must be conducted at no charge except to the extent of cost recovery, and any business content unrelated to wine must be limited.

Careful consideration shall be given to the intent of the event, the proportion of the business event's non-wine-related content, and the intensity of the overall marketing plan (County Code).

All marketing event activity, shall cease by 10:00 p.m. If any event is held which will exceed the available on-site parking, the permittee shall prepare an event-specific parking plan which may include, but not be limited to, valet service or off-site parking and shuttle service to the winery.

Auction Napa Valley (ANV) events need not be included in a participating winery's marketing plan because they are covered by ANV's Category 5 Temporary Permit. The winery may utilize any ANV event authorized in this permit for another charitable event of similar size.

4.4 ON-PREMISES CONSUMPTION

In accordance with State law and the PBES Director's July 17, 2008 memo, "Assembly Bill 2004 (Evans) & the Sale of Wine for Consumption On-Premises," on-premises consumption of wine produced on-site and purchased from the winery may occur solely in the area marked 'Covered Terrace' as identified on Sheet A1.01 of the Site Plans, prepared by Taylor Lombardo Architects, dated August 3, 2023. Any and all visitation associated with on-premises consumption shall be subject to the maximum per person weekday and weekend daily tours and tastings visitation limitation and/or applicable limitations of permittee's marketing plan set forth in COA Nos.4.2 and 4.3 above.

4.5 RESIDENCE OR NON-WINERY STRUCTURES **[RESERVED]**

4.6 GRAPE SOURCE

At least 75% of the grapes used to make the winery's still wine or the still wine used by the winery to make sparkling wine shall be grown within Napa County**.** The permittee shall keep records of annual production documenting the source of grapes to verify that 75% of the annual production is from Napa County grapes. The report shall recognize the Agriculture Commission's format for County of origin of grapes and juice used in the Winery Production Process. The report shall be provided to the PBES Department upon request, but shall be considered proprietary information and not available to the public.

4.7 COMPLIANCE REVIEW

Permittee shall obtain and maintain all permits (use permits and modifications) and licenses from the California Department of Alcoholic Beverage Control (ABC) and United States Tax and Trade Bureau (TTB), and California Department of Food and Agriculture (CDFA) Grape Crush Inquiry data, all of which are required to produce and sell wine. In the event the required ABC and/or TTB permits and/or licenses are suspended or revoked, permittee shall cease marketing events and tours and tastings until such time as those ABC and/or TTB permits and licenses are reinstated.

Visitation log books, visitor reports, custom crush client records, and any additional documentation determined by Staff to be necessary to evaluate compliance may be requested by the County for any code compliance. The permittee (and their successors) shall be required to participate fully in the winery code compliance review process.

4.8 RENTAL/LEASING

No winery facilities, or portions thereof, including, without limitation, any kitchens, barrel storage areas, or warehousing space, shall be rented, leased, or used by entities other than persons producing and/or storing wine at the winery, such as alternating proprietors and custom producers, except as may be specifically authorized in this Permit or pursuant to the Temporary Events Ordinance (County Code Chapter 5.36).

4.9 GROUND WATER MANAGEMENT – WELLS **[RESERVED]**

4.10 AMPLIFIED MUSIC

There shall be no amplified sound system or amplified music utilized outside of approved, enclosed, winery buildings.

4.11 TRAFFIC

To the maximum extent feasible, scheduling of reoccurring vehicle trips to and from the site for employees and deliveries shall not occur during peak travel times (between 4:00 p.m. to 6:00 p.m.). All road improvements on private property required per Engineering Services shall be maintained in good working condition and in accordance with the Napa County Roads and Streets Standards.

4.12 PARKING

The location of visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any).

Parking shall be limited to approved parking spaces only and shall not occur along access or public roads or in other locations except during harvest activities and approved marketing events. In no case shall parking impede emergency vehicle access or public roads.

4.13 BUILDING DIVISION – USE OR OCCUPANCY CHANGES
Please contact the Building Division with any questions regarding the following:

In accordance with the California Building Code (CBC), no change shall be made in the use of occupancy of an existing building unless the building is made to comply with the requirements of the current CBC for a new building.

4.14 FIRE DEPARTMENT – TEMPORARY STRUCTURES
Please contact the Fire Department with any questions regarding the following:

The permittee and/or designee shall obtain a tent permit from the Fire Department for any temporary structures utilized for authorized marketing events allowed per COA No. 4.3 above.

4.15 NAPA COUNTY MOSQUITO ABATEMENT PROGRAM **[RESERVED]**

4.16 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, AND TRASH ENCLOSURE AREAS

a. All lighting shall be permanently maintained in accordance with the lighting and building plans approved by the County. Lighting utilized during harvest activities is exempt from this requirement.

b. All landscaping and outdoor screening, storage, and utility structures shall be permanently maintained in accordance with the landscaping and building plans approved by the County. No stored items shall exceed the height of the screening. Exterior winery equipment shall be maintained so as to not create a noise disturbance or exceed noise thresholds in the County Code.

c. The colors used for the roof, exterior walls and built landscaping features of the winery shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation. The permittee shall obtain the written approval of the Planning Division prior to any change in paint colors that differs from the approved building permit. Highly reflective surfaces are prohibited.

d. Designated trash enclosure areas shall be made available and properly maintained for intended use.

4.17 NO TEMPORARY SIGNS

Temporary off-site signage, such as "A-Frame" signs, is prohibited.

4.18 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES – OPERATIONAL CONDITIONS
The attached project conditions of approval include all of the following County Divisions, Departments and Agencies' requirements. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division operational conditions as stated in their Memorandum dated July 17, 2025.

b. Environmental Health Division operational conditions as stated in their Memorandum dated October 9, 2024.

c. Department of Public Works operational conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department operational conditions as stated in their Inter-Office Memo dated April 10, 2023.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify this permit.

4.19 OPERATIONAL MITIGATION MEASURES
The permittee shall comply with the following operational mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. The permittee shall comply with Mitigation Measures BIO-1 through BIO-5 and NOISE-1 and NOISE-2 as listed in COA No. 6.12 below.

4.20 OTHER CONDITIONS APPLICABLE TO THE OPERATIONAL ASPECTS OF THE PROJECT

a. Greenhouse Gas Best Management Practices – Operational items checked on the attached Voluntary Best Management Practices Checklist for Development Projects by the applicant, shall be implemented and evidence of implementation shall be provided to staff upon request.

b. Groundwater Management – The parcel (excluding the Silenus Easement Well) shall be limited to 3.57 af/yr of groundwater for all water consuming activities (utilizing wells) on the project parcel. A Groundwater Demand Management Program shall be developed and implemented for the property as outlined in COA 6.15(d) below.

In the event that changed circumstances or significant new information provide substantial evidence[1] that the groundwater system referenced in the Use Permit would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of this permit, as necessary to meet the requirements of the County Code and to protect public health, safety, and welfare.

c. Noise Monitoring

1. The permittee shall hire a qualified acoustical engineer to conduct noise monitoring prior to and during two (2) 30 person and one (1) 125 person marketing events with non-amplified background music held at the outdoor covered terrace. These measurements shall be at five locations. The first at a distance of approximately 50 feet from the edge of the covered terrace (towards the adjacent residential uses), and the other four (4) at the property lines of Residences 3, 4, 6, and 7 as identified by Figure 1 of the "1st Event Sound Monitoring Plan" memo, prepared by Illingworth & Rodkin, Inc. All Sound levels measurements would be made using pre and post calibrated Type 1 sound level meters with ½-inch pre-polarized condenser microphones and windscreens. The internal clocks of these meters shall be synchronized to allow for simultaneous measurement.

2. The acoustical engineer shall prepare a report and the permittee shall submit the results of the noise monitoring to the Napa County Planning Division within one year of the initiation marketing events at the covered terrace as approved by this permit.

3. The Planning Commission shall hold a publicly noticed monitoring hearing on this approval approximately six (6) months after the submittal of the noise monitoring report for Arrow and Branch Winery. The hearing shall focus on noise, if any. Prior to the issuance of a permit for the proposed building expansion, the permittee shall submit a $2,000 monitoring deposit to the Planning Division to fund (or, as the case may be, partially fund) staff time associated with the required monitoring hearing. The permittee shall be responsible for promptly reimbursing the Planning Division in the event that the monitoring costs exceed $2,000.

[1] Substantial evidence is defined by case law as evidence that is of ponderable legal significance, reasonable in nature, credible and of solid value. The following constitute substantial evidence: facts, reasonable assumptions predicated on facts; and expert opinions supported by facts. Argument, speculation, unsubstantiated opinion or narrative, or clearly inaccurate or erroneous information do not constitute substantial evidence.

4.21 PREVIOUS CONDITIONS

The permittee shall comply with the following previous conditions of approval for the winery use as consolidated into the attached document as Exhibit A. To the extent there is a conflict between a previous condition of approval identified in the attached document and these conditions, the more stringent condition shall control.

PART III

5.0 PREREQUISITE FOR ISSUANCE OF PERMITS

5.1 PAYMENT OF FEES

No building, grading or sewage disposal permits shall be issued or other permits authorized until all accrued planning permit processing fees have been paid in full. This includes all fees associated with plan check and building inspections, associated development impact fees established by County Ordinance or Resolution, and the Napa County Affordable Housing Mitigation Fee in accordance with County Code.

6.0 GRADING/DEMOLITION/ENVIRONMENTAL/BUILDING PERMIT/OTHER PERMIT PREREQUISITES

Permittee shall comply with the following with the submittal of a grading, demolition, environmental, building and/or other applicable permit applications.

6.1 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES – PLAN REVIEW, CONSTRUCTION AND PREOCCUPANCY CONDITIONS

The attached project conditions of approval include all of the following County Divisions, Departments and Agencies' requirements. The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Divisions, Departments and Agencies at the time of submittal and may be subject to change. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division operational conditions as stated in their Memorandum dated July 17, 2025.

b. Environmental Health Division operational conditions as stated in their Memorandum dated October 9, 2024.

c. Department of Public Works operational conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department operational conditions as stated in their Inter-Office Memo dated April 10, 2023.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply

with the requirements of other County Divisions, Departments and Agencies may result in the need to modify the permit.

6.2 BUILDING DIVISION – GENERAL CONDITIONS

a. A building permit shall be obtained for all construction occurring on the site not otherwise exempt by the California Building Code (CBC) or any State or local amendment adopted thereto.

b. If there are any existing structures and/or buildings on the property that will need to be removed to accommodate construction activities, a separate demolition permit shall be required from the Building Division prior to removal. The permittee shall provide a "J" number from the Bay Area Air Quality Management District (BAAQMD) at the time the permittee applies for a demolition permit if applicable.

c. All areas of newly designed and newly constructed buildings, facilities and on-site improvements must comply with the CBC accessibility requirements, as well as, American with Disability Act requirements when applicable. When alterations or additions are made to existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided as required per the CBC.

6.3 LIGHTING – PLAN SUBMITTAL

a. Two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the CBC.

a. All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, shall be the minimum necessary for security, safety, or operations; on timers; and shall incorporate the use of motion detection sensors to the greatest extent practical. All lighting shall be shielded or placed such that it does not shine directly on adjacent properties or impact vehicles on adjacent streets. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards. Lighting utilized during harvest activities is exempt from this requirement.

6.4 LANDSCAPING – PLAN SUBMITTAL

a. Two (2) copies of a detailed final landscaping and irrigation plan, including parking details, shall be submitted with the building permit application package for the Planning Division's review and approval prior to the issuance of any building permit associated with this Use Permit. The plan shall be prepared pursuant to the County's Water Efficient Landscape Ordinance (Chapter 18.118 of the County Code) requirements in effect at the time of building permit application submittal, as applicable, and shall indicate the names and locations of all plant materials to be used along with their method of maintenance.

b. Plant materials shall be purchased locally when practical, and to the greatest extent possible, the plant materials shall be the same native plants found in Napa County. The Agricultural Commissioner's office shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.

c. No trees greater than 6" diameter at breast height shall be removed, except for those identified on the submitted site plan. Any Oak trees removed as a result of the project shall be replaced at a 2:1 ratio and shown on the landscaping plans for the Planning Division's review and approval. Trees to be retained shall be protected during construction by fencing securely installed at the outer most dripline of the tree or trees. Such fencing shall be maintained throughout the duration of the work undertaken in connection with the winery development/construction. In no case shall construction material, debris or vehicles be stored in the fenced tree protection area.

d. Evergreen screening shall be installed between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and any off-site residence from which these areas can be viewed.

6.5 COLORS

The colors used for the roof, exterior walls and built landscaping features of the winery shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation. The permittee shall obtain the written approval of the Planning Division in conjunction with building permit review and/or prior to painting the building. Highly reflective surfaces are prohibited.

6.6 OUTDOOR STORAGE/SCREENING/UTILITIES

a. Details of outdoor storage areas and structures shall be included on the building and landscape plans. All outdoor storage of winery equipment shall be screened from the view of residences of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No stored item shall exceed the height of the screening. Water and fuel tanks, and similar structures, shall be screened to the extent practical so as to not be visible from public roads and adjacent parcels.

b. New utility lines required for this project that are visible from any designated scenic transportation route (see Community Character Element of the General Plan and the County Code) shall be placed underground or in an equivalent manner be made virtually invisible from the subject roadway.

c. Exterior winery equipment shall be located, enclosed or muffled so as not to exceed noise thresholds in the County Code.

6.7 TRASH ENCLOSURES

Adequate area must be provided for collection and loading of garbage and recyclables generated by the project. The applicant must work with the franchised garbage hauler for

the service area in which they are located, in order to determine the area and the pedestrian and vehicle access needed for the collection site. The garbage and recycling enclosure shall meet the minimum enclosure requirements established by staff and the franchised hauler, which shall be included in the building permit submittal.

6.8 ADDRESSING

All project site addresses shall be determined by the PBES Director, and be reviewed and approved by the United States Post Office. The PBES Director reserves the right to issue or re-issue an appropriate situs address at the time of issuance of any building permit to ensure proper identification and sequencing of l numbers. For multi-tenant or multiple structure projects, this includes building permits for later building modifications or tenant improvements.

6.9 HISTORIC RESOURCES **[RESERVED]**

6.10 DEMOLITION ACTIVITIES **[RESERVED]**

6.11 VIEWSHED – EXECUTION OF USE RESTRICTION **[RESERVED]**

6.12 PERMIT PREREQUISITE MITIGATION MEASURES

The permittee shall comply with the following permit prerequisite mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. **BIO-1:** The owner/permittee shall implement the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

1. For earth-disturbing activities occurring between February 1 and August 31 (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than seven (7) days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than seven (7) days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.

2. After commencement of work if there is a period of no work activity of seven (7) days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.

3. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the USFWS and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with the County's Conservation Division and/or the USFWS or CDFW.

4. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.

   Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Responsible Agency: California Department of Fish and Wildlife

b. **BIO-2:** Minimize potential indirect impacts to Northern Spotted Owls

1. For project activities occurring between March 15 and July 31, prior to any vegetation removal or construction activities, a qualified biologist shall perform a NSO habitat assessment to determine the potential for this species to be present within the disturbance area as well as within a 0.25-mile buffer surrounding each disturbance area. The assessment shall include both a review of recent aerial photography and a field visit to review conditions directly. Additionally, the qualified biologist shall

perform an on-site nocturnal calling survey for NSO from at least mid-March onward and prior to initiation of construction activities. Survey stations for the calling survey shall be sited to cover post-fire forest stands that are most suitable for NSO occupation. The results of the updated habitat assessment and survey shall be provided to the County for review prior to project initiation. If NSO is observed or otherwise believed to be present within the focal area described above, measures shall be implemented in consultation with CDFW to ensure that project activities would not result in a take of the species and that any potential impacts are otherwise minimized to the extent feasible.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Responsible Agency: California Department of Fish and Wildlife

c. **BIO-3**: Bat Tree Habitat Assessment and Surveys.

Prior to the commencement of Project Construction activities, a qualified biologist shall conduct a habitat assessment for bats, unless otherwise approved in writing by CDFW. The habitat assessment shall be conducted a minimum of 30 to 90 days prior to tree trimming shall include a visual inspection of potential roosting features of trees to be removed (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species). If suitable habitat trees are found, they shall be flagged or otherwise clearly marked, CDFW shall be notified immediately, and tree trimming shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be trimmed only: a) using the two-step trimming process detailed below during seasonal periods of bat activity, from approximately March 1 through April 15 and September 1 through October 15, or b) after a qualified biologist, under prior written approval of the proposed survey methods by CDFW, conducts night emergence surveys or completes visual examination of roost features that establish absence of roosting bats. Two-step tree trimming shall be conducted over two consecutive days, as follows: 1) the first day (in the afternoon), under the direct supervision and instruction by a qualified biologist with experience conducting two-step tree trimming, limbs and branches shall be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices or deep bark fissures shall be avoided, and 2) the second day the remainder shall be removed.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities

Responsible Agency: California Department of Fish and Wildlife

d. **BIO-4:** Tree Trimming

1. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the development area (typically within approximately 50-feet of the development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of project construction.

2. The owner/permittee shall refrain from severely trimming the trees (typically no more than I/3rd of the canopy) and vegetation to be retained adjacent to the winery development and water tank.

3. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P23-00057-MOD shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before improvements obtain final occupancy. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the associated building permits.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits and shall be implemented in conjunction with all construction activities.

Responsible Agency: Planning, Building, & Environmental Services

e. **BIO-5**: Riparian Protection. The Owner/Permittee shall implement the following measures to prevent the inadvertent encroachment into specified stream setbacks during construction:

1. The location of stream setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Conservation Division prior to any earthmoving and/or development activities, No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation.

2. All construction and related traffic will remain outside of the protective fencing to the maximum extent practicable to ensure that the stream, buffer zones, and associated woodland habitat remains undisturbed.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits and shall be implemented in conjunction with all construction activities.

Responsible Agency: Planning, Building, & Environmental Services Department

f. **NOISE-1**: Outdoor visitation and marketing events shall not include acoustic music performances. Acoustic music performances are defined as a musical group of four or more, or individuals playing brass and/or drum instruments).

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project and apply to operational characteristics of the winery. The Napa County Code Enforcement Division will enforce winery use permit noise requirements and compliance with Napa County Code's noise ordinance.

Responsible Agency: Planning, Building, & Environmental Services Department

g. **NOISE-2**: The permittee shall keep all windows and doors closed when amplified music is being played inside of the winery structure.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project and apply to operational characteristics of the winery. The Napa County Code Compliance Division will enforce winery use permit noise requirements and compliance with Napa County Code's noise ordinance.

Responsible Agency: Planning, Building, & Environmental Services Department

6.13 PARCEL CHANGE REQUIREMENTS **[RESERVED]**

6.14 FINAL MAPS **[RESERVED]**

6.15 OTHER CONDITIONS APPLICABLE TO THE PROJECT PERMITTING PROCESS

a. In conjunction with building permit application submittal, the permittee shall not include natural gas appliances or natural gas plumbing within new areas of winery building construction and/or renovation of existing winery buildings.

b. In conjunction with building permit application submittal, the project shall comply with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

c. In conjunction with building permit application submittal, the permittee shall provide documentation confirming to the Planning Division that all checked Voluntary Best Management Practices Measures submitted with the project Minor Modification application shall be addressed through project construction and/or implemented through winery operation.

d. Groundwater Demand Management Program

1. The permittee shall install a meter on each well serving the parcel (Well 1). Each meter shall be placed in a location that will allow for the measurement of all groundwater used on the project parcel. Prior to the issuance of a grading or building permit for the winery the permittee shall submit for review and approval by the PBES Director a groundwater demand management plan which includes a plan for the location and the configuration of the installation of a meter on the well serving the parcel.

2. The plan shall identify how best available technology and best management water conservation practices will be applied throughout the parcel.

3. The Plan shall identify how best management water conservation practices will be applied where possible in the structures on site. This includes but is not limited to the installation of low flow fixtures and appliances.

4. As groundwater consuming activity already exists on the property, meter installation and monitoring shall begin immediately and the first monitoring report is due to the County within 120 days of approval of this Use Permit.

5. For the first twelve months of operation under this permit, the permittee shall read the meters of at the beginning of each month and provide the data to the PBES Director monthly. If the water usage on the property exceeds, or is on track to exceed, the maximum groundwater usage values in i through ii below, or if the permittee fails to report, additional reviews and analysis and/or a corrective action program at the permittee's expense shall be required to be submitted to the PBES Director for review and action. In addition to monthly meter readings, Permittee shall also provide well level data to the PBES Director.

   i. Annual groundwater usage for Well 1 shall not exceed 3.57 af/yr.

   ii. The Silenus Easement Well shall not be used for any uses on the Arrow and Branch Winery parcel.

6. The permittee's wells shall be included in the Napa County Groundwater Monitoring program if the County finds the well suitable.

7. At the completion of the reporting period per 6.15(d)(5) above, and so long as the water usage is within the maximum acre-feet per year as specified above, the permittee may begin the following meter reading schedule:

   i. On or near the first day of each month the permittee shall read the water meter and provide the data to the PBES Director during the first weeks of April and October. The PBES Director, or the Director's designated representative, has the right to access and verify the operation and readings of the meters during regular business hours.

e. The applicant shall obtain a Water Quality Certification from the Regional Water Quality Control Board and all necessary permits/agreements from the California Department of Fish and Wildlife or demonstrate that the appropriate jurisdictions have determined that referenced applications are not required for the riparian restoration, as detailed in Condition of Approval 1.1.i. Prior to the issuance of grading/building permits, the applicant shall submit verification to the PBES department that the necessary permits have been obtained or verification from the appropriate jurisdictions that the referenced permit is not required.

f. The 81,100 gallon treated process wastewater irrigation storage tank will be designed in compliance with the California Building Code structural and seismic requirements.

7.0 PROJECT CONSTRUCTION

Permittee shall comply with the following during project construction:

7.1 **SITE IMPROVEMENTS**

Please contact Engineering Services with any questions regarding the following.

a. GRADING AND SPOILS

All grading and spoils generated by construction of the project facilities shall be managed per Engineering Services direction. Alternative locations for spoils are permitted, subject to review and approval by the PBES Director, when such alternative locations do not change the overall concept, and do not conflict with any environmental mitigation measures or conditions of approval.

b. DUST CONTROL

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

c. AIR QUALITY

During all construction activities the permittee shall comply with the most current version of BAAQMD Basic Construction Best Management Practices including but not limited to the following, as applicable:

1. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.

2. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.

3. Cover all haul trucks transporting soil, sand, or other loose material off-site.

4. Remove all visible mud or dirt traced onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

5. All vehicle speeds on unpaved roads shall be limited to 15 mph.

6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

7. Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by State Regulations). Clear signage shall be provided for construction workers at all access points.

8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ http://www.arb.ca.gov/portable/perp/perpfact_04-16-15.pdf or the PERP website http://www.arb.ca.gov/portable/portable.htm.

d. STORM WATER CONTROL

The permittee shall comply with all construction and post-construction storm water pollution prevention protocols as required by the County Engineering Services Division, and the California Regional Water Quality Control Board.

7.2 ARCHEOLOGICAL FINDING

In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the PBES Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during project development, all work in the vicinity must be halted, and the Napa County Coroner informed, so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the permittee shall comply with the requirements of Public Resources Code Section 5097.98.

7.3 CONSTRUCTION NOISE

Construction noise shall be minimized to the greatest extent practical and feasible under State and local safety laws, consistent with construction noise levels permitted by the General Plan Community Character Element and the County Noise Ordinance. Construction equipment muffling and hours of operation shall be in compliance with the County Code. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site, if at all practicable. If project terrain or access road conditions require construction equipment to be staged, loaded, or unloaded off the project site (such as on a neighboring road or at the base of a hill), such activities shall only occur daily between the hours of 8 am to 5 pm.

7.4 CONSTRUCTION MITIGATION MEASURES

The permittee shall comply with the following construction mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project,

a. The permittee shall comply with Mitigation Measures BIO-1 through BIO-5 and NOISE-1 and NOISE-2 as listed in COA No. 6.12 above.

7.5 OTHER CONSTRUCTION CONDITIONS APPLICABLE TO THE PROJECT PROPOSAL
[RESERVED]

8.0 TEMPORARY CERTIFICATE OF OCCUPANCY - PREREQUISITES

A Temporary Certificate of Occupancy (TCO) may be granted pursuant to the County Code to allow the commencement of production activities prior to completion of all project improvements. Permittee shall comply with the following before a TCO is granted:

8.1 TEMPORARY OCCUPANCY

All life and safety conditions shall be addressed prior to issuance of a TCO by the County Building Official. TCOs shall not be used for the occupancy of hospitality buildings and shall not exceed the maximum time allowed by the County Code which is 180 days. Departments and/or agencies with jurisdiction over the project are authorized as part of the TCO process to require a security deposit or other financial instrument to guarantee completion of unfinished improvements.

9.0 FINAL CERTIFICATE OF OCCUPANCY – PREREQUISITES

Permittee shall comply with the following before a Final Certificate of Occupancy is granted by the County Building Official, which upon granting, authorizes all use permit activities to commence.

9.1 FINAL OCCUPANCY

All project improvements, including compliance with applicable codes, conditions, and requirements of all Departments and Agencies with jurisdiction over the project, shall be completed.

9.2 SIGNS

Detailed plans, including elevations, materials, color, and lighting for any winery identification or directional signs shall be submitted to the Department for administrative review and approval prior to installation. Administrative review and approval is not required if signage to be installed is consistent with signage plans submitted, reviewed and approved as part of this permit approval. All signs shall meet the design standards as set forth in the County Code. At least one legible sign shall be placed at the property entrance with the words “Tours and Tasting by Prior Appointment Only” to inform the public of same. Any off-site signs allowed shall be in conformance with the County Code.

9.3 GATES/ENTRY STRUCTURES

Any gate installed at the winery entrance shall be reviewed by the PBES Department and the Fire Department to assure that the design allows large vehicles, such as motorhomes, to turn around if the gate is closed without backing into the public roadway, and that fire suppression access is available at all times. If the gate is part of an entry structure an additional permit shall be required pursuant to the County Code and in accordance with the Napa County Roads and Street Standards. A separate entry structure permit is not required if the entry structure is consistent with entry structure plans submitted, reviewed, and approved as part of this permit approval.

9.4 LANDSCAPING
Landscaping shall be installed in accordance with the approved landscaping plan.

9.5 ROAD OR TRAFFIC IMPROVEMENT REQUIREMENTS **[RESERVED]**

9.6 DEMOLITION ACTIVITIES **[RESERVED]**

9.7 GRADING SPOILS
All spoils shall be removed in accordance with the approved grading permit and/or building permit.

9.8 MITIGATION MEASURES APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY
The permittee shall comply with the following preoccupancy mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project,

a. The permittee shall comply with Mitigation Measures BIO-1 through BIO-5 and NOISE-1 and NOISE-2 as listed in COA No. 6.12 above.

9.9 OTHER CONDITIONS APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY

a. Prior to final occupancy, the permittee shall install a high-level alarm on the treated process wastewater irrigation tank to sound when the tank achieves two-thirds capacity. The alarm shall notify winery personnel when the tank is nearing capacity level, to implement an irrigation cycle to lower the tank water level, as needed to accommodate upcoming winery activities' water use.

b. Prior to final occupancy, the permittee shall prepare a daily visual inspection program to be implemented, that will inspect the treated process wastewater irrigation tank for leakage at least once each day during normal operating hours.

c. Prior to final occupancy, the permittee shall obtain all of the necessary permits to install a soil berm (6 inches to 9 inches tall) around the side of the treated process wastewater irrigation tank nearest to Dry Creek and construct the soil berm. The soil berm shall not be located with the site's designated Stream Setback.

d. Prior to final occupancy, the permittee shall install and implement the riparian restoration, between Dry Creek and the barrel storage addition.

Exhibit A

PLANNING COMMISSION HEARING
PREVIOUS CONDITIONS OF APPROVAL

ARROW AND BRANCH WINERY USE PERMIT MAJOR MODIFICATION
P23-00057-MOD
APN 034-190-040-000

4.21 The permittee shall comply with the following previous conditions of approval for the winery use as consolidated in this document. To the extent there is a conflict between a previous condition of approval identified in the attached document and these conditions, the more stringent condition shall control.

Operational conditions from previous entitlements that are not modified with application No. P23-00057-MOD are listed below.

A. P12-00440-UP (Approved November 6, 2013)

This Use Permit approval allows Use Permit #P12-00440-UP to establish a new winery that includes the following:

1. ~~Annual wine production 30,000 gallons/year~~ **[Revised by P23-00057]**
2. Construction of a winery building with approximately 3,191 square feet barrel storage, 3,748 square feet covered crush pad and 1,584 square foot of accessory space;
3. ~~Allow an approximately 2,962 square feet second-story single-family dwelling with a 635 square feet entry area and a 844 square feet garage below;~~ **[Revised by P13-00435]**
4. ~~Allow daily, appointment-only tours and tastings with 15 people/day;~~ **[Revised by P23-00057]**
5. ~~Allow a winery marketing plan with six annual 30-person events and one annual 60-person event;~~ **[Revised by P23-00057]**
6. Installation of a new process wastewater treatment system;
7. Allow days of operation from 6:00 AM-6:00 PM, daily, excluding marketing events;
8. ~~Allow four employees;~~ **[Revised by P23-00057]**
9. Allow 12 on-site parking spaces;
10. Installation of an automatic gate with a winery identification and "Tours and Tasting by Prior Appointment Only" signs at the Solano Avenue entrance; and
11. Allow on-site sale and consumption of wine pursuant to AB 2004 (Evans).

~~4.A. Tours and Tastings~~ **[Revised by P23-00057]**
~~Tours and tastings are limited to the following:~~

~~1. Frequency: 7 days per week, Monday through Sunday~~
~~2. Visitation hours: 8:00 AM to 6:00 PM~~
~~3. Number of persons per day: 15~~
~~4. Maximum number of persons per week: 105~~
~~5. Time of operation: 6:00 AM to 6:00 PM~~

6. Catered food and wine pairings

~~4.B. Marketing~~ **[Revised by P23-00057]**
~~Marketing events are limited to the following:~~

~~1. Type of Event: Marketing Events~~
~~Frequency 6 times per year~~
~~Number of persons: 30 maximum~~
~~Time of Day: 11:00 AM – 10:00 PM~~

~~2. Type of Event: Marketing Events~~
~~Frequency 1 times per year~~
~~Number of persons: 60 maximum~~
~~Time of Day: 11:00 AM – 10:00 PM~~

B. P13-00435-VMM (Approved August 25, 2015)

Approval of a Use Permit Very Minor Modification to the existing Use Permit to allow:

1. Adding 3 feet to the north side of the crush pad;
2. Adding 3 feet to the south side of the tasting room and offices;
3. Relocate the project outside of the flood zone; and
4. Remove the residence from the winery footprint.

C. P15-00357-VMM (Approved November 4, 2015)

1. Extend the expiration date of the use permit by one year, to expire on November 6, 2016.

D. P16-00382-VMM (Approved October 14, 2016)

1. This permit encompasses and shall be limited to a relocation of the projects position, on the site, as shown on the submitted site plan.

E. P21-00087-MM (Approved March 29, 2022)

1. The construction of an approximately 10,633 square foot winery facility per the plans submitted to the Planning Division on August 30, 2021. Previous entitlements allow for a 4,775 square foot winery building and 3,748 square foot covered crush pad. The current Use Permit for Arrow and Branch winery allows for a 4,775 square foot building (3,191 square feet of barrel storage and 1,584 square feet of accessory space) and a 3,784 square foot covered crush pad. The proposed modification would include an 8,566 square foot production facility with 2,067 square feet of accessory use. Total square footage would be 10,633 square feet; with an overall increase of approximately 2,074 square feet. No increase in tours, tastings, visitation, or employee count is proposed as a part of this application. The project would require the removal of approximately 1.3 acres of existing vineyard. The overall project area and total area of land disturbance would be approximately 2 acres.

“C”

Initial Study/Mitigated Negative Declaration

SCH: 2025080635

COUNTY OF NAPA
PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT
1195 THIRD STEET SUITE 210
NAPA, CA 94559
(707) 253-4417

Initial Study Checklist
(form updated January 2019)

1. **Project Title**: Arrow and Branch Winery, Use Permit Major Modification (P23-00057-MOD)

2. **Property Owner:** Steven Contursi, 1042 North Pacific Coast Hwy, Laguna Beach, CA 92651; (949) 679-1222

3. **County Contact Person, Phone Number and email:** Matt Ringel, Planner III, Matthew.ringel@countyofnapa.org, (707) 299-1351

4. **Project Location and Assessor's Parcel Number (APN):** The 10.09 acre project site is located on the west side of Solano Avenue, approximately 0.2 miles south of the intersection of Solano Avenue and Darms Lane. APN: 034-190-040-000; 5215 Solano Ave, Napa, CA 94558

5. **Project sponsor's name and address:** Donna Oldford, Plans 4 Wine, 2620 Pinot Way, St. Helena, CA 94558**;** dboldford@aol.com; (707) 204-5794

6. **General Plan description:** Agricultural Resource

7. **Zoning:** Agricultural Preserve (AP) Zoning District

8. **Background/Project History:**
Arrow and Branch Winery was approved by the Napa County Planning Commission on November 6, 2013. Use Permit No.P12-00440-UP approved a new winery that includes the following: 1) Annual wine production of 30,000 gallons per year; 2) Construction of a winery building with approximately 3,191 square feet of barrel storage, 3,748 square feet of covered crush pad, and 1,584 square feet of accessory space; 3) An approximately 2,962 square feet second-story single-family dwelling with a 635 square feet entry area and an 844 square feet garage below (for residential purposes only); 4) Daily, appointment-only tours and tastings with 15-people/day; 5) A winery marketing plan with six annual 30-person events and one annual 60-person event; 6) Installation of a new process wastewater treatment system; 7) Seven days of operation from 6:00 AM-6:00 PM, daily, excluding marketing events; 8) Four employees; 9) 12 on-site parking spaces; 10) Installation of an automatic gate with a winery identification and "Tours and Tasting by Prior Appointment Only" signs at the Solano Avenue entrance; and 11) On-site sale and consumption of wine next to the winery entrance and pursuant to Business & Professions Code Sections 23358, 23390 and 23396.5 . A modification (Permit No. P13-00435-VMM) was approved on August 25, 2015, to add 3 feet to the north side of the crush pad, add 3 feet to the south side of the tasting room and offices, relocate the project outside of the flood zone, and remove the residence from the winery footprint. A modification (Permit No. P16-00382-VMM) was approved on October 14, 2016, to relocate of the project to the southeastern portion of the project parcel. A modification (Permit No. P21-00087-MM) was approved by the Napa County Zoning Administrator on March 29, 2022, to relocate the project to the northeastern portion of the project parcel and increase the total square footage of the production facility from 6,975 square feet to 8,566 square feet and the total square footage of the accessory use space from 1,584 square feet to 2,067 square feet.

9. **Description of Project:** The proposal is to modify a Use Permit for an existing winery to allow the following:
    a. Increase annual production capacity from 30,000 gallons per year to 45,000 gallons per year;
    b. Expansion of an existing winery building by adding approximately 3,529 square feet of additional production space and conversion of approximately 1,721 square feet of space for accessory uses to production space, totaling 13,797 square feet of production space, and construction of approximately 4,308 square feet for additional accessory uses, totaling 4,687 square feet for accessory uses;
    c. Excavation of approximately 1,500 cubic yards of spoils associated with the construction of proposed structural pads and exterior improvements;
    d. Increase employment from four (4) full-time employees to five (5) full-time employees;
    e. Increase tours and tastings by appointment only from 15 visitors per day (up to 105 visitors per week) to 34 visitors per day (up

to 238 visitors per week);

f. Increase a marketing program, which may include catered events, as follows;
    i. From six (6) Small Events annually to twelve (12) for up to 30 guests;
    ii. From one (1) Large Event annually to two (2) for up to 125 guests (including bus/shuttle transportation for guests);
g. On-premises consumption of wines produced on-site within the outdoor hospitality areas identified on Sheet A1.01 of the Site Plans, prepared by Taylor Lombardo Architects, dated August 3, 2023, in accordance with Business and Professions Code Sections 23358, 23390 and 23396.5 (AB 2004);
h. Hours of operation seven days a week: production 6:00 a.m. to 6:00 p.m., visitation 10:00 a.m. to 6:00 p.m. and marketing events 10:00 a.m. to 10:00 p.m. (including cleanup);
i. Relocation of onsite parking (no change in number of parking spaces);
j. On-site domestic and process wastewater treatment systems, including the installation of an approximately 81,000 gallon process water storage tank; ~~and~~
k. Riparian Restoration between Dry Creek and the proposed barrel storage building; and
l. Landscaping, and other improvements associated with wineries.

10. **Describe the environmental setting and surrounding land uses.**
The 10.09 acre project site is located approximately 0.2 miles south of Darms Lane, at 034-190-040-000. The site is located on the valley floor and is generally flat and planted in six (6) acres of vines as are most of the surrounding properties, includes the existing Arrow and Branch winery, and two existing wells. Surrounding land uses include open space, agriculture/vineyard, winery and rural residential uses. Access to the property is provided via an access drive off Solano Avenue adjacent to Highway 29. The nearest residence to the proposed new winery building is approximately 195 feet to the northwest. Adjoining the project site to the east is a 10 acre lot with a shared access drive leading to Silenus Winery. Immediately to the south of the project site is approximately 90 acres of existing vineyard.

To the north of the project site is Dry Creek, a County designated Significant Stream, which runs from the west to the east. To the north of Dry Creek is Darms Lane, located within the Agricultural Watershed zoning district. Darms Lane is predominately composed of single-family homes and associated uses.

11. **Other agencies whose approval is required** (e.g., permits, financing approval, or participation agreement).
Discretionary approval required by Napa County consists of a use permit modification. The proposed project would also require various ministerial approvals by the County including, but not limited to a building permit. A Storm Water Pollution Prevention Plan (SWPPP) is required to meet San Francisco Regional Water Quality Control Board standards and is administered by the Engineering Services Division.

Responsible (R) and Trustee (T) Agencies
California Department of Fish and Wildlife (T) & Regional Water Quality Control Board (T)

Other Agencies Contacted
None

12. **Tribal Cultural Resources.** Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resource, procedures regarding confidentiality, etc.?

On June 2, 2025, County Staff sent invitations to consult on the proposed project to Native American tribes who had a cultural interest in the area and who as of that date had requested to be invited to consult on projects, in accordance with the requirements of Public Resources Code section 21080.3.1. The Yocha Dehe Wintun Nation responded by mail to Staff on July 1, 2025, and declined comment as the project site is not located within their aboriginal territories. No other comments were received and the consultation period closed on July 2, 2025.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of

professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and visit(s) to the project site and proposed development area

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with Use Permit #P23-00057 as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559, or Current Projects Explorer | Napa County, CA (countyofnapa.org)

- Forest Ecosystem Management, August 11, 2021, Biological Assessment, Arrow and Branch Winery (Exhibit A)
- Forest Ecosystem Management, November 5, 2023, Biological Assessment Addendum, Arrow and Branch Winery (Exhibit B)
- Forest Ecosystem Management, July 28, 2021, Northern Spotted Owl Assessment, Arrow and Branch Winery (Exhibit C)
- Illingworth & Rodkin, Inc., October 18, 2023, Environmental Noise Assessment (Exhibit D)
- Applied Civil Engineering, July 7, 2025, Tier I Water Availability Analysis (Exhibit E)
- Richard C. Slade & Associates, July 8, 2025, Tier III Water Availability Analysis (Exhibit F)
- Applied Civil Engineering, September 9, 2024, Onsite Wastewater Disposal Feasibility Study (Exhibit G)
- Applied Civil Engineering, September 19, 2024, Transient Non-Community Water System Information (Exhibit H)
- Graphics (Exhibit I)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

MatthewRingel

Signature

November 19, 2025

Date

Name: Matt Ringel, Planner III, Napa County Planning, Building and Environmental Services Department

I.	**AESTHETICS.** Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

a-c. Visual resources are those physical features that make up the environment, including landforms, geological features, water, trees and other plants, and elements of the human cultural landscape. A scenic vista, then, would be a publicly accessible vantage point such as a road, park, trail, or scenic overlook from which distant or landscape-scale views of a beautiful or otherwise important assembly of visual resources can be taken-in. As generally described in the **Environmental Setting and Surrounding Land Uses** section, above, this area is defined by a mix of vineyard, winery, and residential uses. The project would not result in substantial damage to scenic resources, including trees and rock outcroppings, or substantially degrade the visual character or quality of the site and its surroundings. The project site is currently undeveloped and possesses vineyards, and associated infrastructure. External changes to the previously approved winery are square footage additions to the winery building and a new 81,000 gallon irrigation tank located on the western corner of the parcel, within a previously disturbed area. The proposed project would not be located in an area which would damage any known scenic vista, or damage scenic resources, trees, rock outcroppings, or historic buildings. Dry Creek, located north of the proposed winery, has mature riparian vegetation, including full-canopy trees, and intervening vineyards that separate the proposed winery from Darms Lane residences. Additional landscape screening will be installed between the new winery/single-family dwelling and property frontage.

This project would not substantially alter a scenic vista or substantially degrade the existing visual character of the site or its immediate surroundings. Impacts related to scenic resources will be less than significant.

d. The proposed improvements may result in the installation of additional lighting that may have the potential to impact nighttime views. Although the project is in an area that has a certain amount of existing nighttime lighting, the installation of new sources of nighttime lights may affect nighttime views. Pursuant to standard Napa County conditions of approval for wineries, outdoor lighting would be required to be shielded and directed downwards, with only low level lighting allowed in parking areas. As subject to the standard conditions of approval, below, the project will not have a significant impact resulting from new sources of outside lighting.

6.3 LIGHTING – PLAN SUBMITTAL

a. Two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the CBC.

b. All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, shall be the minimum necessary for security, safety, or operations; on timers; and shall incorporate the use of motion detection sensors to the greatest extent practical. All lighting shall be shielded or placed such that it does not shine directly on adjacent properties or impact vehicles on adjacent streets. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards.

4.16 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, AND TRASH ENCLOSURE AREAS

a. *All lighting shall be permanently maintained in accordance with the lighting and building plans approved by the County. Lighting utilized during harvest activities is exempt from this requirement.*

Pursuant to standard Conditions of approval for wineries, the winery will be prohibited from installing highly reflective surfaces. As designed, the operation is subject to the County's project specific condition of approval noted below, the project would not have a significant impact resulting from new sources of glare.

4.16 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, AND TRASH ENCLOSURE AREAS

c. *The colors used for the roof, exterior walls and built landscaping features of the winery shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation. The permittee shall obtain the written approval of the Planning Division prior to any change in paint colors that differs from the approved building permit. Highly reflective surfaces are prohibited.*

Mitigation Measures: None required

II.	**AGRICULTURE AND FOREST RESOURCES.**[1] Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☒	☐

Discussion:

a. The California Department of Conservation District map currently designates the site as "Prime Farmland." The proposed project would not conflict with existing zoning for agricultural uses. General Plan Agricultural Preservation and Land Use policies AG/LU-2 and AG/LU-13 recognize wineries, and any use consistent with the Winery Definition Ordinance and clearly accessory to a winery, as agriculture. Thus, the proposed project would not result in a significant impact with respect to conversion of farmland. The proposed project does not include the removal of vineyard. There are no agricultural contracts on the property. There are no other changes included in this proposal that would result in the conversion of Farmland. General Plan Agricultural Preservation and Land Use policies AG/LU-2 and AG/LU-13 recognize wineries, and any use consistent with the Winery Definition Ordinance and clearly accessory to a winery, as agriculture. Impacts

[1] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

would be less than significant.

b. The County's zoning of the property is Agricultural Preserve (AP) and the General Plan land use designation of the property is Agricultural Resource. The winery and proposed modifications are consistent with the property's zoning, as Napa County Code Section 18.16.030 lists wineries and related, accessory uses as conditionally permitted in the AP District. General Plan Policies AG/LU-20 and AG/LU-21 also identifies processing of agricultural products (grape crushing/winemaking) as a use that is consistent with the Agricultural Resource land use designation. There is not a Williamson Act contract that is applicable to this property.

c/d. The project site is zoned Agricultural Preserve (AP), which allows wineries upon grant of a use permit. The existing winery and associated improvements are located in an area of the site that is also developed with vineyards and other improvements. No vineyards would be required to be removed to accommodate the proposed building and covered crush pad additions. According to the Napa County Environmental Resource Maps (based on the following layers – Sensitive Biotic Oak woodlands, Riparian Woodland forest, and Coniferous forest) the parcel does contain lands classified as containing sensitive biotic communities. However, the project location will not require the removal of any trees or sensitive biotic communities. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

e. As discussed in item "a.", above, the winery and winery accessory uses are defined as agriculture by the Napa County General Plan and are allowed under the parcels' AP (Agricultural Preserve) zoning. Neither this project, nor any foreseeable consequence thereof, would result in changes to the existing environment which would result in the conversion of special status farmland to a non-agricultural use.

Mitigation Measures: None required

III.	**AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	☐	☐	☒	☐

Discussion:

On June 2, 2010, the Bay Area Air Quality Management District's (now known as the Bay Area Air District) (BAAD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act. These thresholds are designed to establish the level at which BAAD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAD's website and included in BAAD's updated CEQA Guidelines (updated May 2012). The thresholds are advisory and may be followed by local agencies at their own discretion.

The thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas

of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or BAAD to any specific course of regulatory action.

BAAD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The Air District is currently working to revise any outdated information in the Guidelines as part of its update to the CEQA Guidelines and thresholds of significance.

a/b. The mountains bordering Napa Valley block much of the prevailing northwesterly winds throughout the year. Sunshine is plentiful in Napa County, and summertime can be very warm in the valley, particularly in the northern end. Winters are usually mild, with cool temperatures overnight and mild-to-moderate temperatures during the day. Wintertime temperatures tend to be slightly cooler in the northern end of the valley. Winds are generally calm throughout the county. Annual precipitation averages range from about 24 inches in low elevations to more than 40 inches in the mountains.

Ozone and fine particle pollution, or PM2.5, are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter. In Napa County, ozone rarely exceeds health standards, but PM2.5 occasionally does reach unhealthy concentrations. There are multiple reasons for PM2.5 exceedances in Napa County. First, much of the county is wind-sheltered, which tends to trap PM2.5 within the Napa Valley. Second, much of the area is well north of the moderating temperatures of San Pablo Bay and, as a result, Napa County experiences some of the coldest nights in the Bay Area. This leads to greater fireplace use and, in turn, higher PM2.5 levels. Finally, in the winter easterly winds often move fine-particle-laden air from the Central Valley to the Carquinez Strait and then into western Solano and southern Napa County (BAAD, In Your Community: Napa County, April 2016).

The potential impacts associated with implementation of the project were evaluated consistent with guidance provided by BAAD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic and other activities anticipated under the proposed development include ozone, ozone precursors oxides of nitrogen and reactive organic gases (NOx and ROG), carbon monoxide (CO), nitrogen dioxide (NO2), and suspended particulate matter (PM10 and PM2.5). Other criteria pollutants, such as lead and sulfur dioxide (SO2), would not be substantially emitted by the proposed development or traffic, and air quality standards for them are being met throughout the Bay Area.

BAAD has not officially recommended the use of its thresholds in CEQA analyses and CEQA ultimately allows lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other factual data. BAAD also states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAD provides as a reference for determining appropriate thresholds is the *California Environmental Quality Act Air Quality Guidelines* developed by its staff in 2010 and as updated through May 2017. These guidelines outline substantial evidence supporting a variety of thresholds of significance.

As mentioned above, in 2010, the BAAD adopted and later incorporated into its 2011 CEQA Guidelines project screening criteria (Table 3-1 – Operational-Related Criteria Air Pollutant and Precursors Screening Level Sizes) and thresholds of significance for air pollutants, which have now been updated by BAAD through May 2017. Given the size of the entire project (existing and proposed), which is approximately 13,797 square feet of floor area dedicated to production uses with 4,308 square feet of space dedicated to tasting/hospitality uses compared to the BAAD's screening criterion of 47,000 square feet (high quality restaurant) and 541,000 square feet (general light industry) for NOX (oxides of nitrogen), the project would contribute an insignificant amount of air pollution and would not result in a conflict or obstruction of an air quality plan. (Please note: a high-quality restaurant is considered comparable to a winery tasting room for purposes of evaluating air pollutant emissions, but grossly overstates emissions associated with other portions of a winery, such as office, barrel storage and production, which generate fewer vehicle trips. Therefore, a general light industry comparison has also been used for other such uses.) The project falls below the screening criteria as noted above, and consequently will not significantly affect air quality individually or contribute considerably to any cumulative air quality impacts.

c/d. Land uses such as schools, playgrounds, childcare centers, hospitals and convalescent homes are considered sensitive to poor air quality, because infants and children, the elderly, and people with health afflictions, especially respiratory ailments, are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential areas are also considered to

be sensitive to air pollution because residents, which include children and the elderly, tend to be in close proximity of home for extended periods of time.

Land uses in the vicinity of project parcel include rural residential, agriculture (primarily vineyard), and wineries. The closest school (Unidos Middle School) is located approximately 1.8 linear miles to the southeast of the project site in Napa (Google Earth). The closest residence is located approximately 195 feet to the northwest of the project area. The closest residential area (the City of Napa) is over 0.95 miles southeast of the project area.

In the short term, potential air quality impacts are most likely to result from earthmoving and construction activities required for project construction. Earthmoving and construction emissions would have a temporary effect; consisting mainly of dust generated during grading and other construction activities, exhaust emissions from construction related equipment and vehicles, and relatively minor emissions from paints and other architectural coatings. These sources would generally be temporary and/or seasonal in nature and would occur at least 1.8 miles from the closest school and 0.95 miles from the nearest residential community, providing dilution of pollutants and odors. The Air District recommends incorporating feasible control measures as a means of addressing construction impacts. If the proposed project adheres to these relevant best management practices identified by the Air District and the County's standard conditions of project approval, construction-related impacts are considered less than significant: Additionally, for the reasons identified above, the proposed project will not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, resulting in a less than significant impact.

7.1 SITE IMPROVEMENTS

c. AIR QUALITY

During all construction activities the permittee shall comply with the most current version of BAAD Basic Construction Best Management Practices including but not limited to the following, as applicable:

1. *Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAD's phone number shall also be visible.*
2. *Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.*
3. *Cover all haul trucks transporting soil, sand, or other loose material off-site.*
4. *Remove all visible mud or dirt traced onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
5. *All vehicle speeds on unpaved roads shall be limited to 15 mph.*
6. *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
7. *Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by State Regulations). Clear signage shall be provided for construction workers at all access points.*
8. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ http://www.arb.ca.gov/portable/perp/perpfact_04-16-15.pdf or the PERP website http://www.arb.ca.gov/portable/portable.htm.*

Furthermore, while earthmoving and construction on the site would generate dust particulates in the short-term, the impact would be less than significant with dust control measures as specified in Napa County's standard condition of approval relating to dust:

7.1 SITE IMPROVEMENTS

b. DUST CONTROL

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

While the Air District defines public exposure to offensive odors as a potentially significant impact, wineries are not known operational producers of pollutants capable of causing substantial negative impacts to sensitive receptors. The nearest residence to the proposed new winery building is approximately 195 feet to the northwest. Construction-phase pollutants would be reduced to a less than significant level by the above-noted standard condition of approval. The project would not create pollutant concentrations or objectionable odors

affecting a substantial number of people. Impacts would be less than significant.

Mitigation Measures: None required

IV.	**BIOLOGICAL RESOURCES.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, Coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

a/b. According to the Napa County GIS Sensitivity Maps (Natural Diversity Data Base and US Fish and Wildlife Critical Habitat) no known candidate, sensitive, or special status species have been identified as occurring within the proposed development area. The project would not have a substantial adverse effect on any special status species, or species of particular concern, as there are none identified within the project area. The project site is disturbed and developed with several agricultural use buildings, vineyards, an access drive, and associated improvements. No trees, native vegetation, or structures are proposed to be removed to accommodate the proposed project. The development area is located adjacent to Dry Creek, a known riparian area, but located outside of all defined stream setbacks. The site has not been identified in any local/regional or State plans as being a sensitive community. The applicant has consulted with Forest Ecosystem Management in partnership with Salix Natural Resource Management and a Biological Report was prepared on August 11, 2021, an addendum to the report was prepared on November 5, 2023, and a Northern Spotted Owl Assessment was completed on July 28, 2021. The biologists conducted site visits and reviewed the CNDDB database for potential impacts to sensitive flora and fauna. The report highlighted four species:

- Western Pond Turtle (Emys marmorata) – California Species of Special Concern. There are known western pond turtles approximately 1.7 air-miles to the south of the Project located within private agricultural ponds. Western pond turtles are aquatic turtles of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Basking sites and sandy banks or grassy open fields within 2,000' from water is needed for egg-laying. There are no known detections of western pond turtles in Dry Creek; however, there is suitable habitat during normal climatic years. No western pond turtles were identified during a field visit to the

Project Area. There was no water within this stretch of Dry Creek during the biologist's site visit.

- Foothill Yellow-Legged Frog (Rana boylii) – California Species of Special Concern. There are known foothill yellow-legged frogs approximately 1.6 air-miles to the north of this project located within Hopper Creek, a downstream tributary to Dry Creek. Foothill yellow-legged frogs are frogs that are rarely far from permanent rocky streams. Tadpoles need water for at least 3 to 4 months for development. There are no known detections of foothill yellow-legged frogs in the segment of Dry Creek within 5 miles of the Project Area. No foothill yellow-legged frogs were identified during the biologist's site visit.
- Crotch Bumble Bees and Western Bumble Bees – Potential threats: pesticide use, fire, agricultural intensification, urban development, and climate change. The project parcel possesses snowberry (Symphoricarpos albus), a floral preference for Western Bumble bees. The open areas on the project parcel are primarily vineyards and structures which do not possess the necessary habitat for bumble bees. The area proposed for the project scope has recently been graded when the winery was originally constructed or; therefore, it is not considered bumble bee habitat due to a lack of floral resources.

The proposed project does not request the removal of any native vegetation, including trees. While no tree removal is proposed, the proposed project is within close proximity of dense native vegetation and riparian habitat. Due to the project's proximity to dense vegetation and riparian habitat, and in the abundance of caution, implementation of Mitigation Measure **BIO-1** will require preconstruction surveys for nesting birds to reduce this potential impact to less than significant level.

The GIS CNDDB Owl Habitat layer, shows the potential for owl habitat to occur on the subject parcel. The general attributes of Northern Spotted Owl (NSO) habitat include dense, multi-layered canopy of several tree species of varying size and ages with open spaces among the lower branches to allow flight under the canopy. NSO habitat also tends to include abundant logs, snags/cavity trees with broken tops or platform-like substrates. The Forest Ecosystem Management assessment concluded that the project area does not have suitable Northern Spotted Owl habitat due to absence of associated vegetation communities. In the abundance of caution and in order to mitigate any potentially significant impacts to owls, Mitigation Measure **BIO-2** requires Northern Spotted Owl surveys prior to any on site vegetation removal.

The CDFW CNNDB database depicts that the proposed project is within close proximity of potential Pallid Bat predicted habitat. For this reason, and in the abundance of caution, in order to mitigate any potentially significant impacts to bats, Mitigation Measure **BIO-3** requires a bat habitat assessment and surveys prior to any on site tree trimming.

In the event that trees need to be trimmed, Mitigation Measure **BIO-4** implements tree trimming requirements. With the incorporation of Mitigation Measures **BIO-1 through BIO-4**, the potential for this project to have an impact on special status bird and raptor species is less than significant.

c/d. According to the Napa County Environmental Resource Maps (based on the following layers – water bodies, vernal pools & vernal pool species), vernal pools and wetlands are not present. Dry Creek runs along the north property line. The proposed additions would be located outside the stream setbacks established in Napa County's Conservation Regulations (NCC 18.108) and would not interfere or be located within a wildlife corridor. To prevent inadvertent encroachment into specified stream setbacks during construction, Mitigation Measure **BIO-5** requires temporary construction fencing. A portion of the riparian area, between Dry Creek and the proposed barrel storage building, recently incurred tree removal. The project proposes to restore the area, with the planting of a minimum of five (5) Coast Live Oaks (5 gallon root base), two (2) Valley Oaks (5 gallon root base), and additional native understory shrubs and grasses. The project has been conditioned to require consultation with the Regional Water Quality Control Board and California Department of Fish and Wildlife prior to conducting restoration work. Due to these factors, project activities would not interfere with the movement of any native resident or migratory fish or wildlife species or with their corridors or nursery sites. With the incorporation of Mitigation Measure **BIO-5**, impacts would be less than significant.

e/f. This project would not interfere with any ordinances protecting biological resources. The proposed project does not propose the removal of any trees; therefore, there are no applicable tree preservation ordinances in effect in the County. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans because there are no plans applicable to the subject site. No impacts would occur.

Mitigation Measures:

Mitigation measure **BIO-1:** The owner/permittee shall implement the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

a. For earth-disturbing activities occurring between February 1 and August 31 (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and

experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than seven (7) days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than seven (7) days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Planning Division and the CDFW prior to commencement of work.

b. After commencement of work if there is a period of no work activity of seven (7) days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the USFWS and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with the County's Planning Division and/or the USFWS or CDFW.
d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.

Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Mitigation measure **BIO-2:** Minimize potential indirect impacts to Northern Spotted Owls

a. For project activities occurring between March 15 and July 31, prior to any vegetation removal or construction activities, a qualified biologist shall perform a NSO habitat assessment to determine the potential for this species to be present within the disturbance area as well as within a 0.25-mile buffer surrounding each disturbance area. The assessment shall include both a review of recent aerial photography and a field visit to review conditions directly. Additionally, the qualified biologist shall perform an on-site nocturnal calling survey for NSO from at least mid-March onward and prior to initiation of construction activities. Survey stations for the calling survey shall be sited to cover post-fire forest stands that are most suitable for NSO occupation. The results of the updated habitat assessment and survey shall be provided to the County for review prior to project initiation. If NSO is observed or otherwise believed to be present within the focal area described above, measures shall be implemented in consultation with CDFW to ensure that project activities would not result in a take of the species and that any potential impacts are otherwise minimized to the extent feasible.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Mitigation Measure **BIO-3**: Bat Tree Habitat Assessment and Surveys.

Prior to the commencement of Project Construction activities, a qualified biologist shall conduct a habitat assessment for bats, unless otherwise approved in writing by CDFW. The habitat assessment shall be conducted a minimum of 30 to 90 days prior to tree trimming shall include a visual inspection of potential roosting features of trees to be removed (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species). If suitable habitat trees are found, they shall be flagged or otherwise clearly marked, CDFW shall be notified immediately, and tree trimming shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be trimmed only: a) using the two-step trimming process detailed below during seasonal periods of bat activity, from approximately March 1 through April 15 and September 1 through October 15, or b) after a qualified biologist, under prior written approval of the proposed survey methods by CDFW, conducts night emergence surveys or completes visual examination of roost features that establish absence of roosting bats. Two-step tree trimming shall be conducted over two consecutive days, as follows: 1) the first day (in the afternoon), under the direct supervision and instruction by a qualified biologist with experience conducting two-step tree trimming, limbs and branches shall be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices or deep bark fissures shall be avoided, and 2) the second day the remainder shall be removed.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Mitigation Measure **BIO-4**: Tree Trimming

a. Prior to any earthmoving activities, the owner/permittee shall place temporary fencing at the edge of the dripline of trees to be

retained that are located adjacent to the development area (typically within approximately 50-feet of the development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of project construction.

b. The owner/permittee shall refrain from severely trimming the trees (typically no more than l/3rd of the canopy) and vegetation to be retained adjacent to the winery development and water tank.

c. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P23-00057-MOD shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before improvements obtain final occupancy. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the associated building permits.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits and shall be implemented in conjunction with all construction activities.

Mitigation Measure **BIO-5**: Riparian Protection. The Owner/Permittee shall implement the following measures to prevent the inadvertent encroachment into specified stream setbacks during construction:

a. The location of stream setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Conservation Division prior to any earthmoving and/or development activities, no disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation.

b. All construction and related traffic shall remain outside of the protective fencing to the maximum extent practicable to ensure that the stream, buffer zones, and associated woodland habitat remains undisturbed.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project (if approved) and apply to associated building and grading permits and shall be implemented in conjunction with all construction activities.

V.	**CULTURAL RESOURCES.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	☐	☐	☐	☒
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

Discussion:

a/b. On June 2, 2025, County Staff sent invitations to consult on the proposed project to Native American tribes who had a cultural interest in the area and who as of that date had requested to be invited to consult on projects, in accordance with the requirements of Public Resources Code section 21080.3.1. The Yocha Dehe Wintun Nation responded by mail to Staff on July 1, 2025, and declined comment as the project site is not located within their aboriginal territories. No other comments were received and the consultation period closed on July 2, 2025.

According to Napa County Environmental Sensitivity Maps (Archaeological Resources Layer, historical site, points & lines), no known historically sensitive sites or structures, archaeological or paleontological resources, sites or unique geological features have been identified within the project site. There is no information in the County's files that would indicate that there is a potential for occurrence of these resources. The site has been previously developed with a winery, vineyards, and two wells. It is therefore not anticipated that any cultural resources are present on the site, and the potential for impact is considered less-than-significant. However, if resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project:

7.2 ARCHEOLOGICAL FINDING

In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the PBES Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during project development, all work in the vicinity must be halted, and the Napa County Coroner informed, so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the permittee shall comply with the requirements of Public Resources Code Section 5097.98.

c. No human remains have been encountered on the property and no information has been encountered that would indicate that construction of this project would encounter human remains. Construction activities would occur on previously disturbed portions of the site. However, if resources are found during project grading, construction of the project is required to cease, and a qualified archaeologist would be retained to investigate the site in accordance with standard condition of approval noted above. Impacts would be less than significant.

Mitigation Measures: None required.

VI.	**ENERGY.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion:

a. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers' commutes to and from the project site would consume fuel. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient compared with other similar agricultural construction sites within Napa County.

The proposed project would comply with Title 24 energy use requirements, and once construction is complete, equipment and energy use would be slightly higher than existing levels and the proposed project would not include any unusual maintenance activities that would cause a significant difference in energy efficiency compared to the surrounding developed land uses. Thus, the proposed project would not result in wasteful, inefficient, or unnecessary energy use. This impact would be less than significant

b. The proposed project would not conflict with the provisions of a state or local plan for renewable energy or energy efficiency because there are no plans applicable to the subject site. No impacts would occur.

Mitigation Measures: None required.

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii) Strong seismic ground shaking?	☐	☐	☒	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv) Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion:

a.

i.) There are no known faults on the project site as shown on the most recent Alquist-Priolo Earthquake Fault Zoning Map. As such, the proposed project would result in a less than significant impact with regards to rupturing a known fault.

ii.) All areas of the Bay Area are subject to strong seismic ground shaking. Construction of the project would be required to comply with the latest building standards and codes, including the California Building Code that would reduce any potential impacts to a less than significant level.

iii.) No subsurface conditions have been identified on the project site that indicated a susceptibility to seismic-related ground failure or liquefaction. Compliance with the latest edition of the California Building Code for seismic stability would result in less than significant impacts.

iv.) The Napa County GIS Sensitivity Maps (Landslides line and polygon) did not indicate the presence of landslides within the area proposed for development.

b. The proposed improvements would occur on slopes of five percent or less. All on site civil improvements shall be constructed according to plans prepared by a registered civil engineer, which will be reviewed and approved by the County Engineering Division prior to the commencement of any on site land preparation or construction. Grading and drainage improvements shall be constructed according to

the current Napa County Road and Street Standards (RSS), Chapter 16.28 of the Napa County Code, and Appendix J of the California Building Code. Prior to issuance of a building or grading permit the owner shall submit the necessary documents for Erosion Control as determined by the area of disturbance of the proposed development in accordance with the Napa Countywide Stormwater Pollution Prevention Program Erosion and Sediment Control Plan Guidance. Engineering Division Conditions of Approval have been included to ensure compliance with the requirements. Impacts would be less than significant.

c/d. Based upon the Soil Survey of Napa County, prepared by the United States Department of Agriculture (USDA), the site is composed of Pleasanton Loam, 0 to 2 percent slopes. According to the Napa County GIS Sensitivity Maps (Surficial Deposits layer), the site is underlain by Qhay deposits. Based on the Napa County GIS Sensitivity Maps (liquefaction layer) the property includes areas generally subject to high tendencies to liquefy. All proposed construction will be required to comply with all the latest building standards and codes at the time of construction. Compliance with the latest editions of the California Building Code for seismic stability would reduce any potential impacts to the maximum extent possible, resulting in less than significant impacts.

e. The Napa County Division of Environmental Health has reviewed this application and recommends approval based on the submitted Onsite Wastewater Disposal Feasibility Study prepared by Applied Civil Engineering, dated September 9, 2024. Soils on the property have been determined to be adequate to support the proposed on-site treatment and dispersal of wastewater generated by existing and proposed wine production as well as sanitary wastewater based on the proposed number of visitors and employees.

f. No paleontological resources or unique geological features have been identified on the property or were encountered on the property when the existing buildings were constructed or when the vines were planted. However, if resources are found during any earth disturbing activities associated with the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the standard condition of approval 7.2 identified in **Section V** above.

Mitigation Measures: None required.

VIII.	**GREENHOUSE GAS EMISSIONS**. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion:

On April 20, 2022, the BAAD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAD April 2022)[2]. The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in Center for Biological Diversity v. Department of Fish & Wildlife (2015) 62 Cal. 4th 204). There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

Napa County has been working to develop a Climate Action Plan (CAP) for several years. In 2012, a Draft CAP (March 2012) was recommended using the emissions checklist in the Draft CAP, on a trial basis, to determine potential greenhouse gas (GHG) emissions associated with project development and operation. At the December 11, 2012, Napa County Board of Supervisors (BOS) hearing, the BOS considered adoption of the proposed CAP. In addition to reducing Napa County's GHG emissions, the proposed plan was intended to address compliance with CEQA for

[2] https://www.BAAD.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, April 2022

projects reviewed by the County and to lay the foundation for development of a local offset program. While the BOS acknowledged the plan's objectives, the BOS requested that the CAP be revised to better address transportation-related greenhouse gas, to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that best management practices be applied and considered when reviewing projects until a revised CAP is adopted to ensure that projects address the County's policy goal related to reducing GHG emissions. In addition, the BOS recommended utilizing the emissions checklist and associated carbon stock and sequestration factors in the Draft CAP to assess and disclose potential GHG emissions associated with project development and operation pursuant to CEQA.

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as the part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at https://www.countyofnapa.org/589/Planning-Building-Environmental- Services. The County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

For the purposes of this assessment the carbon stock and sequestration factors identified within the 2012 Draft CAP are utilized to calculate and disclose potential GHG emissions associated with agricultural "construction" and development and with "ongoing" agricultural maintenance and operation, as further described below. The 2012 Draft CAP carbon stock and sequestration factors are utilized in this assessment because they provide the most generous estimate of potential emissions. As such, the County considers that the anticipated potential emissions resulting from the proposed project that are disclosed in this Initial Study reasonably reflect proposed conditions and therefore are considered appropriate and adequate for project impact assessment.

Regarding operational emissions, as part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions. The CEQA Guidelines and the OPR Technical Advisory concluded that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact. The County maintains a set of Transportation Impact Study Guidelines (TIS Guidelines) that define situations and project characteristics that trigger the need to prepare a TIS. The purpose of a TIS is to identify whether the project is likely to cause adverse physical or operational changes on a County roadway, bridge, bikeway or other transportation facility, to determine whether the project should be required to implement or contribute to improvement measures to address those changes, and to ensure that the project is developed consistent with the County's transportation plans and policies. Per the County's current TIS Guidelines, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips. The TIS Guidelines also include VMT analysis requirements for projects based on trip generation, which includes a screening approach that provides a structure to determine what level of VMT analysis may be required for a given project. For a new project that would generate less than 110 net new daily vehicle and truck trips, not only is the project not required to prepare a TIS, it is also presumed to have a less-than-significant impact for VMT. However, applicants are encouraged to describe the measures they are taking and/or plan to take that would reduce the project's trip generation and/or VMT. Projects that generate more than 110 net new passenger vehicle trips must conduct a VMT analysis and identify feasible strategies to reduce the project's vehicular travel; if the feasible strategies would not reduce the project's VMT by at least 15%, the conclusion would be that the project would cause a significant environmental impact.

a/b. Overall increases in Greenhouse Gas (GHG) emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. GHG emissions were found to be significant and unavoidable in that document, despite the adoption of mitigation measures incorporating specific policies and action items into the General Plan.

Consistent with the General Plan action items, Napa County participated in the development of a community-wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency in December 2009, and served as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County.

The County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Plan Policy

CON-65(e). Pursuant to State CEQA Guidelines Section 15183, this assessment focuses on impacts that are "peculiar to the project," rather than the cumulative impacts previously assessed, because this Initial Study assesses a project that is consistent with an adopted General Plan for which an EIR was prepared. GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO2), methane, ozone, and the fluorocarbons, which contribute to climate change. CO2 is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. For the purposes of this analysis potential GHG emissions associated with winery 'construction' and 'development' and with 'ongoing' winery operations have been discussed.

GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions. The BAAD recommended thresholds do not include a construction-related climate impact threshold at this time. One time "Construction Emissions" associated with the project include: emissions associated with the energy used to develop and prepare the project area, construction, and construction equipment, and worker vehicle trips (hereinafter referred to as Equipment Emissions). The physical improvements associated with this project include the construction of approximately 3,529 sq. ft. winery production space, 3,929 sq. ft. of accessory space, landscaping, and other winery related improvements. As discussed in Section III. Air Quality, construction emissions would have a temporary effect and BAAD recommends incorporating feasible control measures as a means of addressing construction impacts. If the proposed project adheres to relevant best management practices identified by the BAAD and the County's standard conditions of project approval, construction-related impacts are considered less than significant. See Section III. Air Quality for additional information.

The BAAD proposed thresholds for land use projects are designed to address "Operational" GHG emissions which represent the vast majority of project GHG emissions. Operational emissions associated with a winery generally include: i) any reduction in the amount of carbon sequestered by existing vegetation that is removed as part of the project compared to a "no project" scenario (hereinafter referred to as Operational Sequestration Emissions); and ii) ongoing emissions from the energy used to maintain and operate the winery, including vehicle trips associated with employee and visitor trips (hereinafter referred to as Operational Emissions).

As noted above, Napa County has not adopted a qualified GHG reduction strategy or an air quality plan, therefore projects will be evaluated per the BAAD recommended minimum design elements.

Specifically for buildings, the project must *not*:

- Include natural gas appliances or natural gas plumbing (in both residential and nonresidential development); and
- Result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA section 21100(b)(3) and CEQA Guidelines section 15126.2(b).

The project will be required, through conditions of project approval, to prohibit the use of natural gas appliances or plumbing. Additionally, at the time of construction the project will be required to comply with the California Building Code, which is currently being updated to include regulations to assist in the reduction of air quality impacts associated with construction, such as prohibiting natural gas appliance and plumbing. The new construction will be required to install energy efficient fixtures complying with CA Building Code Title 24 standards. See section VI. Energy for additional information on energy usage.

Specifically for transportation, the project must:

- Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2, and
- Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target reflecting the following recommendations:
    - Residential projects: 15 percent below the existing VMT per capita;
    - Office projects: 15 percent below the existing VMT per employee; or
    - Retail projects: no net increase in existing VMT.

The project will be required to comply with the recently adopted version of CALGreen Tier 2. Project approval will include a condition of approval to ensure this is reviewed and implemented at the time of construction through adherence to the California Building Code.

As discussed above and in section XVII. Transportation, the County maintains TIS Guidelines that include VMT analysis requirements for projects based on trip generation. The project trip generation numbers did not require completion of a traffic study or VMT analysis because new trips would be below the 110 daily trip threshold.

The applicant proposes implementing some GHG reduction strategies. These include the installation of solar panels; the preparation of a Vehicle Miles Traveled (VMT) reduction plan to reduce annual VMT by at least 15% by providing employee incentives, priority parking for efficient transportation, bike riding incentives, and bus transportation for large marketing events; installation of solar hot water heating;

energy conserving lighting; installation of an energy star roof; installation of water efficient fixtures; low-impact development to manage stormwater as close to its source as possible; install a water efficient landscape design; implementation of a sustainable purchasing and shipping program; installation of electrical vehicle charging station(s); public transportation will be available; the structure design will be oriented to maximize passive cooling, heating, and lighting; use of recycled materials for construction and operation; education to staff and visitors on sustainable practices; use of 70-80% cover crop; retention of biomass via pruning and thinning by chipping the materials and reusing it rather than burning on-site; and water conservation by use of processed wastewater for re-use as irrigation. A condition of approval will be included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application. If the proposed project adheres to these relevant design standards identified by BAAD, the requirements of the California Building Code, and the County's conditions of project approval, impacts are considered less than significant.

Mitigation Measures: None required.

IX.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wild-land fires?	☐	☐	☒	☐

Discussion:

a. The proposed project will not involve the transport of hazardous materials other than those small amounts normally used in winery operations. A Business Plan will be filed with the Environmental Health Division should the amount of hazardous materials reach reportable levels. However, in the event that the proposed use or a future use involves the use, storage or transportation of greater than 55 gallons or 500 pounds of hazardous materials, a use permit and subsequent environmental assessment would be required in accordance with the Napa County Zoning Ordinance prior to the establishment of the use. During construction of the project some hazardous materials, such as building coatings/ adhesives/ etc., will be utilized. However, given the quantities of hazardous materials and the limited duration, they will result in a less than significant impact.

b. Hazardous materials such as diesel, maintenance fluids, and paints would be used onsite during construction. Should they be stored onsite, these materials would be stored in secure locations to reduce the potential for upset or accident conditions. The proposed project consists of the continued operations of an existing winery that would not be expected to use any substantial quantities of hazardous materials. Therefore, it would not be reasonably foreseeable for the proposed project to create upset or accident

conditions that involve the release of hazardous materials into the environments. Impacts would be less than significant.

c. There are no schools located within one-quarter mile from the proposed winery buildings. According to Google Earth, the nearest school to the project site is the Unidos Middle School, located approximately 1.8 linear miles to the southeast of the project site in the City of Napa. No impacts would occur.

d. Based on a search of the California Department of Toxic Substances Control database, the project site does not contain any known EPA National Priority List sites, State response sites, voluntary cleanup sites, or any school cleanup sites. No impact would occur as the project site is not on any known list of hazardous materials sites.

e. No impact would occur as the project site is not located within an airport land use plan.

f. The existing access driveway and on-site circulation configuration meets Napa County Road and Street Standards. The project has been reviewed by the County Fire Department and Engineering Services Division and found acceptable, as conditioned. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, or obstruct emergency vehicle access and impacts would be less than significant.

g. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wild land fires. The existing driveway would provide adequate access to Solano Avenue. The project would comply with current California Department of Forestry and California Building Code requirements for fire safety. Impacts would be less than significant.

Mitigation Measures: None required.

X. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces which would:				
i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion:

The County requires all discretionary permit applications to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

On June 7, 2022, the Napa County Board of Supervisors provided interim procedures to implement provisions of the Napa County Groundwater Sustainability Plan (GSP) for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use. The direction limits a parcel's groundwater allocation to 0.3- acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. The project well is located within the GSA Subbasin and is subject to the no net increase allocation because existing uses exceed the parcel's groundwater allocation.

To assess potential impacts resulting from project well(s) interference with neighboring wells within 500 feet and/or springs within 1,500 feet, the County's Water Availability Analysis Guidance Document- May 2015 (WAA) requires applicants to perform a Tier 2 analysis where the proposed project would result in an increase in groundwater extraction from project well(s) compared to existing levels.

To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways and those non-navigable tributaries connected to navigable waters, the WAA guidance requires applicants to perform a Tier 3 or equivalent analysis for new or replacement wells, or discretionary projects that would rely on groundwater from existing or proposed wells that are located within 1,500 feet of designated "Significant Streams." [3]

Public Trust: The public trust doctrine requires the state and its legal subdivisions to "consider," give "due regard," and "take the public trust into account" when considering actions that may adversely affect a navigable waterway. (Environmental Law Foundation v. State Water Resources Control Bd.; San Francisco Baykeeper, Inc. v. State Lands Com.) There is no "procedural matrix" governing how an agency should consider public trust uses. (Citizens for East Shore Parks v. State Lands Com.) Rather, the level of analysis "begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust." (Environmental Law Foundation, 26 Cal.App.5th at p. 403.). As demonstrated in the Environmental Law Foundation vs State Water Resources Control Board Third District Appellate Court Case, that arose in the context of a lawsuit over Siskiyou County's obligation in administering groundwater well permits and management program with respect to Scott River, a navigable waterway (considered a public trust resource), the court affirmed that the public trust doctrine is relevant to extractions of groundwater that adversely impact a navigable waterway and that Counties are obligated to consider the doctrine, irrespective of the enactment of the Sustainable Groundwater Management Act (SGMA).

On January 10, 2024, Napa County released the Interim Napa County Well Permit Standards and WAA Requirements - January 2024, providing guidance to comply with the Public Trust.

a. As discussed in Section VII. Geology and Soils a Wastewater Feasibility Study, dated January 6, 2023, was prepared by Applied Civil Engineering, which outlines the required wastewater system to meet the needs of the proposed winery production, employees, visitation, and marketing programs. The Wastewater Feasibility Study analyzes the existing system and reviews changes that are required to meet the winery's proposed new needs. The analysis found that the predicted Peak Winery Process Wastewater Flow exceeds the capacity of the existing system but the predicted Peak Winery Sanitary Wastewater Flow is within the capacity of the existing system. Due to this factor, design adjustments are needed to accommodate the new process wastewater flow increase. Improvements are not needed for the sanitary wastewater system as the existing design is adequate to handle the proposed flows. To accommodate the new process wastewater flow increase, process wastewater would be collected in an 81,000 gallon irrigation storage tank and then be used for vineyard irrigation rather than being disposed of in the in-ground system. No change is needed to the pretreatment system as it can adequately handle the proposed design flows and provide water of the quality needed for surface irrigation. All application of treated winery process wastewater must comply with the requirements of the Napa County Process Wastewater Guidelines for Surface Drip Irrigation. The facility will have to enroll for coverage under the General Waste Discharge Requirements for Winery Process Water and meet discharge standards and monitoring requirements specific to the amount of waste discharged. The Division of Environmental Health reviewed this report and concurred with its findings, conditioned that the plans shall be designed by a licensed Civil Engineer or Registered Environmental Health Specialist and approved by the Division of Environmental Health. Ongoing water quality monitoring will be required. Additionally, water quality would be maintained through standard stormwater quality treatment control measures and compliance with Engineering Division Conditions of Approval. Impacts would be less than significant.

b. A Tier I Water Availability Analysis was prepared by Applied Civil Engineering (ACE), dated July 7, 2025, and a Tier III Water Availability

[3] Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-Sustainability. The "Significant_Streams" and "Significant_Streams_1500ft_buffer" GIS layers are published as publicly-available open data through the County's ArcGIS Online Account.

Analysis was prepared by Richard C. Slade & Associates LLC (RCS), dated July 8, 2025. As directed by the County's Water Availability Analysis Guidance Document of May 2015 (WAA) and the Interim Well Permit Standards (January 2024), the reports includes Tier 1 calculations for the existing and proposed water uses and a groundwater recharge analysis, a Tier 2 well interference analysis, and a Tier 3 surface water interference analysis.

Tier 1: The Tier 1 analysis considered existing uses onsite to include the winery, landscaping irrigation, vineyard irrigation, and the neighbor's well that is located on the parcel. The Arrow and Branch Winery currently uses 3.97 AFY and the Silenus Winery Easement Well uses approximately 8.5 AFY. The existing groundwater usage of the project parcel is estimated at ~~9.33~~ 12.47 acre-feet per year (AFY). The proposed project would ~~not increase~~ decrease groundwater use ~~and would maintain no net increase of groundwater usage~~ by 0.40 AFY.

The neighboring Silenus Winery has an easement to use a well located on the Arrow and Branch Winery parcel. On April 17, 2002, Silenus Winery received an entitlement modification (01093-UP/02105-VAR), which referenced an estimated water usage of 12.34 AFY. At that time, the winery's parcel was 14.3 acres, which included 10.3 acres of vines which used 10.5 AFY (1 AFY per acre of vines), and the 72,000 gallon winery used 1.84 AFY, totaling 12.34 AFY. Subsequently, the Silenus Winery completed a Lot Line Adjustment, which reduced the parcel size to 10 acres with approximately 6.3 acres of vines. Applied Civil Engineering's WAA estimates that the Silenus Winery contains landscaping that uses approximately 0.36 AFY. Using the water rates described in the 2001 Silenus Winery entitlement modification, and Applied Civil Engineering's estimated landscaping water usage, the Silenus Easement well is estimated to use 6.3 AFY to irrigate 6.3 acres of vines, use 1.84 AFY to produce 72,000 gallons of wine, and 0.36 AFY for landscape irrigation, totaling 8.5 AFY. The Arrow and Branch project has been conditioned to not use the Silenus Easement Well.

Source of Demand	Existing (AFY)	Proposed (AFY)	Difference (AFY)
Primary Residence	0	0	0
Vineyard Irrigation	3	~~2.59~~ 2.19	~~-0.41~~ -0.81
Landscape Irrigation	0.2	0.2	0
Winery (Visitation, Marketing, and Employees)	0.77	1.18	+0.41
Silenus Easement Well (Neighboring winery, vineyards, and residential uses)	~~5.36~~ 8.5	~~5.36~~ 8.5	0
Total	**~~9.33~~ 12.47**	**~~9.33~~ 12.07**	**~~0~~ -0.40**

The project parcel currently contains two (2) wells and no new wells are proposed. The parcel contains "Well 1" and "Silenus Easement Well". The proposed winery project will only use Well 1. The next door neighbor (Silenus Winery) has an existing water easement to use the "Silenus Easement Well" and the associated well infrastructure, and no water from this well is used by the Arrow and Branch Winery project parcel. Both wells and all of the approximately 10.09 acres of the project parcel are within the GSA boundary. Napa County's WAA guidelines allot 0.3 AFY of water per acre of land within the GSA; therefore, the 10.09 acres of project parcel within the GSA has an estimated groundwater recharge of 3.027 AFY.

Currently, Well 1 is estimated to draw 3.97 AFY and Silenus Easement Well is estimated to draw ~~5.36~~ 8.5 AFY of water from the GSA, which is higher than the parcel's recharge total of 3.027 AFY, as calculated using the County's Interim Well Standards. The proposed project with the use of reclaimed wastewater for vineyard irrigation would ~~maintain~~ decrease groundwater use of Well 1 by 0.40 AFT, and pump a lower volume of 3.57 AFY of groundwater ~~its existing water use~~. As a whole, the total proposed groundwater demand is ~~9.33~~ 12.07 AFY, equivalent to ~~308%~~ 398% estimated annual groundwater recharge values for parcel area. Due to this factor, a condition of approval would be imposed to cap Well 1 to the yearly groundwater extraction of ~~3.97~~ 3.57 AFY~~, to cap the Silenus Easement Well to 5.36 AFY, and an overall cap on the parcel of 9.33 AFY~~. Additionally, the project would be required to install a well flow meter on Well 1 ~~and the Silenus Easement Well,~~ to verify that ~~no more than the previously existing non-conforming volume of water is pumped from the GSA and that~~ the ~~parcel~~ winery does not exceed ~~9.33~~ 3.57 AFY of groundwater usage (see COA below).

6.15(d) Groundwater Demand Management Program

1. *The permittee shall install a meter on each well serving the parcel (Well 1~~ and Silenus Easement Well~~). Each meter shall be placed in a location that will allow for the measurement of all groundwater used on the project parcel. Prior to the issuance of a grading or building permit for the winery the permittee shall submit for review and approval by the PBES Director a groundwater demand management plan which includes a plan for the location and the configuration of the installation of a meter on the ~~two~~ well~~s~~ serving the parcel.*

2. *The plan shall identify how best available technology and best management water conservation practices will be applied throughout the parcel.*
3. *The Plan shall identify how best management water conservation practices will be applied where possible in the structures on site. This includes but is not limited to the installation of low flow fixtures and appliances.*
4. *As groundwater consuming activity already exists on the property, meter installation and monitoring shall begin immediately and the first monitoring report is due to the County within 120 days of approval of this Use Permit.*
5. *For the first twelve months of operation under this permit, the permittee shall read the meters of at the beginning of each month and provide the data to the PBES Director monthly. If the water usage on the property exceeds, or is on track to exceed, the maximum groundwater usage values in i through ii below, or if the permittee fails to report, additional reviews and analysis and/or a corrective action program at the permittee's expense shall be required to be submitted to the PBES Director for review and action. In addition to monthly meter readings, Permittee shall also provide well level data to the PBES Director.*

    ~~*i. Annual cumulative groundwater usage for all wells on the property shall not exceed 9.33 af/yr.*~~
    i. ~~*Notwithstanding COA No. 6.15.d.5.i, a*~~*Annual groundwater usage for Well 1 shall not exceed ~~3.97~~ 3.57 af/yr.*
    ii. ~~*Notwithstanding COA No. 6.15.d.5.i, annual groundwater usage for Silenus Easement Well shall not exceed 5.36 af/yr.*~~ *The Silenus Easement Well shall not be used for any uses on the Arrow and Branch Winery parcel.*

6. *The permittee's wells shall be included in the Napa County Groundwater Monitoring program if the County finds the well suitable.*
7. *At the completion of the reporting period per 6.15(d)(5) above, and so long as the water usage is within the maximum acre-feet per year as specified above, the permittee may begin the following meter reading schedule:*
    i. *On or near the first day of each month the permittee shall read the water meter and provide the data to the PBES Director during the first weeks of April and October. The PBES Director, or the Director's designated representative, has the right to access and verify the operation and readings of the meters during regular business hours.*

Portion of property	Assessed Area (acres)	Project Well Located within Region	Average Rainfall (ft)	Rainfall Recharge Percentage (RCS, 2019)	Groundwater Recharge (AFY)	Existing Water use (AFY)	Proposed Water Use (AFY)
Inside GSA	10.09	Well 1 & Silenus Easement Well	0.3 AFY/ac (Per Napa County WAA Guidelines)		3.027	~~9.33~~ 12.47	~~9.33~~ 12.07

Tier 2: Pursuant to County's WAA, a Tier 2 analysis is required when a neighboring off-site well is located within 500 feet of the project well, the well is located within 1,500 feet from a spring, or the proposed project requests an increase in groundwater usage. The project does not request an increase in groundwater usage; therefore, a Tier 2 analysis is not required.

Tier 3: A Tier 3 review is the County's adopted method for complying with its duties under the Public Trust Doctrine. As discussed herein, the existing project will comply with the WAA guidance document. Per the County's WAA, a Tier 3 analysis was performed to evaluate potential groundwater to surface water interaction.

The project well is approximately 40-70 feet from the nearest portion of Dry Creek (located north of the project parcel) and the Silenus Easement Well is approximately 50-80 feet from the nearest portion of Dry Creek. Dry Creek is a designated Significant Stream. In the professional opinion of hydrogeologist RCS in their Tier III WAA, the Project well and Silenus Easement well are not in hydraulic connection with any defined Significant Streams because:

a. Available groundwater depth measurements in the Project Well have been at least 72 feet lower in elevation than the bed elevation of Dry Creek, as measured along Cross Section A-A'. In March 2024, despite flows in the Creek being present in the proximal portion of Dry Creek, the water level in the Project Well was 89 ft below the bed of Dry Creek. In July 2025, the water

level in the Project Well was more than 168 ft lower in elevation then the bed of Dry Creek, and ponded water was present in the nearby portion of the creek.

b. Available groundwater depth measurements in the Silenus Easement Well have been at least 7 ft lower in elevation that the bed of Dry Creek, as measured along Cross Section A-A, and more recent water levels have been much deeper. In March 2024, despite flows being present in the proximal portion of Dry Creek, the water level in the Easement Well as 153 ft below the bed of Dry Creek, and ponded water was present in the nearby portion of the creek.

c. The Project Well is constructed with a 50-foot-deep surface seal and a screen depth that begins below the bottom of the alluvial aquifer system. Between the bed of Dry Creek and the deeper aquifer materials accessible to the Project Well & Silenus Easement Well, low permeability strata have been documented in, and inferred from, various data sources. Therefore, Dry Creek is not connected to groundwater accessible to the Project Well & Silenus Easement Well. Pumping of the Project Well for the proposed project will not impact surface water flow in the proximal portions of Dry Creek because surface water in Dry Creek is hydrogeologically disconnected from groundwater accessible to the Project Well in the vicinity of the subject property. Similarly, pumping of the Easement Well to meet its existing demands will not impact surface water follow in the proximal portions of Dry Creek because surface water in the creek is hydrogeologically disconnected from groundwater accessible to the Easement Well in the vicinity of the subject property.

d. Pumping of the Project Well & Silenus Easement Well will not directly influence flows in the proximal portion of Dry Creek because: 1) surface and subsurface data collected by others (LSCE, 2016 & 2022) demonstrate that groundwater in the deeper portion of the alluvial aquifer system (and therefore also the underlying earth materials) is not directly connected to overlying surface water flows in Dry Creek; 2) additional low-permeability strata exist between the screened sections of nearby monitoring well named "217d-swgw2", and above the screened sections of the Project Well and Silenus Easement Well; and 3) the Project & Silenus Easement Well, as constructed, can only extract groundwater from earth materials beneath those additional low permeability strata.

The Project Well and the Silenus Easement Well were constructed with the depth of uppermost perforations at 95 ft and 140 ft, respectively. The County's WAA requires that if a well is pumping at a rate of 30 gpm or more and has a depth of uppermost perforations less than 150 feet, the Tier III analysis shall demonstrate that low permeability deposits overly the zone from which extraction is proposed to occur. RCS's report reviews this feature and concludes that based on the detailed geologic logging of the borehole into which 216s-swgw2 and 217d-dwgw2 (nearby monitoring wells) were constructed, and on RCS's interpretation of several other driller's logs drilled proximal to the subject property abundant fine-grained materials are present beneath the subject property. This is true in both the alluvial sediments (Qhfy and Qhf) and the underlying Tss/h materials. These fine-grained materials likely act as aquitards, significantly reducing the potential for connectivity and vertical flow between surface water and Dry Creek and groundwater in the aquiver systems beneath the subject property. Monitoring data for the "Site 2 at Dry Creek" well competitions in LSCE (2016 & 2022) demonstrates that Dry Creek is predominantly a losing stream, and those data demonstrate clear evidence of a disconnection.

This information indicates that the aquifers of the project well and Silenus Easement Well are not directly connected to Dry Creek. The proposed project conforms to Napa County's WAA Tier 3 guidelines. Due to these factors, the project well presumptively meets Napa County's Tier 3 WAA guidelines for groundwater-surface water interaction. County has satisfied its duty to consider impacts to trust resources and no further analysis is required. Impacts would be less than significant.

c. The project would not substantially alter the drainage pattern on site or cause a significant increase in erosion or siltation on or off the project site. Improvement plans prepared prior to the issuance of grading or building permits would ensure that the proposed project does not increase runoff flow rate or volume as a result of project implementation. General Plan Policy CON-50 c) requires discretionary projects, including this project, to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions. The preliminary grading and drainage plan has been reviewed by the Engineering Division. The proposed project would implement standard stormwater quality treatment controls to treat runoff prior to discharge from the project site. The incorporation of these features into the project would ensure that the proposed project would not create substantial sources of polluted runoff. In addition, the proposed project does not have any unusual characteristics that create sources of pollution that would degrade water quality. Impacts would be less than significant.

d. The site is within the boundaries of the 100 year flood hazard boundaries. Any new construction will be required to obtain a floodplain management permit pursuant to Chapter 16.04 of the Napa County Code. The parcel is not located in an area that is subject to inundation by tsunamis, seiches, or mudflows.

e. The proposed project would not conflict with a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

Mitigation Measures: None required.

XI.	LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion:

a/b. The project would not occur within an established community, nor would it result in the division of an established community. The project complies with the Napa County Code and all other applicable regulations. The subject parcel is located in the AP (Agricultural Preserve) zoning district, which allows wineries and uses accessory to wineries subject to use permit approval. The proposed project is compliant with the physical limitations of the Napa County Zoning Ordinance. The County has adopted the Winery Definition Ordinance (WDO) to protect agriculture and open space and to regulate winery development and expansion in a manner that avoids potential negative environmental effects.

Agricultural Preservation and Land Use Policy AG/LU-1 of the 2008 General Plan states that the County shall, "preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County." The property's General Plan land use designation is AR (Agricultural Resource), which allows "agriculture, processing of agricultural products, and single-family dwellings." More specifically, General Plan Agricultural Preservation and Land Use Policy AG/LU-2 recognizes wineries and other agricultural processing facilities, and any use clearly accessory to those facilities, as agriculture. The project would allow for the continuation of agriculture as a dominant land use within the county and is fully consistent with the Napa County General Plan.

The proposed use of the property for the "fermenting and processing of grape juice into wine" (NCC §18.08.640) supports the economic viability of agriculture within the county consistent with General Plan Agricultural Preservation and Land Use Policy AG/LU-4 ("The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/ open space…") and General Plan Economic Development Policy E-1 (The County's economic development will focus on ensuring the continued viability of agriculture…).

The General Plan includes two complimentary policies requiring wineries to be designed generally of a high architectural quality for the site and its surroundings. There are no applicable habitat conservation plans or natural community conservation plans applicable to the property.

Mitigation Measures: None required.

XII.	MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a/b. Historically, the two most valuable mineral commodities in Napa County in economic terms have been mercury and mineral water. More recently, building stone and aggregate have become economically valuable. Mines and Mineral Deposits mapping included in the Napa County Baseline Data Report (Mines and Mineral Deposits, BDR Figure 2-2) indicates that there are no known mineral resources nor any locally important mineral resource recovery sites located on the project site. No impacts would occur.

Mitigation Measures: None required.

XIII.	**NOISE.** Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion:

a/b. The project would result in a temporary increase in noise levels during grading and construction activities for the proposed winery tasting room, production space, and water tank. Construction activities would be limited to daylight hours using properly muffled vehicles. Noise generated during this time is not anticipated to be significant. As such, the project would not result in potentially significant temporary construction noise or vibration impacts. The nearest residence to the proposed winery addition is approximately The nearest residence to the proposed new winery building is approximately 195 feet to the northwest., but also on the opposite side of Dry Creek (note: different types of winery operations occur in different portions of the structure; therefore portions of this section include different distances that reflect estimated measurements between the location of a specific winery operation and the nearby neighbors). Due to this distance, there is a low potential for impacts related to construction noise to result in a significant impact. Further, construction activities would occur during the period of 7am-7pm on weekdays, during normal hours of human activity. All construction activities would be conducted in compliance with the Napa County Noise Ordinance (Napa County Code Chapter 8.16). The proposed project would not result in long-term significant construction noise impacts. Conditions of approval identified below would require construction activities to be limited to daylight hours, vehicles to be muffled, and backup alarms adjusted to the lowest allowable levels. Impacts would be less than significant.

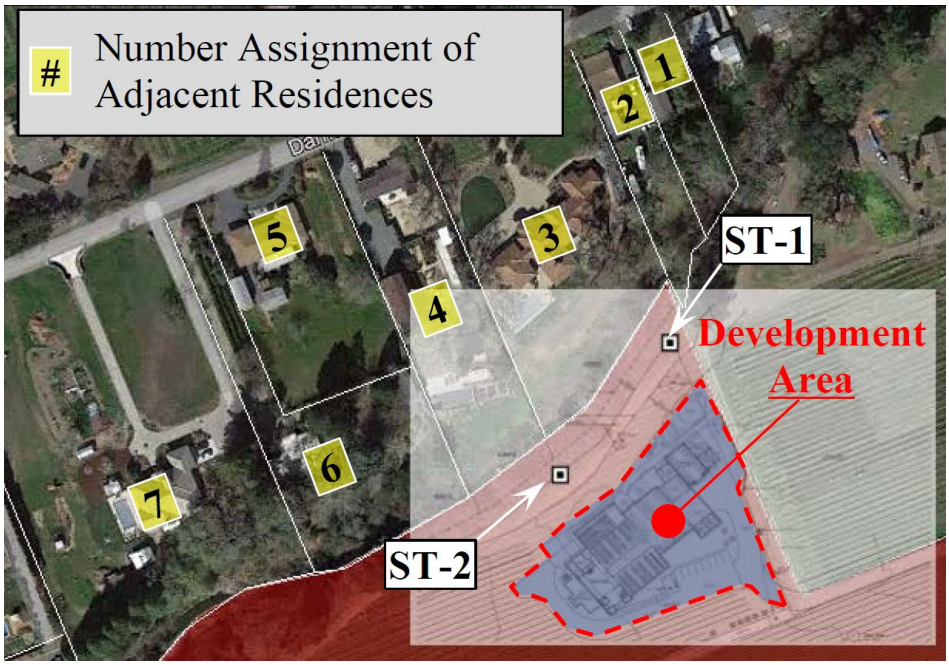
"7.3 CONSTRUCTION NOISE
Construction noise shall be minimized to the greatest extent practical and feasible under State and local safety laws, consistent with construction noise levels permitted by the General Plan Community Character Element and the County Noise Ordinance. Construction equipment muffling and hours of operation shall be in compliance with the County Code. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site, if at all practicable. If project terrain or access road conditions require construction equipment to be staged, loaded, or unloaded off the project site (such as on a neighboring road or at the base of a hill), such activities shall only occur daily between the hours of 8 am to 5 pm."

The project proposes to expand daily visitation from 15 visitors per day to 34 visitors per day and with a maximum of 238 visitors per week for Tours and Tasting by Prior Appointment Only. The project also proposes to expand a marketing program as described under Project Description (I). The applicant also proposes to allow for on-site consumption in conformity with Business and Professions Code Sections 23358, 23390 and 23396.5 on the outdoor patio.

Additional regulations contained within County Code Chapter 8.16 establish exterior noise criteria for various land uses in the County. As described in the Project Setting, above, land uses that surround the proposed parcel are predominantly large lot residential properties, wineries, and vineyards; of these land uses, the residential land use is considered the most sensitive to noise. Based on the standards in County Code section 8.16.070, noise levels, measured at the exterior of a residential structure or residential use on a portion of a larger property, may not exceed 50 decibels for more than half of any hour in the window of daytime hours (7:00 a.m. to 10:00 p.m.) within which the applicant proposes to conduct events. Noise impacts of the proposed project would be considered bothersome and potentially significant if sound generated by it had the effect of exceeding the standards in County Code more than 50 percent of the time (i.e., more than 50 decibels for more than 30 minutes in an hour for a residential use). The nearest off-site residence to the proposed winery is approximately 210 feet to the northwest. Under the proposed project, the largest event that would occur on the parcel would have an attendance of no more than 125 guests, and all events would end by 10:00 p.m., including quiet clean-up. Winery operations would occur between 6:00 a.m. and 6:00 p.m. (production, excluding harvest), 10:00 am to 6:00 pm (tours and tasting), and 10:00 am to 10:00 pm (including quite clean-up). The potential for the creation of significant noise from visitation is significantly reduced, since the tasting areas are predominantly within the winery structure itself, with the exception of the outdoor patio which would potentially create noise in excess of Napa County's noise standards (additional detail below with mitigation measures). Continuing enforcement of Napa County's Noise Ordinance by the Division of Environmental Health and the Napa County Sheriff, including the prohibition against amplified music, should further ensure that marketing events and other winery activities do not create a significant noise impact. Events and non-amplified music, including clean-up are required to finish by 10:00 p.m. Amplified music or sound systems would not be permitted for outdoor events as identified in Standard Condition of Approval 4.10 below. Temporary events would be subject to County Code Chapter 5.36 which regulates proposed temporary events.

"4.10 AMPLIFIED MUSIC
There shall be no amplified sound system or amplified music utilized outside of approved, enclosed, winery buildings."

Illingworth & Rodkin prepared an October 18, 2023, Noise Assessment for the proposed project. The study reviews the proposed project's potential impacts to noise resources and comes to the following conclusions:



(Site, Noise Measurement Locations and Adjacent Residences, Illingworth & Rodkin, October 18, 2023)

- Mechanical Equipment: The winery operations currently, and will continue to, use noise-generating mechanical equipment such as air-cooled condensing units, pumps, and compressors as well as less significant sources of noise, such as air-conditioning systems and exhaust fans. The proposed project includes the use of mechanical equipment, to be located in a mechanical yard at the northern boundary of the parcel. This equipment may be as close as approximately 310, 230, 110, 130, and 200 feet from the property lines of adjacent Residences 1, 2, 3, 4, and 6. Under worst-case condition with the equipment located outside in the mechanical yard, constant noise levels could be 39, 42, 50, 49, and 44 dBA at adjacent Residences 1, 2, 3, 4, and 6. Noise levels associated with worst-case conditions would not exceed the 50 dBA L50 daytime noise limit. Other

receptors in the project vicinity would be further from the mechanical equipment, and therefore, exposed to lower levels of noise.

- Maintenance and Forklift Operations: Forklift and maintenance operations are expected to take place in the covered crush/receiving areas and within the winery and production/barrel buildings. Such activities within buildings would receive significant noise shielding from the building and are not analyzed within the Noise Study. Outdoor forklift and maintenance operations are considered worst-case condition and are analyzed within the report. Such outdoor operations could occur as close as approximately, 300, 225, 175, 200, and 280 feet from the property lines of Residences 1, 2, 3, 4, and 6. It is anticipated that during high activity periods, these activities would be expected to occur for more than 15 but less than 30 minutes out of an hour and fall in the Project Specific Noise Criteria of 55 dBA L25. Noise levels associated with Forklift and Maintenance Activities are estimated to have noise levels of 45, 48, 47, 46, and 42 dBA from Residences 1, 2, 3, 4, and 5, which does not exceed the project specific noise standards and the closest noise sensitive uses.

- Bottling Activities: Bottling would occur over a period of a few weeks per year during the daytime. The analysis conservatively assumes that bottling will be done with a mobile bottling truck at the covered outdoor work area approximately 320, 240, 175, 200, and 265 feet from the property lines of Residences 1, 2, 3. 4, and 6. Noise levels associated with mobile bottling are estimated to have noise levels of 38, 41, 44, 43, and 40 dBA from Residences 1, 2, 3, 4, and 6, which does not exceed the 50 dBA L50 noise limit.

- Seasonal Crush Activities: Under the modified use permit, annual crush related activities would continue to take place in the covered crush pad of the winery building. Crush activities occurring in these areas will receive some noise shielding from building structures. These activities could occur as close as approximately 320, 240, 180, 200, and 270 feet from the property lines of adjacent Residences 1, 2, 3, 4, and 6. Crush activities are made up of relatively constant noise, with occasional discrete maximum noise events, such as the setting of empty bins. When seasonal crush activities are occurring, the relatively constant noise is estimated to produce 30, 33, 36, 35, and 32 dBA from Residences 1, 2, 3, 4, and 6 respectively, which fall below the Napa County noise criteria of 50 dBA noise limit. An occasional discrete noise event (such as the setting of an empty bin) is estimated to produce 48, 51, 54, 53, and 50 dBA from Residences 1, 2, 3, 4, and 6 respectively, which fall below the Napa County's 70 dBA discrete noise event limit. Noise from crush activities would therefore fall below the Napa County noise criteria of 50 dBA L50 and 70 dBA Lmax daytime criteria and 65 dBA nighttime noise limit.

- Tasting and Marketing Activities: Illingworth & Rodkin prepared a September 5, 2025, Noise Assessment Addendum for the proposed project, which defined and clarified the difference between "non-amplified background music", which would meet Napa County's Noise Ordinance, and "non-amplified music performances", which would not meet Napa County's Noise Ordinance.
    - Non-amplified background music typically takes the form of one or a few musicians (typically string instruments, piano, vocalists, or similar) performing at lower sound levels which do not compete or interfere with guest conversations. The sound levels at the adjacent residential property lines due to events held at the covered outdoor patio with non-amplified background music played during events with up to 125 guests would not exceed the County noise limits at the closest noise sensitive residential uses to the project.
    - Non-amplified music performances typically involve a larger musical group (i.e., a quartet or larger, which may include strings, brass, drums, piano, and/or vocals) performing at higher sound levels and acting as the focus of the event. The sound levels at the adjacent residential property lines due to events held at the covered outdoor patio with non-amplified music performances would exceed the County noise limits at the closest noise sensitive residential uses to the project.

  Marketing events would occur on a western outdoor patio and inside the winery structure. Outdoor amplified music is prohibited, so the primary noise source associated with the event would be raised conversations and acoustic instruments. Napa County's noise threshold is 45 dBA L50. Outdoor events held in the covered patio area could be as close as approximately 460, 380, 200, 175, and 190 feet from the property lines of adjacent property lines of residences 1, 2, 3, 4, and 6. Visitation and marketing events with 30 ~~and 125 guests~~ and background music are estimated to meet Napa County's 45 dBA threshold, with estimated noise levels of 29, 31, 38, 39, and 39 dBA from residences 1, 2, 3, 4, and 6. Additionally, outdoor visitation and marketing events with 125 guests and background music are estimated to meet Napa County's 45 dBA threshold, with estimated noise levels of 35, 37, 44, 45, and 45 dBA from Residences 1, 2, 3, 4, and 6. Visitation and marketing events with acoustic, non-amplified music performances, is estimated to produce 40, 42, 49, 50, and 50 dBA from Residences 1, 2, 3, 4, and 6. As the noise threshold is 45 dBA, the estimated noise for acoustic music will be greater than allowed as established by Napa County's noise criteria. In order to mitigate any potential impacts to noise, mitigation measure **NOISE-1** has been implemented to restrict outdoor music performances.

Indoor amplified music is included within the scope of the proposed project. Illingworth & Rodkin's noise analysis estimated that noise from amplified music within the winery structure with open windows and doors would reach levels of 39, 41, 47, 47, 46 dBA from Residences 1, 2, 3, 4, and 6. As the noise threshold is 45 dBA, the estimated noise from indoor amplified music will be greater than allowed as established by Napa County's noise criteria. Illingworth & Rodkin's noise analysis also estimated that noise from amplified music within the winery structure with closed windows and doors would be reduced to levels of 31, 33, 39, 39, and 38 dBA from Residences 1, 2, 3, 4, and 6. With all windows and doors closed, amplified music from winery events held within winery structures would meet Napa County's noise criteria of 45 dBA. In order to mitigate any potential impacts to noise, mitigation measure **NOISE-2** has been required to have the winery close all doors and windows if indoor amplified music were to occur. Illingworth and Rodkin's analysis estimates that all other winery operations will meet Napa County's noise criteria. With the implementation of mitigation measure **NOISE-1** and **NOISE-2**, the project will have a less than significant impact.

c. The project site in not located within the influence area of the Napa County Airport, according to the Airport Land Use Compatibility Plan. No impacts would occur.

Mitigation Measures:

Mitigation measure **NOISE-1**: Outdoor visitation and marketing events shall not include acoustic music performances. (Acoustic music performances are defined as a musical group of four or more, or individuals playing brass and/or drum instruments).

Mitigation measure **NOISE-2**: The applicant shall keep all windows and doors closed when amplified music is being played inside of the winery structure.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project and apply to operational characteristics of the winery. The Napa County Code Compliance Division will enforce winery use permit noise requirements and compliance with Napa County Code's noise ordinance.

XIV. **POPULATION AND HOUSING.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. The Association of Bay Area Governments' Plan Bay Area 2050 Growth Pattern figures indicate that the total households for Napa County are projected to increase some 10% by the year 2050, increasing from 50,000 to 56,000. Unincorporated Napa County, along with the cities of American Canyon, Napa, St. Helena, Calistoga and the town of Yountville all have existing compliant 6th Cycle Housing Elements certified by the State Department of Housing and Community Development. For the 6th Cycle, which runs from 2023 – 2031, Napa county jurisdictions have identified and have rezoned or are in the process of rezoning land to accommodate 3,844 dwelling units, more than half of the households projected by ABAG to develop in Napa county by 2050. In addition, the project would be subject to the County's housing impact mitigation fee, which provides funding to meet local housing needs.

Cumulative impacts related to population and housing balance were identified in the 2008 General Plan EIR. As set forth in Government Code §65580, the County of Napa must facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community. Similarly, CEQA recognizes the importance of balancing the prevention of environment damage with the provision of a "decent home and satisfying living environment for every Californian." (See Public Resources Code §21000(g).) The 2008 General Plan sets forth the County's long-range plan for meeting regional housing

needs, during the present and future housing cycles, while balancing environmental, economic, and fiscal factors and community goals. The policies and programs identified in the General Plan Housing Element function, in combination with the County's housing impact mitigation fee, to ensure adequate cumulative volume and diversity of housing.

The one (1) additional full-time employee which is a part of this project could lead to minor population growth in Napa County. Relative to the County's projected low to moderate growth rate and overall adequate programmed housing supply that population growth does not rise to a level of environmental significance. In addition, the project would be subject to the County's housing impact mitigation fee, which provides funding to meet local housing needs. Cumulative impacts on the local and regional population and housing balance would be less than significant.

The proposed use permit modification would facilitate ongoing operation of an existing winery. No new infrastructure is proposed that might induce growth by extending service outside of the boundaries of any of the winery owner's properties. The proposed project does not require installation of any additional new infrastructure, including that which might induce growth by extending services outside of the boundaries of the subject site or increasing the capacity of any existing roadway. Napa County collects fees from developers of nonresidential projects to help fund local affordable housing (see Napa County Code Section 18.107.060 – Nonresidential developments – Housing fee requirement). The fees are assessed with new construction and are collected at time of building permit issuance for new construction of winery buildings.

An increase in one (1) full-time employee is requested as part of the project. Employees and visitors to the winery could increase demand for group transportation services to the winery, though the potential for employment changes of other business supporting the winery's requested operations is uncertain, unquantifiable, and speculative. The policies and programs identified in the General Plan Housing Element, in combination with the County's housing impact mitigation fee, ensure adequate cumulative volume and diversity of housing. With limited staffing proposed and no off-site expansion of utilities or facilities to serve other developments, the project would have less than significant impact on population growth.

b. No existing housing or people would be displaced as a result of the project. Therefore, the project would not displace substantial numbers of existing housing or numbers of people necessitating the construction of replacement housing elsewhere and no impact would occur.

Mitigation Measures: None required.

XV. **PUBLIC SERVICES.** Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐

v)	Other public facilities?	☐	☐	☒	☐

Discussion:

a. Public services are currently provided to the project area and the additional demand placed on existing services as a result of the proposed project would be minimal. The property is located within the service areas of both the Napa County Sheriff's Department as well as the Napa County Fire Department. The proposed winery improvements, if approved, would be inspected by County building inspectors and fire officials in order to ensure that construction occurs in accordance with current Building and Fire Codes applicable at the time of submittal of any requisite building permit application. If approved, the requested use permit modification would facilitate the continued operation of a previously approved winery. The proposed project scope does not include construction of any new residential units nor accompanying introduction of new residents that would utilize existing parks or potentially increase student enrollment in schools located in the area of the winery. School impact fees, which assist local school districts with capacity building measures, would be levied pursuant to building permit submittal. No new parks or other public recreational amenities or institutions are proposed to be built with the proposed use permit. Impacts to public services would be less than significant. Also, see discussion below under Section XV.

Mitigation Measures: None required.

XVI.	**RECREATION.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

a. The project would not significantly increase the use of recreational facilities, nor does the project include recreational facilities that may have a significant adverse effect on the environment.

b. No new public recreational amenities are proposed to be built with, or as a result of, the requested use permit modification application. The proposed project would not result in substantial population growth, resulting in no increase in the use of recreational facilities and requiring no construction or expansion of recreational facilities. The proposed project would have no impact.

Mitigation Measures: None required.

XVII.	**TRANSPORTATION.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

c)	Substantially increase hazards due to a geometric design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d)	Result in inadequate emergency access?	☐	☐	☒	☐
e)	Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	☐	☐	☒	☐

Discussion:

a/b/c. As part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Land Use and Climate Innovation (LCI) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

The County's General Plan Circulation Element contains a policy statement (Policy CIR-7) indicating that the County expects development projects to achieve a 15% reduction in project-generated VMT to avoid triggering a significant environmental impact. Specifically, the policy directs project applicants to identify feasible measures that would reduce their project's VMT and to estimate the amount of VMT reduction that could be expected from each measure. The policy states that "projects for which the specified VMT reduction measures would not reduce unmitigated VMT by 15 or more percent shall be considered to have a significant environmental impact." That policy is followed by an action item (CIR-7.1) directing the County to update its CEQA procedures to develop screening criteria for projects that "would not be considered to have a significant impact to VMT" and that could therefore be exempted from VMT reduction requirements.

The new CEQA Guidelines and the LCI Technical Advisory note that CEQA provides a categorical exemption (Section 15303) for additions to existing structures of up to 10,000 square feet, so long as the project is in an area that is not environmentally sensitive and where public infrastructure is available. LCI determined that "typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract 110-124 trips per 10,000 square feet". They concluded that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact.

The County maintains a set of Transportation Impact Study Guidelines (TIS Guidelines) that define situations and project characteristics that trigger the need to prepare a TIS. The purpose of a TIS is to identify whether the project is likely to cause adverse physical or operational changes on a County roadway, bridge, bikeway or other transportation facility, to determine whether the project should be required to implement or contribute to improvement measures to address those changes, and to ensure that the project is developed consistent with the County's transportation plans and policies. Per the County's current TIS Guidelines, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips.

The TIS Guidelines also include VMT analysis requirements for projects based on trip generation, which includes a screening approach that provides a structure to determine what level of VMT analysis may be required for a given project. For a new project that would generate less than 110 net new daily vehicle and truck trips, not only is the project not required to prepare a TIS, it is also presumed to have a less than significant impact for VMT. However, applicants are encouraged to describe the measures they are taking and/or plan to take that would reduce the project's trip generation and/or VMT.

Projects that generate more than 110 net new passenger vehicle trips must conduct a VMT analysis and identify feasible strategies to reduce the project's vehicular travel; if the feasible strategies would not reduce the project's VMT by at least 15%, the conclusion would be that the project would cause a significant environmental impact.

Based on maximum winery employee and visitor/guest data for the harvest/crush season, the proposed project would be expected to generate 20 new daily trips on a weekday and 18 new daily trips on a Saturday. This count includes vehicle trips required for 281.3 tons of grape haul.

Since operational and visitor trips associated with the project is below the 110-trip threshold in the Office of Land Use and Climate Innovation guidelines and the County's TIS Guidelines and VMT screening criteria the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts would be less than significant.

d/e. The winery project was analyzed to determine whether the proposed parking supply would be sufficient for the anticipated daily demand during harvest conditions. The project site, as proposed, would have a total of twelve (12) parking spaces (with one designated for ADA drivers). Visitors to the Winery will be by appointment only. On a busy day, the 34 visitors (14 daily vehicles) will arrive in a staggered arrangement so that there should never be more than six or seven guest vehicles on site at any time. Occasionally, visitors will arrive in a higher-occupancy vehicle such as an SUV, minivan or smaller shuttle bus. The five (5) employees per day would then occupy the remaining spaces. The project is designed to meet the Napa County Road and Street standards, to conform to the latest emergency access requirements, and the existing road system would continue to provide adequate emergency access to the project site. When larger marketing events are held, guests will be brought to the site via bus and daily visitation will not occur on days where a marketing event will be held; further, reducing the proposed project's need for additional parking.

Mitigation Measures: None required.

XVIII. **TRIBAL CULTURAL RESOURCES.** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Discussion:

a/b. On June 2, 2025, County Staff sent invitations to consult on the proposed project to Native American tribes who had a cultural interest in the area and who as of that date had requested to be invited to consult on projects, in accordance with the requirements of Public Resources Code section 21080.3.1. The Yocha Dehe Wintun Nation responded by mail to Staff on July 1, 2025, and declined comment as the project site is not located within their aboriginal territories. No other comments were received and the consultation period closed on July 2, 2025.

Archaeological Resource Service was contracted by the applicant to provide a Cultural Resource Study for project parcel. A cultural resource study of the property was completed in March of 2023. The study was conducted to determine the presence or absence of historical or archaeological resources, and potential impacts, if any, as a result of the proposed project. According to the study, no historical resources were observed on the site and the property contains no archaeological remains. The report concluded that no further study or specific recommendations are required. The Cultural Resources conditions of approval discussed in Section V (Cultural Resources), would further avoid and reduce potential impacts to unknown resources.

As such, the proposed project, with the Cultural Resources conditions of approval, would result in less-than-significant impacts to Tribal Cultural Resources, including those that may be eligible for the California Historical Resources Information System or local register, or cultural resources as defined in Public Resources Code Section 5024.1(c).

Mitigation Measures: None required.

XIX.	UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Require or result in the relocation or construction of a new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a. As discussed in detail in Section VII. Geology and Soils, an Onsite Wastewater Feasibility Study, dated September 9, 2023, was prepared by Applied Civil Engineering which outlines the required wastewater system to meet the needs of the proposed winery production, employees, visitation, and marketing programs. The Onsite Wastewater Feasibility Study proposes and recommends disposal of the treated winery process wastewater via irrigation of the onsite vineyard. The study analyzed the potential of using approximately 4 acres of vineyard that is located to the west of the new winery structure and outside of the well setbacks. In order to accommodate differences in the timing of wastewater generation, irrigation demand, and limitations of wet weather application of treated wastewater, a storage tank will be required. The proposed project includes an 81,000-gallon process wastewater storage tank. The analysis assumes that during the summer, the treated water will be used to offset the irrigation needs of the vineyard, and in the winter application of treated winery process wastewater will not occur to prevent runoff. Applied Civil Engineering's study concludes that the proposed wastewater system could support a maximum 0.829 AFY with the proposed 81,000 gallon tank and 4 acres of vineyard irrigation, which is a higher capacity than the proposed 0.81 AFY proposed within their request; therefore, the proposed system could support the proposed vineyard irrigation system as designed.

The process waste system will be designed per RWQCB and PBES requirements. The facility will have to enroll for coverage under the General Waste Discharge Requirements for Winery Process Water and meet discharge standards and monitoring requirements specific to the amount of waste discharged. The division of Environmental Health reviewed this report and concurred with its findings, conditioning that the plans shall be designed by a licensed Civil Engineer or Registered Environmental Health Specialist and approved by the Division of Environmental Health. Ongoing water quality monitoring will be required.

Based on the proposed uses, the onsite water system will be classified as a transient noncommunity (TNC) public water system per the State of California Drinking Water Requirements. Applied Civil Engineering completed a Transient Non-community Water System analysis, dated September 19, 2024. Applied Civil Engineering's report concludes that the project's well meets all applicable state standards, but a new water storage tank of a minimum of 2,369 gallons is required. Impacts would be less than significant.

b. As discussed in Section X. A Tier I Water Availability Analysis was prepared by Applied Civil Engineering, dated July 7, 2025, and a Tier III Water Availability Analysis was completed by Richard C. Slade & Associates LLC (RSA), dated July 8, 2025. The report includes calculations for the existing and proposed water uses and a groundwater recharge analysis. An onsite water audit of existing uses was completed, and the existing water use associated with the winery, vineyards, landscaping, and the neighbor's easement well is estimated to be ~~9.33~~ 12.47 AFY. Due to the proposed winery modification, total water usage would increase by 0.41 AFY; however, the proposed project includes reusing ~~0.41~~ 0.81 AFY of process wastewater to offset groundwater that is currently being used to water onsite vineyards.

Due to this factor, the proposed project proposes ~~no net increase~~ a decrease in groundwater usage by 0.40 AFY. The Water Availability Analysis utilized Napa County's WAA guidance document to establish a 0.3 AFY per acre of recharge for the project parcel, since it is located within the GSA, and calculates a parcel recharge volume of 3.027 AFY. The project well currently draws 3.97AFY and the Silenus Easement Well is estimated to draw ~~5.36~~ 8.5 AFY. The proposed project would decrease the project well's draw to 3.57 AFY. Due to this factor, Napa County has conditioned the project to install a well flow meter on the project well ~~and the Silenus Easement well~~, to verify that no more than 3.57 AFY ~~the previously existing non-conforming volume of water is pumped from the project well and that the parcel does not exceed 9.33 AFY~~ of groundwater usage is occurring. The proposed water use would not impact groundwater availability.

c. Wastewater would be treated on-site and would not require a wastewater treatment provider; therefore, no impact would occur.

d/e. According to the Napa County Baseline Data Report, all of the solid waste landfills where Napa County's waste is disposed have more than sufficient capacity related to the current waste generation. The project would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

Mitigation Measures: None required.

XX.	**WILDFIRE.** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b)	Due to slope, prevailing winds and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion:

a-d. The proposed project is located within the local responsibility area. There are no project features that would substantially impair an adopted emergency response plan or emergency evacuation plan. The project site is generally flat with slopes ranging from 0-5% and is located on the valley floor with access from Solano Avenue, a County maintained road. There are existing overhead power lines along the road. Water storage tanks for fire suppression are provided on site. The project would comply with current California Department of Forestry and California Building Code requirements for fire safety. Impacts would be less than significant.

Mitigation Measures: None required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion:

a. The site has been previously disturbed and does not contain any known listed plant or animal species. The project will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. All potential biological related impacts would be less than significant with the implementation of mitigation measures **BIO-1** through **BIO-5**. As identified in Section V above, no known historically sensitive sites or structures, archaeological or paleontological resources, or sites of unique geological features have been identified within the project site. No historic or prehistoric resources are anticipated to be affected by the proposed project nor will the proposed project eliminate important examples of the major periods of California history or prehistory. In the event archaeological artifacts are found, a standard condition of approval and mitigation measure would be incorporated into the project (See Above, Section V. Cultural Resources, COA 7.2 Archaeological Findings). Impacts would be less than significant.

b. The project does not have impacts that are individually limited, but cumulatively considerable. Potential impacts to air quality, greenhouse gas emissions, hydrology, and traffic are discussed in the respective sections above and were determined to have a less than significant impact. As discussed in Section VIII. Green House Gas and Section XVII. Transportation, potential impacts to air pollution and GHG emissions are being addressed through meeting BAAD recommended design elements, with the addition of Greenhouse Gas Voluntary Best Management Practices, and VMT reduction strategies. The applicant intends to implement a number of greenhouse gas reduction strategies including installation of solar panels; the preparation of a Vehicle Miles Traveled (VMT) reduction plan to reduce annual VMT by at least 15% by providing employee incentives, priority parking for efficient transportation, bike riding incentives, and bus transportation for large marketing events; installation of solar hot water heating; energy conserving lighting; installation of an energy star roof; installation of water efficient fixtures; low-impact development to manage stormwater as close to its source as possible; install a water efficient landscape design; implementation of a sustainable purchasing and shipping program; installation of electrical vehicle charging station(s); public transportation will be available; the structure design will be oriented to maximize passive cooling, heating, and lighting; use of recycled materials for construction and operation; education to staff and visitors on sustainable practices; use of 70-80% cover crop; retention of biomass via pruning and thinning by chipping the materials and reusing it rather than burning on-site; and water conservation by use of processed wastewater for re-use as irrigation. Section X. Hydrology includes detail on the Water Availability Analysis which demonstrates that the proposed project would ~~result in no net increase~~ decrease groundwater use by 0.4 AFY over the existing levels. Potential cumulative impacts would be less than significant.

c. All potential impacts identified in this Mitigated Negative Declaration are less than significant with the exception of Biological and Noise Resources, for which Mitigation measures are proposed. Therefore, the proposed project would not result in significant environmental effects that cause substantial adverse effects on human beings either directly or indirectly. Impacts would be less than significant.

Mitigation Measures: None required.

“D”

Applicant’s Response Letter

October 2, 2025

Mr. Matthew Ringel
Planner III
Napa County Dept. of Planning, Building and Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559

RE: ARROW&BRANCH WINERY USE PERMIT MAJOR MOD. (P23-00057-MOD)

Dear Matt,

Please accept this letter as my client's response to the hearing of September 17, 2025, wherein a series of voluntary conditions of approval were proposed relative to four matters posed by the Commission in that hearing. Please note that there are no potentially significant impacts associated with any of these subjects (with the exception of noise and as subsequently clarified in the noise consultant's addendum), which means that there is no reason the CEQA Initial Study should be required to go through another public review period. These conditions are voluntary. They do not relate to any potentially significant impacts, nor do they involve any potential impact greater than that reported in the Initial Study.

The project will require a 10-day public noticing of the continued hearing.

The matters discussed in the September 17 hearing and for which the applicant is proposing voluntary performance are as follows.

(1) WATER USE REDUCTION: Applicant agrees to a reduction of water use on the Arrow&Branch Winery property of up to 10 percent, compared to the existing water use estimate. This means that the baseline groundwater use of 3.97 ac-ft. per year will be reduced to approximately 3.57 ac-ft. per year. A reduction of 0.4 ac-ft. or over will accomplish this savings. In order to achieve this, one or more of the following measures can be employed.

(a) Increase the amount of recycled winery process wastewater used to offset vineyard irrigation demand. The current proposal includes recycling of at least 0.41 ac-ft. of treated process wastewater to be used in the vineyard irrigation. This represents about 42 percent of the total amount of winery process wastewater expected to be generated by the winery (0.968 ac-ft. per year). By increasing the percentage of winery process wastewater that is beneficially re-used to 84 percent, an additional 0.4 ac-ft. of vineyard

DONNA B. OLDFORD 2620 Pinot Way • St. Helena • California 94574 Tel. (707) 963.5832 Email. dboldford@aol.com

irrigation demand can be offset, thereby providing the additional savings needed to meet up to 10 percent reduction in groundwater pumping volume.

(b) Implement vineyard irrigation system audit and scheduling efficiency upgrades.

(c) Implement winery processing Best Management Practices (BMPs) to reduce water use, including one or more of the following.

i. High temp and high-pressure washing systems

ii. Squeegees to clean floors and limit hose wash-down water use

iii. Recycling of cleaning waters

(2) RECYCLED PROCESS WASTEWATER TANK SPILL CONCERN: The winery can implement the following measures to minimize the potential for treated winery process wastewater that is stored in the tank from leaking and flowing into the creek.

(a). Tank will be designed in compliance with California Building Code structural and seismic requirements.

(b). Install a high-level alarm on the tank at two-thirds capacity. Alarm is to notify winery personnel when tank is nearing capacity level, so they can implement an irrigation cycle to lower the tank water level, as needed to accommodate upcoming winery activities' water use.

(c) Prepare a daily visual inspection program whereby winery personnel will inspect the tank for leakage at least once each day during normal winery operating hours.

(d) Install a soil berm (6 inches to 9 inches tall) around the side of the tank nearest to the creek.

All of the above items can be verified during the County's review of the permits for the tank and process wastewater system upgrades, and during installation inspections

(3). NOISE MONITORING: In an effort to clarify and refine the types of music that might be part of certain of the winery marketing events, the noise consultant (Illingworth & Rodkin, Inc.) prepared an addendum to the previously prepared Noise Attenuation Analysis. In this addendum, Illingworth & Rodkin differentiated between two types of amplified music, that is, music intended as low-level background music (such as a singer and/or stringed accoustic instruments) and music that is more intended as performance (such as horns, drums, or larger groups of musicians). The results of this addendum found that background music would not incur a potentially significant impact, whether for a group of 30 or one of 125. However,

performance-type music would have the potential of exceeding the County's noise level threshold.

In an effort to further refine and confirm this, Illingworth & Rodkin, Inc. proposes a sound monitoring plan that would confirm the conclusions of their analysis. The methodology of this monitoring of an event and a diagram showing the closest residences to the winery and the location of noise monitoring locations is included as part of this submittal.

The monitoring of the event will be at the time such events are next legally held at the winery. The County will be notified well in advance of the monitoring exercise and results will be prepared and submitted in a sound study report submitted to the County. Illingworth & Rodkin, Inc. will monitor one of the 30-person events as described and monitoring locations reflect in the enclosed exhibit. Illingworth & Rodkin advises that they believe the noise measurements from the 30-person event can be accurately extrapolated for evaluation of the 125-person events, so long as the methodology is followed and so long as the music is "background" in nature, as opposed to "performance" level. If this extrapolation is not achieved for the 125-person event, then that larger event can be monitored according to the methodology, as described.

These parameters will apply to the twelve (12) marketing events per year with up to 30 persons attending each, and to the two (2) larger marketing events per year with up to 125 persons attending each.

(4). STREAM RESTORATION LANDSCAPING: The applicant proposes to provide a stream restoration treatment to the creek area that was previously disturbed and investigated as a potential violation of the Napa County Conservation Regulations. In this action, trees and other plant material was removed from the established creek setback, and weed killer was applied within the creek setback and on a portion of the adjacent private property to the north. This vegetation removal was performed by others and without the permission of Arrow&Branch Winery.

The enclosed annotated site plan shows the location and extent of this area and contains a summary of the type of restoration envisioned in this area. This is a voluntary action on the part of the winery applicant and will be done with the cooperation with and input from Napa County and California Fish & Wildlife, as provided for in the relevant codes.

Generally speaking and for guidance at this point in time, the landscape materials will consist of tree plantings (five-gallon containers), an assortment of groundcover (native grasses)), and other materials as directed by the effort as coordinated with California Fish & Wildlife.

The applicant and consulting team with coordinate this effort with the County and CA Fish & Wildlife and will perform according to the Code established for stream restoration landscaping. The concept plan is reflected in the attached annotated site plan. Final landscaping details will

be prepared concurrent with other construction drawings used in submittals for building permits for the project, as related to the use permit major mod.

Because this stream restoration is not incurred as the result of any impact or as a required condition of approval in the use permit major mod, it would meet the conditions for a Categorical Exemption from further CEQA analysis. These conditions are contained in the CEQA Statutory Exemption for Restoration Projects (SERP), CEQA Statutory Exemption for Restoration Projects (SERP).

SUMMARY

The foregoing response contains instruction and conditions wording supportive of the four voluntary conditions offered by the application in the hearing of September 17, 2025. This reflects a review of the hearing before the Planning Commission and correspondence with the project planner subsequent to the hearing. These items include the following.

(1) Water Use Reduction

(2) Protection for Water Storage Tank next to creek setback

(3) Noise monitoring for marketing events

(4) Creek Restoration Landscaping

Thank you for your prompt review of these measures, as discussed and directed in the hearing of September 17, 2025. We look forward to being assigned a continued hearing date for the conditions language to be entered into the record and the use permit major mod. We are available to answer any questions that you might have in the review of this information.

Sincerely,

Donna B. Oldford
Plans4Wine

cc: Steve Contursi, Arrow&Branch Winery
Thomas Neptune, Attorney at Law
Mike Muelrath, Applied Civil Engineering
Fred Fvinth, Illingworth & Rodkin, Inc.
Tony Simmons, Nordby Construction

Donna B. Oldford
Plans4Wine

Michael R. Muelrath

Michael Muelrath
Applied Civil Engineering

Steve Contursi
Applicant and Property Owner, Arrow&Branch Winery

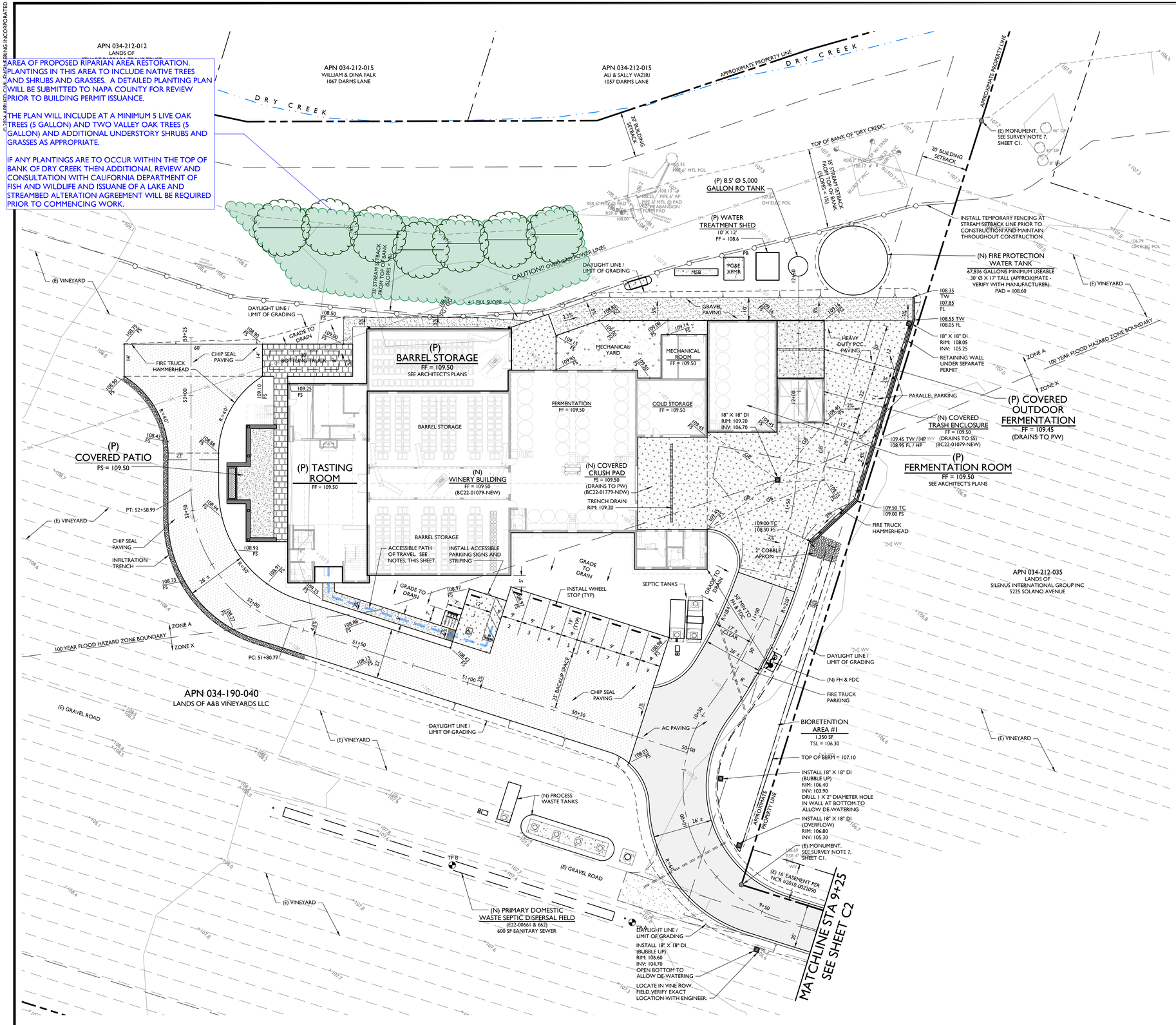
Attachments: Annotated Site Plan (with landscape restoration area shown)
Noise Analysis Report Addendum and Monitoring Diagram

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AREA OF PROPOSED RIPARIAN AREA RESTORATION. PLANTINGS IN THIS AREA TO INCLUDE NATIVE TREES AND SHRUBS AND GRASSES. A DETAILED PLANTING PLAN WILL BE SUBMITTED TO NAPA COUNTY FOR REVIEW PRIOR TO BUILDING PERMIT ISSUANCE.

THE PLAN WILL INCLUDE AT A MINIMUM 5 LIVE OAK TREES (5 GALLON) AND TWO VALLEY OAK TREES (5 GALLON) AND ADDITIONAL UNDERSTORY SHRUBS AND GRASSES AS APPROPRIATE.

IF ANY PLANTINGS ARE TO OCCUR WITHIN THE TOP OF BANK OF DRY CREEK THEN ADDITIONAL REVIEW AND CONSULTATION WITH CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE AND ISSUANE OF A LAKE AND STREAMBED ALTERATION AGREEMENT WILL BE REQUIRED PRIOR TO COMMENCING WORK.



BUILDING AREA CONCEPTUAL SITE IMPROVEMENT PLAN

SCALE: 1" = 20'

SCALE: 1" = 20'

0 20' 40'

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY (SUBJECT PARCEL)
- APPROXIMATE PROPERTY BOUNDARY (ADJACENT PARCEL)
- EXISTING EASEMENT OR SETBACK
- EXISTING EDGE OF DIRT / GRAVEL ROAD
- EXISTING OVERHEAD POWER LINE
- EXISTING BLUE LINE STREAM
- EXISTING GRADE BREAK / TOP OF BANK
- EXISTING TOE OF BANK
- EXISTING VINE ROW
- EXISTING VINEYARD BOUNDARY
- PROPOSED EDGE OF PAVEMENT AND SHOULDER
- PROPOSED DAYLIGHT / LIMIT OF GRADING
- PROPOSED TOP OF BANK / GRADE BREAK
- PROPOSED RETAINING WALL
- PROPOSED BUILDING
- PROPOSED SINGLE POLE SIGN
- PROPOSED WHEEL STOP
- PROPOSED ACCESSIBLE PARKING
- PROPOSED DRAIN INLET
- PROPOSED ENERGY DISSIPATOR
- PROPOSED HEAVY DUTY PCC PAVING
- PROPOSED LIGHT DUTY PCC PAVING
- PROPOSED GRAVEL PAVING
- PROPOSED CHIP SEAL PAVING
- PROPOSED ASPHALT CONCRETE PAVING
- PROPOSED DECOMPOSED GRANITE PAVING
- PROPOSED ROCK
- PROPOSED PAVERS SET IN CONCRETE

ACCESSIBLE ROUTE OF TRAVEL NOTE:

ALL ACCESSIBLE ROUTES OF TRAVEL SHALL COMPLY WITH THE REQUIREMENTS OF CBC 11B. THE REQUIREMENTS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

A. RUNNING SLOPE OF WALKING SURFACES SHALL NOTE EXCEED 5% (1:20)

B. RUNNING SLOPE OF RAMPS SHALL NOT EXCEED 8.33% (1:12)

C. CROSS SLOPE OF WALKS AND RAMPS NOT TO EXCEED 2.083% (1:48)

D. LANDING AND LEVEL AREA SLOPES NOT TO EXCEED 2.083% (1:48)

E. VERTICAL CHANGES IN LEVEL SHALL NOT EXCEED 1/4 INCH. ALL LEVEL CHANGES BETWEEN 1/4 INCH AND 1/2 SHALL BE BEVELED WITH A SLOPE NO STEEPER THAN 1:2 (V:H). ANY LEVEL CHANGES GREATER THAN 1/2 INCH SHALL BE RAMPED AND COMPLY WITH CBC 11B-405.

F. OPENINGS IN DRAINS AND GRATING SHALL NOT EXCEED 1/2 INCH IN PREDOMINANT DIRECTION OF TRAVEL

GRADING QUANTITIES*

CUT	600 ± CY
FILL	900 ± CY
NET**	300 ± CY (FILL)

* THIS ESTIMATE IS PROVIDED AS A TOOL FOR THE REVIEWING AGENCIES TO EVALUATE THE ENVIRONMENTAL IMPACTS OF THE PROJECT. IT IS NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES. CONTRACTOR IS TO PERFORM THEIR OWN EARTHWORK CALCULATIONS AND SHALL NOT USE THE ESTIMATES PRESENTED ABOVE. THIS ESTIMATE IS BASED ON IN PLACE VOLUMES AND DOES NOT INCLUDE FLUFF, SHRINKAGE, PAVING, AGGREGATES OR SELECT FILL VOLUMES.

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A&B VINEYARDS LLC

USE PERMIT MODIFICATION CONCEPTUAL SITE IMPROVEMENT PLANS

BUILDING AREA CONCEPTUAL SITE IMPROVEMENT PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER MICHAEL R. MAHONEY No. 74780 EXP. 12/31/2024 CIVIL STATE OF CALIFORNIA

FOR USE BY OWNER PERMIT ONLY NOT FOR CONSTRUCTION

DRAWN BY: PowerCAD LLC

CHECKED BY: MRM

DATE: AUGUST 9, 2024

REVISIONS:	BY:
3/10/2023 PERMIT SUBMITTAL	YMS
1 5/10/2023 PERMIT RESUBMITTAL	YMS
2 9/6/2023 PERMIT RESUBMITTAL	YMS
3 8/9/2024 PERMIT RESUBMITTAL	YMS

JOB NUMBER: 20-139

FILE: 20-139CONC-GRAD.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C6 OF 8

“E”

Environmental Noise Assessment Addendum

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 E. Cotati Avenue
Cotati, California 94931
Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

ARROW AND BRANCH WINERY

1ST EVENT SOUND MONITORING PLAN

Illingworth & Rodkin, Inc. (I&R) will monitor the sound levels prior to and during a 30 person event with non-amplified background music held at the Arrow and Branch winery covered patio area. These measurements would be at up to five (5) locations. The first at a distance of approximately 50 feet for the northern edge of the patio(towards the adjacent residential uses), and the other three at the property lines of Residences 3, 4, 6, and 7 as identified in our Environmental Noise Assessment (ENA) report. Figure 1, attached, shows the proposed locations of these measurements.

All sound level measurements would be made using pre and post calibrated Type 1 sound level meters with ½-inch pre-polarized condenser microphones and windscreens. The internal clocks of these meters will also be synchronized to allow for simultaneous measurement.

The results of these measurements will allow for the determination of the sound levels produced at the property lines of the most affected residential uses by 30 person outdoor events with background non-amplified music, and to determine the relative event sound attenuation from a reference (50 foot) distance to the adjacent residential property lines. With this information we will also be able to extrapolate the noise levels which would be expected during large 125 person events with non-amplified background music at the property lines of the most affected residential uses.

Using these results, we will determine the compliance of sound levels due to small (30 person) and large (125 person) outdoor events with non-amplified background music held at the Arrow and Branch winery covered patio area with the Napa County Noise Standards referenced in our ENA. These findings will be submitted in a sound study report, suitable for submission to Napa County.

Sincerely,

Fred M. Svinth, INCE, Assoc. AIA
Principal, Senior Consultant
Illingworth & Rodkin, Inc.



Site and Area Plan Showing Outdoor Patio and Approximate Noise Monitoring Locations

“F”

Public Comment

From: Mike Smith
To: Ringel, Matthew; MeetingClerk
Subject: Arrow and Branch Winery permit
Date: Monday, September 22, 2025 8:40:19 AM

[External Email - Use Caution]

September 20, 2025

Dear Supervisors of Napa County,

I am writing in support of the Arrow and Branch major modification for their winery with two important qualifications: the safety of the large water storage tank, and the permit for large events with amplified music.

I am a 20-year resident of Darms Lane, and I own the cottages of napa valley on the corner of Darms and Solano. This resort contributes over $100,000/year to the Napa general fund through the collection of the Transient Occupancy Tax [TOT]. I will be happy to send my guests to a nearby winery if they produce award-winning wines and prove to be good neighbors in the valley.

I think you are wise to be concerned about disaster planning for the 81,000 gallon tank of treated water and the supply lines. 81,000 gallons of water weighs 675,000 pounds; or 337 tons. Is there an emergency plan for where that water goes in case of rupture or failure in any part of this system? This system should have a secondary containment system, or at least an engineered plan for where the water will flow in case of disaster. We know that Dry Creek is prone to flooding, and from the swarm of earthquakes that have followed the 2014 quake, we can see that the West Napa Fault line runs by within a mile of the proposed winery. It would seem to make sense to site this large tank farther from the creek than the minimum setback.

I am also concerned that the supervisors may be creating a future enforcement problem by allowing large events with amplified music until 10 pm on such a small winery in a dense residential area. This does not seem to be consistent with the county goal of agriculture first. There is no good explanation of why the winery needs these events if their primary goal is to make wine. It is hard to argue that large groups of people partying till late at night to amplified music is consistent with wine education. Your vote is the only protection we have from this disruption.

Instead, the county would be rewarding alternate income to support a boutique winery that is inconsistent with county goals. This permit could always be expanded in the future but it will be difficult to rescind and would be considered an asset that can be sold to any future buyer. The amount of water permitted by pre-existing rights is a good example of how this asset is

seen and managed.

How does the county justify this gift to the winery when it is so contradictory to the needs and wishes of the surrounding residents? Doesn't it make sense to withhold this part of the permit until the winery is more established with a good track record of compliance with all the ordinances of the county? There is no compelling reason that this winery needs large group events with amplified music to pursue their primary purpose of producing wine in an agricultural preserve. The county should be careful agreeing to the argument that they need supplemental income from parties to support their project. If this model is approved, there will be pressure for more projects like this in the future – a future headache for all concerned.

In sum, please consider approving this winery based on safety and consideration for all.

--
Cheers, Mike Smith
the cottages of napa valley
707-252-7810 o
415-717-4943 c



From: Planning
To: Ringel, Matthew
Cc: Parker, Michael; Hawkes, Trevor
Subject: FW: "Public Comment-Item 7A, Arrow & Branch Winery Major Modification (P23-00057-MOD)
Date: Tuesday, November 18, 2025 9:02:04 AM

Please see below for public comment we received.

Respectfully,

Riley Hebb (she/her)
Planner II – Planning Division
Planning, Building, & Environmental Services
Napa County

Phone: 707-299-1334

1195 Third Street, Suite 210
Napa, CA 94559

www.napacounty.gov

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-----Original Message-----
From: Barbara Stuart <bts3@mac.com>
Sent: Monday, November 17, 2025 12:20 PM
To: Planning <planning@countyofnapa.org>
Cc: Welton Rotz Charles <weltonrotz@icloud.com>
Subject: "Public Comment-Item 7A, Arrow & Branch Winery Major Modification (P23-00057-MOD)

[External Email - Use Caution]

Dear Commissioners:

We have owned our home on Darms Lane for 23 years. We were in our sixties when we bought it, hoping to enjoy our retirement within the comfort and privacy of the neighborhood.

We are in our eighties now, and fear the impact of the Arrow & Branch Winery Branch Modification will irrevocably and negatively alter the quality of life so many of us enjoy. By adding construction immediately beside the sensitive environment of Dry Creek, which supports salmon and steelhead habitat, and then increasing the visitation and outdoor events which will intensify traffic and noise, our quiet, residential neighborhood will be significantly changed and harmed.

Please ask the Planning Commissioners to reject this proposal or require major revisions to reduce its scale and

environmental footprint.

Our neighborhood has long valued the balance of agriculture, the environment, and residential livability, but this project, as proposed, is counter-productive to those goals.

Respectfully,

Barbara Stuart
Welton Rotz

From: MeetingClerk
To: Ringel, Matthew
Cc: Hawkes, Trevor; Parker, Michael
Subject: FW: Comment on Item 7A — Arrow & Branch Winery Major Modification (P23-00057-MOD)**
Date: Wednesday, November 19, 2025 8:40:19 AM
Attachments: image001.png

Please see below.

Kind Regards,

Napa County – Meeting Clerk - AV
Planning, Building, & Environmental Services
Napa County
Phone: 707-253-4417
Email: meetingclerk@countyofnapa.org
1195 Third Street, Suite 210
Napa, CA 94559
www.napacounty.gov

A Tradition of Stewardship
A Commitment to Service

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From: Chrisanne Beebe <chrisannebeebe@gmail.com>
Sent: Tuesday, November 18, 2025 6:08 PM
To: Parker, Michael <Michael.Parker@countyofnapa.org>; MeetingClerk <MeetingClerk@countyofnapa.org>; Dameron, Megan <megan.dameron@countyofnapa.org>; Richmond, Pete <pete.richmond@countyofnapa.org>; Brunzell, Kara <kara.brunzell@countyofnapa.org>; Brooks, Walter <walter.brooks@countyofnapa.org>; Williams, Molly <molly.williams@countyofnapa.org>
Subject: Comment on Item 7A — Arrow & Branch Winery Major Modification (P23-00057-MOD)**

[External Email - Use Caution]

Dear Chair and Commissioners,

We, Steven Taddei & Chrisanne Beebe, are writing as part-time residents of the Darms Lane and Dry Creek neighborhood. My parents, Jack & Madeline Taddei, constructed our family home on Darms Lane in 1962, and after their deaths in

2014, we became the owners of 1073 Darms Lane. We, like many of our neighbors, have witnessed firsthand the evolution of the area and the concerted effort to balance agricultural operations with a peaceful residential community. **We strongly oppose the Arrow & Branch Winery Major Modification as currently proposed.**

We ask that you consider the following points when making your decision about the Arrow & Branch Winery modification.

> **Process & Fairness**: Neighbors were not given adequate opportunity to participate in earlier stages of the review process ahead of the original construction – now we intend to be heard. When County staff visited the winery, they did not visit the residential side of the creek to understand the community perspective. **A balanced process requires that the lived experience of nearby residents be fully represented in the record.**

> **Neighborhood & Environmental Impact**: The winery already sits very close to homes and directly beside Dry Creek, a known habitat for salmon and steelhead. Expanding operations, doubling visitation, and increasing outdoor events will compound existing noise, lighting, and traffic issues while adding risk to the creek's fragile ecosystem.

> **Cumulative Effect**: This is not an isolated change. Each additional allowance—more visitors, more events, more square footage—erodes the rural character that defines this neighborhood. The cumulative impact diminishes privacy, safety, and property value for residents throughout the area, not just those closest to the facility.

> **Environmental Stewardship**: Water Audit California has provided detailed comments on the project's hydrologic and environmental

deficiencies. We support their findings and urge the Commission to require a comprehensive, science-based review before considering any approval.

We ask that the Commission:

• **Deny** the modification as proposed, or **substantially reduce** its scale and footprint;
• **Relocate any new construction** away from Dry Creek and nearby homes;
• **Limit visitation and events** to current levels;
• **Prohibit** outdoor amplified music;
• **Require a full biological and hydrological review** in coordination with the California Department of Fish and Wildlife and the Napa County Flood Control and Water Conservation District.

Thank you for considering the voices of the residents who live with the ongoing consequences of land-use decisions in this area.

Respectfully,
steven Taddei & Chrisanne Beebe
1073 Darms Lane

--
Chrisanne Beebe
ELD/Social Studies Teacher (Retired)
W.C. Overfelt High School

"You always had the power, my dear; you just had to learn it for yourself." Glinda the Good Witch

1195 THIRD STREET
SUITE 310
NAPA, CA 94559
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Main: (707) 253-4580

Planning Commission | **Agenda Date:** 12/3/2025 | **File ID #:** 25-1945

TO: Napa County Planning Commission

FROM: Brian D. Bordona, Director of Planning, Building and Environmental Services

REPORT BY: Sean Kennings, Contract Planner

SUBJECT: E & P Technology Way - Buildings A & B

RECOMMENDATION

E&P TECHNOLOGY WAY - BUILDINGS A & B / DENNIS PAULLEY / USE PERMIT APPLICATIONS #P22-00307 and #P22-00308

CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigated Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures. Mitigation measures are proposed for the following areas: Biological Resources, Cultural Resources, and Transportation. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (State Clearinghouse Number #2024100855) 2024100855)

Request: Approval of two separate Use Permit applications to allow the construction of two separate projects and buildings: Building A - a 450,000 gallon per year wine production and storage facility within a proposed 143,312 sf building (P22-00307-UP) and Building B - speculative warehouse/office uses within a proposed 66,915 sf building (P22-00308-UP).

The Building A project proposes winery uses that will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 sf of covered outdoor work area will be located on the north side of the building. The proposal also includes 129 parking spaces and eight (8) spaces for semi-trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court. Tours, tastings, and marketing events are not proposed with this application and will not occur as part of this permit. The applicant is also requesting a variation to the development regulations of the Specific Plan to reduce the required 40-foot average building setback along the south property line to approximately 31-feet.

The Building B project proposes to allow warehouse and office uses within the proposed 66,915 sf building. The proposal also includes 82 parking spaces. Access will be provided via two (2) new access driveways off Technology Way on the far west and east sides of the project site. The warehouse uses are consistent with allowable warehouse uses as outlined in Napa County Code Industrial Park zoning district (18.40.020) and the

Napa Valley Business Park Specific Plan (NVBPSP.)

The City of American Canyon will provide both projects with water service . Napa Sanitation District (NSD) will provide sewer. Both buildings will be sprinklered for fire protection.

There are three parcels comprising the two project sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031& -032), which will be merged as required by a condition of approval. Both sites are located in the NVBPSP area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.

Staff Recommendation: Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program and approve the Use Permit with the proposed conditions of approval.

Staff Contact: Sean Kennings, Contract Planner, (415) 533-2111, or sean@lakassociates.com

Applicant Contact: Mike Kelley, 5150 Fair Oaks Blvd, Suite 101-219, Carmichael, CA 94608, (916) 956-0524

CONTINUED FROM THE NOVEMBER 20, 2024, PLANNING COMMISSION MEETING.

EXECUTIVE SUMMARY

Proposed Actions:
That the Planning Commission:
1. Adopt the Revised Mitigated Negative Declaration and Revised Mitigation Monitoring and Reporting Program for the E&P Technology Way Buildings A & B projects based on Findings 1-6 of Attachment A;
2. Approve Use Permit P22-00307, including a variation to development standards, based on Findings 7-14 of Attachment A and subject to the revised conditions of approval (Attachment B); and
3. Approve Use Permit P22-00308 based on Findings 15-19 of Attachment A and subject to the revised conditions of approval (Attachment C).

Discussion:

This item was originally scheduled for hearing before the Commission on November 20, 2024. On November 19, 2024, a lengthy comment letter was submitted on behalf of the Napa-Solano Residents for Responsible Development, represented by Tara C. Renifo of Adams, Broadwell, Joseph & Cardozo. The letter raised concerns about the adequacy of the proposed environmental document. Comment letters were also received from the California Department of Fish and Wildlife, dated November 15, 2024, and Water Audit California, dated November 19, 2026. After considering public comment, the item was continued to a date uncertain to allow the applicant and staff time to address questions and concerns raised in the comment letters.

This item is now back before the Commission after the applicants and their consultants processed and responded to public comments as discussed in more detail below. The previous staff report and video of the November 20, 2024, meeting can be found at the following link: https://napa.granicus.com/player/clip/5543?view_id=3&redirect=true

The project consists of a request to construct two buildings totaling 210,227 sf for a new wine production and warehouse facility with an annual production capacity of 450,000 gallons and a separate warehouse and office building. The wine production facility includes areas for wine production, storage, and office uses. No tours, tastings or marketing activities are proposed. The site plan shows parking consistent with Code requirements. Wineries within the NVBPSP are not subject to the Winery Definition Ordinance, including but not limited to the 75% grape source requirements, accessory to production ratio, and minimum lot size. The project is compatible in design and operation with other projects located in the NVBPSP area and staff supports the use permits, subject to the recommended conditions of approval.

The floor area ratio (FAR) after full build out of Building A will be 24.9%, below the allowable 35%. All vehicles will enter from a new access driveway off Technology Way that runs along the eastern property line. Trucks will stop at the entry scale as needed and then continue to the loading zone for off load or pick up. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Morris Court. The entrance driveway will be wide enough to accommodate two-way traffic. The applicant is requesting a variation to the development regulations of the Specific Plan to reduce the required 40-foot average building setback along the south property line to approximately 31-feet. The proposed building exceeds the minimum 25-foot building and landscape setback along Technology Way.

The winery building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full-time and 7 part-time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine and juice. Wine storage (tank and barrel) and bottling will take place on a year-round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage and bottling uses. No retail sales or access for the general public is proposed. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

The FAR of Building B after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will then offload or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side the building. The entrance driveway will be wide enough to accommodate two-way traffic. The building will be utilized for warehousing. The facility will be run by up to approximately 30 employees. No user has been identified for either building.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: Consideration and possible adoption of a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program. According to the proposed Mitigated Negative Declaration, the proposed project would have potentially significant environmental impacts on Biological Resources, Cultural Resources, and Transportation unless mitigation measures are adopted. In accordance with Section 15073 of the California Environmental Quality Act (CEQA) Guidelines, Napa County submitted the initial proposed IS/MND to the State Clearinghouse (SCH #2024100855) for a 30-day review period beginning on October 18, 2024, and running through November 19, 2024. In addition, Napa County circulated a Notice of Intent to adopt the initial proposed IS/MND to interested agencies and individuals. The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Pursuant to Section15072, the public review period or the notice of intent to adopt the Mitigated Negative Declaration ran from October 18, 2024, to November 19, 2024. Pursuant to Section15073.5 - 'Recirculation of a Negative Declaration [or Mitigated Negative Declaration] Prior to Adoption', the following provisions apply:

(a) A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to its adoption. Notice of recirculation shall comply with Sections 15072 and 15073.
(b) A "substantial revision" of the negative declaration shall mean: (1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or (2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.
(c) Recirculation is not required under the following circumstances: (1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1, (2) New project revisions are added in response to written or verbal comments on the projects effects identified in the proposed negative declaration which are not new avoidable significant effects, (3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect and (4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.
(d) If during the negative declaration process there is substantial evidence in light of the whole record, before the lead agency that the project, as revised, may have a significant effect on the environment which cannot be mitigated or avoided, the lead agency shall prepare a draft EIR and certify final EIR prior to approving the project. It shall circulate the draft EIR for consultation and review pursuant to sections 15086 and 15087, and advice reviewers in writing that a proposed negative declaration had previously been circulated for the project.

Analysis: There were no new avoidable significant effects identified and no new mitigation measures or project revisions added to the mitigated negative declaration in order to reduce the effect to less than significant. No mitigation measures are being replaced with equal or more effective measures pursuant to Section 15074.1. The Biological and Cultural Resources sections of the initial study found that approval of the project, as mitigated would not result in an adverse significant impact on the environment. Subsequent Greenhouse Gas (GHG) Emissions modeling concluded that the increase in GHG emissions from the revised modeling is still below threshold and does not warrant revisions to the project or environmental document. Stormwater control measures required by current County regulation will be required as a condition of approval, avoiding any potential adverse hydrological impacts. Review of the applicant's responses has concluded that the environmental analysis and impacts identified in Mitigated Negative Declaration (MND) remain substantively unchanged and supports the finding that the applicant's responses and additional information do not raise any new issues and do not exceed the level of impacts identified in the previously prepared Mitigated Negative Declaration. See the Background Section for a summary of the applicants' and staff responses to the comment letters. This proposal does not require a substantial revision of the Mitigated Negative Declaration.

BACKGROUND AND DISCUSSION

Owner: Dennis Paulley

Applicant/Representative: Mike Kelley, 5150 Fair Oaks Blvd, Suite 101-219, Carmichael, CA 94608, (916) 956-0524

Zoning: IP:AC (Industrial Park: Airport Compatibility Combination)

General Plan Designation: Industrial (I)

Use Permit Filed: August 30, 2022; Resubmittals: February 2, 2023, January 30, 2024, February 21, 2024; Application Complete: March 28, 2024

Parcel Size: 20.07 acres (13.2 acres, Building A & 6.87 acres, Building B)

Proposed Building Size: Building A: 143,312 sf building, with 13,000 sf of outdoor covered work areas and Building B: 66,915 sf building.

Proposed Production Capacity: 450,000 gallons per year (Building A)

Number of Employees: The winery facility is expected to employ up to 35 full and/or part-time employees. The office/warehouse building is expected to employ up to 30 employees.

Winery Visitation: None proposed

Winery Marketing Program: None proposed

Hours of Operation: Seven days a week from 6:00 AM to 6:00 PM.

Proposed Parking: On-site parking for: Building A - 129 vehicles (68 parking spaces for tank and barrel storage, 47 spaces for production and bottling, and 14 spaces for the office) and eight (8) spaces for semi-trailers; Building B - 82 vehicles (38 for the warehouse and 44 for the office).

Airport Compatibility: The project was originally reviewed for consistency with the 1999 Airport Land Use Compatibility Plan (ALUCP) since the project was evaluated prior to adoption of the Napa Countywide Airport Land Use Compatibility Plan on December 4, 2024.

The project has since been evaluated for consistency with the 2024 Plan. The majority of the project site, including the proposed development areas, is located within Zone D1 which is the Inner Traffic Pattern Zone. Aircraft are typically 1,000 to 1,500 feet above the runway but can be as low as 600 feet above the airport elevation when circling to land using the Runway 1L approach procedure. Wineries, warehousing, distribution, office and light industrial uses are normally compatible within this zone. There should also be a maximum sitewide average intensity of 200 people per acre, and a maximum single-acre intensity of 800 people per acre. All aspects of the development have been designed to comply with these limitations.

A small portion of the riparian corridor along Sheehy creek, at the northwest corner of the Building A project site, is located within Zone B1 which is the Inner Approach/Departure Zone. Aircraft would be overflying at low altitudes on final approach and straight-out departures, typically 200 to 400 feet above the runway elevation. No structures are proposed within this area.

Adjacent Zoning / Land Use:

The property is bordered on the west by Morris Court and commercial warehouse buildings; to the south by

Technology Way and commercial warehouse buildings; to the east by 240 Gateway Road East, a multi-tenant office building and commercial office buildings further east, to the northeast by the Napa Valley Transportation Authority facility, and to the north by Sheehy Creek and property owned by the Napa Sanitation District (NSD) and used as spray fields for treated wastewater. The properties comprising the project site have access and frontage on Technology Way and Morris Court. There is a conservation easement that runs along the north and northeast boundary of the project site which includes a meandering path along the south side of Sheehy creek. There are also public utility easements along the north and east property lines of APN 057-250-030 (Building A.)

North: PL:AC - Adjoining the project site to the north, on the north side of Sheehy Creek, is an undeveloped/agriculture property (NSD spray fields) on a 263.45-acre site.

South: IP:AC - Across Technology Way from the project site to the south are several parcels with offices and warehouses.

West: IP:AC - Adjoining the project site to the east is an 11.06-acre undeveloped parcel within the NVBPSP boundary. West of the undeveloped parcel are an existing warehouse and office buildings on a 16.07-acre parcel.

East: IP:AC - Immediately east is a 2.83-acre site with a small office building. To the northeast across Sheehy Creek is a 5.9-acre property with several office and warehouse buildings.

Parcel History/Setting:

The project sites are irregular shaped rectangular lots that are long and narrow and relatively flat, except for the banks of Sheehy Creek, an intermittent creek that traverses the northern property boundaries of the sites from east to west, with gentle slopes ranging from 0-5 percent. Grade elevations on the site range from approximately 20 to 37 feet above mean sea level, sloping east to west. The Technology Way roadway and Morris Court were constructed in 2007 and will provide direct access to the sites via new curb cuts with additional access from Morris Court for Building A. Sheehy Creek is located mostly on the norther boundary of the proposed development area. The majority of the site is dominated by disked, ruderal grasses, with vegetation and bushes and riparian areas along the creek.

Code Compliance History:
There are no open or pending code violations for the subject site.

Wineries in Vicinity:
Attachment L provides of list of wineries/production facilities operating, approved to operate, or pursuing approvals to operate within the NVBPSP Area.

Discussion Points:

1. Building Design, Layout & Materials - Both buildings include site-cast tilt-up concrete wall panels with a multi-color textured coating system and multiple score lines/reveals, storefront glazing systems, painted steel channel canopies, truck loading docks, grade level roll-up doors, and metal man-doors. Color choices include white, green, and grey painted stucco panels. The winery building also includes a covered outdoor work area for the crush pad in front of the loading docks. The overall design is equivalent to other similar more recent industrial projects approved and/or constructed within the NVBPSP boundaries and meets the minimum design

requirements for the NVBPSP industrial park area.

2. Access - Access to the buildings is proposed via new curb cuts off Technology Way and Morris Court. As mentioned above (Parcel History/Setting) Technology Way and Morris Court were constructed in the mid-2000s as part of the NVBP development. On-site drive aisles are designed to County standards and wrap around both buildings providing Fire Department and emergency vehicle access to all areas of the buildings. The project has been reviewed by the County Fire Department and Engineering Services Division and found acceptable as conditioned.

3. Parking - The NVBPSP requires one parking space per 1,000 sf for the first 20,000 sf of floor area and one parking space per 2,000 sf of floor area thereafter for storage/warehousing use. The Specific Plan also requires one parking space per 250 sf of floor area for office areas and one space per 500 sf of floor area for manufacturing areas. Based on the preliminary floor plan of the proposed buildings, which includes approximately 116,112 sf of tank/barrel storage area, 23,700 sf of production/bottling area, and 3,500 sf of office area, 129 parking spaces are required. For the warehouse building, approximately 55,915 sf is dedicated to warehouse area, and 11,000 sf is allocated for office area, 82 parking spaces are required. The site plan includes 129 parking spaces for Building A consistent with Code requirements and more than adequate to accommodate the expected 35 full and part time employees. Building B includes 82 spaces, 38 for the warehouse, and 44 for the office uses consistent with Code requirements. 25 spaces out of the 82 total for Building B would be designated as compact spaces.

4. Building Setbacks/Landscaping - The NVBPSP requires a building setback with a 40-foot average, and a minimum of 25-feet, from Technology Way and Morris Court. The 25-feet adjoining the two streets is required to be landscaped. The NVBPSP also requires 10-foot building and landscaping setbacks from the side and rear property lines when the property lines do not adjoin a street. No variation to the IP development standards is requested for Building B. However, Building A, the nearest to Technology Way, is setback a minimum of 31-feet and includes the minimum 25-feet of landscaping. In addition to road and property line setbacks, the project also requires adhering to the required conservation easement setback from Sheehy Creek, discussed below. The applicant is requesting a variation to the development regulations of the Specific Plan to reduce the required 40-foot average building setback along the south property line to approximately 31-feet. The project meets the 40-foot average along the Morris Court side (west) of the property, but requirements for truck and vehicle circulation access to the rear of the winery building precludes the project from meeting the 40-foot average along the Technology Way frontage. The reduced setback would provide an appropriate buffer for development and preserve the conservation easement to the creek. Based on site constraints specific to the Sheehy Creek conservation easement, staff believes the findings can be met in support of the requested variation to the development regulations (see Attachment A).

5. Sheehy Creek - Sheehy Creek traverses the site from east to west and is located on the northern boundary of the proposed development area. The current configuration of Sheehy Creek, a jurisdictional watercourse, was re-routed to its present location between July 2003 and July 2004 based on aerial imagery, as part of overall development of the rest of the industrial park to the south. There are no jurisdictional culverts on-site required to reach the project area, and no crossings over Sheehy Creek are included as part of the proposed project. No riparian habitat would be removed or affected by the project. A 35-foot-wide Conservation Easement along Sheehy Creek was recorded in 2006 and extends approximately one mile along both banks of the Sheehy Creek riparian corridor. The northerly property line for the Building B site is coterminous with the centerline of the creek and includes the 35-foot side Conservation easement on the south side of the creek. However, the northerly property line of the project site for Building A includes the creek as well as the Conservation easement along both sides of the creek reducing the developable area of the site. The area encumbered by the

Conservation easement counts as meeting the required landscaping along the rear property line pursuant to NCC Section 18.40.170(A)(5). Although no development is proposed within the Conservation easement, the project biologist is recommending that silt fencing be installed along the entire length of the Conservation Easement boundary in order to avoid any impacts to this watercourse. This recommendation is memorialized in the IS/MND as a mitigation measure and as a condition of approval attached.

6. Zoning and Winery Definition Ordinance (WDO) - The site of the proposed wine production facility zoned IP:AC (General Industrial: Airport Compatibility) District. The intent of the IP District is to provide areas exclusively for modern, non-nuisance light industrial and office uses which are compatible with each other and with adjoining non-industrial areas where applicable. Wine production facilities are conditionally permitted uses in the IP District. Because the proposed project would not operate within the County's AW (Agricultural Watershed) or AP (Agricultural Preserve) districts, the project is not subject to the roadway setback, grape sourcing, and other requirements of County Code Sections 18.104.200 through 18.104.250 (WDO).

7. Public Utilities - Water services will be provided by the City of American Canyon and will be required to meet the City's Zero Water Footprint (ZWF) Policy, which may include contributing to the City's water conservation fund. Sewer services will be provided by Napa Sanitation District (NSD). Both agencies have indicated that there is capacity to serve the proposed project and have issued new will-serve letters.

8. Greenhouse Gas Reduction Strategies - The County requires project applicants to consider methods to reduce Green House (GHG) emissions consistent with the Napa County General Plan Policy CON-65(e), which requires GHG review of discretionary projects. The applicant has completed the Department's Best Management Practices Checklist for Development Projects, which is attached to this report as Attachment E. The applicant intends to implement the following GHG reduction methods for both buildings: generation of on-site renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application.

9. Public Comments - Following the publishing of the original staff report in October 2024, staff received two lengthy comment letters from the law firm of Adams, Broadwell, Joseph, and Cardozo (Adams Broadwell) (Exhibit N) challenging the public review period due to lack of availability of the supporting documentation and a subsequent letter from Adams Broadwell questioning the conclusions in the IS/MND and a comment letter from Water Audit California (WAC)(Exhibit O). In addition, staff also received a letter from the California Department of Fish and Wildlife (CDFW)(Exhibit M) requesting specific changes to Mitigation Measures for Burrowing Owl, raptors, and other nesting birds. The applicant's consultant, First Carbon Solutions (FCS), has prepared a comprehensive review and response document addressing all the comments and questions submitted to the County by Adams Broadwell and CDFW (Exhibit Q). The FCS memorandum also contains an Errata section where clarifying information and revisions to the IS/MND are provided for incorporation into the Final IS/MND. The revisions prepared by FCS represent minor technical changes, updates and clarification. None of the information provided in this memorandum or the Errata section includes information requiring recirculation of the IS/MND. As a result, and where appropriate, staff has supplemented the Biological Resources mitigation included in the IS/MND to better reflect comments from CDFW. A clarification to the impact discussion for Greenhouse Gases was also included. As a result, the IS/MND does not need to be recirculated for review, and the document can be adopted as modified in Attachment D. In

addition, staff prepared a memo addressing the letter from WAC (Exhibit R). Previous comments not mentioned herein are included in Exhibit P.

Decision Making Options:

As noted in the Executive Summary Section above, Staff is recommending approval of the project with conditions of approval as described in Option 1 below. Decision making options including the following:

Option 1 - Approve Applicant's Proposal with Project Specific Conditions of Approval
This option would result in approval of the proposed 450,000 gallon per year wine production facility and the adjacent warehouse building. Staff recommends this option as the request is consistent with the Zoning Ordinance, Specific Plan, applicable General Plan policies, and other County regulations. Furthermore, this option has been analyzed for its environmental impacts, which were found to be less than significant as mitigated.

Action Required - Follow the proposed action listed in the Executive Summary.

Option 2 - Reduced Project Alternative
Discussion - Although development in the business park area generally does not lend itself to reduced project alternatives such as floor area reductions, and/or restrictions on the number of employees, hours of operation or business operations, this option would reduce the scope of the project via reduced production.

Action Required - Follow proposed action listed in Executive Summary and amend scope and project specific conditions of approval to place limits on development. If major revisions of the conditions of approval are required, item will need to be continued to a future date.

Option 3 - Deny Proposed Use Permit Modification
Discussion - In the event the Commission determines that the project does not, or cannot meet the required findings for grant of a use permit or consistency with the General Plan, Commissioners should articulate what aspect(s) of the project is in conflict with required findings or General Plan, and either deny the request or continue the item to allow the applicant an opportunity to redesign the project.

Action Required - Commission should articulate the aspect(s) of the project in conflict with required findings or General Plan and either take action to deny the project or, if needed, remand the matter to staff for preparation of required findings to return to the Commission on specified date.

Option 4 - Continuance Option
Discussion - The Commission may continue an item to a future hearing date at its own discretion.

Supporting Documents
A. Revised Recommended Findings
B. Revised Recommended Conditions of Approval and Final Agency Approval Memos - Building A (P22-00307-UP)
C. Revised Recommended Conditions of Approval and Final Agency Approval Memos - Building B (P22-00308-UP)
D. Revised Initial Study/Mitigated Negative Declaration & MMRP
E. Use Permit Application Packets
F. Biological Resources Assessment

G. Transportation Impact Study
H. Water Supply Reports
I. Geotechnical Investigation
J. Stormwater Control Plans
K. Graphics
L. NVBPSP Wineries
M. California Department of Fish and Wildlife letter dated November 15, 2024
N. Adams, Broadwell, Joseph & Cardoza letter dated November 15, 2024
O. Water Audit California letter dated November 19, 2024
P. Other Public Comments
Q. First Carbon Solution Response to comment Memo dated November 10, 2025
R. Staff Memo dated November 20, 2025

“A”

Revised Recommended Findings

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

PLANNING COMMISSON HEARING – DECEMBER 3, 2025
REVISED RECOMMENDED FINDINGS

E&P TECHNOLOGY WAY – BUILDINGS A & B
USE PERMIT APPLICATIONS P22-00307-UP & P22-00308
TECHNOLOGY WAY AND MORRIS COURT, NAPA, CALIFORNIA
APN'S: 057-250-030 (BUILDING A) & 057-250-031, -032 (BUILDING B)

ENVIRONMENTAL:

The Planning Commission (Commission) has received and reviewed the proposed Mitigated Negative Declaration pursuant to the provisions of the California Environmental Quality Act (CEQA) and of Napa County's Local Procedures for Implementing CEQA, and finds that:

1. The Commission has read and considered the Mitigated Negative Declaration prior to taking action on said Negative Declaration and the proposed project.

2. The Mitigated Negative Declaration is based on independent judgment by the Commission.

3. The Mitigated Negative Declaration was prepared and considered in accordance with the requirements of the California Environmental Quality Act.

4. There is no substantial evidence in the record as a whole, that the project will have a significant effect on the environment.

5. The Secretary of the Commission is the custodian of the records of the proceedings on which this decision is based. The records are located at the Napa County Conservation, Development & Planning Department, 1195 Third Street, Room 210, Napa, California.

6. Considering the record as a whole there is no evidence that the proposed project will have a potential adverse effect on wildlife resources or habitat upon which the wildlife depends.

PLANNING AND ZONING ANALYSIS:

USE PERMIT (BUILDING A): The following findings must be made in order to approve the use permit:

The Commission has reviewed the use permit request in accordance with the requirements of the Napa County Code §18.124.070 and makes the following findings:

7. The Commission has the power to issue a Use Permit under the Zoning Regulations in effect as applied to property.

   Analysis: The project is consistent with the 1986 Napa Valley Business Park Specific Plan and is consistent with the Industrial Park: Airport Compatibility Combining (IP:AC) zoning district regulations which permit wine production and warehouse facilities upon grant of a use permit. The development area site is located in Zone D of the Airport Land Use Compatibility Plan which also allows the proposed uses.

8. The procedural requirements for a Use Permit set forth in Chapter 18.124 of the Napa County Code (zoning regulations) have been met.

   Analysis: The use permit application has been filed and notice and public hearing requirements have been met. The hearing notice and intent to adopt a Mitigated Negative Declaration were posted on October 26, 2024, and copies were forwarded to property owners within 1,000 feet of the subject property and all other interested parties. The public comment period ran from October 26, 2024, through November 19, 2024. Due to a continuance of the November 20, 2024, public hearing, a second public hearing notice was posted on November 20, 2025, and copies were forwarded to property owners within 1,000 feet of the subject property and all other interested parties.

9. The grant of the Use Permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.

   Analysis: Granting the Use Permit for the project as proposed and conditioned will not adversely affect the health, safety or welfare of the County. Various County divisions and departments have reviewed the project and commented regarding grading, drainage, access, parking, building permits, and fire protection. The City of American Canyon and the Napa Sanitation District have agreed to provide public water and sewer service, respectively. Conditions are recommended which will incorporate these comments into the project to assure the protection of the public health, safety, and welfare.

10. The proposed use complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan and the Napa Valley Business Park Specific Plan.

    Analysis: Compliance with the Zoning Ordinance

    The proposed use is consistent with the Industrial Park: Airport Compatibility Combination (IP:AC) zoning district regulations, as conditioned, including setbacks, excepted as noted below, landscaping, building height, parking requirements, lot coverage and floor area ratio.

    Analysis: Compliance with the General Plan and Napa Valley Business Park Specific Plan.

    The General Plan designates the airport area for industrial development. The project site is located within the General Plan land use designation Industrial and within the Business/Industrial Park designation of the 1986 Napa Valley Business Park Specific Plan (NVBPSP) which allows the proposed use. The development area is also within Compatibility Zone D of the Napa County Airport Land Use Compatibility Plan, which also allows the proposed use.

    The goals and objectives of the NVBPSP are to provide a specific plan which recognizes the economic importance to the County and region of the business park and responds to the area's identification in the General Plan as the principal County location for industrial development. The area is intended to provide for a mix of industrial development which is responsive to County desires, anticipated market demands, and landowner intentions. According to the NVBPSP land use policies, the Business/Industrial Park designation is intended to provide exclusively for modern, well-planned, non-nuisance light industrial and

business park uses which are compatible with each other, the airport, the S.R. 29 corridor, and surrounding open space uses.

The goals established by the General Plan are to plan for agriculture and related activities as the primary land use in Napa County and to plan for industrial land uses in locations that are compatible with adjacent uses and agriculture. Overall, the project was evaluated for and found to be consistent with General Plan policies concerning industrial land uses (listed separately below at the conclusion of these findings).

The proposal was reviewed for consistency with the NVBPSP. The proposed use is consistent with the goals, requirements, standards and policies in the General Plan, the NVBPSP, and the Airport Land Use Compatibility Plan.

11. The proposed use will not require a new water system or improvement causing significant adverse effects, either individually or cumulatively, on an affected groundwater basin in Napa County.

    Analysis: The City of American Canyon will provide water service, and the Napa Sanitation District will provide sewer service. “Will serve” letters have been issued by both jurisdictions indicating that they have adequate capacity to serve the project.

VARIATION TO DEVELOPMENT STANDARDS:

The Commission has reviewed the use permit variation request to development standards to reduce the 40-foot average building setback to 31-feet for Building A from the south property line in accordance with the requirements of Napa County Code Section 18.40.250, and makes the following findings:

12. The proposed modifications comply with the variation procedure requirements of Napa County Code Section 18.40.250.

    Analysis: Since this project site is located within the Industrial Park zoning district and Napa Valley Business Park Specific Plan area, Section 18.40.250 of the Napa County Code applies. The proposed use permit has been processed in accordance with the requirements of that section, and the proposed variation meets the following findings specified in the Zoning Ordinance:

    a. The development plan results in a project that is superior in terms of design and environmental impacts when compared to a project processed under the development standards specified by this chapter.

       The Industrial Park zoning district allows a wide variety of warehousing, light industrial, manufacturing, and office uses. This project consists of a wine production facility with warehousing/distribution areas and ancillary office conducted within the building and outdoor covered work areas. The Land Use Element of the NVBPSP includes standards for the development of industrially zoned land in the airport area including landscaping, setbacks, parking requirements, and numerous other regulations. The NVBPSP also states that, "where appropriate, these guidelines may be modified... where the proposed modification... will provide superior overall aesthetic, environmental, and/or economic benefit (sic) than the minimum development standards."

This application includes a request to reduce the building setback from the 40-foot (average) to a minimum of 31-feet from the south property line, along Technology Way. The proposal is in compliance with the minimum 25-foot building and landscape setback requirement along Technology Way. The requested setback reduction would allow for vehicular access and loading areas at the rear of the building in order to keep development away from Sheehy Creek and the existing conservation easement. The loading areas would not be visible from Technology Way.

The uses proposed here (wine production facility) would not be detrimental to workers in the area and will be conducted generally within the building. The covered outdoor staging on the north side of Building A, generally used for shipping and receiving finished goods, is approximately 50-feet from the edge of the proposed development area and about 60-feet to the Sheehy Creek conservation easement. Compliance with the front 40-foot setback would generally result in reducing the building footprint and reducing the overall usable site area. Staff is supportive of the requested setback reductions as Sheehy Creek and associated Conservation easement reduces the developable area of the site as its meandering swath through the property, with widths of approximately 100-feet including required setbacks, present constraints unique to the site. In addition, as noted above, the project continues to preserve the area on the south side of the creek and has no impacts to the riparian corridor.

b. The development plan results in a cohesive design and treatment of the site, including architecture, landscaping, signage and lighting.

The project has a high-quality design indicative of Business Park standards with high quality architecture, landscaping, signage and lighting.

c. The orientation and location of buildings, structures, open space and other features of the site plan protect and enhance existing natural resources or site features including significant existing vegetation and maintain and enhance existing views from and through the site.

The site is visible from Technology Way a loop road that runs east /west through the Specific Plan area south of the project site. As mentioned above, the architecture of the buildings is consistent with the more stringent design criteria of the business park as opposed to lessor design criteria for development on General Industrially zoned land. Outside of Sheehy Creek the site has no other natural features and is located in a predominately developed portion of the business park. The project will be adding new landscaping to the site which will enhance the appearance of the property.

d. The overall project is consistent with the intent, purpose and applicable standards of the Napa Valley Business Park Specific Plan.

The Specific Plan seeks to promote business park and light industrial uses and has designated this area for development for since the 1980's. Except for the requested variation to development standards, the proposed project is consistent with the AIASP.

e. The site plan minimizes the effect of traffic on abutting streets through careful layout of the site with respect to location, dimensions of vehicular and pedestrian entrances, exit

drives and walkways; through the adequate provision of off-street parking and loading facilities; through an adequate circulation pattern within the boundaries of the development; and through the surfacing and lighting of off-street parking facilities.

The project is generally a low traffic generator when compared to other allowed business park/light industrial uses such as office complexes, research and development facilities, and other high employee-based businesses. The parking proposed for the development is more than adequate based on the parking requirement of the NVBPSP as well as the expected number of employees. The proposed on-site circulation drive provides access to all points of the building. Access points/curb cuts have been provided to the property as part of the improvements for this area of the NVBPSP.

f. The site plan shall encourage alternatives to travel by automobile where appropriate, through the provision of facilities for pedestrians and bicyclists including covered parking for bicycles and motorcycles where appropriate. Public transit stops and facilities shall be accommodated as appropriate and other incentive provisions considered which encourage non-automotive travel.

   The project complies with all standards for alternative transportation. A meandering walkway is provided on Technology Way and provisions for on-site bicycle parking are required as a standard condition of approval. New public sidewalks will connect to existing sidewalks along the street frontage.

g. The site shall provide open space and landscaping which complement buildings and structures. Said open space shall be provided in a manner so as to be useful to residents, employees, or other visitors to the site. Landscaping shall be used to separate and/or screen service and storage areas, separate and/or screen parking areas from other areas, break up expanses of paved area, and define open space for usability and privacy.

   The project has landscaping that generally meets minimum requirements and is indicative of other upscale development in the business park. The reduced building setback on the south side of the project site is offset by the protection of the Sheehy Creek conservation easement. The riparian area along the creek provides vegetation that provides critical natural habitat. New landscape materials have been proposed that complement the design of the building and the surrounding environs along the required 25-foot front setback to Technology Way.

h. Design of the site plan and proposed structures shall respect design principles in terms of maintaining a balance of scale, form and proportion, using design components which are harmonious and materials and colors which blend with elements of the site plan and surrounding areas. Location of structures shall take into account maintenance of view. Rooftop mechanical equipment shall be incorporated into the roof design or screened from adjacent properties. Utility installations such as trash enclosures, storage units, traffic control devices, transformer vaults and electrical meters shall be accessible and screened.

   The design of the project generally exceeds the design standards of the Industrial Park zoning district and represents an example of high-quality development for the business park area.

i. Signs, lighting fixtures, landscape improvements and similar common area features shall complement the site plan and avoid dominating the site and/or existing buildings on the site or overwhelming the building or structures to which they are attached. Multiple signs on a given site shall be of a consistent design theme.

Signage, landscaping and lighting for the project will be consistent with the Napa Valley Business Park Specific Plan requirements and in keeping with County expectations of such improvements established in the business park area.

j. Provisions have been made for the permanent use and maintenance of parking areas and other common area fixtures used jointly by owners of the parcels included within the development plan. (Ord. 1234 §10, 2004)

Although there are no common areas, the property owner will be responsible and will be expected to meet all obligations related to maintenance of features such as landscaping, parking and other improvements.

13. The proposed modifications, considered together with the site specific mitigation measures and restoration where necessary, will provide superior overall aesthetic, environmental, and/or economic benefit that the minimum development standards set forth in the Specific Plan.

Analysis: County staff believes the variation request holds merit and supports the request. All potential environmental impacts have been addressed in the initial study/mitigated negative declaration and have been appropriately mitigated. The design of the project meets or exceeds the design requirements of the Napa Valley Business Park Specific Plan resulting in an aesthetically superior and economically viable project than could be required if the setback reductions were not sought.

14. The proposed modifications are consistent with applicable airport safety regulations.

Analysis: The proposed modification pertains to reducing average building setback requirements that do not directly affect airport safety.

USE PERMIT (BUILDING B): The following findings must be made in order to approve the use permit:

The Commission has reviewed the use permit request in accordance with the requirements of the Napa County Code §18.124.070 and makes the following findings:

15. The Commission has the power to issue a Use Permit under the Zoning Regulations in effect as applied to property.

Analysis: The project is consistent with the 1986 Napa Valley Business Park Specific Plan, and with the Industrial Park: Airport Compatibility Combining (IP:AC) zoning district regulations which permit warehouse facilities upon grant of a use permit. The development area is located in Zone D of the Airport Land Use Compatibility Plan which also allows the proposed uses.

16. The procedural requirements for a Use Permit set forth in Chapter 18.124 of the Napa County Code (zoning regulations) have been met.

Analysis: The use permit applications have been filed and notice and public hearing requirements have been met. The hearing notice and intent to adopt a Mitigated Negative Declaration were posted on October 19, 2024, and copies were forwarded to property owners within 1,000 feet of the subject property and all other interested parties. The public comment period ran from October 19, 2024, through November 19, 2024. Due to a continuance of the November 20, 2024, public hearing, a second public hearing notice was posted on November 20, 2025, and copies were forwarded to property owners within 1,000 feet of the subject property and all other interested parties.

17. The grant of the Use Permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.

    Analysis: Granting the Use Permit for the project as proposed and conditioned will not adversely affect the health, safety or welfare of the County. Various County divisions and departments have reviewed the project and commented regarding grading, drainage, access, parking, building permits, and fire protection. The City of American Canyon and the Napa Sanitation District have agreed to provide public water and sewer service, respectively. Conditions are recommended which will incorporate these comments into the project to assure the protection of the public health, safety, and welfare.

18. The proposed use complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan and the Airport Industrial Area Specific Plan.

    Analysis: Compliance with the Zoning Ordinance

    The proposed use is consistent with the Industrial Park: Airport Compatibility Combination (IP:AC) zoning district regulations, as conditioned, including setbacks, landscaping, building height, parking requirements, lot coverage and floor area ratio.

    Analysis: Compliance with the General Plan and Napa Valley Business Park Specific Plan.

    The General Plan designates the airport area for industrial development. The project site is located within the General Plan land use designation Industrial and within the Business/Industrial Park designation of the 1986 Napa Valley Business Park Specific Plan (NVBPSP) which allows the proposed uses. The development area is also within Compatibility Zone D of the Napa County Airport Land Use Compatibility Plan, which also allows the proposed uses.

    The goals and objectives of the NVBPSP are to provide a specific plan which recognizes the economic importance to the County and region of the business park and responds to the area's identification in the General Plan as the principal County location for industrial development. The area is intended to provide for a mix of industrial development which is responsive to County desires, anticipated market demands, and landowner intentions. According to the NVBPSP land use policies, the Business/Industrial Park designation is intended to provide exclusively for modern, well-planned, non-nuisance light industrial and business park uses which are compatible with each other, the airport, the S.R. 29 corridor, and surrounding open space uses.

The goals established by the General Plan are to plan for agriculture and related activities as the primary land use in Napa County and to plan for industrial land uses in locations that are compatible with adjacent uses and agriculture. Overall, the project was evaluated and found to be consistent with General Plan policies concerning industrial land uses (listed separately below at the conclusion of these findings).
The proposal was reviewed for consistency with the NVBPSP. The proposed use is consistent with the goals, requirements, standards and policies in the General Plan, the NVBPSP, and the Airport Land Use Compatibility Plan.

19. The proposed use will not require a new water system or improvement causing significant adverse effects, either individually or cumulatively, on an affected groundwater basin in Napa County.

    Analysis: The City of American Canyon will provide water service, and the Napa Sanitation District will provide sewer service. "Will serve" letters have been issued by both jurisdictions indicating that they have adequate capacity to serve the project.

General Plan policies:

Policy AG/LU-37: The County will locate industrial areas adjacent to major transportation facilities. Necessary utilities and services, including childcare centers, will be planned to meet the needs of the industrially zoned areas.

Policy AG/LU-38: The Airport Industrial Area Specific Plan (AIASP) was adopted in 1986 to set forth detailed land use and circulation standards, capital improvement requirements, associated financing, and improvement sequencing measures, as well as necessary supporting policies and regulatory procedures for the industrial area near Napa County Airport. The AIASP, as amended, implements the General Plan in the Airport Industrial Area.

Policy AG/LU-39: The County will plan for the reservation of sufficient industrial property to satisfy future demands for orderly growth and economic development of the County. Non-agriculturally oriented industry shall not be located on productive agricultural lands, but should be located in areas more suitable for industrial purposes.

Policy AG/LU-93: The County supports the continued concentration of industrial uses in the South County area as an alternative to the conversion of agricultural land for industrial use elsewhere in the county.

Policy AG/LU-95: New land uses in the South County Industrial Areas shall be compatible with or buffered from adjacent industrial uses and consistent with the Land Use Compatibility Plan for Napa Airport.

Policy AG/LU-96: The Airport Industrial Area is planned for industrial and business/industrial park uses that support agriculture and meet industrial and business park needs consistent with the 1986 Airport Industrial Area Specific Plan. In 2004, the Airport Industrial Area Specific Plan was amended to recognize two hotels which were subsequently approved for construction. Further commercial uses in the area shall be limited to local-serving uses that support or serve the industrial and business park uses.

Policy AG/LU-95: New land uses in the South County Industrial Areas shall be compatible with or buffered from adjacent industrial uses and consistent with the Land Use Compatibility Plan for Napa Airport.

Policy AG/LU-96: The Airport Industrial Area is planned for industrial and business/industrial park uses that support agriculture and meet industrial and business park needs consistent with the 1986 Airport Industrial Area Specific Plan. In 2004, the Airport Industrial Area Specific Plan was amended to recognize two hotels which were subsequently approved for construction. Further commercial uses in the area shall be limited to local-serving uses that support or serve the industrial and business park uses.

Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans.

Policy CON-60.5: All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater.

Policy CON-72: The County shall seek to reduce the energy impacts from new buildings by applying Title 24 energy standards as required by law and providing information to the public and builders on available energy conservation techniques, products, and methods available to exceed those standards by 15 percent or more.

Policy CON-77: All new discretionary projects shall be evaluated to determine potential significant project-specific air quality impacts and shall be required to incorporate appropriate design, construction, and operational features to reduce emissions of criteria pollutants regulated by the state and federal governments below the applicable significance standard(s) or implement alternate and equally effective mitigation strategies consistent with BAAQMD's air quality improvement programs to reduce emissions. In addition to these policies, the County's land use policies discourage scattered development which contributes to continued dependence on the private automobile as the only means of convenient transportation. The County's land use policies also contribute to efforts to reduce air pollution.

Policy CON-81: The County shall require dust control measures to be applied to construction projects consistent with measures recommended for use by the BAAQMD.

Policy E-10: Ancillary uses in the Airport Industrial Area shall be limited to locally-serving (i.e., business park supporting) uses, with regard to both nature and extent, as specified in the Airport Industrial Area Specific Plan.

Policy SAF-20: All new development shall comply with established fire safety standards. Design plans shall be referred to the appropriate fire agency for comment as to:

1) Adequacy of water supply.
2) Site design for fire department access in and around structures.

3) Ability for a safe and efficient fire department response.
4) Traffic flow and ingress/egress for residents and emergency vehicles.
5) Site-specific built-in fire protection.
6) Potential impacts to emergency services and fire department response.

Policy SAF-26: Development proposals shall be reviewed with reference to the dam failure inundation maps in order to determine evacuation routes.

“B”

Revised Recommended Conditions of Approval and Final Agency Approval Memos - Building A

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

PLANNING COMMISSION HEARING – DECEMBER 3, 2025
REVISED RECOMMENDED CONDITIONS OF APPROVAL

E&P TECHNOLGOY WAY – BUILDING A
USE PERMIT APPLICATION P22-00307-UP
TECHNOLOGY WAY AND MORRIS COURT, NAPA, CALIFORNIA
APN'S: 057-250-030

This Permit encompasses and shall be limited to the project commonly known as E&P Technology Way, Building A, located on the north side of Technology Way and the south side of Sheehy Creek. Part I encompasses the Project Scope and general conditions pertaining to statutory and local code references, project monitoring and the process for any future changes or activities. Part II encompasses the ongoing conditions relevant to the operation of the project. Part III encompasses the conditions relevant to construction and the prerequisites for a Final Certificate of Occupancy. It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and the general public to ensure compliance is achieved.

Where conditions are not applicable or relevant to this project, they shall be noted as "Reserved" and, therefore, have been removed.

When modifying a legally established entitlement related to this project, these conditions are not intended to be retroactive or to have any effect on existing vested rights except where specifically indicated.

PART I

1.0 PROJECT SCOPE

This Permit encompasses and shall be limited to:

1.1 Approval of a Use Permit for a 450,000 gallon per year wine production facility to allow the following:
- a. construction of an approximately 143,312 sf building, with 13,000 sf of outdoor covered work areas, for production, storage, bottling and office areas;
- b. on-site parking for 129 vehicles and eight (8) spaces for semi-trailers;
- c. new driveways on Technology Way and Morris Court; and,
- d. signage and landscape improvements.

1.2 Approval of a variation to the development regulations of Napa Valley Business Park Specific Plan (NVBPSP) to reduce the average building setback from 40-feet to 31-feet along the street frontage. There is no reduction to the 25-foot minimum building setback.

The wine production facility shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials and shall comply with all requirements of the Napa Valley Business Park Specific Plan and Napa County

Code (County Code). It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and the general public to ensure compliance is achieved. Any expansion of or change in use or alternative locations for fire suppression or other types of water tanks shall be approved in accordance with the County Code and may be subject to the permit modification process.

2.0 STATUTORY AND CODE SECTION REFERENCES

All references to statutes and code sections shall refer to their successor as those sections or statutes may be subsequently amended from time to time.

3.0 MONITORING COSTS

All Staff costs associated with monitoring compliance with these conditions, previous permit conditions, and project revisions shall be borne by the permittee and/or property owner. Costs associated with conditions of approval and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged to the property owner or permittee. Costs shall be as established by resolution of the Board of Supervisors in accordance with the hourly consulting rate established at the time of the monitoring and shall include maintenance of a $500 deposit for construction compliance monitoring that shall be retained until issuance of a Final Certificate of Occupancy. Violations of conditions of approval or mitigation measures caused by the permittee's contractors, employees, and/or guests are the responsibility of the permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of a compliance deficiency is found to exist by the Planning Commission at some time in the future, the Planning Commission may institute the program at the permittee's expense (including requiring a deposit of funds in an amount determined by the Commission) as needed until compliance assurance is achieved. The Planning Commission may also use the data, if so warranted, to commence revocation proceedings in accordance with the County Code.

PART II

4.0 OPERATIONAL CHARACTERISTICS OF THE PROJECT

Permittee shall comply with the following during operation of the project:

4.1 GROUND WATER MANAGEMENT – WELLS **[RESERVED]**

4.2 AMPLIFIED MUSIC

There shall be no amplified sound system or amplified music utilized outside of approved, enclosed, buildings.

4.3 TRAFFIC

To the maximum extent feasible, scheduling of reoccurring vehicle trips to and from the site for employees and deliveries shall not occur during peak travel times (4:00 – 6:00pm). All road improvements on private property required per

Engineering Services shall be maintained in good working condition and in accordance with the Napa County Roads and Streets Standards.

4.4 PARKING

All parking, driveways, and internal roadways shall comply with the Napa County Road and Street Standards. Parking shall be limited to approve parking spaces only and shall not occur along access or public roads or in other locations. In no case shall parking impede emergency vehicle access or public roads.

4.5 TENANCY CHANGE

a. Any future change of tenancy within the structure shall require administrative review and approval by the PBES Department prior to occupancy. The permittee shall provide the PBES Department with a written profile of the proposed tenant, including name, present address, phone number, description of proposed use, employees, a list of any hazardous materials, and any other information deemed necessary by the PBES Department. The permittee shall also provide a detailed floor plan of the entire structure identifying the location and square footage of all uses within the structure prior to any new tenancy.

b. Parking based on the use of the tenant/building shall be provided in compliance with the Napa Valley Business Park (NVBP) prior to issuance of a Final Certificate of Occupancy. Parking shall be provided in accordance with the NVBP upon any change of use and/or tenancy, subject to review and approval by the PBES Director. The installation of parking may be deferred until such time as building tenancy requires, subject to review and approval by the PBES Director. Additional landscaping shall be provided in place of any deferred parking spaces.

4.6 BUILDING DIVISION – USE OR OCCUPANCY CHANGES

Please contact the Building Division with any questions regarding the following:

In accordance with the California Building Code (CBC), no change shall be made in the use or occupancy of an existing building unless the building is made to comply with requirements of the current CBC as for a new building.

4.7 FIRE DEPARTMENT – TEMPORARY STRUCTURES

Please contact the Fire Department with any questions regarding the following:

The permittee and/or designee shall obtain a tent permit from the Fire Department for any temporary structures utilized for authorized events allowed per COA No. 1.0 above.

4.8 NAPA COUNTY MOSQUITO ABATEMENT PROGRAM **[RESERVED]**

4.9 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, MECHANICAL EQUIPMENT, AND TRASH ENCLOSURE AREAS

a. All lighting shall be permanently maintained in accordance with the lighting and building plans approved by the County.

b. All landscaping shall be permanently maintained in accordance with the landscaping approved by the County.

c. All outdoor screening, storage, mechanical equipment and utility structures shall be permanently maintained in accordance with the landscaping and building plans approved by the County. No stored items shall exceed the height of the screening. Exterior equipment shall be maintained so as to not create a noise disturbance or exceed noise thresholds in the County Code.

d. The colors used for the roof, exterior walls and built landscaping features of the project shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation. The permittee shall obtain the written approval of the Planning Division prior to any change in paint color that differs from the approved building permit. Highly reflective surfaces are prohibited.

e. Designated trash enclosure areas shall be made available and properly maintained for intended use.

4.10 NO TEMPORARY SIGNS

Temporary off-site signage, such as “A-Frame” signs are prohibited.

4.11 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES - OPERATIONAL CONDITIONS

The attached project conditions of approval include all of the following County Divisions, Departments and Agencies’ requirements. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division operational conditions as stated in their Memorandum dated March 2, 2023.

b. Environmental Health Division operational conditions as stated in their Memorandum dated October 23, 2024 (revised September 24, 2025).

c. Department of Public Works operational conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department operational conditions as stated in their Inter-Office Memo dated September 29, 2022.

e. City of American Canyon operational conditions as stated in their “will serve” letter dated March 13, 2023, and Amendment 1, dated November 19, 2024.

f. Napa Sanitation District operational conditions as stated in their "will serve" letter dated November 13, 2025, ~~February 1, 2023,~~ and letter dated September 29, 2022.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify this permit.

4.12 OPERATIONAL MITIGATION MEASURES **[RESERVED]**

4.13 OTHER CONDITIONS APPLICABLE TO THE OPERATIONAL ASPECTS OF THE PROJECT

a. General
There shall be no more than 100 people per acre inside structures and no more than 150 people per acre inside and outside.

b. Winery Operations
1. There shall be no tours and tastings or marketing events unless a modification to this use permit is approved by the County.
2. Retail sales of wine shall be permitted as set forth in the County Code.
3. Permittee shall obtain and maintain all permits (use permits and modifications) and licenses from the California Department of Alcoholic Beverage Control (ABC) and United States Tax and Trade Bureau (TTB), and California Department of Food and Agriculture (CDFA) Grape Crush Inquiry data, all of which are required to produce and sell wine.

c. Greenhouse Gas Best Management Practices
1. In conjunction with building permit application submittal, the Permittee shall provide documentation confirming to the Planning Division that all checked Voluntary Best Management Practices measures submitted with the project application shall be addressed through project construction and/or implemented through business operations.
2. In conjunction with building permit application submittal, the Permittee shall not include natural gas appliances or natural gas plumbing within the building.
3. In conjunction with building permit application submittal, the project shall comply with electric vehicle requirements in the most recently adopted version of CAL Green Tier 2.
4. In conjunction with building permit application submittal, the Permittee shall

4.14 PREVIOUS CONDITIONS **[RESERVED]**

PART III

5.0 PREREQUISITE FOR ISSUANCE OF PERMITS

5.1 PAYMENT OF FEES

No building, grading or sewage disposal permits shall be issued or other permits authorized until all accrued planning permit processing fees have been paid in full. This includes all fees associated with plan check and building inspections, associated development impact fees established by County Ordinance or Resolution, and the Napa County Affordable Housing Mitigation Fee in accordance with County Code.

6.0 GRADING/DEMOLITION/ENVIRONMENTAL/BUILDING PERMIT/OTHER PERMIT PREREQUISITES

Permittee shall comply with the following with the submittal of a grading, demolition environmental, building and/or other applicable permit applications:

6.1 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES - PLAN REVIEW, CONSTRUCTION AND PREOCCUPANCY CONDITIONS

The attached project conditions of approval include all of the following County Divisions, Departments and Agencies' requirements. The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Divisions, Departments and Agencies at the time of submittal and may be subject to change. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division plan review/construction/preoccupancy conditions as stated in their Memorandum dated March 2, 2023.

b. Environmental Health Division plan review/construction/preoccupancy conditions as stated in their Memorandum dated October 23, 2024 (revised September 24, 2025).

c. Department of Public Works plan review/construction/preoccupancy conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department plan review/construction/preoccupancy conditions as stated in their Inter-Office Memo dated September 29, 2022.

e. City of American Canyon plan review/construction/preoccupancy conditions as stated in their "will serve" letter dated March 13, 2023, and Amendment 1, dated November 19, 2024.

f. Napa Sanitation District plan review/construction/preoccupancy conditions as stated in their "will serve" letter dated November 13, 2025, ~~February 1, 2023,~~ and letter dated September 29, 2022.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify the permit.

6.2 BUILDING DIVISION – GENERAL CONDITIONS

Please contact the Building Division with any questions regarding the following:

a. A building permit shall be obtained for all construction occurring on the site not otherwise exempt by the CBC or any State or local amendment adopted thereto

b. If there are any existing structures and/or buildings on the property that will need to be removed to accommodate construction activities, a separate demolition permit shall be required from the Building Division prior to removal. The permittee shall provide a "J" number from the Bay Area Air Quality Management District (BAAQMD) at the time the permittee applies for a demolition permit if applicable.

c. All areas of newly designed and newly constructed buildings, facilities and or site improvements shall comply with the CBC accessibility requirements, as well as, American with Disabilities Act requirements when applicable. When alterations or additions are made to existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided, as required per the CBC.

6.3 LIGHTING – PLAN SUBMITTAL

a. Two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the CBC.

b. All exterior lighting, including landscape lighting, shall be shielded and directed downward; located as low to the ground as possible; the minimum necessary for security, safety, or operations; on timers; and shall incorporate the use of motion detection sensors to the greatest extent practical. All lighting shall be shielded or placed such that it does not shine directly on adjacent properties or impact vehicles on adjacent streets. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards.

6.4 LANDSCAPING – PLAN SUBMITTAL

a. Two (2) copies of a detailed final landscaping and irrigation plan, including parking details, shall be submitted with the building permit application package for the Planning Division's review and approval prior to the issuance of any building permit associated with this permit. The plan shall be prepared pursuant to the Water Efficient Landscape Ordinance (Chapter 18.118 of the County Code) requirements in effect at

the time of building permit application submittal, as applicable, and shall indicate the names and locations of all plant materials to be used along with their method of maintenance.

b. Plant materials shall be purchased locally when practical, and, to the greatest extent possible, the plant materials shall be the same native plants found in Napa County. The Agricultural Commissioner's office shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.

c. No trees greater than 6" diameter at breast height shall be removed, except for those identified on the submitted site plan. Trees to be retained shall be protected during construction by fencing securely installed at the outer most dripline of the tree or trees. Such fencing shall be maintained throughout the duration of the work undertaken in connection with development/construction. In no case shall construction material, debris or vehicles be stored in the fenced tree protection area.

d. All landscaped areas and sidewalks shall be separated from parking and drive aisle areas by a minimum 6 inch raised concrete curb. The irrigation system shall utilize reclaimed water. Two feet of required parking stall depth may overhang into non-required landscape planters and sidewalks. Standard sized parking stalls are required to have a minimum depth of 19 feet, and compact stalls may be 16 feet. A maximum of 35% of the parking stalls may be compact.

e. The irrigation system shall utilize reclaimed water when it is made available in the vicinity. Any undeveloped portion of the property shall be hydro-seeded or an approved equivalent and permanently maintained.

6.5 COLORS

Exterior finishes and colors of the building, roof, parking lot and walkways shall be subject to approval by the Planning Division in conjunction with building permit review and/or prior to painting. Highly reflective surfaces are prohibited.

6.6 OUTDOOR STORAGE/SCREENING/UTILITIES

Details of outdoor storage areas and structures shall be included on the building and landscape plans. No outdoor storage is permitted as part of this action. Any proposal for outdoor storage and proposed screening is subject to separate review and approval by the PBES Department. New utility lines required for this project shall be placed underground.

6.7 MECHANICAL EQUIPMENT

a. Roof mounted equipment shall be screened by a parapet wall of equal or greater height than the highest piece of roof mounted equipment or vent. Equipment may be screened by a separate roof screen that is architecturally integrated with the building if screening by a parapet wall is not feasible or is architecturally undesirable. When separate roof screens are used, roof equipment should be organized into major groups screening a smaller number of units rather than multiple areas. The

PBES Director may approve exceptions for solar equipment. All screening is subject to review and approval by the PBES Director. Any skylights shall be subject to review and approval by the PBES Director prior to the issuance of building permits.

b. The term "equipment" includes roof mounted equipment or vents, electrical equipment, gas meter, communication antennas, irrigation valves, storage tanks, or other mechanical equipment. The manner of screening shall be as follows: Communications equipment, including microwave equipment, may remain unscreened if visually integrated with the building design through color, location, and construction; all building mounted equipment, including but not limited to louvers, pipes, overhead doors or service doors, access ladders, downspouts, conduit, and electrical/service boxes, shall be painted consistent with the color scheme of the building.

c. Ground mounted equipment shall be screened by walls or landscaping to the satisfaction of the PBES Director.

d. Exterior equipment shall be located, enclosed or muffled so as not to exceed noise thresholds in the County Code.

6.8 TRASH ENCLOSURES

a. The permittee shall provide one or more trash enclosures (decorative masonry or equivalent), the design of which shall be compatible with the architecture of the project. The enclosure shall be reasonably accessible to employees. A minimum 8' x 10' thickened paving section shall be provided in front of each enclosure. The PBES Director shall approve the design and location of each enclosure. All trash bins shall be stored within approved trash enclosures. The enclosure shall also include a separate pedestrian walk-in access.

b. The permittee shall provide adequate, accessible, and convenient areas for the collection and loading of recyclable materials generated by the development. These areas shall be located adjacent to trash enclosures when practical. All recyclable materials areas shall be accessible by collection vehicles. The PBES Director shall approve the design and location of each collection and loading area.

6.9 BICYCLE PARKING

Bicycle parking areas shall be provided at a ratio of one bicycle parking space for every 25 employees, as applicable. At least one bicycle parking space shall be provided.

6.10 CONSTRUCTION CRANES

Any crane used in the construction of the phases shall be lighted and have flags for improved visibility from aircraft; no crane shall exceed 80 feet in height without first obtaining the Federal Aviation Administration’s express approval.

6.11 AIRCRAFT OVERFLIGHT EASEMENT

Upon building permit submittal, the permittee shall submit verification that an aircraft overflight easement has been recorded on the property that provides for the right of aircraft operation, overflight and related noises, and for the regulation of light emissions, electrical emissions, or the release of substances such as steam or smoke which could interfere with aircraft operations.

6.12 ADDRESSING

All project site addresses shall be determined by the PBES Director, and be reviewed and approved by the United States Post Office. The PBES Director reserves the right to issue or re-issue an appropriate situs address at the time of issuance of any building permit to ensure proper identification and sequencing of numbers. For multi-tenant or multiple structure projects, this includes building permits for later building modifications or tenant improvements.

6.13 HISTORIC RESOURCES **[RESERVED]**

6.14 DEMOLITION ACTIVITIES **[RESERVED]**

6.15 PERMIT PREREQUISITE MITIGATION MEASURES

The permittee shall comply with the following permit prerequisite mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. BIO 1 - Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

   Method of Mitigation Monitoring: The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing constructing activities are conducted.

   Responsible Agency(ies): PBES

d. BIO 2 - The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required.

If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio.

Method of Mitigation Monitoring: The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.

Responsible Agency(ies): PBES, CDFW

c. BIO 3 - A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the

presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

d. BIO-4, Swainson's Hawk Surveys and Avoidance Buffer - If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as

vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

e. BIO 5 - Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

f. BIO-6, Burrowing Owl Habitat Assessment and Surveys - A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW.

Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Method of Mitigation Monitoring: The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

g. BIO-7, Burrowing Owl Foraging Habitat Mitigation - Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

h. BIO-8 - The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are

observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.

Method of Mitigation Monitoring: The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

i. BIO-9 - The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

   Method of Mitigation Monitoring: The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.

   Responsible Agency(ies): PBES

j. CULT-1 - Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental

Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the Napa County Planning and Building Services department for the administrative file.

Method of Mitigation Monitoring: The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.

Responsible Agency(ies): PBES

6.16 PARCEL CHANGE REQUIREMENTS **[RESERVED]**
The permittee shall comply with the following requirements:

6.17 FINAL MAPS **[RESERVED]**

6.18 OTHER CONDITIONS APPLICABLE TO THE PROJECT PERMITTING PROCESS

a. In conjunction with building permit application submittal, the permittee shall not include natural gas appliances or natural gas plumbing within the new building.

b. In conjunction with building permit application submittal, the project shall comply with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

c. In conjunction with building permit application submittal, the permittee shall provide documentation confirming to the Planning Division that all checked Voluntary Best Management Practices Measures submitted with the project Use Permit application shall be addressed through project construction and/or implemented through winery operation.

7.0 PROJECT CONSTRUCTION

Permittee shall comply with the following during project construction:

7.1 SITE IMPROVEMENT

Please contact Engineering Services with any questions regarding the following:

a. GRADING & SPOILS

All grading and spoils generated by construction of the project facilities shall be managed per Engineering Services direction. Alternative locations for spoils are permitted, subject to review and approval by the PBES Director, when such alternative locations do not change the overall concept, and do not conflict with any environmental mitigation measures or conditions of approval.

b. DUST CONTROL

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

c. AIR QUALITY

During all construction activities the permittee shall comply with the most current version of BAAQMD Basic Construction Best Management Practices including but not limited to the following, as applicable:

1. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.

2. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.

3. Cover all haul trucks transporting soil, sand, or other loose material off-site.

4. Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

5. All vehicle speeds on unpaved roads shall be limited to 15 mph.

6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

7. Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required State Regulations). Clear signage shall be provided for construction workers at all access points.

8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf or the PERP website http://www.arb.ca.gov/portable/portable.htm.

d. STORM WATER CONTROL
The permittee shall comply with all construction and post-construction storm water pollution prevention protocols as required by the County Engineering Services Division, and the State Regional Water Quality Control Board.

7.2 ARCHEOLOGICAL FINDING
In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the PBES Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during project development, all work in the vicinity must be halted, and the Napa County Coroner informed, so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the permittee shall comply with the requirements of Public Resources Code Section 5097.98.

7.3 CONSTRUCTION NOISE
Construction noise shall be minimized to the greatest extent practical and feasible under State and local safety laws, consistent with construction noise levels permitted by the General Plan Community Character Element and the County Noise Ordinance. Construction equipment muffling and hours of operation shall be in compliance with the County Code. Equipment shall be shut down when not in use. Construction equipment shall be staged, loaded, and

unloaded on the project site, if at all practicable. If project terrain or access road conditions require construction equipment to be staged, loaded, or unloaded off the project site (such as on a neighboring road or at the base of a hill), such activities only shall occur daily between the hours of 8:00 AM to 5:00 PM.

7.4 CONSTRUCTION MITIGATION MEASURES

The permittee shall comply with the following construction mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. BIO 1 - Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

   Method of Mitigation Monitoring: The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing constructing activities are conducted.

   Responsible Agency(ies): PBES

b. BIO 2 - The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required.

   If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to

reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio.

Method of Mitigation Monitoring: The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.

Responsible Agency(ies): PBES, CDFW

c. BIO 3 - A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary

dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

d. BIO-4, Swainson's Hawk Surveys and Avoidance Buffer - If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall

consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

e. BIO 5 - Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

f. BIO-6, Burrowing Owl Habitat Assessment and Surveys - A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal

burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW.

Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Method of Mitigation Monitoring: The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

g. BIO-7, Burrowing Owl Foraging Habitat Mitigation - Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on

the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

h. BIO-8 - The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are

observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.

Method of Mitigation Monitoring: The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

i. BIO-9 - The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

Method of Mitigation Monitoring: The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.

Responsible Agency(ies): PBES

j. CULT-1 - Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the

Napa County Planning and Building Services department for the administrative file.

Method of Mitigation Monitoring: The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.

Responsible Agency(ies): PBES

7.5 OTHER CONSTRUCTION CONDITIONS APPLICABLE TO THE PROJECT PROPOSAL

a. Sheehy Creek

The location of the Sheehy creek setbacks and conservation area shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the approved project plans. Temporary protection fencing shall be installed prior to any earthmoving activities and remain in place through the duration of project construction. The locations of said protection fencing shall be inspected and approved by the Planning or Engineering Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, parking, etc. shall occur within the designated creek setback areas for the duration of the project. All construction and related traffic shall remain on the inside (development) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remain undisturbed.

8.0 TEMPORARY CERTIFICATE OF OCCUPANCY – PREREQUISITES

A Temporary Certificate of Occupancy (TCO) may be granted pursuant to the County Code to allow specific limited use of the building prior to completion of all project improvements. Permittee shall comply with the following before a TCO is granted:

8.1 TEMPORARY OCCUPANCY

All life and safety conditions shall be addressed prior to issuance of a TCO by the County Building Official. TCOs shall not be used for general public occupancy of buildings and shall not exceed the maximum time allowed by the County Code which is 180 days. In special circumstances, Departments and/or Agencies with jurisdiction over the project are authorized as part of the TCO process to require a security deposit or other financial instrument to guarantee completion of unfinished improvements.

9.0 FINAL CERTIFICATE OF OCCUPANCY – PREREQUISITES

Permittee shall comply with the following before a Final Certificate of Occupancy is granted by the County Building Official, which upon granting, authorizes all use permit activities to commence:

9.1 FINAL OCCUPANCY
All project improvements, including compliance with applicable codes, conditions, and requirements of all Departments and Agencies with jurisdiction over the project, shall be completed.

9.2 SIGNS
Detailed plans, including elevations, materials, color, and lighting for any project identification or directional signs shall be submitted to the Department for administrative review and approval prior to installation. Administrative review and approval is not required if the signage to be installed is consistent with signage plans submitted, reviewed and approved as part of this permit approval. All signs shall meet the design standards as set forth in the County Code. Any off-site signs allowed shall be in conformance with the County Code.

9.3 GATE/ENTRY STRUCTURES
Any gate installed at the project entrance shall be reviewed by the PBES Department and the Fire Department to assure that the design allows large vehicles, such as motorhomes, to turn around if the gate is closed without backing into the public roadway, and that fire suppression access is available at all times. If the gate is part of an entry structure an additional permit shall be required pursuant to the County Code and in accordance with the Napa County Roads and Street Standards. A separate entry structure permit is not required if the entry structure is consistent with entry structure plans submitted, reviewed, and approved as part of this permit approval.

9.4 LANDSCAPING
Landscaping shall be installed in accordance with the approved landscape plan.

9.5 ROAD OR TRAFFIC IMPROVEMENT REQUIREMENTS **[RESERVED]**

9.6 DEMOLITION ACTIVITIES **[RESERVED]**

9.7 GRADING SPOILS
All spoils piles shall be removed in accordance with the approved grading permit and/or building permit.

9.8 MITIGATION MEASURES APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY **[RESERVED]**

9.9 OTHER CONDITIONS APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY

a. The temporary construction fencing placed along the Sheehy Creek setback shall be removed prior to final occupancy.

A Tradition of Stewardship
A Commitment to Service

Planning, Building & Environmental Services

1195 Third Street, Suite 210
Napa, CA 94559
www.countyofnapa.org

Brian Bordona
Interim Director

MEMORANDUM

To:	Sean Kennings, Planning	From:	Jeannette Doss, Engineering
Date:	March 2, 2023	Re:	E & P Properties Inc. Use Permit Engineering CoA Technology Way, Napa, CA P22-00307 APN 057-250-030-000

The Engineering Division received a referral for comment on an application for a new use permit. Based upon the information provided in the application, Engineering finds the application **complete** and recommends the following conditions of approval:

RECOMMENDED APPROVAL CONDITIONS:

OPERATIONAL CHARACTERISTICS

1. The facility is designated as a discharger that discharges stormwater associated with industrial activity to waters of the United States. Therefore, the facility shall maintain or apply for coverage under the State Water Resources Control Board's Industrial General Permit (IGP), including meeting all applicable provision and protocols of the IGP. If the facility fails to meet the discharge prohibitions of the IGP, Napa County may require the facility to make the necessary improvements to eliminate all exposures to stormwater of the pollutant(s) for which the water body is impaired.

2. All roadway, access drive, and parking area improvements shall be completed **prior to execution** of any new entitlements approved under this Use Permit.

PREREQUISITES FOR ISSUANCE OF PERMITS

3. All on site civil improvements including but not limited to the excavation, fill, general grading, drainage, curb, gutter, surface drainage, storm drainage, parking and drive isles, shall be constructed according to plans prepared by a registered civil engineer, which will be reviewed and approved by the Engineering Division of the Napa County Planning, Building, and Environmental Services Department (PBES) prior to the commencement of any on site land preparation or construction. Plans shall be wet signed and submitted with the building and/or grading permit documents at the time of permit application. A plan check fee will apply.

4. Grading and drainage improvements shall be constructed according to the latest Napa County Road and Street Standards, and Chapter 16.28 of the Napa County Code, and Appendix J of the California Building Code.

5. **Prior to issuance of a building or grading permit** the owner shall submit the necessary documents for Erosion Control as determined by the area of disturbance of the proposed development in accordance with the Napa Countywide Stormwater Pollution Prevention program Erosion and Sediment Control Plan Guidance for Applicant and Review Staff dated December 2014.

6. **Prior to issuance of a building or grading permit** the owner shall demonstrate on the plans that all roadways, access driveways, and parking areas serving the project will be improved to meet the requirements as outlined in the latest edition of the Napa County Road & Street Standards for Commercial development.

7. Applicant shall obtain an encroachment permit from the Napa County Public Works Department for any proposed work within the Napa County Right of Way.

8. **Prior to issuance of a building or grading permit** the owner shall prepare a Stormwater Control Plan (SCP) in accordance with the latest edition of the BASMAA Post-Construction Manual for review and approval by the Engineering Division in PBES. The Stormwater Control Plan shall include the water balance analysis for the use of the existing wastewater pond to handle the additional stormwater flows.

9. **Prior to issuance of a building permit**, an Operation and Maintenance Plan shall be submitted and tentatively approved by the Engineering Division in PBES. **Before final occupancy** the property owner must legally record the "Operation and Maintenance Agreement", approved by the Engineering Division in PBES.

10. All improvements shall conform to the latest Napa County Airport Industrial Area Specific Plan.

11. Applicant shall pay the applicable Napa County Airport Industrial Area Traffic Mitigation Fees prior to receiving any building permits for this project. The applicant should contact the Public Works office to obtain information regarding the determination of this fee.

12. The Applicant must comply with all associated requirements and exhibits relating to water conditions to be imposed on all parcels as described in Napa County Agreement No. 7070, between the County of Napa and the City of American Canyon.

PREREQUISITES DURING PROJECT CONSTRUCTION

13. Required on-site pre-construction meeting with the Napa County PBES Engineering Division **prior to start of construction**.

PREREQUISITES FOR TEMPORARY CERTIFICATE OF OCCUPANCY

14. All roadway, access drive, and parking area improvements shall be completed **prior to** issuance of temporary occupancy of any new and/or remodeled structures.

**** If no temporary occupancy is requested, then the above conditions become requirements prior to final occupancy.**

PREREQUISITES FOR FINAL CERTIFICATION OF OCCUPANCY

15. Operations and Maintenance Agreement for any required post-construction Stormwater facilities must be legally recorded.

16. Site shall be completely stabilized to the satisfaction of the County Engineer prior to Final Occupancy.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items, please contact Jeannette Doss from Napa County Planning, Building, and Environmental Services Department, Engineering and Conservation Division, at (707) 259-8179 or by email at Jeannette.Doss@countyofnapa.org

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Brian Bordona
Director

MEMORANDUM

To:	Sean Trippi, Supervising Planner	From:	Maureen Bown, MSB Senior Environmental Health
Date:	October 23, 2024 Revised 9/24/25	Re:	E & P Technology Way – Building A Assessor Parcel #057-250-030-000 Permit# P22-00307

Environmental Health staff has reviewed an application requesting approval for a new building to produce and store wine, as described in the application. This Division has no objection to approval of the application with the following conditions of approval:

1. Any abandoned groundwater well(s) must be destroyed by a licensed well driller, pursuant to Napa County Code 13.12.460, 13.12.270. A well destruction permit must be obtained from this division, by a licensed well driller, prior to the approval of a grading or building permit.

2. All wastewater lines of the proposed development must be connected to the Napa Sanitation District (NSD) and comply with conditions of approval. If pre-treatment is required by NSD, then it shall be permitted and operated at all times so as to not create a nuisance of noise or odors.

3. The proposed parcels must be connected to the City of American Canyon public water system.

4. Pursuant to Chapter 6.95 of the California Health and Safety Code, businesses that store hazardous materials above threshold planning quantities (55 gallons liquid, 200 cubic feet compressed gas, or 500 pounds of solids) shall obtain a permit, file an approved Hazardous Materials Business Plan to http://cers.calepa.ca.gov/ , and be approved by this Division within 30 days of said activities.

5. Adequate area must be provided for collection of recyclables. The applicant must work with the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site. The garbage and recycling enclosure must meet the enclosure requirements provided during use permit process and be included on the building permit submittal. The designated area shall remain available and be properly maintained for its intended use.

6. During the construction, demolition, or renovation period of the project the applicant must use the franchised garbage hauler for the service area in which they are located for all waste generated during project development, unless applicants transport their own waste. If the applicant transports their own waste, they must use the appropriate landfill or solid waste transfer station for the service area in which the project is located.

A Tradition of Stewardship
A Commitment to Service

Department of Public Works

1195 Third Street, Suite 101
Napa, CA 94559-3092
www.countyofnapa.org/publicworks

Main: (707) 253-4351
Fax: (707) 253-4627

Steven Lederer
Director

MEMORANDUM

To:	PBES Staff	From:	Ahsan Kazmi, P.E. Senior Traffic Engineer

Date: Updated:	September 22, 2022 October 30, 2024	Re:	E&P Technology - Bldg A (P22-00307) & Bldg B (P22-00308) **Conditions of Approval**

This memorandum is prepared at the request of Planning, Building, and Environmental Services (PBES) staff to provide conditions of approval per County policies established for the Napa Valley Business Park related to the Use Permit Major Modification Application # P22-00307 and P22-00308 for the E&P Technology Way – Building A and B Projects, located north side of Technology Way and east side of Morris Court, in unincorporated Napa County, California 94558 (APN # 057-250-030, 031 and 032).

To prepare this Conditions of Approval Memorandum, the following documents were reviewed:

- Transmittal Letter by Mr. Mike Kelly, Agent for Applicant, dated August 30, 2022
- Use Permit Major Modification Application dated August 20, 2022
- Project Description by Mr. Dennis Paulley, dated August 22, 2022
- Preliminary Landscape, Civil and Architectural Plans, dated July 27, 2022
- Stormwater Control Plan Report dated July 29. 2022
- Geotechnical Investigation Report, dated September, 30, 2021
- Transportation Impact Study by W-Trans dated November 21, 2023

EXISTING SITE CONDITIONS:
The project site is located on the north side of Technology Way and Morris Court, in the County of Napa, California. The 20.07-acre site is currently undeveloped.

PROPOSED DEVELOPMENT:
The proposed project consists of two speculative industrial buildings (Buildings A and B) located within the IP: AC zoning. Anticipated uses are those that are consistent with this zoning. The buildings may be constructed in a single phase or in two phases. Building A is 143,312 SF on 13.2 acres. Building B is 66,915 SF on 6.87 acres.

The Department of Public Works has established the following conditions of approval related to the Use Permit Application Number P22-00307 and P22-308. **All listed conditions of approval shall be fully completed accordingly prior to the issuance of Building and Occupancy permits:**

1. Project Driveways

Driveway access to the public right-of-way must conform to the latest edition of the Napa County Road and Street Standards.

2. Landscaping Maintenance

Landscaping adjacent to the project driveway shall be designed and maintained to not interfere with sight lines required for safe stopping distance on the public right-of-way. No items wider than 18 inches can be taller than 30 inches other than street trees and traffic control devices. Street trees should be deciduous and have branches lower than 6 feet in height removed once the tree is established.

3. Encroachment Permit Requirement

An encroachment permit along with the required fee and a proposed traffic control plan will be required for the construction of any improvements within public right of way. Please contact the Roads office at (707) 944-0196 to initiate the encroachment permit process. More information is available at our website: http://www.countyofnapa.org/publicworks/roads/

4. Transportation Demand Management Plan

The applicant/permittee shall submit a Final Transportation Demand Management (TDM) Plan that will include measures to reduce Vehicle Miles Traveled (VMT) by 15 percent, prior to issuance of a Building Permit. The measures shall include, but not limited to, subsidized transit passes, carpool incentives, and bicycle trip-end facilities. Implementation and monitoring shall be included in the Final TDM Plan.

5. On Street Parking

Parking within the public right-of-way will be prohibited.

6. Bicycle Facilities

The project shall install bicycle parking for both short-term visitors as well as covered bicycle parking for employees. Bicycle parking should be provided per the County of Napa Municipal Code.

7. Napa Valley Vine Trail Right-of-Way and Entitlements

If needed, the applicant shall provide necessary right-of-way and entitlements to the County of Napa per the recommendations of the Napa Valley Vine Trail, Napa Sanitation District Property Route Study, dated October, 17, 2016 and/or as modified by the Napa Valley Vine Trail Coalition.

8. Traffic Mitigation Fees Required

All new development or expansion of existing development that will generate additional traffic in the Napa Valley Business Park is required to pay a Traffic Mitigation Fee (TMF). The fees collected will use to fund the construction of new roads and intersection improvements in the area. The current TMF is $685 per new daily trip that will be generated by E&P Technical Way Building A and B based on land use type. Any TMF paid for a shell building will be adjusted accordingly at the time of issuing the occupancy permit. The applicant shall pay the TMF before issuance of Building and Occupancy permits: Information on TMF is available at our website: http://www.countyofnapa.org/publicworks/roads

If you have any questions or concerns on this matter, please contact Ahsan Kazmi, P. E. at ahsan.kazmi@countyofnapa.org or call (707) 259-8370 if you have any questions.

Napa County Fire Department
Fire Marshal's Office
Hall of Justice, 2nd Floor
1125 3rd Street
Napa, CA 94559

Office: (707) 299-1464

Jason Downs
Deputy Fire Marshal

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MEMORANDUM

TO:	Planning Department	**DATE:**	9/29/2022
FROM:	Jason Downs, Deputy Fire Marshal	**PERMIT #**	P22-00307
SUBJECT:	E&P Technology - Building A	**APN:**	057-250-030-000

The Napa County Fire Marshal's Office has reviewed the submittal package for the proposed project above. The Fire Marshal approves the project as submitted with the following conditions of approval:

1. All construction and use of the facility shall comply with all applicable standards, regulations, codes, and ordinances at the time of Building Permit issuance.

2. Beneficial occupancy will not be granted until all fire department fire and life safety items have been installed, tested, and finalized.

3. Where conditions listed in 2019 California Fire Code Section 105.7 are proposed, separate permits will be required prior to Building Permit issuance for:

    1. Automatic fire-extinguishing systems
    2. Fire alarm detection systems and related equipment
    3. Fire pumps and related equipment

4. All buildings, facilities, and developments shall be accessible to fire department apparatus by way of approved access roadways and/or driveways. The fire access road shall comply with the requirements of the Napa County Road & Street Standards

5. Access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced to provide all-weather driving capabilities. Provide an engineered analysis of the proposed roadway noting its ability to support apparatus weighing 75,000 lbs.

6. Provide fire department access roads within 150 feet of any exterior portion of the buildings as measured by an approved route around the exterior of the building or facility.

7. Roadways shall be a minimum of 20 feet in width with a 2-foot shoulder and 15-foot vertical clearance.

Napa County Fire Department
Fire Marshal's Office
Hall of Justice, 2nd Floor
1125 3rd Street
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Office: (707) 299-1464

Jason Downs
Deputy Fire Marshal

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MEMORANDUM

8. Roadway radius shall not have an inside radius of fewer than 50 feet. An additional surface width of 4 feet shall be added to curves of 50-100 feet radius and 2 feet to curves of 100-200 feet radius.

9. Gates for driveways and/or roadways shall comply with the California Fire Code, section 503.5, and the Napa County Road & Street Standards and CA Fire Safe Regulations for projects within SRA.

10. Commercial - Water storage (for buildings not served by a public water system) and fire flow calculations shall be provided by a Certified State Licensed Civil Engineer, C-16 licensed contractor, or registered engineer indicating compliance with California Fire Code Appendix B and the Napa County Municipal Code.

11. Commercial - Approved steamer hydrants shall be installed within 250 feet of any exterior portion of the building as measured along vehicular access roads. Private fire service mains shall be installed, tested, and maintained per NFPA 24.

12. Commercial - Fire Department Connections (FDC) for automatic sprinkler systems shall be located fully visible and recognizable from the street or fire apparatus access roads. FDC shall be located within 50 feet of an approved fire hydrant.

13. Commercial - The minimum main size of all fire hydrants shall be 6 inches in diameter. Piping shall be installed with C-900 class 200 piping or ductile iron or equivalent per NFPA 24 for the installation of Underground Fire Protection Mains

14. An automatic fire sprinkler system shall be installed in accordance with provisions set forth in the California Fire Code as amended by the County of Napa and the applicable National Fire Protection Association Standard. Automatic fire sprinkler systems shall be designed by a fire protection engineer or C-16 licensed contractor.

15. All buildings shall comply with California Fire Code, Chapter 10 Means of Egress Requirements. Including but not limited to; exit signs, exit doors, exit hardware, and exit illumination.

16. Provide 100 feet of defensible space around all structures.

17. Provide 10 feet of defensible space for fire hazard reduction on both sides of all roadways of the facility.

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1125 3rd Street
Napa, CA 94559

Office: (707) 299-1464

Jason Downs
Deputy Fire Marshal

MEMORANDUM

Please note that the comments noted above are based on a Fire Marshal review only. There may be additional comments or information requested from other County Departments or Divisions reviewing this application submittal package. Napa County Fire Marshal's Office Development Guidelines can be found @ www.countyofnapa.org/firemarshal. Should you have any questions for me, please contact me at (707) 299-1467 or by email at jason.downs@countyofnapa.org

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT

November 19, 2024

Mr. Dennis Paulley
E&P Properties, Inc.
2250 S. Watney Way
Fairfield, CA 94533
Tel: (707) 745-1150

RE: Will-Serve Letter Extension for Potable Water Service for the "E&P Tech Way Project" Assessor's Parcel Number: 057-250-030

Dear Mr. Paulley,

The following serves as Amendment 1 to the March 13, 2023 Water Service "Will Serve" Letter for the subject property. The paragraph on page 4 shall be amended as follows (changes shown in strikethrough and **bold**).

"This Will-Serve Letter will remain valid until ~~February 28, 2025~~ **November 30, 2026**. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and authorized or if events out of City's control impact the City's ability to furnish water".

This Amendment 1 to the March 13, 2023, Will-Serve Letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

Nov 19, 2024

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Edison Bisnar, Public Works Department
Utility Billing

ACCEPTANCE
of
City's Conditional Offer of Water Service for

E&P Properties, Inc.
Technology Way, Napa CA 94558
(APN 057-250-030)

I, Dennis Paulley (Print Name), President (Print Title)

accept the conditions set forth in this communication.

Dennis Paulley
Dennis Paulley (Nov 19, 2024 11:49 PST)
(Signature)

11/19/2024
(Date)

DocuSign Envelope ID: 6A50525C-56D7-4439-B4D8-611D8DE57821

March 13, 2023

Dennis Paulley
E&P Enterprises, Inc.
2250 S. Watney Way
Fairfield, CA 94533
Tel: (707) 745-1150

SUBJECT: Request for Water Service "Will-Serve" Letter
E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-030)

Dear Mr. Paulley,

The City of American Canyon has received your request as the Property Owner for a Will-Serve letter for water service to the property located on Technology Way (Assessor's Parcel Number 057-250-030, referred to herein as the "Property"). The 13.2-acre Property is subject to approval of a pending Use Permit, P22-00307, from the Napa County Planning, Building & Environmental Services Department, for the development of the property consisting of a 143,312-square foot warehouse building, including site improvements.

It is the City's understanding that the Property is located within its Extraterritorial Water Service Area[1] and that a Will-Serve Letter for water service to the Property is required prior to the County's approval of a Use Permit. In general, the City reviews the impacts of such requests for service taking into account the overall demand within its system and known supplies available to meet this demand.

The City's understanding of the current request is based on water demand estimates attached to the Will-Serve Application dated January 30, 2023. At present, the Property does not have any existing structures.

As Table 1 shows, the requested annualized Average Daily Demand (ADD) is 11,495 gal/day. Table 2 details the requested Maximum Daily Demand (MDD) of 22,990 gal/day for the Property.

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.

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Table 1 – Requested Average Day Demand

Average Daily Water Demand (ADD) in gallons per day:	
Domestic:	230 gpd
Irrigation:	0[2] gpd
Industrial:	11,265 gpd
Total:	11,495 gpd

Table 2 – Requested Maximum Day Demand

Maximum Daily Water Demand (MDD) in gallons per day:

Domestic:	460 gpd
Irrigation:	0[2] gpd
Industrial:	22,530 gpd
Total:	22,990 gpd

The City's Zero Water Footprint (ZWF) Policy requires new developments to offset all of its water demands in order to prevent reduction in the reliability of existing water supplies or increases in water rates to existing customers. In light of the information submitted in the Application, the City has determined that the Property will not have a Zero Water Footprint because, once complete, the Property's proposed ADD (11,495 gpd) will be greater than the established baseline ADD (0 gpd). Because the Owner is requesting service greater than the established baseline demand, the Property will potentially reduce the reliability of existing water supplies and increase costs to existing customers. In accordance with this Policy, a more detailed Water Supply Report has been prepared and is attached hereto and made a part of this "Will-Serve" Letter. In order to comply with the ZWF Policy and offset the Property's demand, the applicant shall contribute to the City's ZWF Mitigation Fund, whereby the City will continue to undertake water conservation efforts to offset the requested ADD increase of 11,495 gpd. Such efforts will result in this Property achieving a net zero impact to the City's water system, therefore adhering to the ZWF Policy.

This Will-Serve Letter supersedes any other purported service commitments to the Property for any use. By way of this Will-Serve Letter, the City is offering to meet the water service demands shown in Tables 1 & 2. The City's offer is contingent upon the occurrence and/or satisfaction of the following conditions and the continued existence of the following described conditions:

[2] The project site is located within the Napa Sanitation District' (Napasan) recycled water service area.

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1. Owner shall be subject to all City's rules and regulations, including all fees and charges.

2. At no cost to the City, the Owner shall construct all facilities necessary to serve the Property in accordance with all City standards.

3. As part of the application process, the owner/developer shall submit a Developer Deposit Project Setup Form and pay the required deposit of $2,000. The deposit will be retained and the owner will receive a monthly statement of charges for the cost of processing the application, including writing water service will-serve, plan review, and inspections. At the close of the project, the last statement will be deducted from the deposit and the remainder will be refunded to the owner.

4. The City has experienced potential reduction and/or curtailment of its primary sources of water supply during times of drought. When these reductions occur, the City's demands may exceed available supplies. In an effort to reduce this undesirable imbalance, the City is taking steps to reduce customer demands while also seeking to acquire additional supplies. The cost of these additional supplies is unknown at this time and is not included in the current City water rates. The City is considering implementing potential changes to its rate structure which would be applied in a uniform manner in order to acquire such supplies. The Owner agrees to waive any protest to changes to current City water rates necessary to acquire additional water supplies during their formulation, implementation, and review under the California Environmental Quality Act, Public Resources Code section 21000 et seq. ("CEQA") as long as such changes are initiated during the term of this Will-Serve Water Supply Agreement or any extension thereof. Moreover, the Owner acknowledges that the City, during dry years, may be unable to meet the Property's water service demands and that its water service may be uniformly reduced and/or curtailed entirely. Owner further agrees to indemnify, defend, and hold harmless the City, its elected officials, officers, attorneys, employees, or agents for any and all damages or claims of damages stemming from such uniform reductions or curtailments that may occur as long as they are directly related to the City's provision for water to the Property.

5. As a result of *Vineyard Area Citizens for Responsible Growth v. Rancho Cordova* (2007) 40 Cal.4th 412, the County, as lead agency pursuant to CEQA, prior to approval of the Project must, at a minimum during its environmental review:

    a. Present sufficient facts to evaluate the pros and cons of supplying the water that the Project will need,

    b. Present analysis that assumes that all phases of the Project will be built and will need water and includes an analysis, to the extent reasonably possible, of the impacts of providing water to the entire project, and

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c. Where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of the environmental consequences of those impacts must be presented.

6. The Owner agrees its financial obligation for water service is as follows:

   a. Monthly water service charges will be billed at the current rate (commercial rate of $8.15 per unit, 1 unit = 748 gal). At present, the estimated average monthly water service fee will be approximately $3,757.39[3], plus meter fees and any surcharges. Service charges will be billed at the rates in effect at the time of service and are subject to change.

   b. The water capacity fee for the Property will be $754,301.90[4] based on MDD of 22,990 gpd. Capacity fee will be adjusted based on fees in effect at the time of payment.

   c. The ZWF Mitigation (offset) cost for the Property is $106,107.69[5] in order to achieve compliance with the ZWF Policy.

   d. Capacity fee and mitigation funds are due and payable prior to issuance of a building permit.

7. The Property shall incorporate the following water conservation best management practices:

   - Dual plumb the building to receive recycled water for toilet flushing
   - Motion sensor faucets
   - Use recycled water for landscaping
   - On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
   - Education of employees regarding water conservation (offered in both English and Spanish)

8. The City reserves the right to audit the site's water demand as deemed necessary in order to verify that the Owner's water use is in accordance with this Will-Serve letter.

9. Future changes to the Project with respect to the change in use or water demands shall require that a new Will-Serve Letter be issued.

This Will-Serve Letter will remain valid until February 28, 2025. The City reserves the right to further condition and/or deny the extension of water service if the

[3] Calculation: (11,495 gpd * $8.15/748 gal) x 30 days/month = $ 3,757.39/month
[4] Calculation: 22,990 gpd x $32.81/gpd = $754,301.90. This fee based on rates effective February 4, 2023 Resolution 22-R104. Actual fee to be based on rates in effect at time of payment
[5] Calculation: 11,495 gpd/65 gpd x $600 = $106,107.69

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ACCEPTANCE
of
City's Conditional Offer of Water Service for

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-030)

I, Dennis Paulley (Print Name), President (Print Title),

accept the conditions set forth in this communication.

DocuSigned by:
Dennis Paulley
34E37F8C6EC1464...
(Signature)

Date: 3/15/2023

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Project is different from that which presently proposed and authorized or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Owner or to any third party on behalf of the City. The City does not make determination as to land use entitlements required for the proposed project and the issuance of this Will-Serve letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development Property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will-Serve Letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

DocuSigned by:
Erica Ahmann Smithies 3/13/2023
A02D878043A74E7...

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Utility Billing

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CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

E&P Tech Way

Technology Way, Napa, CA 94558
Napa County Assessor's Parcel Number
057-250-030

Prepared by:

Edison Bisnar
Development Services Engineer

Approved by:

DocuSigned by:
Erica Ahmann Smithies
A02D678043A74E7...

3/13/2023

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

Date

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PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

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SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property is located on Technology Way (Assessor's Parcel Number: 057-250-030) on approximately 13.2 acres referred to herein as the "Property." The Property is zoned Industrial Park (IP) with Airport Compatibility (AC) and is located within the City's Extraterritorial Water Service Area (ETSA)[1].

1.2 - Project Description

The proposed project is to build a 143,325 winery. Entitlements required include a Use Permit from Napa County (P22-00307) and Will-Serve Letters from the City (for potable water service – domestic and fire service) and Napa Sanitation District (for sewer and recycled water)[2].

The project incorporates the following water conservation best management practices:

- Dual plumbed the building to receive recycled water for toilet flushing
- Motion sensor faucets
- Use recycled water for landscaping
- On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
- Education of employees regarding water conservation (offered in both English and Spanish)

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property is located within the Napa Sanitation District's (NSD) recycled water service area. Recycled water is available in the area.

1.4 - Will Serve Application

A Will-Serve Application dated January 30, 2023 was submitted on behalf of the Owner, Dennis Paulley. The application submitted details the anticipated and existing water demands for the Site. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.
[2] The project site is located within the Napa Sanitation District's (Napasan) recycled water service area.

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1.5 – Average Day Demand (ADD)

As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 11,495 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
230	11,265	0	11,495

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 1,018 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
460	22,530	0	22,990

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 – Project Demand Consistency with UWMP and ACMC 13.10

The City's 2010 Urban Water Management Plan (UWMP) assumes industrially zoned property will have up to a maximum ADD of 675 gpd per acre. American Canyon Municipal Code Section 13.10 further limits industrially zoned property within City limits and the broader City ETSA up to a maximum ADD of 650 gpd per acre. As shown in Table 3 below, the Property's estimated ADD (1,735 gpd per acre) is greater than the maximum allowed by the ACMC 13.10 (650 gpd per acre):

Table 3 – Maximum ADD			
Parcel Size (acres)	UWMP (gpd/acre)	ACMC 13.10 (gpd/acre)	Property ADD (gpd/acre)
13.2	675	650	1,735

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2.2 - Baseline Water Footprint

The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 4 below, the Property's baseline water footprint is 0 gpd.

Table 4 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	0	N/A	0

2.3 - Zero Water Footprint Determination

Because the Property ADD (11,495 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.4 - Demand Offset

The City has established various programs intended to offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $106,107.69[3] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 11,495 gpd, thereby offsetting the Property's new ADD.

2.5 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after the implementation of the ZWF Policy are determined to potentially

[3] Calculation: 11,495 gpd/65 gpd x $600 = $106,107.69

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have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.6 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it will make to the water capacity fee program in addition to the ZWF Mitigation fee to mitigate 100% of the Property's new water demand.

2.7 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[4]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[5], the Project shall pay a Water Capacity Fee is $754,301.90. This amount one-time fee is based on the rate of $32.81 per gallon x MDD (22,990 gpd).

[4] ACMC §13.14.070

[5] ACMC §13.06.090

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3.2 – Service Charge

The Property is located outside the City's corporate boundary but within the City's Extraterritorial Water Service Area as defined by LAFCO. Based on the American Canyon Water Capacity Fee Ordinance[6], the Property shall accrue a monthly service charge in the amount of $8.15/100 cubic feet (in effect at the time of service and are subject to change), plus monthly meter fees.

3.3 - Reimbursable Improvements

The Property proposes no improvement that would be eligible for reimbursement.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts with Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,640 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,976 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario".

[6] ACMC §13.06.040

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New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) was anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total ADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario". The Project will offset its new demand by paying an ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

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ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-030)

I, Dennis Paulley, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated 3/13/2023.

DocuSigned by:
Dennis Paulley
34E37F8C8EC1484...
(Signature)

Date: 3/15/2023

November 13, 2025

Planning, Building & Environmental Services – County of Napa
1195 Third Street, 2nd Floor
Napa, CA 94559

SUBJECT: APN 057-250-030; -031; and -032 – E&P Technology Way – Buildings A & B
NapaSan Will Serve #101

To Whom It May Concern:

The Napa Sanitation District (NapaSan) has received a request to provide a "Will Serve" letter for two proposed industrial buildings, Building A (APN 057-250-030) and Building B (APN 057-250-031 and -032) to be located at the north side of Technology Way and Morris Court. Building A will be 143,312 SF and Building B will be 66,915 SF. Building A will be used for the following – office/administration, wine production, bulk juice fermentation, wine tank storage, barrel storage, bottling, and case good storage operations. Building B will be used for warehouse and storage space. The subject parcels are currently within NapaSan's Sphere of Influence and within NapaSan's boundaries. NapaSan will provide sanitary sewer and recycled water service to these parcels.

The following items will be required by the owner/developer:

1. Install the sanitary sewer improvements as specified in NapaSan's Conditions of Approval for the project.
2. Pay the appropriate capacity and development fees. The facility shall be subject to all applicable rules and regulations of NapaSan.
3. Enter into an Industrial User permit for industrial process wastewater discharged to NapaSan, or obtain a Zero Waste Discharge permit

NapaSan has been informed that Building A is estimated to generate approximately 230 gallons of domestic wastewater per day, which is equivalent to the flow of approximately 1 single-family dwelling.

NapaSan has been informed that Building A is estimated to generate approximately 11,265 gallons of industrial process wastewater per day, which is equivalent to the flow of approximately 68 single-family dwellings.

NapaSan has been informed that Building B is estimated to generate approximately 106 gallons of domestic wastewater per day, which is equivalent to the flow of approximately 1 single-family dwelling. There is no plan for Building B to generate industrial process wastewater at this time.

NapaSan
1515 Soscol Ferry Road
Napa, CA 94558

Office (707) 258-6000
Fax (707) 258-6048

www.napasan.com

These parcels are within NapaSan's recycled water service area. The development will be required to install the necessary facilities to utilize recycled water for landscape irrigation. The project has requested service for approximately 3.2 acres of landscaping, with a recycled water demand of approximately 5.4 acre-feet per year. NapaSan will provide recycled water service to these parcels.

This "Will Serve" letter for sanitary sewer service and recycled water is valid for a period of three (3) years from the date of this letter. If the proposed development has not obtained its required Connection Permits from NapaSan at the end of this time, this "Will Serve" letter shall become void. If you have any questions regarding this matter, please contact me at (707) 258-6012 or gglascott@napasan.com.

Sincerely,

Gavin Glascott

Gavin Glascott, P.E.
Associate Civil Engineer

NapaSan

COLLECTION • TREATMENT • RECOVERY • REUSE

September 29, 2022

Planning, Building, & Environmental Services
County of Napa
1195 Third Street, Suite 210
Napa, CA 94559

SUBJECT: 22-00307 E&P Technology Way – Building A, REFRL-001351, E&P Properties, Inc., Technology Way and Morris Ct. (Trippi)

NapaSan has reviewed the above-named application, which will be reviewed at an Interdepartmental Staff Meeting.

The owner shall pay to NapaSan the prevailing fees and charges in effect as established by Resolutions and Ordinances before the issuance of a County Building Permit, and shall adhere to the rules and regulations as they apply to the application.

NapaSan has identified the following comments based on the current application. NapaSan reserves the right to modify the following conditions/comments based on changes to future applications or changes to the project site plan.

The proposed project shall be subject to the following conditions of approval:

1. A plan showing the required sanitary sewer improvements, conforming to NapaSan standards, shall be prepared by a registered civil engineer and shall be submitted to NapaSan for approval prior to issuance of permits.

2. Sanitary sewer mains shall have a minimum clearance of 10 feet from proposed trees, 10 feet from water mains, 5 feet from other utilities, and 5 feet from bioretention areas.

3. NapaSan has Best Management Practices (BMPs) for specific industries/businesses which contain proven practices for reducing pollution in wastewater. Some BMPs are mandatory. The proposed project shall comply with mandatory BMPs. All sewer discharges from the proposed development shall meet the Local Limits for constituents of concern established by NapaSan.

4. Discharge lines from the elevator sump pits shall not be connected to the sanitary sewer system.

5. If the owner desires to discharge process wastewater to the District in the future, the owner would be required to pay capacity charges to NapaSan based on the rates in effect at the time and would be subject to the rules and regulations in effect at that time. At a minimum the facility would be subject to the following:

    a. Installation of a flow meter and sampler on the process waste line
    b. Ensure that the discharge conforms with the District's Local Limits
    c. Provide NapaSan with a wastewater treatment plan
    d. Obtain an Industrial Waste Discharge Permit from NapaSan for the winery operation.
    e. Permit conditions would be established by NapaSan at the time an application is made by the owner.

6. All specialty hardscape/landscape features proposed within the existing sanitary sewer easements shall be subject to approval by NapaSan. If approved, the owner shall enter into an indemnification agreement with NapaSan that places the expense for removal and/or replacement of the features on the owner.

7. Floor drains are not allowed in the building except in the restroom and food service areas.

8. The proposed development would be subject to the following fees, based on the rates in effect at the time they are paid:
    a. Plan Check Fees
    b. Inspection Fees
    c. Capacity Charges for commercial space (based on use and square footage)
    d. Capacity Charges for process waste (calculated per Section 5.02.030.B of NapaSan Code. Contact NapaSan for additional information).

9. The subject parcel shall use recycled water for landscape irrigation.

10. There is an existing 15-foot-wide sanitary sewer easement running along the eastern property line of the subject parcel, a 25-foot-wide sewer easement running along the northern property line of the subject parcel, and a 20-foot wide sewer easement running along the western property line of the subject parcel. No trees or other permanent structures will be allowed within the easement areas. All-weather access drives shall be provided to the existing manholes.

11. Each parcel shall be served by a separate sanitary sewer lateral.

12. Should there be a drain in the trash enclosure, it shall be connected to the grease interceptor serving the building and the trash enclosure shall meet NapaSan standards. Contact NapaSan for more information.

13. NapaSan has updated sanitary sewer and recycled water standard specifications and details. The updated specifications and details are available online at NapaSan's website (www.NapaSan.com). NapaSan may revise the standard specifications and details at any time. It is the responsibility of the engineer, contractor, and developer to verify that they are in possession of the current version of the standards prior to design and construction of sanitary sewer and recycled water improvements.

The capacity charge for an equivalent dwelling unit currently is $11,087 and will increase by the Consumer Price Index (CPI) annually in July. Commercial capacity charges are determined per NapaSan Code Section 5.02.030.B. Contact NapaSan Staff at (707) 258-6012 or gglascott@napasan.com for additional information.

Sincerely,

Gavin Glascott

Gavin Glascott
Assistant Engineer

“C”

Revised Recommended Conditions of Approval and Final Agency Approval Memos - Building B

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

PLANNING COMMISSION HEARING – DECEMBER 3, 2025
REVISED RECOMMENDED CONDITIONS OF APPROVAL

E&P TECHNOLGOY WAY – BUILDING B
USE PERMIT APPLICATION P22-00308-UP
TECHNOLOGY WAY, NAPA, CALIFORNIA
APN'S: 057-250-031, -032

This Permit encompasses and shall be limited to the project commonly known as E&P Technology Way, Building B, located on the north side of Technology Way and the south side of Sheehy Creek. Part I encompasses the Project Scope and general conditions pertaining to statutory and local code references, project monitoring and the process for any future changes or activities. Part II encompasses the ongoing conditions relevant to the operation of the project. Part III encompasses the conditions relevant to construction and the prerequisites for a Final Certificate of Occupancy. It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and the general public to ensure compliance is achieved.

Where conditions are not applicable or relevant to this project, they shall be noted as "Reserved" and, therefore, have been removed.

When modifying a legally established entitlement related to this project, these conditions are not intended to be retroactive or to have any effect on existing vested rights except where specifically indicated.

PART I

1.0 PROJECT SCOPE

This Permit encompasses and shall be limited to:

1.1 Approval of a Use Permit for a new light industrial building as follows::

a. construction of an approximately 66,915 sf building, with work areas for warehouse and office areas;
b. on-site parking for 82 vehicles;
c. new driveways on Technology Way; and,
d. signage and landscape improvements.

The wine production facility shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials and shall comply with all requirements of the Napa Valley Business Park Specific Plan and Napa County Code (County Code). It is the responsibility of the permittee to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and the general public to ensure compliance is achieved. Any expansion of or change in use or alternative locations for fire suppression or other types of water tanks shall be approved in accordance with the County Code and may be subject to the permit modification process.

2.0 STATUTORY AND CODE SECTION REFERENCES

All references to statutes and code sections shall refer to their successor as those sections or statutes may be subsequently amended from time to time.

3.0 MONITORING COSTS

All Staff costs associated with monitoring compliance with these conditions, previous permit conditions, and project revisions shall be borne by the permittee and/or property owner. Costs associated with conditions of approval and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged to the property owner or permittee. Costs shall be as established by resolution of the Board of Supervisors in accordance with the hourly consulting rate established at the time of the monitoring and shall include maintenance of a $500 deposit for construction compliance monitoring that shall be retained until issuance of a Final Certificate of Occupancy. Violations of conditions of approval or mitigation measures caused by the permittee's contractors, employees, and/or guests are the responsibility of the permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of a compliance deficiency is found to exist by the Planning Commission at some time in the future, the Planning Commission may institute the program at the permittee's expense (including requiring a deposit of funds in an amount determined by the Commission) as needed until compliance assurance is achieved. The Planning Commission may also use the data, if so warranted, to commence revocation proceedings in accordance with the County Code.

PART II

4.0 OPERATIONAL CHARACTERISTICS OF THE PROJECT

Permittee shall comply with the following during operation of the project:

4.1 GROUND WATER MANAGEMENT – WELLS **[RESERVED]**

4.2 AMPLIFIED MUSIC

There shall be no amplified sound system or amplified music utilized outside of approved, enclosed, buildings.

4.3 TRAFFIC

To the maximum extent feasible, scheduling of reoccurring vehicle trips to and from the site for employees and deliveries shall not occur during peak travel times (4:00 – 6:00pm). All road improvements on private property required per Engineering Services shall be maintained in good working condition and in accordance with the Napa County Roads and Streets Standards.

4.4 PARKING

All parking, driveways, and internal roadways shall comply with the Napa County Road and Street Standards. Parking shall be limited to approve parking spaces only and shall not occur along access or public roads or in other locations. In no case shall parking impede emergency vehicle access or public roads.

4.5 TENANCY CHANGE

a. Any future change of tenancy within the structure shall require administrative review and approval by the PBES Department prior to occupancy. The permittee shall provide the PBES Department with a written profile of the proposed tenant, including name, present address, phone number, description of proposed use, employees, a list of any hazardous materials, and any other information deemed necessary by the PBES Department. The permittee shall also provide a detailed floor plan of the entire structure identifying the location and square footage of all uses within the structure prior to any new tenancy.

b. Parking based on the use of the tenant/building shall be provided in compliance with the Napa Valley Business Park (NVBP) prior to issuance of a Final Certificate of Occupancy. Parking shall be provided in accordance with the NVBP upon any change of use and/or tenancy, subject to review and approval by the PBES Director. The installation of parking may be deferred until such time as building tenancy requires, subject to review and approval by the PBES Director. Additional landscaping shall be provided in place of any deferred parking spaces.

4.6 BUILDING DIVISION – USE OR OCCUPANCY CHANGES

Please contact the Building Division with any questions regarding the following:

In accordance with the California Building Code (CBC), no change shall be made in the use or occupancy of an existing building unless the building is made to comply with requirements of the current CBC as for a new building.

4.7 FIRE DEPARTMENT – TEMPORARY STRUCTURES

Please contact the Fire Department with any questions regarding the following:

The permittee and/or designee shall obtain a tent permit from the Fire Department for any temporary structures utilized for authorized events allowed per COA No. 1.0 above.

4.8 NAPA COUNTY MOSQUITO ABATEMENT PROGRAM **[RESERVED]**

4.9 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, MECHANICAL EQUIPMENT, AND TRASH ENCLOSURE AREAS

a. All lighting shall be permanently maintained in accordance with the lighting and building plans approved by the County.

b. All landscaping shall be permanently maintained in accordance with the landscaping approved by the County.

c. All outdoor screening, storage, mechanical equipment and utility structures shall be permanently maintained in accordance with the landscaping and building plans approved by the County. No stored items

shall exceed the height of the screening. Exterior equipment shall be maintained so as to not create a noise disturbance or exceed noise thresholds in the County Code.

d. The colors used for the roof, exterior walls and built landscaping features of the project shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation. The permittee shall obtain the written approval of the Planning Division prior to any change in paint color that differs from the approved building permit. Highly reflective surfaces are prohibited.

e. Designated trash enclosure areas shall be made available and properly maintained for intended use.

4.10 NO TEMPORARY SIGNS

Temporary off-site signage, such as "A-Frame" signs are prohibited.

4.11 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES - OPERATIONAL CONDITIONS

The attached project conditions of approval include all of the following County Divisions, Departments and Agencies' requirements. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division operational conditions as stated in their Memorandum dated March 1, 2023.

b. Environmental Health Division operational conditions as stated in their Memorandum dated October 23, 2024 (revised September 24, 2025).

c. Department of Public Works operational conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department operational conditions as stated in their Inter-Office Memo dated September 29, 2022

e. City of American Canyon operational conditions as stated in their "will serve" letter dated March 13, 2023, and Amendment 1, dated November 19, 2024.

f. Napa Sanitation District operational conditions as stated in their "will serve" letter dated November 13, 2025, ~~February 1, 2023,~~ and letter dated September 29, 2022.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify this permit.

4.12 OPERATIONAL MITIGATION MEASURES

a. TRANS-1: The project sponsor for the Building B warehouse building shall submit a Transportation Demand Management Plan prepared by a qualified traffic engineer that achieves a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day. The TDM for the warehouse building should include the following:

Commute Trip Reduction Program
A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided.

Rideshare Program
Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides.

Tele-Work/Compressed/Flex Schedules
Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours.

End-of-Trip Bicycle Facilities
Bicycle Parking - The provision of both short-term and long-term bicycle parking is important for encouraging employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well.

Bicycle Maintenance Tools - In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel.

Employee VMT Reduction
The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy.

Method of Mitigation Monitoring: The applicant shall submit the TDM to the Planning Division, prior to issuance of grading or building permits. The Building B project sponsor, or future tenants, shall submit an annual progress report documenting the implemented TDM measures and the resulting VMT reduction percentages for review and approval by the Napa County PBES Director.

Responsible Agency(ies): PBES, Department of Public Works

4.13 OTHER CONDITIONS APPLICABLE TO THE OPERATIONAL ASPECTS OF THE PROJECT

a. General
There shall be no more than 100 people per acre inside structures and no more than 150 people per acre inside and outside.

b. Greenhouse Gas Best Management Practices
1. In conjunction with building permit application submittal, the Permittee shall provide documentation confirming to the Planning Division that all checked Voluntary Best Management Practices measures submitted with the project application shall be addressed through project construction and/or implemented through business operations.
2. In conjunction with building permit application submittal, the Permittee shall not include natural gas appliances or natural gas plumbing within the building.
3. In conjunction with building permit application submittal, the project shall comply with electric vehicle requirements in the most recently adopted version of CAL Green Tier 2.
4. In conjunction with building permit application submittal, the Permittee shall

4.14 PREVIOUS CONDITIONS **[RESERVED]**

PART III

5.0 PREREQUISITE FOR ISSUANCE OF PERMITS

5.1 PAYMENT OF FEES

No building, grading or sewage disposal permits shall be issued or other permits authorized until all accrued planning permit processing fees have been paid in full. This includes all fees associated with plan check and building inspections, associated development impact fees established by County Ordinance or Resolution, and the Napa County Affordable Housing Mitigation Fee in accordance with County Code.

6.0 GRADING/DEMOLITION/ENVIRONMENTAL/BUILDING PERMIT/OTHER PERMIT PREREQUISITES

Permittee shall comply with the following with the submittal of a grading, demolition environmental, building and/or other applicable permit applications:

6.1 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES - PLAN REVIEW, CONSTRUCTION AND PREOCCUPANCY CONDITIONS

The attached project conditions of approval include all of the following County Divisions, Departments and Agencies' requirements. The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Divisions, Departments and Agencies at the time of submittal and may be subject to change. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

a. Engineering Services Division plan review/construction/preoccupancy conditions as stated in their Memorandum dated March 1, 2023.

b. Environmental Health Division plan review/construction/preoccupancy conditions as stated in their Memorandum dated October 23, 2024 (Revised September 24, 2025).

c. Department of Public Works plan review/construction/preoccupancy conditions as stated in their Memorandum dated October 30, 2024.

d. Fire Department plan review/construction/preoccupancy conditions as stated in their Inter-Office Memo dated September 29, 2022.

e. City of American Canyon plan review/construction/preoccupancy conditions as stated in their "will serve" letter dated March 13, 2023, and Amendment 1, dated November 19, 2024.

f. Napa Sanitation District plan review/construction/preoccupancy conditions as stated in their "will serve" letter dated November 13, 2025, ~~February 1, 2023,~~ and letter dated September 29, 2022.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those County Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify the permit.

6.2 BUILDING DIVISION – GENERAL CONDITIONS

Please contact the Building Division with any questions regarding the following:

a. A building permit shall be obtained for all construction occurring on the site not otherwise exempt by the CBC or any State or local amendment adopted thereto

b. If there are any existing structures and/or buildings on the property that will need to be removed to accommodate construction activities, a separate demolition permit shall be required from the Building Division prior to removal. The permittee shall provide a "J" number from the Bay Area Air Quality Management District (BAAQMD) at the time the permittee applies for a demolition permit if applicable.

c. All areas of newly designed and newly constructed buildings, facilities and or site improvements shall comply with the CBC accessibility requirements, as well as, American with Disabilities Act requirements when applicable. When alterations or additions are made to existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided, as required per the CBC.

6.3 LIGHTING – PLAN SUBMITTAL

a. Two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the CBC.

b. All exterior lighting, including landscape lighting, shall be shielded and directed downward; located as low to the ground as possible; the minimum necessary for security, safety, or operations; on timers; and shall incorporate the use of motion detection sensors to the greatest extent practical. All lighting shall be shielded or placed such that it does not shine directly on adjacent properties or impact vehicles on adjacent streets. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards.

6.4 LANDSCAPING – PLAN SUBMITTAL

a. Two (2) copies of a detailed final landscaping and irrigation plan, including parking details, shall be submitted with the building permit application package for the Planning Division's review and approval prior to the issuance of any building permit associated with this permit. The plan shall be prepared pursuant to the Water Efficient Landscape Ordinance (Chapter 18.118 of the County Code) requirements in effect at

the time of building permit application submittal, as applicable, and shall indicate the names and locations of all plant materials to be used along with their method of maintenance.

b. Plant materials shall be purchased locally when practical, and, to the greatest extent possible, the plant materials shall be the same native plants found in Napa County. The Agricultural Commissioner's office shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.

c. No trees greater than 6" diameter at breast height shall be removed, except for those identified on the submitted site plan. Trees to be retained shall be protected during construction by fencing securely installed at the outer most dripline of the tree or trees. Such fencing shall be maintained throughout the duration of the work undertaken in connection with development/construction. In no case shall construction material, debris or vehicles be stored in the fenced tree protection area.

d. All landscaped areas and sidewalks shall be separated from parking and drive aisle areas by a minimum 6 inch raised concrete curb. The irrigation system shall utilize reclaimed water. Two feet of required parking stall depth may overhang into non-required landscape planters and sidewalks. Standard sized parking stalls are required to have a minimum depth of 19 feet, and compact stalls may be 16 feet. A maximum of 35% of the parking stalls may be compact.

e. The irrigation system shall utilize reclaimed water when it is made available in the vicinity. Any undeveloped portion of the property shall be hydro-seeded or an approved equivalent and permanently maintained.

6.5 COLORS

Exterior finishes and colors of the building, roof, parking lot and walkways shall be subject to approval by the Planning Division in conjunction with building permit review and/or prior to painting. Highly reflective surfaces are prohibited.

6.6 OUTDOOR STORAGE/SCREENING/UTILITIES

Details of outdoor storage areas and structures shall be included on the building and landscape plans. No outdoor storage is permitted as part of this action. Any proposal for outdoor storage and proposed screening is subject to separate review and approval by the PBES Department. New utility lines required for this project shall be placed underground.

6.7 MECHANICAL EQUIPMENT

a. Roof mounted equipment shall be screened by a parapet wall of equal or greater height than the highest piece of roof mounted equipment or vent. Equipment may be screened by a separate roof screen that is architecturally integrated with the building if screening by a parapet wall is not feasible or is architecturally undesirable. When separate roof screens are used, roof equipment should be organized into major groups screening a smaller number of units rather than multiple areas. The

PBES Director may approve exceptions for solar equipment. All screening is subject to review and approval by the PBES Director. Any skylights shall be subject to review and approval by the PBES Director prior to the issuance of building permits.

b. The term "equipment" includes roof mounted equipment or vents, electrical equipment, gas meter, communication antennas, irrigation valves, storage tanks, or other mechanical equipment. The manner of screening shall be as follows: Communications equipment, including microwave equipment, may remain unscreened if visually integrated with the building design through color, location, and construction; all building mounted equipment, including but not limited to louvers, pipes, overhead doors or service doors, access ladders, downspouts, conduit, and electrical/service boxes, shall be painted consistent with the color scheme of the building.

c. Ground mounted equipment shall be screened by walls or landscaping to the satisfaction of the PBES Director.

d. Exterior equipment shall be located, enclosed or muffled so as not to exceed noise thresholds in the County Code.

6.8 TRASH ENCLOSURES

a. The permittee shall provide one or more trash enclosures (decorative masonry or equivalent), the design of which shall be compatible with the architecture of the project. The enclosure shall be reasonably accessible to employees. A minimum 8' x 10' thickened paving section shall be provided in front of each enclosure. The PBES Director shall approve the design and location of each enclosure. All trash bins shall be stored within approved trash enclosures. The enclosure shall also include a separate pedestrian walk-in access.

b. The permittee shall provide adequate, accessible, and convenient areas for the collection and loading of recyclable materials generated by the development. These areas shall be located adjacent to trash enclosures when practical. All recyclable materials areas shall be accessible by collection vehicles. The PBES Director shall approve the design and location of each collection and loading area.

6.9 BICYCLE PARKING

Bicycle parking areas shall be provided at a ratio of one bicycle parking space for every 25 employees, as applicable. At least one bicycle parking space shall be provided.

6.10 CONSTRUCTION CRANES

Any crane used in the construction of the phases shall be lighted and have flags for improved visibility from aircraft; no crane shall exceed 80 feet in height without first obtaining the Federal Aviation Administration’s express approval.

6.11 AIRCRAFT OVERFLIGHT EASEMENT

Upon building permit submittal, the permittee shall submit verification that an aircraft overflight easement has been recorded on the property that provides for the right of aircraft operation, overflight and related noises, and for the regulation of light emissions, electrical emissions, or the release of substances such as steam or smoke which could interfere with aircraft operations.

6.12 ADDRESSING

All project site addresses shall be determined by the PBES Director, and be reviewed and approved by the United States Post Office. The PBES Director reserves the right to issue or re-issue an appropriate situs address at the time of issuance of any building permit to ensure proper identification and sequencing of numbers. For multi-tenant or multiple structure projects, this includes building permits for later building modifications or tenant improvements.

6.13 HISTORIC RESOURCES **[RESERVED]**

6.14 DEMOLITION ACTIVITIES **[RESERVED]**

6.15 PERMIT PREREQUISITE MITIGATION MEASURES

The permittee shall comply with the following permit prerequisite mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. BIO 1 - Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area. The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

   Method of Mitigation Monitoring: The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing construction activities are conducted.

   Responsible Agency(ies): PBES

c. BIO 2 - The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required.

If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio.

Method of Mitigation Monitoring: The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.

Responsible Agency(ies): PBES, CDFW

c. BIO 3 - A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the

presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

d. BIO-4, Swainson's Hawk Surveys and Avoidance Buffer - If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as

vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

e. BIO 5 - Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

f. BIO-6, Burrowing Owl Habitat Assessment and Surveys - A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW.

Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Method of Mitigation Monitoring: The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES,CDFW

g. BIO-7, Burrowing Owl Foraging Habitat Mitigation - Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

h. BIO-8 - The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are

observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.

Method of Mitigation Monitoring: The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

i. BIO-9 - The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

   Method of Mitigation Monitoring: The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.

   Responsible Agency(ies): PBES

j. CULT-1 - Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental

Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the Napa County Planning and Building Services department for the administrative file.

Method of Mitigation Monitoring: The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.

Responsible Agency(ies): PBES

k. TRANS-1: The project sponsor for the Building B warehouse building shall submit a Transportation Demand Management Plan prepared by a qualified traffic engineer that achieves a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day. The TDM for the warehouse building should include the following:

Commute Trip Reduction Program
A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided.

Rideshare Program
Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain

percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides.

Tele-Work/Compressed/Flex Schedules
Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours.

End-of-Trip Bicycle Facilities
Bicycle Parking - The provision of both short-term and long-term bicycle parking is important for encouraging employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well.

Bicycle Maintenance Tools - In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel.

Employee VMT Reduction
The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy.

Method of Mitigation Monitoring: The applicant shall submit the TDM to the Planning Division, prior to issuance of grading or building permits. The Building B project sponsor, or future tenants, shall submit an annual progress report documenting the implemented TDM measures and the resulting VMT reduction percentages for review and approval by the Napa County PBES Director.

Responsible Agency(ies): PBES, Department of Public Works

6.16 PARCEL CHANGE REQUIREMENTS
The permittee shall comply with the following requirements:

a. PARCEL MERGER
The parcels 057-250-031 and 057-250-032 shall be combined prior to the issuance of building permits.

6.17 FINAL MAPS **[RESERVED]**

6.18 OTHER CONDITIONS APPLICABLE TO THE PROJECT PERMITTING PROCESS

a. Greenhouse Gas Best Management Practices

1. In conjunction with building permit application submittal, the Permittee shall provide documentation confirming to the Planning Division that all checked Voluntary Best Management Practices measures submitted with the project application shall be addressed through project construction and/or implemented through business operations.
2. In conjunction with building permit application submittal, the Permittee shall not include natural gas appliances or natural gas plumbing within the building.
3. In conjunction with building permit application submittal, the project shall comply with electric vehicle requirements in the most recently adopted version of CAL Green Tier 2.
4. In conjunction with building permit application submittal, the Permittee shall

7.0 PROJECT CONSTRUCTION

Permittee shall comply with the following during project construction:

7.1 SITE IMPROVEMENT
Please contact Engineering Services with any questions regarding the following:

a. GRADING & SPOILS
All grading and spoils generated by construction of the project facilities shall be managed per Engineering Services direction. Alternative locations for spoils are permitted, subject to review and approval by the PBES Director, when such alternative locations do not change the overall concept, and do not conflict with any environmental mitigation measures or conditions of approval.

b. DUST CONTROL
Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

c. AIR QUALITY

During all construction activities the permittee shall comply with the most current version of BAAQMD Basic Construction Best Management Practices including but not limited to the following, as applicable:

1. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.

2. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.

3. Cover all haul trucks transporting soil, sand, or other loose material off-site.

4. Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

5. All vehicle speeds on unpaved roads shall be limited to 15 mph.

6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

7. Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required State Regulations). Clear signage shall be provided for construction workers at all access points.

8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf or the PERP website http://www.arb.ca.gov/portable/portable.htm.

d. STORM WATER CONTROL

The permittee shall comply with all construction and post-construction storm water pollution prevention protocols as required by the County Engineering Services Division, and the State Regional Water Quality Control Board.

7.2 ARCHEOLOGICAL FINDING

In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the PBES Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during project development, all work in the vicinity must be halted, and the Napa County Coroner informed, so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the permittee shall comply with the requirements of Public Resources Code Section 5097.98.

7.3 CONSTRUCTION NOISE

Construction noise shall be minimized to the greatest extent practical and feasible under State and local safety laws, consistent with construction noise levels permitted by the General Plan Community Character Element and the County Noise Ordinance. Construction equipment muffling and hours of operation shall be in compliance with the County Code. Equipment shall be shut down when not in use. Construction equipment shall be staged, loaded, and unloaded on the project site, if at all practicable. If project terrain or access road conditions require construction equipment to be staged, loaded, or unloaded off the project site (such as on a neighboring road or at the base of a hill), such activities only shall occur daily between the hours of 8:00 AM to 5:00 PM.

7.4 CONSTRUCTION MITIGATION MEASURES

The permittee shall comply with the following construction mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project:

a. BIO 1 - Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area. The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No

materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

Method of Mitigation Monitoring: The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing construction activities are conducted.

Responsible Agency(ies): PBES

b. BIO 2 - The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required.

If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio.

Method of Mitigation Monitoring: The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.

c. BIO 3 - A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by

vegetation removal or grading activities, including in the disked area of the project site.

Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

d. BIO-4, Swainson's Hawk Surveys and Avoidance Buffer - If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain

CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

e. BIO 5 - Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon

verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

f. BIO-6, Burrowing Owl Habitat Assessment and Surveys - A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW.

Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets,

prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Method of Mitigation Monitoring: The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

g. BIO-7, Burrowing Owl Foraging Habitat Mitigation - Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Responsible Agency(ies): PBES, CDFW

h. BIO-8 - The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The

fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.

Method of Mitigation Monitoring: The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Responsible Agency(ies): PBES, CDFW

i. BIO-9 - The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

Method of Mitigation Monitoring: The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.

Responsible Agency(ies): PBES

j. CULT-1 - Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the Napa County Planning and Building Services department for the administrative file.

Method of Mitigation Monitoring: The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.

Responsible Agency(ies): PBES

k. TRANS-1: The project sponsor for the Building B warehouse building shall submit a Transportation Demand Management Plan prepared by a qualified traffic engineer that achieves a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day. The TDM for the warehouse building should include the following:

Commute Trip Reduction Program
A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided.

Rideshare Program
Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides.

Tele-Work/Compressed/Flex Schedules
Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours.

End-of-Trip Bicycle Facilities
Bicycle Parking - The provision of both short-term and long-term bicycle parking is important for encouraging employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well.

Bicycle Maintenance Tools - In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel.

Employee VMT Reduction
The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy.

Method of Mitigation Monitoring: The applicant shall submit the TDM to the Planning Division, prior to issuance of grading or building permits. The Building B project sponsor, or future tenants, shall submit an annual progress report documenting the implemented TDM measures and the

resulting VMT reduction percentages for review and approval by the Napa County PBES Director.

Responsible Agency(ies): PBES, Department of Public Works

7.5 OTHER CONSTRUCTION CONDITIONS APPLICABLE TO THE PROJECT PROPOSAL

a. Sheehy Creek
The location of the Sheehy creek setbacks and conservation area shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the approved project plans. Temporary protection fencing shall be installed prior to any earthmoving activities and remain in place through the duration of project construction. The locations of said protection fencing shall be inspected and approved by the Planning or Engineering Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, parking, etc. shall occur within the designated creek setback areas for the duration of the project. All construction and related traffic shall remain on the inside (development) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remain undisturbed.

8.0 TEMPORARY CERTIFICATE OF OCCUPANCY – PREREQUISITES

A Temporary Certificate of Occupancy (TCO) may be granted pursuant to the County Code to allow specific limited use of the building prior to completion of all project improvements. Permittee shall comply with the following before a TCO is granted:

8.1 TEMPORARY OCCUPANCY
All life and safety conditions shall be addressed prior to issuance of a TCO by the County Building Official. TCOs shall not be used for general public occupancy of buildings and shall not exceed the maximum time allowed by the County Code which is 180 days. In special circumstances, Departments and/or Agencies with jurisdiction over the project are authorized as part of the TCO process to require a security deposit or other financial instrument to guarantee completion of unfinished improvements.

9.0 FINAL CERTIFICATE OF OCCUPANCY – PREREQUISITES

Permittee shall comply with the following before a Final Certificate of Occupancy is granted by the County Building Official, which upon granting, authorizes all use permit activities to commence:

9.1 FINAL OCCUPANCY
All project improvements, including compliance with applicable codes, conditions, and requirements of all Departments and Agencies with jurisdiction over the project, shall be completed.

9.2 SIGNS

Detailed plans, including elevations, materials, color, and lighting for any project identification or directional signs shall be submitted to the Department for administrative review and approval prior to installation. Administrative review and approval is not required if the signage to be installed is consistent with signage plans submitted, reviewed and approved as part of this permit approval. All signs shall meet the design standards as set forth in the County Code. Any off-site signs allowed shall be in conformance with the County Code.

9.3 GATE/ENTRY STRUCTURES

Any gate installed at the project entrance shall be reviewed by the PBES Department and the Fire Department to assure that the design allows large vehicles, such as motorhomes, to turn around if the gate is closed without backing into the public roadway, and that fire suppression access is available at all times. If the gate is part of an entry structure an additional permit shall be required pursuant to the County Code and in accordance with the Napa County Roads and Street Standards. A separate entry structure permit is not required if the entry structure is consistent with entry structure plans submitted, reviewed, and approved as part of this permit approval.

9.4 LANDSCAPING

Landscaping shall be installed in accordance with the approved landscape plan.

9.5 ROAD OR TRAFFIC IMPROVEMENT REQUIREMENTS **[RESERVED]**

9.6 DEMOLITION ACTIVITIES **[RESERVED]**

9.7 GRADING SPOILS

All spoils piles shall be removed in accordance with the approved grading permit and/or building permit.

9.8 MITIGATION MEASURES APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY **[RESERVED]**

9.9 OTHER CONDITIONS APPLICABLE PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY

a. The temporary construction fencing placed along the Sheehy Creek setback shall be removed prior to final occupancy.

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Planning, Building & Environmental Services

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David Morrison
Director

MEMORANDUM

AB 3/1/23

To:	Sean Trippi Planning Division	From:	Alexei Belov Engineering Division
Date:	March 1, 2023	Re:	**E&P Technology Way Building B** **Engineering COA** **P22-00308** **APN: 057-250-031 & 032**

The Engineering Division received a referral for comment on a new Use Permit for a warehouse located on Technology Way. Based upon the information provided in the application, Engineering finds the application **complete** and recommends the following conditions of approval:

RECOMMENDED APPROVAL CONDITIONS:

ROAD & STREET STANDARDS

1. Any roadway, access driveway, and parking areas, proposed new or reconstructed shall meet the requirements as outlined in the latest editions of the Napa County Road and Street Standards, for commercial development, at the time of Building Permit approval. The property owner shall obtain a Grading Permit for all proposed roadway improvements.

2. The applicant shall obtain an Encroachment Permit from the Napa County Department of Public Works for any work performed in the County Right-of-Way.

SITE IMPROVEMENTS

3. A **Grading Permit** shall be required for the proposed Site Improvements.

4. All on site civil improvements including but not limited to the excavation, fill, general grading, drainage, curb, gutter, surface drainage, storm drainage, and parking and driveways, shall be constructed according to plans prepared by a registered civil engineer, which will be reviewed and approved by the Engineering Division of the Napa County Planning, Building and Environmental Services Department (PBES) **prior to the commencement** of any on site land preparation or construction. Plans shall be wet signed and submitted with the grading permit documents at the time of permit application. A plan check fee will apply.

5. Grading and drainage improvements shall be constructed according to the current Napa County Road and Street Standards, Chapter 16.28 of the Napa County Code, and Appendix J of the California Building Code.

6. **Prior to issuance of a development permit** (i.e. building permit and/or grading permit) the owner shall submit the necessary documents for Erosion Control as determined by the area of disturbance of the proposed development in accordance with the Napa Countywide Stormwater Pollution Prevention Program Erosion and Sediment Control Plan Guidance document, dated December 2014.

7. All improvements shall conform to the latest Napa County Airport Industrial Area Specific Plan.

8. Applicant shall pay the applicable Napa County Airport Industrial Area Traffic Mitigation Fees prior to receiving any development permits for this project. The applicant should contact the Public Works office to obtain information regarding the determination of this fee.

CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

9. Any construction activity that equals or exceeds one acre of total disturbed area shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the regulations of Regional Water Quality Control Board (RWQCB) and shall file a Notice of Intent (NOI) prior to commencement of any construction activity. The completed SWPPP shall be submitted to the Napa County PBES Department Engineering Division for review.

10. All hazardous materials stored and used on-site during construction that could cause water pollution (e.g. motor oil, cleaning chemicals, paints, concrete, etc.) shall be stored and used in a manner that will not cause pollution, with secondary containment provided. Such storage areas shall be regularly cleaned to remove litter and debris. Any spills shall be promptly cleaned up and appropriate authorities notified.

11. All trash enclosures must be covered and protected from rain, roof, and surface drainage.

12. The property owner shall inform all individuals, who will take part in the construction process, of these requirements.

POST - CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

13. **Prior to issuance of a development permit** (i.e. building permit and/or grading permit) the owner shall submit a Regulated Project Stormwater Control Plan (SCP) in accordance with the latest edition of the BASMAA Post-Construction Manual.

PREREQUISITES FOR FINAL CERTIFICATION OF OCCUPANCY

14. Site shall be completely stabilized to the satisfaction of the County Engineer prior to Final Occupancy.

15. All roadway improvements shall be completed prior to Final Occupancy.

Any changes in use may necessitate additional conditions of approval.

Any changes in use or design may necessitate additional review and approval. If you have any questions regarding the above items please contact Alexei Belov from Napa County PBES Department Engineering Division at (707) 299.2177 or via e-mail at Alexei.Belov@countyofnapa.org.

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Brian Bordona
Director

MEMORANDUM

To:	Sean Trippi, Supervising Planner	From:	Maureen Bown, MSB Senior Environmental Health
Date:	October 23, 2024 Revised 9/24/25	Re:	E & P Technology Way - Building B Assessor Parcel #057-250-031-000 Permit# P22-00308

Environmental Health staff has reviewed an application requesting approval for a new building to produce and store wine, as described in the application. This Division has no objection to approval of the application with the following conditions of approval:

1. Any abandoned groundwater well(s), must be destroyed by a licensed well driller, pursuant to Napa County Code 13.12.460, 13.12.270. A well destruction permit must be obtained from this Division, by a licensed well driller, prior to the approval of a grading or building permit.

2. All wastewater lines of the proposed development must be connected to the Napa Sanitation District (NSD) and comply with conditions of approval. If pre-treatment is required by NSD, then it shall be permitted and operated at all times so as to not create a nuisance of noise or odors.

3. The proposed parcels must be connected to the City of American Canyon public water system.

4. Pursuant to Chapter 6.95 of the California Health and Safety Code, businesses that store hazardous materials above threshold planning quantities (55 gallons liquid, 200 cubic feet compressed gas, or 500 pounds of solids) shall obtain a permit, file an approved Hazardous Materials Business Plan to http://cers.calepa.ca.gov/ , and be approved by this Division within 30 days of said activities.

5. Adequate area must be provided for collection of recyclables. The applicant must work with the franchised garbage hauler for the service area in which they are located, in order to determine the area and the access needed for the collection site. The garbage and recycling enclosure must meet the enclosure requirements provided during use permit process and be included on the building permit submittal. The designated area shall remain available and be properly maintained for its intended use.

6. During the construction, demolition, or renovation period of the project the applicant must use the franchised garbage hauler for the service area in which they are located for all waste generated during project development, unless applicants transport their own waste. If the applicant transports their own waste, they must use the appropriate landfill or solid waste transfer station for the service area in which the project is located.

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Steven Lederer
Director

MEMORANDUM

To:	PBES Staff	From:	Ahsan Kazmi, P.E. Senior Traffic Engineer

Date: Updated:	September 22, 2022 October 30, 2024	Re:	E&P Technology - Bldg A (P22-00307) & Bldg B (P22-00308) **Conditions of Approval**

This memorandum is prepared at the request of Planning, Building, and Environmental Services (PBES) staff to provide conditions of approval per County policies established for the Napa Valley Business Park related to the Use Permit Major Modification Application # P22-00307 and P22-00308 for the E&P Technology Way – Building A and B Projects, located north side of Technology Way and east side of Morris Court, in unincorporated Napa County, California 94558 (APN # 057-250-030, 031 and 032).

To prepare this Conditions of Approval Memorandum, the following documents were reviewed:

- Transmittal Letter by Mr. Mike Kelly, Agent for Applicant, dated August 30, 2022
- Use Permit Major Modification Application dated August 20, 2022
- Project Description by Mr. Dennis Paulley, dated August 22, 2022
- Preliminary Landscape, Civil and Architectural Plans, dated July 27, 2022
- Stormwater Control Plan Report dated July 29. 2022
- Geotechnical Investigation Report, dated September, 30, 2021
- Transportation Impact Study by W-Trans dated November 21, 2023

EXISTING SITE CONDITIONS:
The project site is located on the north side of Technology Way and Morris Court, in the County of Napa, California. The 20.07-acre site is currently undeveloped.

PROPOSED DEVELOPMENT:
The proposed project consists of two speculative industrial buildings (Buildings A and B) located within the IP: AC zoning. Anticipated uses are those that are consistent with this zoning. The buildings may be constructed in a single phase or in two phases. Building A is 143,312 SF on 13.2 acres. Building B is 66,915 SF on 6.87 acres.

The Department of Public Works has established the following conditions of approval related to the Use Permit Application Number P22-00307 and P22-308. **All listed conditions of approval shall be fully completed accordingly prior to the issuance of Building and Occupancy permits:**

1. Project Driveways

Driveway access to the public right-of-way must conform to the latest edition of the Napa County Road and Street Standards.

2. Landscaping Maintenance

Landscaping adjacent to the project driveway shall be designed and maintained to not interfere with sight lines required for safe stopping distance on the public right-of-way. No items wider than 18 inches can be taller than 30 inches other than street trees and traffic control devices. Street trees should be deciduous and have branches lower than 6 feet in height removed once the tree is established.

3. Encroachment Permit Requirement

An encroachment permit along with the required fee and a proposed traffic control plan will be required for the construction of any improvements within public right of way. Please contact the Roads office at (707) 944-0196 to initiate the encroachment permit process. More information is available at our website: http://www.countyofnapa.org/publicworks/roads/

4. Transportation Demand Management Plan

The applicant/permittee shall submit a Final Transportation Demand Management (TDM) Plan that will include measures to reduce Vehicle Miles Traveled (VMT) by 15 percent, prior to issuance of a Building Permit. The measures shall include, but not limited to, subsidized transit passes, carpool incentives, and bicycle trip-end facilities. Implementation and monitoring shall be included in the Final TDM Plan.

5. On Street Parking

Parking within the public right-of-way will be prohibited.

6. Bicycle Facilities

The project shall install bicycle parking for both short-term visitors as well as covered bicycle parking for employees. Bicycle parking should be provided per the County of Napa Municipal Code.

7. Napa Valley Vine Trail Right-of-Way and Entitlements

If needed, the applicant shall provide necessary right-of-way and entitlements to the County of Napa per the recommendations of the Napa Valley Vine Trail, Napa Sanitation District Property Route Study, dated October, 17, 2016 and/or as modified by the Napa Valley Vine Trail Coalition.

8. Traffic Mitigation Fees Required

All new development or expansion of existing development that will generate additional traffic in the Napa Valley Business Park is required to pay a Traffic Mitigation Fee (TMF). The fees collected will use to fund the construction of new roads and intersection improvements in the area. The current TMF is $685 per new daily trip that will be generated by E&P Technical Way Building A and B based on land use type. Any TMF paid for a shell building will be adjusted accordingly at the time of issuing the occupancy permit. The applicant shall pay the TMF before issuance of Building and Occupancy permits: Information on TMF is available at our website: http://www.countyofnapa.org/publicworks/roads

If you have any questions or concerns on this matter, please contact Ahsan Kazmi, P. E. at ahsan.kazmi@countyofnapa.org or call (707) 259-8370 if you have any questions.

Napa County Fire Department
Fire Marshal's Office
Hall of Justice, 2nd Floor
1125 3rd Street
Napa, CA 94559

Office: (707) 299-1464

Jason Downs
Deputy Fire Marshal

A Tradition of Stewardship
A Commitment to Service

MEMORANDUM

TO:	Planning Department	**DATE:**	9/29/2022
FROM:	Jason Downs, Deputy Fire Marshal	**PERMIT #**	P22-00308
SUBJECT:	E&P Technology - Building B	**APN:**	057-250-031-000

The Napa County Fire Marshal's Office has reviewed the submittal package for the proposed project above. The Fire Marshal approves the project as submitted with the following conditions of approval:

1. All construction and use of the facility shall comply with all applicable standards, regulations, codes, and ordinances at the time of Building Permit issuance.

2. Beneficial occupancy will not be granted until all fire department fire and life safety items have been installed, tested, and finalized.

3. Where conditions listed in 2019 California Fire Code Section 105.7 are proposed, separate permits will be required prior to Building Permit issuance for:

    1. Automatic fire-extinguishing systems
    2. Fire alarm detection systems and related equipment
    3. Fire pumps and related equipment

4. All buildings, facilities, and developments shall be accessible to fire department apparatus by way of approved access roadways and/or driveways. The fire access road shall comply with the requirements of the Napa County Road & Street Standards

5. Access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced to provide all-weather driving capabilities. Provide an engineered analysis of the proposed roadway noting its ability to support apparatus weighing 75,000 lbs.

6. Provide fire department access roads within 150 feet of any exterior portion of the buildings as measured by an approved route around the exterior of the building or facility.

7. Roadways shall be a minimum of 20 feet in width with a 2-foot shoulder and 15-foot vertical clearance.

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Jason Downs
Deputy Fire Marshal

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A Commitment to Service

MEMORANDUM

8. Roadway radius shall not have an inside radius of fewer than 50 feet. An additional surface width of 4 feet shall be added to curves of 50-100 feet radius and 2 feet to curves of 100-200 feet radius.

9. Gates for driveways and/or roadways shall comply with the California Fire Code, section 503.5, and the Napa County Road & Street Standards and CA Fire Safe Regulations for projects within SRA.

10. Commercial - Water storage (for buildings not served by a public water system) and fire flow calculations shall be provided by a Certified State Licensed Civil Engineer, C-16 licensed contractor, or registered engineer indicating compliance with California Fire Code Appendix B and the Napa County Municipal Code.

11. Commercial - Approved steamer hydrants shall be installed within 250 feet of any exterior portion of the building as measured along vehicular access roads. Private fire service mains shall be installed, tested, and maintained per NFPA 24.

12. Commercial - Fire Department Connections (FDC) for automatic sprinkler systems shall be located fully visible and recognizable from the street or fire apparatus access roads. FDC shall be located within 50 feet of an approved fire hydrant.

13. Commercial - The minimum main size of all fire hydrants shall be 6 inches in diameter. Piping shall be installed with C-900 class 200 piping or ductile iron or equivalent per NFPA 24 for the installation of Underground Fire Protection Mains

14. An automatic fire sprinkler system shall be installed in accordance with provisions set forth in the California Fire Code as amended by the County of Napa and the applicable National Fire Protection Association Standard. Automatic fire sprinkler systems shall be designed by a fire protection engineer or C-16 licensed contractor.

15. All buildings shall comply with California Fire Code, Chapter 10 Means of Egress Requirements. Including but not limited to; exit signs, exit doors, exit hardware, and exit illumination.

16. Provide 100 feet of defensible space around all structures.

17. Provide 10 feet of defensible space for fire hazard reduction on both sides of all roadways of the facility.

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Napa County Fire Department
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1125 3rd Street
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Office: (707) 299-1464

Jason Downs
Deputy Fire Marshal

MEMORANDUM

Please note that the comments noted above are based on a Fire Marshal review only. There may be additional comments or information requested from other County Departments or Divisions reviewing this application submittal package. Napa County Fire Marshal's Office Development Guidelines can be found @ www.countyofnapa.org/firemarshal. Should you have any questions for me, please contact me at (707) 299-1467 or by email at jason.downs@countyofnapa.org

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT

November 19, 2024

Mr. Dennis Paulley
E&P Properties, Inc.
2250 S. Watney Way
Fairfield, CA 94533
Tel: (707) 745-1150

RE: Will-Serve Letter Extension for Potable Water Service for the "E&P Tech Way Project" Assessor's Parcel Number: 057-250-031 and 032.

Dear Mr. Paulley,

The following serves as Amendment 1 to the March 13, 2023 Water Service "Will Serve" Letter for the subject property. The paragraph on page 4 shall be amended as follows (changes shown in strikethrough and **bold**).

"This Will-Serve Letter will remain valid until ~~February 28, 2025~~ **November 30, 2026**. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and authorized or if events out of City's control impact the City's ability to furnish water".

This Amendment 1 to the March 13, 2023, Will-Serve Letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

Nov 19, 2024

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Edison Bisnar, Public Works Department
Utility Billing

ACCEPTANCE
of
City's Conditional Offer of Water Service for

E&P Properties, Inc.
Technology Way, Napa CA 94558
(APN 057-250-031 & 032)

I, Dennis Paulley (Print Name), President (Print Title)

accept the conditions set forth in this communication.

Dennis Paulley
Dennis Paulley (Nov 19, 2024 11:49 PST) (Signature)

11/19/2024 (Date)

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March 13, 2023

Dennis Paulley
E&P Enterprises, Inc.
2250 S. Watney Way
Fairfield, CA 94533
Tel: (707) 745-1150

SUBJECT: Request for Water Service "Will-Serve" Letter
E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-031 & -032)

Dear Mr. Paulley,

The City of American Canyon has received your request as the Property Owner for a Will-Serve letter for water service to the property located on Technology Way (Assessor's Parcel Numbers: 057-250-031 and -032, referred to herein as the "Property"). The 6.87-acre Property is subject to approval of a pending Use Permit, P22-00308, from the Napa County Planning, Building & Environmental Services Department, for the development of the property consisting of a 66,915-square foot warehouse building, including site improvements.

It is the City's understanding that the Property is located within its Extraterritorial Water Service Area[1] and that a Will-Serve Letter for water service to the Property is required prior to the County's approval of a Use Permit. In general, the City reviews the impacts of such requests for service taking into account the overall demand within its system and known supplies available to meet this demand.

The City's understanding of the current request is based on water demand estimates attached to the Will-Serve Application dated August 22, 2022. At present, the Property does not have any existing structures.

As Table 1 shows, the requested annualized Average Daily Demand (ADD) is 233 gal/day. Table 2 details the requested Maximum Daily Demand (MDD) of 466 gal/day for the Property.

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.

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Table 1 – Requested Average Day Demand

Average Daily Water Demand (ADD) in gallons per day:	
Domestic:	233 gpd
Irrigation:	0[2] gpd
Industrial:	0 gpd
Total:	233 gpd

Table 2 – Requested Maximum Day Demand

Maximum Daily Water Demand (MDD) in gallons per day:

Domestic:	466 gpd
Irrigation:	0[2] gpd
Industrial:	0 gpd
Total:	466 gpd

The City's Zero Water Footprint (ZWF) Policy requires new development to offset all of its water demands in order to prevent reduction in the reliability of existing water supplies or increases in water rates to existing customers. In light of the information submitted in the Application, the City has determined that the Property will not have a Zero Water Footprint because, once complete, the Property's proposed ADD (233 gpd) will be greater than the established baseline ADD (0 gpd). Because the Owner is requesting service greater than the established baseline demand, the Property will potentially reduce the reliability of existing water supplies and increase costs to existing customers. In accordance with this Policy, a more detailed Water Supply Report has been prepared and is attached hereto and made a part of this "Will-Serve" Letter. In order to comply with the ZWF Policy and offset the Property's demand, the applicant shall contribute to the City's ZWF Mitigation Fund, whereby the City will continue to undertake water conservation efforts to offset the requested ADD increase of 233 gpd. Such efforts will result in this Property achieving a net zero impact to the City's water system, therefore adhering to the ZWF Policy.

This Will-Serve Letter supersedes any other purported service commitments to the Property for any use. By way of this Will-Serve Letter, the City is offering to meet the water service demands shown Tables 1 & 2. The City's offer is contingent upon the occurrence and/or satisfaction of the following conditions and the continued existence of the following described conditions:

[2] The project site is located within the Napa Sanitation District' (Napasan) recycled water service area.

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1. Owner shall be subject to all City's rules and regulations, including all fees and charges.

2. At no cost to the City, the Owner shall construct all facilities necessary to serve the Property in accordance with all City standards.

3. As part of the application process, the owner/developer shall submit a Developer Deposit Project Setup Form and pay the required deposit of $2,000. The deposit will be retained and the owner will receive a monthly statement of charges for the cost of processing the application, including writing water service will-serve, plan review, and inspections. At the close of the project, the last statement will be deducted from the deposit and remainder will be refunded to the owner.

4. The City has experienced potential reduction and/or curtailment of its primary sources of water supply during times of drought. When these reductions occur, the City's demands may exceed available supplies. In an effort to reduce this undesirable imbalance, the City is taking steps to reduce customer demands while also seeking to acquire additional supplies. The cost of these additional supplies is unknown at this time and is not included in the current City water rates. The City is considering implementing potential changes to its rate structure which would be applied in a uniform manner in order to acquire such supplies. The Owner agrees to waive any protest to changes to current City water rates necessary to acquire additional water supplies during their formulation, implementation, and review under the California Environmental Quality Act, Public Resources Code section 21000 et seq. ("CEQA") as long as such changes are initiated during the term of this Will-Serve Water Supply Agreement or any extension thereof. Moreover, the Owner acknowledges that the City, during dry years, may be unable to meet the Property's water service demands and that its water service may be uniformly reduced and/or curtailed entirely. Owner further agrees to indemnify, defend, and hold harmless the City, its elected officials, officers, attorneys, employees, or agents for any and all damages or claims of damages stemming from such uniform reductions or curtailments that may occur as long as they are directly related to the City's provision for water to the Property.

5. As a result of *Vineyard Area Citizens for Responsible Growth v. Rancho Cordova* (2007) 40 Cal.4th 412, the County, as lead agency pursuant to CEQA, prior to approval of the Project must, at a minimum during its environmental review:

    a. Present sufficient facts to evaluate the pros and cons of supplying the water that the Project will need,

    b. Present analysis that assumes that all phases of the Project will be built and will need water and includes an analysis, to the extent reasonably possible, of the consequences of the impacts of providing water to the entire project, and

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c. Where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of those impacts must be presented.

6. The Owner agrees its financial obligation for water service is as follows:

   a. Monthly water service charges will be billed at the current rate (commercial rate of $7.33 per unit, 1 unit = 748 gal). At present, the estimated average monthly water service fee will be approximately $68.50[3], plus meter fees and any surcharges. Service charges will be billed at the rates in effect at the time of service and are subject to change.

   b. The water capacity fee for the Property will be $15,289.46[4] based on MDD of 466 gpd. Capacity fee will be adjusted based on fees in effect at the time of payment.

   c. The ZWF Mitigation (offset) cost for the Property is $2,150.77[5] in order to achieve compliance with the ZWF Policy.

   d. Capacity fee and mitigation funds are due and payable prior to issuance of a building permit.

7. The Property shall incorporate the following water conservation best management practices:

   - Dual plumb the building to receive recycled water for toilet flushing
   - Motion sensor faucets
   - Use recycled water for landscaping
   - On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
   - Education of employees regarding water conservation (offered in both English and Spanish)

8. The City reserves the right to audit the site's water demand as deemed necessary in order to verify that the Owner's water use is in accordance with this Will-Serve letter.

9. Future changes to the Project with respect to the change in use or water demands shall require that a new Will-Serve Letter be issued.

This Will-Serve Letter will remain valid until February 28, 2025. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and

[3] Calculation: (233 gpd * $7.33/748 gal) x 30 days/month = $68.50/month
[4] Calculation: 466 gpd x $32.81/gpd = $15,289.46. This fee based on rates effective February 4, 2023 Resolution 2022-R104. Actual fee to be based on rates in effect at time of payment
[5] Calculation: 233 gpd/65 gpd x $600 = $2,150.77

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authorized or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Owner or to any third party on behalf of the City. The City does not make determination as to land use entitlements required for the proposed project and the issuance of this Will-Serve letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development Property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will-Serve Letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

DocuSigned by:
Erica Ahmann Smithies
A02D878043A74E7...

3/13/2023

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Utility Billing

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ACCEPTANCE
of
City's Conditional Offer of Water Service for

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-031 and 032)

I, Dennis Paulley (Print Name), President (Print Title),

accept the conditions set forth in this communication.

DocuSigned by:
Dennis Paulley
34E37F8C6EC1464...
(Signature)

Date: 3/15/2023

DocuSign Envelope ID: 6A50525C-56D7-4439-B4D8-611D8DE57821

CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

E&P Tech Way

Technology Way, Napa, CA 94558
Napa County Assessor's Parcel Number
057-250-031 & -032

Prepared by:

Edison Bisnar
Development Services Engineer

Approved by:

DocuSigned by:
Erica Ahmann Smithies
A02D878043A74E7...

3/13/2023

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

Date

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PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

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SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property is located on Technology Way (Assessor's Parcel Number: 057-250-031 & -032) on approximately 6.87 acres referred to herein as the "Property." The Property is zoned Industrial Park (IP) with Airport Compatibility (AC) and is located within the City's Extraterritorial Water Service Area (ETSA)[1].

1.2 - Project Description

The proposed project is to build a 66,915 square foot warehouse. Entitlements required include a Use Permit from Napa County (P22-00308) and Will-Serve Letters from the City (for potable water service – domestic and fire service) and Napa Sanitation District (for sewer and recycled water)[2].

The project incorporates the following water conservation best management practices:

- Dual plumbed the building to receive recycled water for toilet flushing
- Motion sensor faucets
- Use recycled water for landscaping
- On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
- Education of employees regarding water conservation (offered in both English and Spanish)

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property is located within the Napa Sanitation District's (NSD) recycled water service area. Recycled water is available in the area.

1.4 - Will Serve Application

A Will-Serve Application, dated August 22, 2022, was submitted on behalf of the Owner, Dennis Paulley. The application submitted details the anticipated and existing water demands for the Site. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

1.5 – Average Day Demand (ADD)

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.
[2] The project site is located within the Napa Sanitation District's (Napasan) recycled water service area.

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As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 233 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
233	0	0	233

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 466 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
466	0	0	466

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 – Project Demand Consistency with UWMP and ACMC 13.10

The City's 2010 Urban Water Management Plan (UWMP) assumes industrially zoned property will have up to a maximum ADD of 675 gpd per acre. American Canyon Municipal Code Section 13.10 further limits industrially zoned property within City limits and the broader City ETSA up to a maximum ADD of 650 gpd per acre. As shown in Table 3 below, the Property's estimated ADD (33.92 gpd per acre) is less than the maximum allowed by the ACMC 13.10 (650 gpd per acre):

Table 3 – Maximum ADD			
Parcel Size (acres)	UWMP (gpd/acre)	ACMC 13.10 (gpd/acre)	Property ADD (gpd/acre)
6.87	675	650	33.92

2.2 - Baseline Water Footprint

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The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 4 below, the Property's baseline water footprint is 0 gpd.

Table 4 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	0	N/A	0

2.3 - Zero Water Footprint Determination

Because the Property ADD (233 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.4 - Demand Offset

The City has established various programs intended to offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $2,150.77[3] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 233 gpd, thereby offsetting the Property's new ADD.

2.5 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after

[3] Calculation: 233 gpd/65 gpd x $600 = $2,150.77

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the implementation of the ZWF Policy are determined to potentially have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.6 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it will make to the water capacity fee program in addition to the ZWF Mitigation fee to mitigate 100% of the Property's new water demand.

2.7 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[4]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

[4] ACMC §13.14.070

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SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[5], the Project shall pay a Water Capacity Fee is $15,289.46. This amount one-time fee is based on the rate of $32.81 per gallon x MDD (466 gpd).

3.2 – Service Charge

The Property is located outside the City's corporate boundary but within the City's Extraterritorial Water Service Area as defined by LAFCO. Based on the American Canyon Water Capacity Fee Ordinance[6], the Property shall accrue a monthly service charge in the amount of $7.33/100 cubic feet (in effect at the time of service and are subject to change), plus monthly meter fees.

3.3 - Reimbursable Improvements

The Property proposes no improvement that would be eligible for reimbursement.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts with Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water

[5] ACMC §13.06.090
[6] ACMC §13.06.040

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Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,640 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,976 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario".

New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) was anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total ADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario". The Project will offset its new demand by paying an ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water

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conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-031 & 032)

I, Dennis Paulley, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated 3/13/2023.

DocuSigned by:
Dennis Paulley
34E37F8C6EC1404...
(Signature)

Date: 3/15/2023

November 13, 2025

Planning, Building & Environmental Services – County of Napa
1195 Third Street, 2nd Floor
Napa, CA 94559

SUBJECT: APN 057-250-030; -031; and -032 – E&P Technology Way – Buildings A & B
NapaSan Will Serve #101

To Whom It May Concern:

The Napa Sanitation District (NapaSan) has received a request to provide a "Will Serve" letter for two proposed industrial buildings, Building A (APN 057-250-030) and Building B (APN 057-250-031 and -032) to be located at the north side of Technology Way and Morris Court. Building A will be 143,312 SF and Building B will be 66,915 SF. Building A will be used for the following – office/administration, wine production, bulk juice fermentation, wine tank storage, barrel storage, bottling, and case good storage operations. Building B will be used for warehouse and storage space. The subject parcels are currently within NapaSan's Sphere of Influence and within NapaSan's boundaries. NapaSan will provide sanitary sewer and recycled water service to these parcels.

The following items will be required by the owner/developer:

1. Install the sanitary sewer improvements as specified in NapaSan's Conditions of Approval for the project.
2. Pay the appropriate capacity and development fees. The facility shall be subject to all applicable rules and regulations of NapaSan.
3. Enter into an Industrial User permit for industrial process wastewater discharged to NapaSan, or obtain a Zero Waste Discharge permit

NapaSan has been informed that Building A is estimated to generate approximately 230 gallons of domestic wastewater per day, which is equivalent to the flow of approximately 1 single-family dwelling.

NapaSan has been informed that Building A is estimated to generate approximately 11,265 gallons of industrial process wastewater per day, which is equivalent to the flow of approximately 68 single-family dwellings.

NapaSan has been informed that Building B is estimated to generate approximately 106 gallons of domestic wastewater per day, which is equivalent to the flow of approximately 1 single-family dwelling. There is no plan for Building B to generate industrial process wastewater at this time.

NapaSan
1515 Soscol Ferry Road
Napa, CA 94558

Office (707) 258-6000
Fax (707) 258-6048

www.napasan.com

These parcels are within NapaSan's recycled water service area. The development will be required to install the necessary facilities to utilize recycled water for landscape irrigation. The project has requested service for approximately 3.2 acres of landscaping, with a recycled water demand of approximately 5.4 acre-feet per year. NapaSan will provide recycled water service to these parcels.

This "Will Serve" letter for sanitary sewer service and recycled water is valid for a period of three (3) years from the date of this letter. If the proposed development has not obtained its required Connection Permits from NapaSan at the end of this time, this "Will Serve" letter shall become void. If you have any questions regarding this matter, please contact me at (707) 258-6012 or gglascott@napasan.com.

Sincerely,

Gavin Glascott

Gavin Glascott, P.E.
Associate Civil Engineer

NapaSan

COLLECTION • TREATMENT • RECOVERY • REUSE

September 29, 2022

Planning, Building, & Environmental Services
County of Napa
1195 Third Street, Suite 210
Napa, CA 94559

SUBJECT: 22-00308 E&P Technology Way – Building B, REFRL-001352, E&P Properties, Inc., Technology Way and Morris Ct. (Trippi)

NapaSan has reviewed the above-named application, which will be reviewed at an Interdepartmental Staff Meeting.

The owner shall pay to NapaSan the prevailing fees and charges in effect as established by Resolutions and Ordinances before the issuance of a County Building Permit, and shall adhere to the rules and regulations as they apply to the application.

NapaSan has identified the following comments based on the current application. NapaSan reserves the right to modify the following conditions/comments based on changes to future applications or changes to the project site plan.

The proposed project shall be subject to the following conditions of approval:

1. A plan showing the required sanitary sewer improvements, conforming to NapaSan standards, shall be prepared by a registered civil engineer and shall be submitted to NapaSan for approval prior to issuance of permits.

2. Sanitary sewer mains shall have a minimum clearance of 10 feet from proposed trees, 10 feet from water mains, 5 feet from other utilities, and 5 feet from bioretention areas.

3. NapaSan has Best Management Practices (BMPs) for specific industries/businesses which contain proven practices for reducing pollution in wastewater. Some BMPs are mandatory. The proposed project shall comply with mandatory BMPs. All sewer discharges from the proposed development shall meet the Local Limits for constituents of concern established by NapaSan.

4. Discharge lines from the elevator sump pits shall not be connected to the sanitary sewer system.

5. If the owner desires to discharge process wastewater to the District in the future, the owner would be required to pay capacity charges to NapaSan based on the rates in effect at the time and would be subject to the rules and regulations in effect at that time. At a minimum the facility would be subject to the following:

    a. Installation of a flow meter and sampler on the process waste line
    b. Ensure that the discharge conforms with the District's Local Limits
    c. Provide NapaSan with a wastewater treatment plan
    d. Obtain an Industrial Waste Discharge Permit from NapaSan for the winery operation.
    e. Permit conditions would be established by NapaSan at the time an application is made by the owner.

6. All specialty hardscape/landscape features proposed within the existing sanitary sewer easements shall be subject to approval by NapaSan. If approved, the owner shall enter into an indemnification agreement with NapaSan that places the expense for removal and/or replacement of the features on the owner.

7. Floor drains are not allowed in the building except in the restroom and food service areas.

8. The proposed development would be subject to the following fees, based on the rates in effect at the time they are paid:
    a. Plan Check Fees
    b. Inspection Fees
    c. Capacity Charges for commercial space (based on use and square footage)
    d. Capacity Charges for process waste (calculated per Section 5.02.030.B of NapaSan Code. Contact NapaSan for additional information).

9. The subject parcel shall use recycled water for landscape irrigation.

10. There is an existing 15-foot-wide sanitary sewer easement running along the western property line of the subject parcel, a 15-foot-wide sewer easement running along the southern property line of the subject parcel, and a 25-foot-wide sewer easement running along the northern property line of the subject parcel. No trees or other permanent structures will be allowed within the easement areas. All-weather access drives shall be provided to the existing manholes.

11. Each parcel shall be served by a separate sanitary sewer lateral.

12. Should there be a drain in the trash enclosure, it shall be connected to the grease interceptor serving the building and the trash enclosure shall meet NapaSan standards. Contact NapaSan for more information.

13. NapaSan has updated sanitary sewer and recycled water standard specifications and details. The updated specifications and details are available online at NapaSan's website (www.NapaSan.com). NapaSan may revise the standard specifications and details at any time. It is the responsibility of the engineer, contractor, and developer to verify that they are in possession of the current version of the standards prior to design and construction of sanitary sewer and recycled water improvements.

The capacity charge for an equivalent dwelling unit currently is $11,087 and will increase by the Consumer Price Index (CPI) annually in July. Commercial capacity charges are determined per NapaSan Code Section 5.02.030.B. Contact NapaSan Staff at (707) 258-6012 or gglascott@napasan.com for additional information.

Sincerely,

Gavin Glascott

Gavin Glascott
Assistant Engineer

“D”

Revised Initial Study/ Mitigated Negative Declaration & MMRP

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

COUNTY OF NAPA
PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT
1195 THIRD STEET SUITE 210
NAPA, CA 94559
(707) 253-4417

Initial Study Checklist
(form updated January 2019)

Note: Revised Initial Study/Mitigated Negative Declaration: per CEQA code section 15073.5 the revised document has not been substantially revised; therefore, the document did not require recirculation. Changes are shown in strikethrough and underline.
State Clearinghouse Number - SCH No. 2024100855

1. **Project Title:** E&P Technology Way - Building A & B Use Permit #'sP22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032)

2. **Property Owner:** Dennis Paulley, 2250 S. Watney Way, Fairfield, CA 94533

3. **Project sponsor's name and address:** Mike Kelley, 5150 Fair Oaks Blvd, Suite 101-219, Carmichael, CA 94608, (916) 956-0524

4. **County Contact Person, Phone Number, and email:** Sean Kennings, 415-533-2111, sean@lakassociates.com

5. **Project Location and APN:** There are three subject parcels comprising two project sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031, -032, to be combined). Both sites are located in the Napa Valley Business Park Specific Plan area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.

6. **General Plan description:** Industrial

7. **Zoning:** Industrial Park: Airport Compatibility (IP:AC)

8. **Background/Project History:**
On March 4, 2009, The Planning Commission approved Use Permit (P08-00557) for a speculative light industrial building with approximately 39,000 square feet of floor area on a 2.41-acre lot (APN 057-250-032). The property owner submitted an application for a building permit which was not issued and subsequently expired. The City of American Canyon issued a Will-Serve Letter for the Property October 28, 2016, with a requested Average Day Demand of 1,942 gpd and a Maximum Day Demand of 2,913 gallons per day. The project was not constructed, and the Will-Serve Letter expired October 28, 2018. The Property was included in a previous Will-Serve Letter provided by the American Canyon County Water District dated October 26, 1988, which was issued to Napa Valley Gateway Unit 2, Phase 2 development (8 lots), however a specific demand for this lot or any other lot was not provided.

Project Description: The Building A project proposes wine production facility within the proposed 143,312 SF building with an annual production capacity of 450,000 gallons. The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 SF of covered outdoor work area will be located on the north side of the building. The proposal also includes 129 parking spaces and eight (8) spaces for semi-trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court.

The floor area ratio (FAR) after full build out will be 24.9%, below the allowable 35%. All vehicles will enter from a new access driveway off Technology Way that runs along the eastern property line. Trucks will stop at the entry scale as needed and then continue to the loading zone for off load or pick up. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Morris Court. The entrance driveway will be wide enough to accommodate two-way traffic.

The winery building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full-time and 7 part time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine

and juice. Wine storage (tank and barrel) and bottling will take place on a year-round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage, and bottling uses.

No retail sales or access for the general public is proposed. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

The Building B project proposes to allow warehouse uses within the proposed 66,915 SF building. The warehouse uses are consistent with allowable warehouse uses as outlined in Industrial Park zoning district (18.40.020) and the Napa Valley Business Park Specific Plan (NVBPSP.) The floor area ratio (FAR) after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will then off load or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side the building. The entrance driveway will be wide enough to accommodate two-way traffic.

Building B will be utilized primarily for warehousing/distribution with accessory office. The facility will be run by up to 30 employees. No user has yet been identified. There will be no retail sales and no access for the general public. The only signage will be to identify the building for the future tenant.

Both buildings include site-cast tilt-up concrete wall panels with a multi-color textured coating system and multiple score lines/reveals, storefront glazing systems, painted steel channel canopies, truck loading docks, grade level roll-up doors, and metal man-doors. Color choices include white, green, and grey painted stucco panels. The winery building also includes a covered outdoor work area for the crush pad in front of the loading docks.

The Building A and Building B projects will be provided with water service from the City of American Canyon. Napa Sanitation District (NSD) will provide sewer. Both buildings will be sprinklered for fire protection.

9. Describe the environmental setting and surrounding land uses.

The project site is relatively flat with an average slope of less than one percent. A small swale drains the property from the southeast to the northwest. The historic upstream flow of this drainage has been diverted to a storm drain on Airport Boulevard, while the historic downstream flow has been diverted into the storm drain system along Gateway Loop. The site is generally treeless with the exception of mature trees on the north side of the project site along Sheehy creek. The soil type is Haire loam, which exhibits slow runoff and a slight hazard of erosion. The roadways surrounding the parcel have all been approved to appropriate County standards for industrial development and include an underground storm drain system. Other development in the larger vicinity includes the Napa County Airport and industrial development to the west and office/ industrial development to the east. The project site is situated in Zone D (Traffic Pattern Area) of the Airport Land Use Compatibility Plan and is subject to overflights at elevations ranging from 300 to 1,000 feet.

The property is bordered on the west by Morris Court and commercial warehouse buildings; to the south by Technology Way and commercial warehouse buildings; to the east by 240 Gateway Road East, a multi-tenant office building and commercial office buildings further east, to the northeast by the Napa Valley Transportation Authority facility and to the north by Sheehy Creek and property owned by the Napa Sanitation District and used as spray fields for treated wastewater. The properties comprising the project site have access and frontage on Technology Way and Morris Court. There is a conservation easement that runs along the north and northeast boundary of the project site which includes a meandering path along the south side of Sheehy creek. There are also public utility easements along the north and east property lines of APN 057-250-030 (Building A.)

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement).

The proposed project would also require various ministerial approvals by the County including, but not limited to building permits, encroachment permits (for any work conducted within the County right-of-way), and a lot line adjustment or parcel merger. Permits to connect to water and sewer utilities are required from the City of American Canyon and Napa Sanitation District, respectively. A Storm Water Pollution Prevention Plan (SWPPP) is required to meet San Francisco Regional Water Quality Control Board standards and is administered by the Engineering Services Division. The proposed project does not involve the fill of waters of the United States, therefore the project will not require a dredge-and-fill permit from the U.S. Army Corps of Engineers. The proposed project has the potential to result in "take" of listed endangered or threatened species, or candidate species for listing, and thus may require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service. ~~The proposed project does not involve the "take" of listed endangered or threatened species and thus does not require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.~~ Permits may also be required by the Department of Alcoholic Beverage Control and Bureau of Alcohol, Tobacco, & Firearms.

11. Tribal Cultural Resources. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? On May 3, 2023, County Staff sent invitations to consult on the proposed project to Native American tribes who had a cultural interest in the area and who as

of that date had requested to be invited to consult on projects, in accordance with the requirements of Public Resources Code Section 21080.3.1. A response was received from the Yocha Dehe Wintun Nation that indicated that the project site was located within their aboriginal territories and that they have a cultural interest in the proposed project area. The requested additional information was provided to the tribal representative via a formal consultation on January 10, 2024. After the consultation the Yocha Dehe Wintun Nation recommended cultural sensitivity training for any pre-project personnel to be added to the permit as a condition of approval. No further consultation was requested and the consultation period closed on January 23, 2024.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with use permit P22-00307 and P22-00308 as listed below. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559:

First Carbon Solutions, Biological Resources Analysis, dated January 30, 2024 (updated February 21, 2024).

First Carbon Solutions, Phase 1 Cultural Resources Assessment, dated January 20, 2023.

W-Trans, Transportation Impact Study, dated November 21, 2023.

City of American Canyon, Water Supply reports and water will-serve letters, dated March 13, 2023.

Napa Sanitation District, Wastewater will-serve letter, dated February 1, 2023.

Raney Geotechnical Inc, Geotechnical Investigation, dated September 30, 2021.

Laugenour and Meikle, Stormwater Control Plans, Buildings A & B, dated July 29, 2022.

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

October 18, 2024
Date

Name: Sean Kennings, LAK Associates, LLC

I.	AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

a-d. The proposed project includes development of two separate warehouse buildings: Building A, a 143,312 SF warehouse building for use as a winery production facility, and Building B, a 66,915 SF speculative warehouse/distribution building. The designs of the proposed structures are consistent with other similar facilities in the Business Park. The proposed project will result in an increase in daily operations, including additional employee's vehicle trips, truck trips and new light and glare from lighting associated with the project site, however, the project site is located within the Napa Valley Business Park Area where no scenic vistas occur and is surrounded by development of a similar nature. Therefore, the change to daily usage and new sources of light or glare would be less than significant.

The proposed project will result in a minor increase in the nighttime lighting. In accordance with County standards, all exterior lighting will be the minimum necessary for operational and security needs. Light fixtures will be kept as low to the ground as possible and include shields to deflect the light downward. Avoidance of highly reflective surfaces will be required, as well as standard County conditions to prevent light from being cast skyward. This is an area routinely overflown by low flying aircraft which necessitates strong controls on skyward nighttime lighting. As designed, and as subject to the standard conditions of approval, below, the project will not have a significant impact resulting from new sources of outside lighting.

4.9 GENERAL PROPERTY MAINTENANCE – LIGHTING, LANDSCAPING, PAINTING, OUTDOOR EQUIPMENT STORAGE, MECHANICAL EQUIPMENT, AND TRASH ENCLOSURE AREAS

a. All lighting shall be permanently maintained in accordance with the lighting and building plans approved by the County.

6.3 LIGHTING – PLAN SUBMITTAL

a. Two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the CBC.

b. All exterior lighting, including landscape lighting, shall be shielded and directed downward; located as low to the ground as possible; the minimum necessary for security, safety, or operations; on timers; and shall incorporate the use of motion detection sensors to the greatest extent practical. All lighting shall be shielded or placed such that it does not shine directly on adjacent properties or impact vehicles on adjacent streets. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards.

Mitigation Measures: None required.

II.	AGRICULTURE AND FOREST RESOURCES.[1] Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	☐	☐	☐	☒

Discussion:

a-e. The project site has an Industrial land use designation in the Napa County General Plan. The project site has been previously disturbed during initial site preparation and is not Prime Farmland, Unique Farmland or Farmland of Statewide Importance as shown on the Napa County GIS map (*Farmland Mapping and Monitoring Program*.) According to Napa County GIS the property is categorized as Farmland of Local Importance. Although the site, as well as other undeveloped land in the NVBPSP area, is classified as locally important, the site has been designated for industrial/business park uses for over 35 years. Undeveloped lands within the boundary of the NVBPSP are designated as Farmland of Local Importance because they include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance except for irrigation. As development in the NVBPSP area continues, the surrounding developed parcels have been reclassified as Urban and Built-up Land. The project will not result in the conversion of existing farmland. As such, there are no significant impacts to prime farmland created by the project. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The project site is not subject to a Williamson Act contract. No impacts would occur.

Mitigation Measures: None required.

III.	AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

[1] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emission (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion:
On June 2, 2010, the Bay Area Air Quality Management District's (BAAQMD) Board of Directors unanimously adopted Toxic Air Contaminants (TAC) Thresholds of Significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These TAC thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in BAAQMD's updated CEQA Guidelines (updated May 2012). The TAC thresholds are advisory and may be followed by local agencies at their own discretion.

The TAC thresholds were challenged in court (California Building Industry Association v. Bay Area Air Quality Management District (1st Dist., Div. 5, 2016) 2 Cal.App.5th 1067) because BAAQMD did not conduct CEQA review of their potential environmental impacts. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on TAC thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the TAC thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or BAAQMD to any specific course of regulatory action.

BAAQMD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Ca 4th 369. The May 2017 Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or TAC thresholds Justification Report. The Air District is currently working to revise any outdated information in the Guidelines as part of its update to the CEQA Guidelines and thresholds of significance.

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts: CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022. The proposed thresholds to evaluate GHG and climate impacts from land use projects are qualitative, therefore there is no bright-line (quantitative) level to mitigate below. Projects that decline to integrate qualitative design elements can alternatively demonstrate consistency with a local Greenhouse Gas (GHG) Reduction Strategy that meets the criteria of the State CEQA Guidelines section 15183.5(b).

There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

In short, these thresholds of significance changes can be used by agencies as guidelines for determining climate impacts from projects subject to CEQA. However, agencies are not required to abide by these thresholds, as they are only guidelines. Refer to Section VIII, Greenhouse Gas Emissions.

a-b. The mountains bordering Napa Valley block much of the prevailing northwesterly winds throughout the year. Sunshine is plentiful in Napa County, and summertime can be very warm in the valley, particularly in the northern end. Winters are usually mild, with cool temperatures overnight and mild-to-moderate temperatures during the day. Wintertime temperatures tend to be slightly cooler in the northern end of the valley. Winds are generally calm throughout the county. Annual precipitation averages range from about 24-inches in low elevations to more than 40-inches in the mountains.

Ozone and fine particle pollution, or $PM_{2.5}$, are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter. In Napa County, ozone rarely exceeds health standards, but $PM_{2.5}$ occasionally does reach unhealthy concentrations. There are multiple reasons for $PM_{2.5}$ exceedances in Napa County. First, much of the county is wind-sheltered, which tends to trap $PM_{2.5}$ within the Napa Valley. Second, much of the area is well north of the moderating temperatures of San Pablo Bay and, as a result, Napa County experiences some of the coldest nights in the Bay Area. This leads to greater fireplace use and, in turn, higher $PM_{2.5}$ levels. Finally, in the winter easterly winds often move fine-particle-laden air from the Central

Valley to the Carquinez Strait and then into western Solano and southern Napa County (BAAQMD, *In Your Community: Napa County,* April 2016)

The impacts associated with implementation of the project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by construction, traffic and other activities anticipated under the proposed development include ozone, ozone precursors oxides of nitrogen and reactive organic gases (NO_X and ROG), carbon monoxide (CO), nitrogen dioxide (NO_2), and suspended particulate matter (PM_{10} and $PM_{2.5}$). Other criteria pollutants, such as lead and sulfur dioxide (SO_2), would not be substantially emitted by the proposed development or traffic, and air quality standards for them are being met throughout the Bay Area.

BAAQMD has not officially recommended the use of its thresholds in CEQA analyses and CEQA ultimately allows lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other factual data. BAAQMD also states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAQMD provides as a reference for determining appropriate thresholds is the *California Environmental Quality Act Air Quality Guidelines* developed by its staff in 2010 and as updated through May 2017. These guidelines outline substantial evidence supporting a variety of thresholds of significance.

As mentioned above, in 2010, the BAAQMD adopted and later incorporated into its 2011 CEQA Guidelines project screening criteria (Table 3-1 – Operational-Related Criteria Air Pollutant and Precursors Screening Level Sizes) and thresholds of significance for air pollutants, which have now been updated by BAAQMD through May 2017. The proposed facility includes a total of 210,227 SF of floor area. When compared to the BAAQMD's operational criteria pollutant screening size of 541,000 SF and 864,000 SF for light industrial and warehousing, respectively, the project would not significantly impact air quality and does not require further study (BAAQMD CEQA Guidelines, May 2017 Pages 3-2 & 3-3.). Given the size of the project compared to the BAAQMD's screening criterion of 541,00 square feet (light industrial) and 864,000 SF (warehousing) for NO_X (oxides of nitrogen), the project would contribute an insignificant amount of air pollution and would not result in a conflict or obstruction of an air quality plan. The project falls well below the screening criteria as noted above, and consequently will not significantly affect air quality individually or contribute considerably to any cumulative air quality impacts.

c. In the short term, potential air quality impacts are most likely to result from earthmoving and construction activities required for project construction. Earthmoving and construction emissions would have a temporary effect; consisting mainly of dust generated during grading and other construction activities, exhaust emissions from construction related equipment and vehicles, and relatively minor emissions from paints and other architectural coatings. The proposed grading plan has been designed to balance cut and fill resulting in no off or on-haul of soils. If grading were to result in off or on-haul of soils, these potential construction impacts would be temporary in nature and subject to standard conditions of approval from the Engineering Division as part of the grading permit or building permit review process.

Sensitive receptors are defined by the BAAQMD as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. The Air District defines public exposure to offensive odors as a potentially significant impact, light industrial or manufacturing uses are not known operational producers of pollutants capable of causing substantial negative impacts to sensitive receptors. Construction-phase pollutants will be reduced to a less than significant level by the standard condition of approval noted below. Construction equipment and heavy-duty truck traffic generate diesel particulate matter (DPM) exhaust, which is a known toxic air contaminant. DPM is a human carcinogen and chronic (long-term) inhalation exposure to DPM poses a chronic health risk. As described in Section 2.3, Construction Best Management Practices, the Project would incorporate the BAAQMD's Basic Construction Measures. These measures also reduce DPM emissions. The impact would be less than significant.

During maximum project operations (Building A winery at harvest, plus Building B warehousing/distribution uses), the project is anticipated to generate 218 total weekday trips, including approximately 34 peak hour trips per day for the winery during harvest season, and 12 peak hour trips for the warehouse/distribution building (W-Trans 2023). For reference, the CARB Air Quality and Land Use Handbook: A Community Health Perspective (Land Use Handbook) provides CARB's recommendations regarding the siting of new sensitive land uses near facilities that are associated with health risks, particularly from air toxic emissions. The Land Use Handbook has siting guidance for freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. Although this guidance is for siting new locations of sensitive receptors, the facility distance and size guidance may be used as a screening level to identify when additional analysis is warranted during environmental review, including CEQA.

The Land Use Handbook advisory recommendation for relevant land uses is:

Freeways and High Traffic Roads
• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000

vehicles/day.

At a maximum 218 total weekday trips, the Project's vehicle activity would comprise a fraction of the sizes warranting recommended distances as contained in the CARB's Land Use Handbook. Due to the distance from truck ingress/egress and sensitive receptors (approximately 0.60 miles to the nearest residence) and limited number of truck trips, exposure of sensitive receptors to substantial pollution concentration would be less than significant.

The Air District recommends incorporating feasible control measures as a means of addressing construction impacts. If the proposed project adheres to these relevant best management practices identified by the Air District and the County's standard conditions of project approval, construction-related impacts will not expose sensitive receptors to substantial pollutant concentrations and are considered less than significant:

7.1 SITE IMPROVEMENT

c. AIR QUALITY

During all construction activities the permittee shall comply with the most current version of BAAQMD Basic Construction Best Management Practices including but not limited to the following, as applicable:

1. *Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.*
2. *Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.*
3. *Cover all haul trucks transporting soil, sand, or other loose material off-site.*
4. *Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
5. *All vehicle speeds on unpaved roads shall be limited to 15 mph.*
6. *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
7. *Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required State Regulations). Clear signage shall be provided for construction workers at all access points.*

All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf or the PERP website http://www.arb.ca.gov/portable/portable.htm

Furthermore, while earthmoving and construction on the site will generate dust particulates in the short-term, the impact would be less than significant with dust control measures as specified in Napa County's standard condition of approval relating to dust:

7.1. SITE IMPROVEMENT

b. DUST CONTROL

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

d. The Air District defines public exposure to offensive odors as a potentially significant impact, wineries, light industrial or manufacturing uses are not known operational producers of pollutants capable of causing substantial negative impacts to sensitive receptors. Construction-phase pollutants will be reduced to a less than significant level by the above-noted standard condition of approval. The project will not create pollutant concentrations or objectionable odors affecting a substantial number of people.

Mitigation Measures: None required.

IV.	**BIOLOGICAL RESOURCES.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, Coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:
The project site is located within the boundaries of the NVBPSP. The Specific Plan and EIR were adopted in 1986. The EIR recognized that development of the land within the Specific Plan area would reduce the grassland areas that serve as feeding and hunting grounds for raptors and other predatory birds and incorporated mitigation measures into the Specific Plan. The development area is vacant and has been graded over the years for weed abatement. The development area is relatively flat with gentle slopes ranging from 0-5 percent from northeast to southwest and includes non-native grasses. The site has been designated and approved for industrial development for over 35 years. The northern boundary of the site adjoins Sheehy Creek. As noted below, Sheehy creek was realigned and enhanced with native trees and vegetation. No improvements or construction activity is proposed within the riparian area along the creek or within bed or bank.

North of the Building A project site, across Sheehy creek is a 232-acre property owned by the Napa Sanitation District which is used as spray fields. Northeast of the Building B site are three properties totaling approximately 10 acres owned by Napa Valley Transportation Authority (NVTA) and developed with their maintenance facility. Beyond NVTA's facility is an approved but unbuilt 336-room Montalcino at Napa Resort and associated amenities situated on five properties totaling approximately 68 acres. To the south of the project site, across Technology Way and Gateway Road West, are several light industrial budlings. West of the project site is an 11-acre site with an approved but unconstructed wine and distilled spirits production facility consisting of three buildings. Further to the west are NSD's oxidation ponds.

A Biological Resources Analysis of the subject property, dated January 30, 2024 (updated February 21, 2024), was prepared by First Carbon Solutions (FCS) for both buildings. As documented in the FCS analysis, and noted above, the proposed project will result in the loss of non-native, grassland and ruderal habitats. The site contains few trees that could provide potential nesting habitats.

While the populations of Swainson's hawks were once declining, their populations more recently have been expanding into additional areas outside of the Central Valley where they were historically concentrated. This recovery success and expansion of SWHA range has been well-documented in other environmental documents from projects in the region, which have not been required to provide SWHA mitigation for foraging habitat. While Swainson's hawk's nests are protected, foraging habitat mitigation has generally not been required in the business park area.

The adjacent properties directly east and south of the southeast corner contain potential trees that could provide potential nesting habitat. The SR 29/221 Soscol Junction Improvement Project EA/EIR (Caltrans 2015), which is located approximately 0.50 miles north of the project site, concluded that 23.66 acres of Swainson's hawk foraging habitat accounted for just 0.16% of their potential foraging habitat. Further it found that the loss of this small amount of vegetation relative to the Swainson's hawk territory size would not have a substantial adverse effect, either directly or indirectly, on the Swainson's hawk or its habitat, nor would it substantially reduce the number or restrict the range of that species. The proposed project would affect a relatively small potential foraging area (approximately 93 acres), which is still well below 1% of the potential foraging area for a Swainson's hawk. In addition, Napa Sanitation District owns approximately 453 acres within ¾ of a mile of the project site that they utilize as spray fields. Further, the quality and extent of foraging habitat approximately 3-3/4 miles to the

southeast, which includes the 620-acre Newall Open Space, the 1,039-acre Lynch Canyon Open Space Park, and the 308-acre American Canyon California red-legged frog preserve, provide ample foraging habitat. The site also provides a very small amount of potential nesting and roosting habitat for the Swainson's hawk. Therefore, there is no evidence that this species may be significantly impacted by the proposed project. However, to ensure that no nesting birds are disrupted by the project, a preconstruction nesting season survey should be conducted to determine the presence/absence of this species in proximity to the proposed work on the site.

a. The Biological Resources Analysis was prepared by FCS in January 2024 (updated February 2024) to determine if any biological resources were potentially present including the potential presence of special-status pant and wildlife species, sensitive natural communities, and wetland riparian areas. A wildlife and botanical survey was conducted at the site on December 8, 2022, at 11:00 AM. FCS confirmed the project area does not contain significant natural biological communities or habitat for special status species due to the history of disking and lack of vegetation present currently. Therefore, impacts to sensitive upland terrestrial biological communities in the footprint of the proposed development would not be anticipated. One coast live oak tree greater than 6-inches DBH that may provide wildlife habitat would have to be removed from the project area. The recreated reach of Sheehy Creek that runs along the northern property boundary is not in the project area and would be entirely avoided. A Conservation Easement along Sheehy Creek was recorded in 2006 and extends approximately one (1) mile along both banks of the Sheehy Creek riparian corridor, which provides high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County. Ground-disturbing activities occurring during the dry season will utilize silt fencing that will ameliorate any potential impacts to these aquatic natural resources. To prevent potential impacts to the Sheehy Creek riparian corridor, Mitigation Measure BIO-1 below would reduce potential impacts to a less than significant level.

No special-status plant species were observed during the survey performed at the site in December 2022. There are no species whose CNDDB polygons overlap with the project site, and the project area has a low likelihood of harboring special-status plants due to the history of disking. Despite this, the site visit was not performed during the flowering time of most herbaceous plant species in the region, thus the existence of special-status plants cannot be ruled out at this time. To ensure the project does not impact special-status plant species, Mitigation Measure BIO-2 below would reduce potential impacts to a less than significant level.

The majority of the site is disked ruderal grassland with low cover of plants and low species diversity. The only woody plants in the development area occur on the margins of the parcel boundary, such as coyote brush shrubs along Technology Way. One raptor nest was observed in the riparian area along Sheehy creek in December 2022, along with a pair of raptors soaring near the nest which appeared to be either red-tailed hawks (Buteo jamaicensis) or Cooper's hawk (Accipiter cooperii); however, positive identification was not possible during the December 2022 site visit. There is also an occurrence of burrowing owl within one (1) mile of the project site. The potential for Swainson's hawk to occur within the project site is very low. No suitable nesting habitat exists in the project area. There is some potential nesting habitat in Sheehy Creek. The nearest known occurrence is 0.25 miles northeast of the project site near an upper reach of Sheehy Creek. Thus, it is indicated that protected species of raptors may be utilizing the habitat in the Sheehy Creek riparian corridor. Migratory birds may also utilize the shrubs and trees surrounding the Sheehy Creek riparian corridor. Because of the potential for bird species to nest onsite, Mitigation Measure BIO-3 below would reduce potential impacts to a less than significant level.

Targeted surveys for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle were not performed as part of the FCS site assessment; thus, their presence on-site is not known. Foothill yellow-legged frog, California red-legged frog, and Western pond turtle require aquatic habitat but may move away from watercourses and ponds for dispersal, to seek refuge in the dry season, and to nest in adjacent uplands. To prevent Foothill yellow-legged frog, California red-legged frog, and Western pond turtle from entering the project area and to avoid any potential impacts to these species, Mitigation Measure BIO-4 below would reduce potential impacts to a less than significant level.

b-c. The project area is a previously disturbed site and located within an existing industrial/business park. There are no wetlands on the property and no physical improvements or site modifications required for the project that have potential to impact sensitive resources. No evidence of wildlife corridors, raptor nests, wildlife dens, burrows or other unique or sensitive biological habitats or resources are located on site. As such, there would be no loss of significant wildlife or other sensitive habitat. Implementation of the project does not result in conflict with any County of Napa General Plan policy or ordinance protection vegetation or wildlife. In addition, there are no Habitat Conservation Plans, or other local or state habitat conservation plans that apply to this site.

d. As noted above, there are moderately dense riparian woodland areas along Sheehy Creek located north of the project area. No sensitive habitat types such as serpentine soils or native grasslands were observed on-site. No impacts to fisheries or wildlife habitat are anticipated from work in the upland grassland portions of the site. No impairment to wildlife connectivity is anticipated due to the existence of this project in an entirely developed industrial park. However, recommended mitigation measures listed in **Section IV(a)** above will ensure that potential impacts to native resident or migratory fish, wildlife species, or established native resident or migratory wildlife corridors, can be reduced to less than significant levels. No further mitigation is required, and the impact is considered less than significant.

e. The project would not conflict with any local policies protecting biological resources, such as tree preservation or the County's Conservation Regulations. The site is an improved industrial lot with no native vegetation. In accordance with the requirements of the NVBPSP, new landscaping will be provided on the site. The project does not conflict with any County ordinance or requirement to preserve existing trees,

and therefore is considered as not having potential for a significant impact thereto. There is one coast live oak tree greater than 6-inches DBH that exists in the project area (but not in the Sheehy Creek riparian zone). This tree was identified in the project area and is subject to tree removal restrictions. Therefore, to ensure no significant impact would occur to mature vegetation removal, Mitigation Measure BIO-5 would reduce potential impacts to a less than significant level.

f. The proposed project would not conflict with the provisions of adopted Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans. There are no plans applicable to the subject parcel.

Mitigation Measures:

Mitigation Measure BIO-1: Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

Method of Mitigation Monitoring: The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing constructing activities are conducted.

Mitigation Measure BIO-2: The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required.

If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio.

Method of Mitigation Monitoring: The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.

Mitigation Measure BIO-3: A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual

buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Mitigation Measure BIO-4 (Swainson's Hawk Surveys and Avoidance Buffer): If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Mitigation Measure BIO-5: Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Mitigation Measure BIO-6 (Burrowing Owl Habitat Assessment and Surveys): A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW. Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be

monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Method of Mitigation Monitoring: The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.

Mitigation Measure BIO-7 (Burrowing Owl Foraging Habitat Mitigation): Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.

Method of Mitigation Monitoring: The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.

Mitigation Measure BIO-8: The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.

Method of Mitigation Monitoring: The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.

Mitigation Measure BIO-9: The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

Method of Mitigation Monitoring: The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.

V.	**CULTURAL RESOURCES.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to in CEQA Guidelines §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Discussion:

a-b. The project site is vacant and does not contain any structures within the development area. An Archaeological Resources study was prepared in 1994 during the original site development and approvals for the project site. According to the initial study for the development of the Industrial Park, no further study is recommended for the for the area affected by the project. A Phase I Cultural Resources Assessment study was prepared by First Carbon Solutions (FCS) on January 20, 2023. Based on the results of the records searches, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on historic or prehistoric cultural resources to be moderate. In addition, FCS recommends that all construction personnel directly involved with project-related ground disturbance attend a "tailgate" Worker Environmental Awareness Program (WEAP) training for archaeological resources. The training should include visual aids, a discussion of applicable laws and statutes relating to archaeological resources, types of resources that may found within the project site, and procedures to be followed in the event such resources are encountered. The training should be conducted by an Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology. Additionally, FCS recommends that an archaeological monitor reporting to the qualified archaeologist, be present during the clearing, grading and trenching phases of the project to check for the inadvertent discovery of archaeological resources or human remains. Over the course of the project, should the archaeologist determine that the probability of inadvertent discovery is low, they may make a recommendation to the lead agency that monitoring be reduced to regular periodic or "spot-check" monitoring, or that monitoring may cease altogether. Incorporation of Mitigation Measure CULT-1 will reduce potential impacts to less than significant levels. Cultural Resources Regulations and Evaluation Criteria can be found in Appendix E of the FCS January 2023 report.

While there are no previously recorded resources within the project site, its geomorphology and close proximity to Sheehy Creek and other resources just outside the search radius increase the potential that subsurface construction may encounter and adversely impact cultural resources. However, if any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project:

7.2 ARCHEOLOGICAL FINDING

In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the PBES Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during project development, all work in the vicinity must be halted, and the Napa County Coroner informed, so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the permittee shall comply with the requirements of Public Resources Code Section 5097.98.

c. No human remains have been previously encountered on the property; no information has been encountered that would indicate that this project would encounter human remains. If human remains are encountered during project development, construction of the project is required to cease, and the requirements of Condition of Approval 7.2, listed above, would apply. No impacts would occur.

Mitigation Measures CULT-1: Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the Napa County Planning and Building Services department for the administrative file.

Method of Mitigation Monitoring: The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.

VI.	**ENERGY.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion:

a-b. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers' commutes to and from the project site would consume fuel. Construction vehicles and equipment will need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation. The proposed project would comply with these State requirements and the Air Quality conditions of approval presented in Section III (Air Quality). Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient when compared with other similar construction sites within Napa County.

Energy would be consumed during the operational phase of the project. In addition, vehicle trips during operation would consume gasoline fossil fuels. The project would include a variety of energy-saving elements, including energy-efficient building orientation and design features, lighting, utilities, and appliances. In addition, the project applicant included a Voluntary Best Management Practices checklist as part of the project application, including a Vehicle Miles Traveled (VMT) reduction plan including employee carpool or vanpool, bike riding incentives; and the designation of clean air/carpool/electric vehicle parking spaces.

Adherence to building code requirements for any mechanical changes to accommodate increased production would ensure reduced energy use during operations would not be inefficient and would result in a less than significant impact.

Compliance with the California Building Code, energy-saving elements, and Best Management Practices noted above would further reduce emissions and ensure no overall environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during operation. Therefore, these impacts would be considered less than significant.

Mitigation Measures: None required.

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	ii) Strong seismic ground shaking?	☐	☐	☐	☒
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
	iv) Landslides?	☐	☐	☐	☒
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d)	Be located on expansive soil creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	☐	☐	☐	☒
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

Discussion:

a. i.) There are no known faults on the project site as shown on the most recent Alquist-Priolo Earthquake Fault Zoning Map. As such, the proposed project would result in no impact with regards to rupturing a known fault.

ii.) All areas of the Bay Area are subject to strong seismic ground shaking. Construction of the project would be required to comply with the latest standards and codes, including the California Building Code that would reduce any potential impacts to a less than significant level in relation to seismic ground shaking.

iii.) No subsurface conditions have been identified on the project site that indicated a susceptibility to seismic-related ground failure or liquefaction. Compliance with the latest edition of the California Building Code for seismic stability would reduce any impacts to a less than significant level.

iv.) According to the Napa County Environmental Resource Maps (Landslides line and polygon) there are no known landslide areas within the project area. Therefore, there would be no impact.

b. The proposed improvements would occur on slopes of five percent or less. The project would require incorporation of best management practices and would be subject to the Napa County Stormwater Ordinance which addresses sediment and erosion control measures and dust control, as applicable. Impacts would be less than significant.

c/d. Based upon the Soil Survey of Napa County, prepared by the United States Department of Agriculture (USDA), the property is composed of Haire loam, 2-9 percent slopes. According to the Napa County GIS Sensitivity Maps (Surficial Deposits layer), the majority of the site is underlain by undifferentiated Holocene alluvium deposits with portions of the site underlain by early or middle Pleistocene fan or terrace deposits. Based on the Napa County Environmental Sensitivity Maps (Liquefaction layer) the project site has very low to high susceptibility for liquefaction. Development will be required to comply with all the latest building standards and codes, including the California Building Code that would reduce any potential impacts to a less than significant level. In addition, a soils report, prepared by a qualified engineer will be required as part of the building permit submittal. The report will address the soil stability, potential for liquefaction and will be used to design specific foundation systems and grading methods, which will reduce potential impacts to less than significant.

e. The project will connect to municipal water service provided by the City of American Canyon and sewer service by Napa Sanitation District. "Will Serve" letters have been provided by the affected jurisdictions indicating that they have sufficient capacity to accommodate the water and wastewater demand of this project. (see **Section XIX Utilities and Service Systems (d)**, below.) Impacts would be less than significant, and no mitigation would be required.

f. No paleontological resources or unique geological features have been identified on the property or were encountered when streets and infrastructure were constructed. However, if resources are found during any earth disturbing activities associated with the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the standard condition of approval 7.2 identified in **Section V** above.

Mitigation Measures: None Required

VIII.	**GREENHOUSE GAS EMISSIONS**. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion:

On April 20, 2022, the Bay Area Air Quality Management District (BAAQMD) adopted new recommended thresholds for determining the significance of individual projects' greenhouse gas impacts under CEQA. Under the new thresholds, proposed land use projects may be analyzed for consistency with a qualified greenhouse gas (GHG) reduction strategy in the event one has been adopted. To date, Napa County has not adopted a qualified GHG reduction strategy pursuant to CEQA Guidelines section 15183.5. Absent an adopted strategy, BAAQMD recommends that a land use project must include specified minimum design elements to ensure that the project is contributing its "fair share" toward achieving the state's key climate goal of carbon neutrality by 2045. Napa County has not adopted a qualified GHG reduction strategy or an air quality plan, therefore projects will be evaluated per the BAAQMD recommended minimum design elements.

a/b. Overall increases in Greenhouse Gas (GHG) emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. GHG emissions were found to be significant and unavoidable in that document, despite the adoption of mitigation measures incorporating specific policies and action items into the General Plan. Note: Pursuant to State CEQA Guidelines Section 15183, because this initial study assesses a project that is consistent with an adopted General Plan for which an environmental impact report (EIR) was prepared, it appropriately focuses on impacts which are "peculiar to the project," rather than the cumulative impacts previously assessed.

Consistent with these General Plan action items, Napa County participated in the development of a community-wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency in December 2009, and served as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County. During our ongoing planning effort, the County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Plan Policy CON-65(e). For the purposes of this analysis potential GHG emissions associated with construction of roadways and infrastructure.

Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The BAAQMD recommended thresholds do not include a construction-related climate impact threshold at this time. One time "Construction Emissions" associated with the project include: emissions associated with the energy used to develop and prepare the project area, construction, and construction equipment, and worker vehicle trips (hereinafter referred to as Equipment Emissions). If the proposed project adheres to relevant best management practices identified by the BAAQMD and the County's standard conditions of project approval, construction-related impacts are considered less than significant. See Section III. Air Quality for additional information.

The BAAQMD proposed thresholds for land use projects are designed to address "Operational" GHG emissions which represent the vast majority of project GHG emissions. Operational emissions associated with wineries and light industrial uses generally include: i) any reduction in the amount of carbon sequestered by existing vegetation that is removed as part of the project compared to a "no project" scenario; and ii) ongoing emissions from the energy used to maintain and operate the winery and light industrial uses, including vehicle trips associated with employee and visitor trips.

As noted above, Napa County has not adopted a qualified GHG reduction strategy or an air quality plan, therefore projects will be evaluated per the BAAQMD recommended minimum design elements.

Specifically for buildings, the project must not:

- Include natural gas appliances or natural gas plumbing (in both residential and nonresidential development); and
- Result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA section 21100(b)(3) and CEQA Guidelines section 15126.2(b).

The project will be required, through conditions of project approval, to prohibit the use of natural gas appliances or plumbing. Additionally, at the time of construction the project will be required to comply with the California Building Code, which is currently being updated to include regulations to assist in the reduction of air quality impacts associated with construction, such as prohibiting natural gas appliance and plumbing. The new construction will be required to install energy efficient fixtures complying with CA Building Code Title 24 standards. See **Section VI. Energy** for additional information on energy usage.

Specifically for transportation, the project must:

- Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2, and
- Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target reflecting the following recommendations:

    - o Residential projects: 15 percent below the existing VMT per capita;
    - o Office projects: 15 percent below the existing VMT per employee; or
    - o Retail projects: no net increase in existing VMT.

CALGreen's Tier 2 Voluntary Provisions are only applicable to residential projects. The project is not a residential project and is therefore not subject to this requirement. The project will comply with CALGreen EV charging requirements for nonresidential new construction which include EV capable and EV charging station requirements, and requirements for warehouses which include provisions to provide capacity for raceway, busway, transformer, and panel to serve future EV trucks. ~~The project will be required to comply with the recently adopted version of CALGreen Tier 2.~~ Project approval will include a condition of approval to ensure this is reviewed and implemented at the time of construction through adherence to the California Building Code. Therefore, the project is consistent with this design standard. As discussed above and in **Section XVII. Transportation**, the County maintains TIS Guidelines that include VMT analysis requirements for projects based on trip generation. The project trip generation numbers required completion of a traffic study and VMT analysis. The project TIS, prepared by W-Trans, dated November 21, 2023, includes the applicant's proposal for a Traffic Demand Management (TDM) Plan for reducing vehicle miles traveled. See **Section XVII. Transportation** for additional detail. The applicant proposes implementing some GHG reduction strategies through a VMT reduction plan which includes employee incentives. The applicant will be required to implement further GHG reduction strategies, including exceeding Title 24 energy efficiency standards with new construction, installation of water efficient fixtures; designing new construction to achieve low-impact development; and installation of water efficient landscaping. New development resulting from this project will utilize energy conserving lighting and water efficient fixtures. A condition of approval will be included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application. If the proposed project adheres to these relevant design standards identified by BAAQMD, the requirements of the California Building Code, and the County's conditions of project approval, impacts are considered less than significant.

Mitigation Measures: None required.

IX.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wild-land fires, including where wild-lands?	☐	☐	☒	☐

Discussion:

a. The proposed project will not involve the transport of hazardous materials other than those small amounts normally used in construction of the buildings. Impacts would be less than significant.

A Business Plan will be filed with the Environmental Health Division should the amount of hazardous materials reach reportable levels. However, in the event that the proposed use or a future use involves the use, storage or transportation of greater the 55 gallons or 500 pounds of hazardous materials, a use permit and subsequent environmental assessment would be required in accordance with the Napa County Zoning Ordinance prior to the establishment of the use. During construction of the project some hazardous materials, such as building coatings/ adhesives/ etc., will be utilized. However, given the quantities of hazardous materials and the limited duration of construction activity, they will result in a less-than-significant impact.

b. Hazardous materials such as diesel, maintenance fluids, and paints would be used onsite during construction. Should they be stored onsite, these materials would be stored in secure locations to reduce the potential for upset or accident conditions. The proposed project consists of the construction a new winery and warehouse facility and associated site improvements which would not be expected to use any substantial quantities of hazardous materials. Therefore, it would not be reasonably for the proposed project to create upset or accident conditions that involve the release of hazardous materials into the environments. Impacts would be less than significant.

c. There are no schools located within one-quarter mile from the project site. According to Google Earth, the nearest school to the project site is the Napa Junction Magnet Elementary School, located approximately 2.75 miles to the south. No impacts would occur.

d. Based on a search of the California Department of Toxic Substances Control database, the project site does not contain any known EPA National Priority List sites, State response sites, voluntary cleanup sites, or any school cleanup sites. No impact would occur as the project site is not on any known list of hazardous materials sites.

e. The project was originally reviewed for consistency with the 1999 Airport Land Use Compatibility Plan (ALUCP) since the project was evaluated prior to adoption of the Napa Countywide Airport Land Use Compatibility Plan on December 4, 2024. The project has since been evaluated for consistency with the 2024 Plan. The majority of the project site, including the proposed development areas, is located within Zone D1 which is the Inner Traffic Pattern Zone. Aircraft are typically 1,000 to 1,500 feet above the runway but can be as low as 600 feet above the airport elevation when circling to land using the Runway 1L approach procedure. Wineries, warehousing, distribution, office and light industrial uses are normally compatible within this zone. There should also be a maximum sitewide average intensity of 200 people per acre, and a maximum single-acre intensity of 800 people per acre. All aspects of the development have been designed to comply with these limitations. A small portion of the riparian corridor along Sheehy creek, at the northwest corner of the Building A project site, is located within Zone B1 which is the Inner Approach/Departure Zone. Aircraft would be overflying at low altitudes on final approach and straight-out departures, typically 200 to 400 feet above the runway elevation. No structures are proposed within this area.

~~The majority of the project site is situated in Zone D (Traffic Pattern Area) of the Airport Land Use Compatibility Plan and falls within the Airport Compatibility (AC) overlay zoning district. According to the Plan, properties within Zone D are subject to overflights at heights of 300~~

~~to 1,000 feet above ground level.~~ ~~Section 3.3.3 of the Plan and Section 12399.5 of the AC standards limit the height of structures to 35 feet without use permit approval.~~ The project is located within the "Horizontal Zone" established by the Airport Safety Ordinance. No. 416 (Ordinance). The maximum height limit established for safety set forth in the Ordinance is 150 feet above natural grade of the airport, which is 33-feet above mean sea level. Maximum height of structures is 35-feet as set forth in section 18.104.120 of the Napa County Code. Additional height may be permitted as provided for in the Ordinance. The 32-foot 9-inch roof peak height of both proposed Buildings A and B (winery and warehouse respectively) is substantially below this height limitation and would not create an aircraft hazard. The project is consistent with all other applicable compatibility criteria in the Airport Land Use Plan. Existing provisions of the Industrial Park zoning standards also address aircraft safety through requirements for non-reflective building surfaces, lighting patterns that do no mimic runway lighting, and proper storage of hazardous materials. In addition, recordation of an aircraft overflight easement will be required as part of the final map that provides for the right of aircraft operation, overflight and related noises, and for the regulation of light emissions, electrical emissions, or the release of substances such as steam or smoke which could interfere with aircraft operations. ~~A small portion of the riparian corridor along Sheehy creek, at the northwest corner of the Building A project site, is located within Zone B of the compatibility plan which is an area of high noise levels and low overflights below 100 feet. No development is proposed within this area.~~ No impacts have been identified based on analysis under the 2024 Napa Countywide Airport Land Use Compatibility Plan. As such, impacts would be less than significant environmental effects, and no mitigation is necessary.

f. The Napa County Emergency Operations Plan (EOP) outlines procedures, including establishing leadership roles and responsibilities of various agency staff, that guide local preparedness, response, recovery, and resource management efforts associated with occurrence of a natural disaster, significant emergency, or other threat to public safety. The project would not result in closure or permanent obstruction of adjacent public rights-of-way. No component of the implementation of the EOP would otherwise be impaired by the proposed project. Access to the proposed lots will meet County standards. The proposed access driveway improvements and on-site circulation configuration meet the Napa County Road and Street Standards. The proposed driveway that would serve the project will be designed to comply with County standards and access to the building has been designed to accommodate fire apparatus and large trucks. The project has been reviewed by the Napa County Fire Department and Engineering Services Division and found acceptable, as conditioned. The proposed project would not obstruct an emergency response or evacuation plan or emergency vehicle access. Therefore, impacts would be less than significant.

g. According to the Napa County Environmental resource maps (based on the following GIS layer – SRA) the project area is located within a Local Response Area for fire protection services and has a low risk of damage from wildland fires. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wildland fires because the project is located within an urbanized area. The project would comply with current California Department of Forestry and California Building Code requirements for fire safety. Impacts would be less than significant.

Mitigation Measures: None required.

X.	**HYDROLOGY AND WATER QUALITY.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)	☐	☐	☐	☒
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
	(i) result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
	ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or substantial groundwater management plan?	☐	☐	☐	☒

Discussion:

On April 21, 2021, Governor Gavin Newsom declared a drought emergency in the state of California and as of July 8, 2021, 50 counties are under the drought state of emergency, including Napa County. The Governor directed the Department of Water Resources to increase resiliency of water supplies during drought conditions. On June 8, 2021, the Napa County Board of Supervisors adopted a resolution declaring a Proclamation of Local Emergency due to drought conditions which are occurring in Napa County. On October 19, 2021, the Governor issued a proclamation extending the drought emergency statewide. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well (or approval of an alteration to an existing well) in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

On March 28, 2022, August 9, 2022, and November 8, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel's groundwater allocation to 0.3 acre-feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. Because the project will be provided water by the City of American Canyon, Executive Order N-7-22 does not apply.

a. The project would not violate any water quality standards or waste discharge requirements nor substantially deplete local groundwater supplies. The proposed project will discharge to an approved storm drainage system designed to accommodate the drainage from the site. The applicant is required to obtain a stormwater permit from the Regional Water Quality Control Board (RWQCB) which is administered in part by the County Engineering Services Division on behalf of the RWQCB. Given the essentially level terrain, and the County's Best Management Practices, which comply with RWQCB requirements, the project does not have the potential to significantly impact water quality and discharge standards.

b. The project will receive water from the City of American Canyon. The project is located within an area designated for urban development by the City of American Canyon. The City has acquired water rights to provide adequate water for all areas within their service area. The City has reviewed the proposed project and determined that in order to comply with the City's Zero Water Footprint (ZWF) Policy the applicant shall contribute to the City's water conservation fund and has issued a Will Serve letter for the proposal which will be made a condition of project approval. The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years. By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project. No groundwater wells are associated with this property.

c (i–iv). The proposed it would not result in an impact to substantially alter the drainage pattern on site or cause a significant increase in erosion or siltation on or off the project site. The project would not substantially alter the drainage pattern on site or cause a significant increase in

erosion or siltation on or off the project site. Improvement plans prepared prior to the issuance of a grading permit would ensure that the proposed project does not increase runoff flow rate or volume as a result of project implementation. General Plan Policy CON-50 c) requires discretionary projects, including this project, to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions. The preliminary grading and drainage plan has been reviewed by the Engineering Division. The proposed project would implement standard stormwater quality treatment controls to treat runoff prior to discharge from the project site. The incorporation of these features into the project would ensure that the proposed project would not create substantial sources of polluted runoff. In addition, the proposed project does not have any unusual characteristics that create sources of pollution that would degrade water quality. Impacts would be less than significant.

d. The parcel is not located in an area that is subject to flood hazards, tsunamis, or seiches, and would not be at risk of releasing pollutants due to inundation. According to Napa County environmental resource mapping (Floodplain and Dam levee Inundation layers), the project site is not located within a flood hazard area, nor would it impede or redirect flood flows or expose structures or people to flooding. No impacts would occur.

e. The proposed project would not conflict with a water quality control plan or sustainable groundwater management plan because there are no such plans applicable to the subject site. No impacts would occur.

Mitigation Measures: None required.

XI.	**LAND USE AND PLANNING.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☒	☐
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion:

a-b. The proposed project would not occur within an established community, nor would it result in the division of an established community. The proposed project complies with the Napa County General Plan, the Napa County Zoning Ordinance, applicable County Code sections, the Napa Valley Business Park Specific Plan, and all other applicable regulations. There are no habitat conservation plans or natural community conservation plans applicable to the property. Impacts would be less than significant.

Mitigation Measures: None required.

XII.	**MINERAL RESOURCES.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a/b. Historically, the two most valuable mineral commodities in Napa County in economic terms have been mercury and mineral water. More recently, building stone and aggregate have become economically valuable. Mines and Mineral Deposits mapping included in the Napa County Baseline Data Report (*Mines and Mineral Deposits*, BDR Figure 2-2) indicates that there are no known mineral resources nor any locally important mineral resource recovery sites located on the project site. No impacts would occur.

Mitigation Measures: None required.

XIII.	**NOISE.** Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion:

a/b. The proposed project will result in a temporary increase in noise levels during the construction of the building, parking areas, and associated improvements. Construction activities will be limited to daylight hours using properly muffled vehicles. Noise generated during this time is not anticipated to be significant. The proposed project would not result in long-term significant permanent construction noise impacts or operational impacts. Furthermore, construction activities would generally occur during the period of 7am-7pm on weekdays, during normal hours of human activity. All construction activities will be conducted in compliance with the Napa County Noise Ordinance (N.C.C. Chapter 8.16). The anticipated level of noise to occur following the completion of construction including the operation of the facility would be typical of a winery and light industrial/manufacturing/warehouse/distribution use in an existing business park. The project is located within an business park and is not in an area where noise increases resulting from additional light industrial development will impact sensitive receptors. The design of the proposed project, together with adherence to the County Noise Ordinance, would ensure the proposed project would not result in adverse noise impacts.

c. The proposed development area ~~project site~~ is located within compatibility Zone D1 of the Napa Countywide Airport Land Use Compatibility Plan ~~Napa County Airport~~, which is the inner traffic pattern zone with aircraft overflight at or below 1,000-feet traffic pattern altitude. ~~common traffic pattern zone with aircraft overflight at or below 1,000-feet between 300-feet and 1,000-feet above ground level~~. As such, persons on the project site will be exposed to noise from the regular aircraft overflight. The Napa County Zoning Code, section 8.16.070, Exterior noise levels, lists the maximum allowable level for industrial areas as 75 dBA. Based on the County General Plan Community Character Element, figure CC-1: Napa County Airport Projected Noise Levels (dBA CNEL), the project site is located outside of the airport area projects of 60 dBA or less, which is less than the maximum allowed in the Industrial area. The nature of the uses allowed in the Industrial Park (IP) zoning is not sensitive to increased noise levels from aircraft and is considered compatible with aircraft operations. Therefore, the location of the project within the airport land use area will result in a less than significant impact on people working in the project area.

Mitigation Measures: None required.

XIV.	**POPULATION AND HOUSING.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

The Association of Bay Area Governments' Projections 2003 figures indicate that the total population of Napa County is projected to increase some 23% by the year 2030 (Napa County Baseline Data Report, November 30, 2005). Additionally, the County's Baseline Data Report indicates that total housing units currently programmed in county and municipal housing elements exceed ABAG growth projections by approximately 15%. In addition, the project would be subject to the County's housing impact mitigation fee, which provides funding to meet local housing needs.

Cumulative impacts related to population and housing balance were identified in the 2008 General Plan EIR. As set forth in Government Code §65580, the County of Napa must facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community. Similarly, CEQA recognizes the importance of balancing the prevention of environment damage with the provision of a "decent home and satisfying living environment for every Californian." (See Public Resources Code §21000(g).) The 2008 General Plan sets forth the County's long-range plan for meeting regional housing needs, during the present and future housing cycles, while balancing environmental, economic, and fiscal factors and community goals. The policies and programs identified in the General Plan Housing Element function, in combination with the County's housing impact mitigation fee, to ensure adequate cumulative volume and diversity of housing. Cumulative impacts on the local and regional population and housing balance would be less than significant.

a. The proposed project includes a new winery production facility and warehouse/distribution facility within an existing business park. The project would increase the number of jobs within the business park. However, given the size of the project, the new jobs (16 full time and 7 part time employees during non-harvest season, seasonal help increase during harvest to approximately 35 total employees for the winery facility, and approximately 30 employees in the warehouse) are considered to be relatively small compared to the overall business park and nearby communities. Therefore, this increase in jobs will not contribute to a cumulatively considerable increase in the demand for housing units within Napa County and the general vicinity. No impacts would occur. As noted above, the County has adopted a Housing Element which identifies locations for new affordable housing and adopted a development impact fee. The fee provides funds for constructing affordable housing to off-set the cumulative existing affordable housing shortage in the County. The fee is paid at the time building permits are issued. This fee is charged to all new non-residential developments based on the gross floor area of non-residential space multiplied by the applicable fee by type of use as required under Chapter 18.107, of the Napa County Code and is considered to reduce housing impacts to a less than significant level.

b. There are no existing homes, on or adjacent to, the project site. Therefore, the project would not displace substantial numbers of existing housing or numbers of people necessitating the construction of replacement housing elsewhere and no impact would occur.

Mitigation Measures: None required.

XV. **PUBLIC SERVICES.** Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Discussion:

a. Public services are currently provided to the project area and the additional demand placed on existing services as a result of the proposed project would be minimal. The property is located within the service areas of both the Napa County Sheriff's Department as well as the Napa County Fire Department. The proposed improvements, if approved, would be inspected by County building inspectors and fire officials to ensure that construction occurs in accordance with current Building and Fire Codes applicable at the time of submittal of any requisite building permit application. The proposed project does not include construction of any new residential units nor accompanying introduction of new residents that would utilize existing parks or potentially increase student enrollment in schools located in the area of the project site. School impact fees,

which assist local school districts with capacity building measures, would be levied pursuant to building permit submittal. No new parks or other public recreational amenities or institutions are proposed to be built with the proposed project. County revenue resulting from any building permit fees, property tax increases, and taxes from the sale of wine will help meet the costs of providing public services to the property. The proposed project will have a less than significant impact on public services.

Mitigation Measures: None required.

XVI.	**RECREATION.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

a. The project would not significantly increase use of existing parks or recreational facilities based on its limited scope. No impacts would occur.

b. No recreational facilities are proposed as part of the project. No impact would occur.

Mitigation Measures: None required.

XVII.	**TRANSPORTATION.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b.)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☒	☐	☐
c)	Substantially increase hazards due to a geometric design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d)	Result in inadequate emergency access?	☐	☐	☐	☒
e)	Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	☐	☐	☐	☒

Discussion:

A Transportation Impact Study (TIS) was prepared for the project by W-Trans on November 21, 2023. The TIS presents an analysis of the potential transportation impacts that would be associated with both buildings proposed and was completed in accordance with the criteria established by the County and is consistent with standard traffic engineering techniques. The potential transportation impacts that would be associated with the two buildings proposed within the boundaries of the Napa Valley Business Park Specific Plan area were evaluated, though a specific tenant has not yet been identified for either building. The proposed winery project (Building A) includes a 143,312 SF building for tank fermentation and storage of bulk wine. The winery facility would normally be staffed with 16 full-time and 7 part-time employees, with employment increasing to approximately 35 total employees during harvest. The winery is expected to generate an average of 71 daily trips during non-harvest months, including 23 weekday a.m. and

p.m. peak hour trips, and during harvest months, it would be expected to generate 104 trips per day, with 34 weekday peak hour trips. Because the winery would be a production only facility and have no tasting room, the weekend peak period was not evaluated.

The proposed Building B warehouse building would be 66,915 SF in size; it is anticipated that the use would be classified as a warehouse for trip generation purposes. The facility would be staffed with up to 30 employees and is expected to generate 114 trips per day, including 11 a.m. peak hour trips and 12 p.m. peak hour trips.

Weekday traffic volumes within the project vicinity consist primarily of commute traffic within the peak traffic periods, with residential flows from nearby communities and commercial, tourist, and industrial park traffic occurring throughout the day. Southern Napa County is characterized by two distinct commute traffic patterns; a Napa to Bay Area commute and a Solano County to Napa commute. The existing traffic congestion and potential cumulative impacts are primarily the result of regional growth impacts.

The Metropolitan Transportation Commission (MTC) serves as the transportation planning, coordinating and financing agency for the nine-county San Francisco Bay Area. The MTC created and maintains the Metropolitan Transportation System (MTS), a multimodal system of highways, major arterials, transit service, rail lines, seaports and airports. MTS facilities within the vicinity of the project site include State Routes 12, 29, 121, and 221, and Airport Boulevard. The State routes are maintained and operated by the California Department of Transportation (Caltrans.) The MTS is incorporated into MTC's 2001 Regional Transportation Plan (RTP) and is used as a guideline in prioritizing for planning and funding of facilities in the Bay Area.

Major improvements to both Highway 29 and Highway 12 are necessary to address existing and cumulative regional traffic congestion. The RTP and the Napa County General Plan 2008 update identify roadway improvements in South Napa County to address potential cumulative impacts. These improvements include construction of a flyover ramp at SR 12/29/221 intersection, construction of a new interchange at SR 12/Airport Blvd/SR 29 intersection, widening Jamieson Canyon (SR 12) to four lanes (recently completed), widening SR 29 to six lanes between south Airport Blvd and the south County line (in coordination with the City of American Canyon), and extending Devlin Road south to Green Island Road. These improvements are not yet fully funded, except as noted above, but are expected to be in place by 2030 addressing potential cumulative impacts in the southern part of the County.

As mandated by Napa County, projects within the industrial park are responsible for paying "fair share" costs for the construction of improvements to impacted roadways within the NVBPSP. Since 1990, the County has imposed and collected traffic mitigation fees on all development projects within the NVBPSP area. A developer's "fair share" fee goes toward funding roadway improvements within the NVBPSP area including improvements designed to relieve traffic on State Highways. The traffic mitigation fee is further described in the Board of Supervisor's Resolution 08-20.

a./c./d The project site includes three curb cuts/driveway approaches for the Building A winery facility, two off Morris Court, and the main project entrance off Technology Way. The Building B warehouse/distribution facility will include two curb cuts/driveway approaches. The main entrance for the warehouse would be off Gateway Road on the east side of the project site and a second access point further west off Technology Way. The driveway approaches were designed to comply with all County standards including emergency vehicle access. The project will not result in any changes to levels of service or cause any new safety risks. Therefore, there would be no impact to hazards due to a geometric design feature or inadequate emergency access, or incompatible uses, and no mitigation is required. A left-turn lane would not be warranted at either project's driveways. The project would not cause any queues to increase and cause an impact. Pedestrian, bicycle, and transit facilities are adequate and would be improved by the sidewalk installation included as part of each project. The proposed project would be designed to adequately accommodate emergency response vehicles if applicable standards are followed, resulting in a less-than-significant impact on emergency response. To ensure adequate sight distance at the projects' driveways, proposed landscaping within the vision triangle should consist of either low-lying foliage (three feet high or less) or trees with all branches trimmed to a minimum height of seven feet above the roadway elevation.

There is currently bus service on Devlin Road, with a bus stop on the east side of Devlin Road, approximately 150 feet north of the Delvin/Airport Boulevard intersection and 1,500 feet east of the project site. The proposed project would not impair use of public transit facilities in its vicinity. The Napa Countywide Bicycle Plan, adopted by the Board of Supervisors in June 2012, identifies Devlin Road as an existing Class II bicycle facility (on-street bike lane) and a proposed Class I multi use path, which includes a segment of the Vine Trail. The proposed project would maintain existing bicycle facilities in its vicinity. Therefore, there would be no impact.

b. As part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

The County's General Plan Circulation Element contains a policy statement (Policy CIR-7) indicating that the County expects development projects to achieve a 15% reduction in project-generated VMT to avoid triggering a significant environmental impact. Specifically, the policy directs project applicants to identify feasible measures that would reduce their project's VMT and to estimate the amount of VMT reduction that could be expected from each measure. The policy states that "projects for which the specified VMT reduction measures would not reduce unmitigated VMT by 15 or more percent shall be considered to have a significant environmental impact." That policy is followed by an action

item (CIR-7.1) directing the County to update its CEQA procedures to develop screening criteria for projects that "would not be considered to have a significant impact to VMT" and that could therefore be exempted from VMT reduction requirements.

The new *CEQA Guidelines* and the OPR Technical Advisory note that CEQA provides a categorical exemption (Section 15303) for additions to existing structures of up to 10,000 square feet, so long as the project is in an area that is not environmentally sensitive and where public infrastructure is available. OPR determined that "typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract 110-124 trips per 10,000 square feet". They concluded that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact.

The County maintains a set of Transportation Impact Study Guidelines (TIS Guidelines) that define situations and project characteristics that trigger the need to prepare a TIS. The purpose of a TIS is to identify whether the project is likely to cause adverse physical or operational changes on a County roadway, bridge, bikeway or other transportation facility, to determine whether the project should be required to implement or contribute to improvement measures to address those changes, and to ensure that the project is developed consistent with the County's transportation plans and policies. Per the County's current TIS Guidelines, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips. According to the Transportation Impact Study (TIS) prepared for the project by W-Trans, dated November 21, 2023, the proposed Building A winery is expected to generate an average of 71 daily trips during non-harvest months, including 23 weekday a.m. and p.m. peak hour trips. During harvest months, the winery would be expected to generate 104 trips per day, with 34 weekday peak hour trips. The proposed Building B warehouse is expected to generate 114 trips per day, including 11 a.m. peak hour trips and 12 p.m. peak hour trips. To establish a baseline, the guidelines indicate that project-related VMT should be estimated by multiplying the number of project-generated trips by the countywide average trip length as determined in the Napa Valley Travel Behavior Study, March 2020, which is 11.8 miles. Assuming an average trip length of 11.8 miles, the winery is estimated to generate 104 trips and 1,227 VMT per day, and the warehouse is estimated to generate 114 trips and 1,345 VMT per day. Because the winery project would generate fewer than 110 daily trips, it would be presumed to have a less-than-significant VMT impact and does not require a quantitative analysis or mitigation.

For the Building B warehouse project, which would generate 114 trips per day (over the 110 trip threshold), the implementation of TDM measures, which could include a commute trip reduction program, a ridesharing program, telework/compressed/flex schedules, and providing end-of-trip bicycle facilities, could reduce VMT by approximately 15 percent and result in a less-than-significant impact. Transportation Demand Management (TDM) Plans should be prepared by future tenants and include measures necessary to achieve this 15-percent reduction. The proposed projects would need to achieve a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day, for the VMT impact to be considered less than significant. Mitigation Measure TRANS-1 below will reduce potential impacts to VMT to a level of less than significant. The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

e. Developers of new or expanded land uses are required to provide adequate parking or demonstrate that adequate parking exists to meet their anticipated parking demand. Excess parking that could stimulate unnecessary vehicle trips or commercial activity exceeding the site's capacity is discouraged. The proposed project includes 211 total parking spaces provided for both proposed buildings, with 129 total spaces for the Building A winery building including 115 parking spaces for the winery and bottling facility and an additional 14 spaces for the office, and 82 total spaces for the Building B warehouse building including 38 spaces for the warehouse and 44 spaces for the office uses. The winery building will include four Americans with Disabilities Act (ADA) accessible standard spaces and 24 electric charging spaces. The warehouse building will also include four ADA spaces, nine electric charging spaces, and two vanpool spaces. The Building A winery facility will be run by 16 full-time and 7 part-time employees during non-harvest season and increase during harvest to approximately 35 total employees. The Building B warehouse is proposed to be operated by up to 30 employees. Therefore, the project will not result in inadequate parking and there is no impact.

Mitigation Measure TRANS-1: The project sponsor for the Building B warehouse building shall submit a Transportation Demand Management Plan prepared by a qualified traffic engineer that achieves a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day. The TDM for the warehouse building should include the following:

Commute Trip Reduction Program

A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided.

Rideshare Program

Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides.

Tele-Work/Compressed/Flex Schedules

Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours.

End-of-Trip Bicycle Facilities

Bicycle Parking

The provision of both short-term and long-term bicycle parking is important for encouraging employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well.

Bicycle Maintenance Tools

In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel.

Employee VMT Reduction

The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy.

Method of Mitigation Monitoring: The applicant shall submit the TDM to the Planning Division, prior to issuance of grading or building permits. The Building B project sponsor, or future tenants, shall submit an annual progress report documenting the implemented TDM measures and the resulting VMT reduction percentages for review and approval by the Napa County PBES Director.

XVIII.	**TRIBAL CULTURAL RESOURCES.** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Discussion:

a/b. According to the Napa County Environmental Resource Maps (based on the following layers – Historical sites points & lines, Archaeology surveys, sites, sensitive areas, and flags) no historic sites or tribal resources have been identified on the property. Invitation for tribal consultation was completed in accordance with Public Resources Code Section 21080.3.1. On May 3, 2023, County Staff sent invitations to consult on the proposed project to Native American tribes who had a cultural interest in the area and who as of that date had requested to be invited to consult on projects, in accordance with the requirements of Public Resources Code section 21080.3.1. As of the preparation of this environmental assessment, only one response has been received from the Yoche Dehe Tribe stating that they would like to be updated during the project process. As discussed in **Section V** of this initial study, should any resources not previously documented are found associated with the proposed project, a qualified archaeologist must be retained to investigate the site in accordance with the standard county conditions of approval.

Mitigation Measures: None required.

XIX.	UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Require or result in the relocation or construction of a new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion:

a-c. The project would not require the relocation or construction of a new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities as a result of the project. The project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not result in a significant impact on the environment relative to wastewater discharge. The project site is located in an area planned for industrial development and existing water and wastewater treatment facilities have been sized to accommodate the proposed project.

On January 14, 2014, Governor Jerry Brown declared a drought emergency in the state of California. That declaration was followed up on April 1, 2015, when the Governor directed the State Water Resources Control Board to implement mandatory water reductions in cities and town across California to reduce water usage by 25 percent. However, on April 7, 2017, Governor Jerry Brown signed an executive order lifting California's drought emergency in all but four counties (Fresno, Kings, Tulare and Tuolumne). The project will receive water from the City of American Canyon. The project site is also located within the Napa Sanitation District's (NSD) recycled water service area, thus recycled water will be used for all irrigation demands.

On October 23, 2007, the City of American Canyon adopted a Zero Water Footprint (ZWF) Policy which defines a ZWF as "no net loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area." The City prepared a Water Supply Reports (WSR) for each building, both dated March 13, 2023, incorporated herein by reference, to determine if the requested water service is consistent with City ordinances, policies and practices; whether the City's water supply is sufficient to grant the request; and, establish a water allocation for the property. The WSR indicates the project site has a baseline water footprint of zero gallons per day (gpd) because the project site is undeveloped and has no historic water use. The request includes an anticipated water demand of 11,945 gpd average-day demand (ADD) and 22,990 gpd maximum day demand (MDD) for Building A and 233 gpd ADD and 466 gpd MDD for Building B. The City's 2010 Urban Water Management Plan (UWMP) assumes industrially zoned property will have up to a maximum ADD of 675 gpd per acre. American Canyon Municipal Code (ACMC) Section 13.10 further limits industrially zoned property within City limits and the broader City ETSA up to a maximum ADD of 675 gpd per acre. As shown in Table 3 on the March 13, 2023 WSR, Building A's estimated ADD (1,735 gpd per acre) is more than the maximum allowed by the ACMC 13.10 (650 gpd per acre).

The City has determined that in order to comply with the City's Zero Water Footprint (ZWF) Policy the applicant must offset the new ADD for Building's A and B. The City has established various programs intended to offset new demand(s) on its water system. The applicant has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single-family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, Building A's new demand is offset by water which is saved elsewhere. The applicant has agreed to contribute $106,107.693 for Building A and $2,150.77 for Building B to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 11,495 gpd and 233 gpd, thereby offsetting the Building's A and B new ADD, respectively. In accordance with the WSR, the City has issued a will-serve letter for water service subject the ZWF offset described above and other conditions outlined in the City's letter received

March 13, 2023, and incorporated as conditions of project approval. Impacts would be less than significant.

The project will occur within an urbanized area and connect to a publicly maintained wastewater treatment system. The wastewater provider, Napa Sanitation District, has provided a Will Serve letter and has found the project to be in compliance with district master plans. The District's wastewater treatment plant complies with all water quality discharge requirements, and therefore the project will comply with regional water quality control standards and therefore has a less than significant impact.

The proposed project includes self-treating and self-retaining areas, as well as bioretention areas that in combination would serve as both stormwater quality and runoff management measures. Grading for construction of the bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements would occur concurrently with site grading associated with construction of the two buildings Construction activities would be subject to the dust suppression measures listed in section III, Air Quality, of this initial study. The new storm drainage system will be designed by a qualified engineer and is subject to review and approval by the Engineering Services Division. The Engineering Services Division has included conditions of approval requiring that the drainage system be designed to avoid diversion or concentration of storm water runoff onto adjacent properties.

d. The project would be served by Keller Canyon Landfill which has a capacity which exceeds current demand. Non-recyclable and non-organic waste generated on the property is collected by Napa Recycling and Waste Services (NRWS) and ultimately deposited at the Keller Canyon Landfill (located in unincorporated eastern Contra Costa County). Keller Canyon Landfill has reached roughly 15 percent of its capacity in the first 12 years of its approximated 50 years of operation (which began in 1992), and extrapolating that same rate of material to date, has adequate capacity remaining to accommodate any non-recyclable and non-organic waste generated from the proposed winery. As of January 2004, the Keller Canyon Landfill had 64.8 million cubic yards of remaining capacity and has enough permitted capacity to receive solid waste though 2030. Beginning in 2016, all establishments that would generate organic waste (such as food waste from wine/food pairings or food service at the proposed winery's marketing events) are required to participate in NRWS's food composting program, as a means to support efforts to achieve State mandates for reductions of greenhouse gas emissions generated from decomposition of material into landfills. No impacts will occur.

e. The project would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, no impacts would occur.

Mitigation Measures: None required.

XX.	**WILDFIRE.** If located in or near state responsibility areas of lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion:

a-d. The subject property is located in the Napa Valley Business Park which is predominately industrial development. It is also located in the Napa County Local Responsibility Area (LRA) and the fire hazard severity zone is classified as Urban Unzoned. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wildland fires. There are no project features that would impair an adopted emergency response plan or evacuation plan. The proposed driveways provide adequate access to the site from

Technology Way. The project would comply with current California Department of Forestry and California Building Code requirements for fire safety. The project site is currently served by underground utilities for power and would continue to do so as a result of the proposed project. No new overhead power line infrastructure would be required for the proposed development. Therefore, impacts would be considered less than significant.

Mitigation Measures: None Required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion:

a. The site has been previously disturbed and does not contain any known listed special-status plant or animal species. The project will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. As discussed in **Section IV** above, although no special-status species were found during site surveys or would be directly impacted by development of the project, mitigation measures are proposed to conduct pre-construction surveys in the event that special-status species inhabit the site prior to construction. All potential biological related impacts would be less than significant, with incorporation of proposed mitigation. As identified in **Section V** above, no known historically sensitive sites or structures, archaeological or paleontological resources, sites of unique geological features have been identified within the project site. No historic or prehistoric resources are anticipated to be affected by the proposed project nor will the proposed project eliminate important examples of the major periods of California history or prehistory. In the event archaeological artifacts are found, a standard condition of approval and mitigation measure would be incorporated into the project. Impacts would be less than significant.

b. The project does not have impacts that are individually limited but cumulatively considerable. Potential air quality, greenhouse gas emissions, hydrology and traffic associated impacts are discussed in their respective sections above. The analysis determined that all potential impacts were less than significant and would not contribute significantly to cumulative impacts. The project does not propose new development that would have a significant impact on the environment or substantially change the existing conditions. With the imposition of standard and project specific conditions of approval, the project does not have impacts that are individually limited, or cumulatively considerable.

c. There are no schools or hospitals housing sensitive receptors within a quarter mile of the project site. Noise from construction that would occur with construction and installation of the proposed site improvements would be temporary and would be limited to day time hours, and would be subject to best management practices intended to limit fugitive dust and protect stormwater quality.

Mitigation Measures: None Required.

E&P Technology Way – Building A , Use Permit (#P22-00308) & Building B Use Permit (#P22-00308)
Technology Way and Morris Court, Napa, CA 94558, APN's 057-0250-030; -031; -032

REVISED MITIGATION MONITORING AND REPORTING PROGRAM

Note: Revised MMRP- Changes are shown in underline. State Clearinghouse Number - SCH No. 2024100855

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
Biological Resources (IV)			
BIO 1 - Prior to issuance of a grading or building permit, the project applicant shall provide a silt fencing plan to protect the Sheehy Creek Conservation Easement area. The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.	PBES	The permittee shall install silt fencing prior to earth disturbing activities. Silt fencing shall remain in place as long as earth disturbing constructing activities are conducted.	
BIO 2 - The project sponsor or permittee shall conduct protocol-level special-status plant surveys during the flowering time of the target species (see Appendix B in the 2024 FCS report), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species shall be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated, and no further action is required. If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out	PBES, CDFW	The permittee shall contract with a certified plant biologist to conduct the seasonal special-status protocol surveys. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status plant species are found to occur on-site construction activities will be halted and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts as indicated above.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of five (5) years, with any dead plants replaced so as to maintain the desired replacement ratio. BIO 3 - A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site. Surveys for nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site. If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be	PBES, CDFW	The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from February 1 through September 30. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
reduced from established levels if supported with nest monitoring by a qualified Biologist, in consultation with CDFW representatives, indicating that work activities are not significantly impacting the nest.			
BIO-4 - Swainson's Hawk Surveys and Avoidance Buffer - If Project activities are scheduled during the nesting season for Swainson's hawk (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline) and prepare a report documenting the survey results. The Project shall obtain CDFW's written approval of the qualified biologist and survey report prior to starting construction activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by CDFW in writing, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist, unless otherwise approved by CDFW in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.	PBES, CDFW	The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from March 1 through September 15. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any Swainson's hawks are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.	
BIO 5 - Impacts to Swainson's hawk foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide Swainson's hawk foraging habitat mitigation at a minimum 1:1 ratio, which shall include:	PBES, CDFW	The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning,	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of Swainson's hawk foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.		Building and Environmental Services prior to obtaining a permit from PBES.	
BIO-6 - Burrowing Owl Habitat Assessment and Surveys - A qualified biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of Project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW. Surveys for non-breeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or Project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the above methodology resulting in burrowing owl detections. The Project shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW. If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if:	PBES, CDFW	The permittee shall have a wintering burrowing owl survey completed prior to any construction activities scheduled to occur on the site from September 1 through January 31. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to burrowing owls which may include preservation of potential foraging habitat.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.			
BIO-7 - Burrowing Owl Foraging Habitat Mitigation - Impacts to burrowing owl foraging habitat shall be quantified by a qualified biologist based on the final Project design plans, and the Project shall obtain written acceptance of the acreage of habitat impacts from CDFW. Prior to Project construction, the Project shall provide burrowing owl foraging habitat mitigation at a minimum 1:1 ratio, which shall include: 1) permanent preservation of the species' foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or 2) purchase of burrowing owl foraging habitat credits at a CDFW approved mitigation bank, unless otherwise approved in writing by CDFW.	PBES, CDFW	The permittee shall provide CDFW with confirmation that appropriate habitat credits have been purchased prior to any construction activities scheduled to occur on the site. Upon verification from CDFW, the permittee shall submit documentation to the Napa County Planning, Building and Environmental Services prior to obtaining a permit from PBES.	
BIO-8 - The project sponsor or permittee shall install exclusion fencing during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog,	PBES, CDFW	The permittee shall have a pre-construction survey completed prior to any construction activities scheduled to occur on the site prior to April 1. The survey results shall be provided to the Napa County Planning, Building and Environmental Services. In the event any special-status or other protected nesting birds are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods and consultation will be sought with CDFW to develop appropriate measures to reduce potential impacts to nesting birds which may include preservation of potential foraging habitat.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed. Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified biologist.			
BIO-9 - The project sponsor or permittee shall provide an arborists report and tree protection plan prepared by a qualified biologist/arborist to determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio consistent with the Napa County General Plan Policy CON-24. Trees should be replaced at not less than a 2:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.	PBES	The project sponsor or permittee shall submit an Arborist Report and qualified Tree Protection Plan and Tree Replacement Plan to the Napa County Planning, Building and Environmental Services, if required, prior to issuance of grading or building permits.	
CULT-1 - Prior to ground disturbance activities on site, the project sponsor shall provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and the site protection manager for the Yocha Dehe Wintun Nation tribe. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP shall also describe	PBES	The project sponsor/permittee shall coordinate with the Yoche Dehe Wintun Nation to ensure that the WEAP is completed prior to any construction activities, including signing the Cultural Sensitivity Training Agreement. Verification that the WEAP has been conducted shall be provided to the Napa County Planning, Building and Environmental Services. In the event any previously undiscovered resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval that will be imposed on the project.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. Furthermore, the project sponsor shall sign the Cultural Sensitivity Training Agreement submitted by the Yoche Dehe Wintun Nation and deliver copies to the Napa County Planning and Building Services department for the administrative file.			
TRANS-1 - The project sponsor for the Building B warehouse building shall submit a Transportation Demand Management Plan prepared by a qualified traffic engineer that achieves a reduction of 15 percent of daily vehicle travel, or a combined 202 VMT per day. The TDM for the warehouse building should include the following: *Commute Trip Reduction Program* A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided. *Rideshare Program* Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides. *Tele-Work/Compressed/Flex Schedules* Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours. *End-of-Trip Bicycle Facilities* Bicycle Parking - The provision of both short-term and long-term bicycle parking is important for encouraging	PBES, DPW	The applicant shall submit the TDM to the Planning Division, prior to issuance of grading or building permits. The Building B project sponsor, or future tenants, shall submit an annual progress report documenting the implemented TDM measures and the resulting VMT reduction percentages for review and approval by the Napa County PBES Director.	

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well. Bicycle Maintenance Tools - In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel. *Employee VMT Reduction* The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy.			

“E”

Use Permit Application Packets

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

USE PERMIT: PROJECT STATEMENT
Winery and Wine Storage Facility
Technology Way, Napa

APPLICANT/OWNER:
Dennis Paulley
2250 S. Watney Way.
Fairfield, CA 94533

APN: 057-250-030 ACREAGE: +/-13.2 acres

GENERAL PLAN MAP DESIGNATION: I: Industrial

ZONING DESIGNATION: IP: Industrial Park
AC: Airport Compatibility

GENERAL PROJECT DESCRIPTION:
The property is located on the north side of Technology Way and Morris Court within the Industrial Park Area of the Napa County Airport Business Park. The parcel is undeveloped. This proposal supplements application P22-00307 to allow for full winery production and wine storage within the proposed 143,325 SF building. The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 square feet of covered work area will be located on the north side of the building.

The site plan shows the building, parking, on-site truck circulation, and general landscape areas. The floor area ratio (FAR) after full build out will be 24.9%, below the allowable 35%. All vehicles will enter from a new access driveway that runs along the eastern property line. Trucks will stop at the entry scale as needed and then continue to the loading zone for off load or pick up. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Morris Court. The entrance driveway will be wide enough to accommodate two-way traffic.

The project will be provided with water service from the City of American Canyon. Napa Sanitation District (NSD) will provide sewer. The building will be sprinklered for fire protection.

The building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full time and 7 part time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine and juice. Wine storage (tank and barrel) and bottling will take place on a year round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage and bottling uses.

There will be no retail sales and no access for the general public. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

SITE DEVELOPMENT AND PERFORMANCE STANDARDS
In the Industrial Park (IP) Zoning District, the manufacturing, compounding, processing, packing treating and storage of products, including wineries are allowed upon issuance of a

use permit (18.40.020 B(10)). The IP Zoning District contains Development Standards (Article I, 18.40.030-18.40.170), which have been adhered to with this design. No variation to the IP development standards are requested. The IP Zoning District contains Use Performance Standards (Article II, 18.40.180-18.40.240).

The *Napa Valley Business Park Specific Plan includes development standards for the Business/Industrial Park area.*

> *The Business/Industrial Park land use designation is intended to attract development of a higher standard with respect to construction characteristics, on-site amenities, standards of acceptable use, and off-site improvement requirements. The designation is intended to accommodate light industrial uses such as research and development, light manufacturing, light assembly, warehousing and distribution, large administrative headquarters, and other professional and administrative uses. This designation allows the implementation of special requirements for common improvements, site and building design, landscaping, signage, off street parking, noise control, and outdoor storage. Design review is required for the implementation of these special requirements.*
> *(page 48, Napa Valley Business Park Specific Plan).*

The Napa Valley Business Park Specific Plan includes a requirement for an unnamed setback from Sheehy Creek, which is adjacent to this parcel on the north side. The necessary setbacks were evaluated and established under a previous application (P08-00557). A Conservation Easement has been recorded to established for habitat conservation (2006-0004963). First Carbon Solutions has prepared updated Biological Assessment. All recommendations contained in this report are included in the project.

This property is within Zone D of the Napa County Airport Land Use Compatibility Plan. The building use, coverage, building height and employment density meets the restrictions as outlined in this plan.

PARKING STANDARDS

Section 18.110.030 of the Zoning Code and pages 64-65 of the Napa Valley Business Park Specific Plan outline parking standards for this Zoning District.

Use	Square footage	Parking Requirement	Parking Demand
Tank/Barrel Storage	121,007	1 space/1,000 sf for first 20,000 sf and 1/2,000 for over 10,000 sf	71
Production/Bottling	15,438	1 space/500 sf	31
Office	6,867	1 space per 250 sf	27

REQUIRED PARKING	129
PARKING PROVIDED	129

SEWER AND WATER SERVICE

The applicant is in the process of obtaining a “Will Serve” letter indicating that American Canyon will serve the property with water for the proposed use. Similarly, Napa Sanitation District (NSD) has been contacted to request a “Will Serve” letter indicating that they will serve the proposed facility for domestic and wastewater. Recycled water from NSD will be used for irrigation.

Planning, Building, & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559
Main: (707) 253-4417
Fax: (707) 253-4336

A Tradition of Stewardship
A Commitment to Service

PLANNING APPLICATION FORM

Applicant Information

Applicant Contact

Name: Dennis Paulley
Mailing Address: 2250 S. Watney Way
City: Fairfield State: CA Zip: 94533
Phone: (707) 745-1150
E-Mail Address: dennis@metrovan.com

Property Owner Contact

Name: Dennis Paulley / E&P Properties, Inc.
Mailing Address: 2250 S. Watney Way
City: Fairfield State: CA Zip: 94533
Phone: (707) 745-1150
E-Mail Address: dennis@metrovan.com

Agent Contact

Name: Mike Kelley
Mailing Address: 5150 Fair Oaks Blvd., Ste 101-219
City: Carmichael State: CA Zip: 95608
Phone: (916) 956-0524
E-Mail Address: mkelley@kelley-commercial.com

Other Representative Contact

☐ Engineer ☑ Architect ☐ Agent
Name: Jeff Leonhardt / RMW
Mailing Address: 1718 Third St., #101
City: Sacramento State: CA Zip: 95811
Phone: (916) 449-1400 ext 405
E-Mail Address: jleonhardt@rmw.com

Property Information

Project Name: E&P Technology Way - Building A
Project Address: North side of Technology Way and Morris Court
Assessor's Parcel Number(s): 057-250-030
Size of site (acreage and/or square footage): 13.2 acres, 575,087 SF
General Plan Designation: Industrial Zoning: IP:AC

Application Type[1]

File No(s) P22-00307

Administrative	Planning Commission/ALUC/BOS	Zoning Administrator
Erosion Control Plan: ☐ Track I ☐ Track II ☐ Admin Viewshed ☐ Fence Entry Structure Permit ☐ Land Division/Mergers ☐ Site Plan Approval/Modification ☐ Winery Administrative Permit ☐ Other Very Minor Modification ☐ Addressing ☐ Signs **Temporary Event:** ☐ 51-400 ☐ 401+ ☐ Late Application Submittal ☐ Application Entitled to Fee Waiver ☐ Other:	**Major Modification:** ☐ Winery ☑ Other **Use Permit:** ☐ Winery ☑ Other ☐ Viewshed ☐ AG Preserve Contract ☐ Development Agreement ☐ Airport Land Use Consistency Determination ☐ General, Specific or Airport Land Use Plan Amendment ☐ Variance ☐ Zoning Map/Text Amendment ☐ Road Exception ☐ Con. Reg. Exception ☐ Other:	☐ Certificate of Legal Non Conformity ☐ Other Minor Modification ☐ Road Exception ☐ Small Winery Exemption ☐ Winery Minor Modification ☐ Variance ☐ Viewshed ☐ Other: **Misc. Services** ☐ Use Determination ☐ Status Determination ☐ Other:

[1]: **Include corresponding submittal requirements for each application type.**

Detailed Project Description (required): A typed, detailed project description is required that describes the proposed development or use(s); the existing site conditions/uses; the number, size, type and nature of any proposed residential dwelling units or total amount of new non-residential square-footage by type of use. Please refer to specific Supplemental Application submittal handouts for details to describe the project and required special studies.

Conditions of Application

1. All materials (plans, studies, documents, etc.) and representations submitted in conjunction with this form shall be considered a part of this application and publicly available for review and use, including reproduction.
2. The owner shall inform the Planning Division in writing of any changes.
3. Agent authorization: The property owner authorizes the listed agent(s) and/or other representative(s) to appear before staff, the Director, the Zoning Administrator, and Planning Commission to represent the owner's interests and to file applications, plans and other information on the owner's behalf.
4. Certification and Indemnification Form: Refer to attached form for notifications and required signature.
5. Fees: The applicant agrees to pay the County any and all processing fees imposed by the Board of Supervisor's current Fee Resolution including the establishment of an hourly fee application agreement and initial deposit. Applicant understands that fees include, but not limited to: Planning, Engineering, Public Works, and County Counsel staff time billed at an hourly rate; required Consultant service billed rates; production or reproduction of materials and exhibits; public notice advertisements; and postage. In the event the property owner is different than the applicant, the property owner must sign to indicate consent to the filing and agreement to pay fees in the event of the applicant's failure to pay said fees. Failure to pay all accumulated fees by the time of public hearing will result in a continuance.
6. This form, together with the corresponding application forms for specific permits, will become the Permit Document.

I have read and agree with all of the above. The above information and attached documents are true and correct to the best of my knowledge. All property owners holding a title interest must sign the application form. If there are more than two property owners, list their names, mailing addresses, phone numbers and signatures on a separate sheet of paper.

If you wish notice of meetings/correspondence to be sent to parties other than those listed on Page 1, please list them on a separate piece of paper.

8/24/2022

Property Owner's Signature and Date

Property Owner's Signature and Date

Applicant/Agent Statement

I am authorized and empowered to act as an agent on behalf of the owner of record on all matters relating to this application. I declare that the foregoing is true and correct and accept that false or inaccurate owner authorization may invalidate or delay action on this application.

8/24/2022

Applicant's Signature and Date

	Application Fees	
Date Received: _____	Deposit Amount	$
Received by: _____	Flat Fee Due	$
Receipt No._____	Total	$
File No._____	Check No	

Checklist of Required Application Materials

Please make sure that the following documents are complete and legible. Consistent with the State Permit Streamlining Act and Departmental policy, the Planning, Building and Environmental Services (PBES) Department will make an application completeness determination within thirty days of application submittal and the payment of all required initial fees.

☑ **General Application Form:** The attached General Application Form must be completed in full and signed by the property owner or their authorized agent. Corporations, partnership, and the like have special signature requirements as noted on the Form.

☑ **Application Fee:**

Use Permit/Major Modification (All Uses): Total Fees are based on actual time and materials and flat fees. A deposit in the amount of **$10,000. Check made payable to County of Napa.**

Small Winery Exemption (Winery Uses): Total fees are based on actual time and materials and flat fees. A deposit in the amount of $5,000. Check made payable to County of Napa.

Minor Modification (Winery Uses): Total fees are based upon flat rates with exception to Engineering Services which are based on actual time and materials over 3 hours for Roads & Street Standards evaluation. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

Administrative Permit (Winery Uses): Total Fees are based on actual time and materials and flat fees. A deposit in the amount of $1,500. Check made payable to County of Napa.

Minor Modification (Non-Residential & Residential Uses): Total fees are based upon flat rates. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

Very Minor Modification (Non-Residential & Residential Uses): Total fees are based upon flat rates. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

☑ **Read and Sign the Hourly Fee Agreement**

☑ **Detailed Project Description:** The Project Description should address all of the applicable items listed below:

1. Existing site conditions and uses.
2. Proposed type of development and size, proposed uses/business, development phases, changes or alterations to the property or building including new/modified improvements and off-site improvements.
3. Days of the week and hours of operation.
4. Maximum number of employees per shift and hours of shifts.
5. Are there additional licenses and/or approvals from outside agencies needed from a Special District, Regional, State, Federal?
6. What is your water supply? How/where is liquid/solid waste disposed?

☑ **To-Scale Site Development Plans (ALL plans must be to an identified architect's or engineer's scale and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans consistent with information contained in the ***Building Division – Design Information - Sample Site Plan Handout:*** https://www.countyofnapa.org/1890/Building-Documents .

☑ **To-Scale Floor Plans (ALL plans must be to an identified architect's or engineer's scale, shall show the existing and proposed conditions of the building and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans with the following information and details:

1. Dimensions and area of all rooms, hallways and covered or partially enclosed outdoor areas.
2. Use of each area within each structure/building.
3. Location of emergency exists.

☑ **To-Scale Building Elevations (ALL plans must be to an identified architect's or engineer's scale, shall show the existing and proposed conditions of the building and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans with the following information and details:

1. All relevant dimensions.
2. Exterior materials.
3. Exterior colors.
4. Existing grade.
5. Finished grade.
6. Finished floor level.
7. Building height consistent with Figure 209-1 of the 1997 UBC Handbook.

☒ **Technical Information and Reports**

The following technical information and studies are generally required unless waived by County Planning Staff at or following a Pre-Application Review Meeting. Please see County Planning Staff for a list of pre-qualified consultants.

✓ 1. FOR WINERY PROJECTS: Additional submittal information is necessary and should be included with the submittal packet consistent with the Winery Use Permit Supplemental Submittal Requirements.

✓ 2. Traffic Study consistent with Traffic Impact Study Preparation Requirements Please fill out the enclosed current Trip Generation Sheet for existing and proposed project to determine the need for the preparation of a Traffic Impact Study.

✓ 3. Archeological/Cultural Resources Study (consistent with *Guidelines for Preparing Cultural Resource Surveys* and State of California requirements)

N/A 4. Historic Resources Study (consistent with State Office of Historic Preservation requirements)

✓ 5. Biological Study – Includes Special Status Survey (consistent with *Guidelines for Preparing Biological Resources Reconnaissance Surveys* and *Guidelines for Preparing Special-Status Plant Studies*)

N/A 6. Water Availability/Groundwater Study (consistent with the *WAA Guidance Document* adopted by the Board 5/12/2015). Please refer to the following link: https://www.countyofnapa.org/876/Water-Availability-Analysis .

N/A 7. For projects located within Sensitive Domestic Water Supply Drainages and/or within the Agricultural Watershed (AW) zoning district, please provide vegetation coverage removal and retention information/analysis based on 1993 Vegetation totals and parcel configuration, including a map or figure that includes the following information:

Tree canopy coverage:

Tree canopy cover (1993): _____acres

Tree canopy cover to be removed: _____acres _____%

Tree canopy cover to be retained: _____acres _____%

Understory (i.e. brush, shrubs, grasses):

Understory cover (1993): _____acres

Understory to be removed: _____acres _____%

Understory to be retained: _____acres _____%

This information may be provided as part of the Biological Report if one is required for your project. Guidance on how to prepare vegetation removal and retention calculations can be found in the County's Water Quality & Tree Protection Ordinance Implementation Guide, located on our website: https://www.countyofnapa.org/DocumentCenter/View/12882/WQTPO-implementation-guide?bidId=

8. Special Studies (The following may be required on a project-specific basis at the discretion of the PBES Director.)

N/A
- ☐ Noise Study (demonstrating consistency with Napa County Code Chapter 8.16).
- ☐ Aviation Compatibility Study (consistent with Airport Land Use Compatibility Plan requirements)
- ☐ Visual Impacts Study (Photographic simulations)
- ☐ Geological/Geotechnical Hazard Report – Alquist Priolo Act
- ☐ Hydraulic Analysis (flood impact) if within Floodplain and/or Floodway

- ☒ Stormwater Control Plan (consistent with Napa County BASMAA Post Construction Manual)
- ☐ Other: _____
- ☐ Other: _____

☒ **Additional Information Required by the Environmental Health Department:**

N/A
1. Soil Evaluation Report if an on-site septic system is proposed.
2. Septic Feasibility Report for any new or upgraded septic systems or any expansion of use relying on an existing septic system.
3. Water System Feasibility Report if the water supply system will serve 25 or more people inclusive of employees, visitors, and residents or if kitchen is proposed. See enclosed handout provided by Environmental Services.
4. Water and/or Sewage Disposal Easement if an off-site spring, well, reservoir, storage tank, or individual sewage disposal system is proposed.

5. Completed Business Activities form, enclosed.

✓ 6. Solid Waste & Recycling Storage area location and size included on overall site plan. See guidelines at www.countyofnapa.org/DEM/.

N/A 7. Cave setback plan if a cave is proposed. See handout provided by Environmental Services.

Please click on Other Information tab at https://www.countyofnapa.org/1904/Environmental-Health-Division for forms and handouts related to use permit application submittal.

☐ **Additional Information Required by the Engineering Services:**

2020 Napa County Road & Street Standards
https://www.countyofnapa.org/DocumentCenter/View/3787/Napa-County-Road-and-Street-Standards---2020-PDF

Project Guidance for Stormwater Compliance
https://www.countyofnapa.org/DocumentCenter/View/3778/Project-Guidance-for-Stormwater-Quality-Compliance-PDF

BASMAA Post-Construction Stormwater Management Manual
https://www.countyofnapa.org/DocumentCenter/View/3780/Bay-Area--Stormwater-Management-Agencies-Association-BASMAA-Post-Construction-Manual-PDF

Napa Countywide Stormwater Pollution Prevention Program (NCSPPP) Erosion and Sediment Control Plan Guidance
https://www.countyofnapa.org/DocumentCenter/View/3780/Bay-Area--Stormwater-Management-Agencies-Association-BASMAA-Post-Construction-Manual-PDF

☐ *Please Note*
While this checklist includes all information generally required to process a Use Permit/Major Modification or other Use Permit related application, it is primarily focused on winery uses. Additional information may be required at the discretion of the Deputy Planning Director, and in particular in those cases where non-winery commercial uses (such as restaurants) or residential use related projects are proposed. **The Planning Division will make every effort to identify any additional required information at or directly following the Pre-application Review Meeting.**

☐ **Plans and Studies provided electronically via file share (coordinated at intake).**

Certification and Indemnification

Applicant certifies that all the information contained in this application, including all information required in the Checklist of Required Application Materials and any supplemental submitted information including, but not limited to, the information sheet, water supply/waste disposal information sheet, site plan, floor plan, building elevations, water supply/waste disposal system site plan and toxic materials list, is complete and accurate to the best of his/her knowledge. Applicant and property owner hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, *including the right of access to the property involved.*

Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

Dennis Paulley / E&P Properties, Inc.	
Print Name of Property Owner	Print Name Signature of Applicant (if different)
8/24/2022	
Signature of Property Owner — Date	Signature of Applicant — Date

Hourly Fee Agreement

PROJECT File: _____; request for _____
_____. I, Dennis Paulley,
the undersigned, hereby authorize the County of Napa to process the above referenced permit request in accordance with the Napa County Code. I am providing $ _____ as a deposit to pay for County staff review, coordination and processing costs related to my permit request based on actual staff time expended and other direct costs. **In making this deposit, I acknowledge and understand that the deposit may only cover a portion of the total processing costs. Actual costs for staff time are based on hourly rates adopted by the Board of Supervisors in the most current Napa County fee schedule. I also understand and agree that I am responsible for paying these costs even if the application is withdrawn or not approved.**

I understand and agree to the following terms and conditions of this Hourly Fee Agreement:

1. Time spent by Napa County staff in processing my application and any direct costs will be billed against the available deposit. "Staff time" includes, but is not limited to, time spent reviewing application materials, site visits, responding by phone or correspondence to inquiries from the applicant, the applicant's representatives, neighbors and/or interested parties, attendance and participation at meetings and public hearings, preparation of staff reports and other correspondence, or responding to any legal challenges related to the application during the processing of your application. "Staff" includes any employee of the Planning, Building and Environmental Services Department (PBES), the Office of the County Counsel, or other County staff necessary for complete processing of the application. "Direct costs" include any consultant costs for the peer review of materials submitted with the application, preparation of California Environmental Quality Act (CEQA) documents, expanded technical studies, project management, and/or other outside professional assistance required by the County and agreed to by the applicant. The cost to manage consultant contracts by staff will also be billed against the available deposit.

2. Staff will review the application for completeness and provide me with a good faith estimate of the full cost of processing the permit. Any requested additional deposit shall be submitted to PBES to allow continued processing of the project.

3. I understand that the County desires to avoid incurring permit processing costs without having sufficient funds on deposit. If staff determines that inadequate funds are on deposit for continued processing, staff shall notify me in writing and request an additional deposit amount estimated necessary to complete processing of my application. I agree to submit sufficient funds as requested by staff to process the project through the hearing process within 30 days of the request.

4. I understand that if the amount on deposit falls below zero, staff will notify me and stop work on the application until sufficient additional funds are provided

5. If the final cost is less than the amount remaining on deposit, the unused portion of the deposit will be refunded to me. If the final cost is more than the available deposit, I agree to pay the amount due within 30 days of billing.

6. If I fail to pay any invoices or requests for additional deposits within 30 days, the County may either stop processing my permit application, or after conducting a hearing, may deny my permit application. If I fail to pay any amount due after my application is approved, I understand that my permit may not be exercised, or may be subject to revocation. I further agree that no building, grading, sewage, or other project related permits will be issued if my account is in arrears.

7. I may file a written request for a further explanation or itemization of invoices, but such a request does not alter my obligation to pay any invoices in accordance with the terms of this agreement.

Name of Applicant responsible for payment of all County processing fees (Please Print):

Dennis Paulley / E&P Properties, Inc.

Mailing Address of the Applicant responsible for paying processing fees:

2250 S. Watney Way

Fairfield, CA 94533

Signature:*

Email Address: dennis@metrovan.com

Date: 8/24/2022

Phone Number: (707) 745-1150

*ATTENTION - The applicant will be held responsible for all charges.

WINERY OPERATIONS

Please indicate whether the activity or uses below are already legally **EXISTING**, whether they exist and are proposed to be **EXPANDED** as part of this application, whether they are **NEWLY PROPOSED** as part of this application, or whether they are neither existing nor proposed (**NONE**).

Retail Wine Sales	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Tours and Tasting- Open to the Public	☐ Existing			
Tours and Tasting- By Appointment	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Food at Tours and Tastings	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Marketing Events*	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Food at Marketing Events	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Will food be prepared...	☐ On-Site?	☐ Catered?		
Public display of art or wine-related items	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None
Wine Sales/Consumption – AB 2004	☐ Existing		☐ Proposed	☑ None

** For reference please see definition of "Marketing," at Napa County Code §18.08.370* - http://library.municode.com/index.aspx?clientId=16513

Production Capacity *

Please identify the winery's...

Existing permitted production capacity: none gal/y Per permit : _____ Permit date: _____

Current maximum actual production: _____ gal/y For what year? _____

Average 3 year production: _____ gal/y

Proposed production capacity: 450,000 gallons/yr

** For this section, please see "Winery Production Process," at page 11.*

Visitation and Operations

Please identify the winery's...

Maximum daily tours/tastings visitation:	n/a existing	n/a proposed
Maximum weekly tours/tastings visitation:	n/a existing	n/a proposed
Visitation hours (e.g. M-Sa, 10am-4pm):	n/a existing	n/a proposed
Production days and hours[1]:	n/a existing	7 days, 8 a.m.-6 p.m. proposed

[1] It is assumed that wineries will operate up to 24 hours per day during crush.

A Tradition of Stewardship
A Commitment to Service

WINERY TRIP GENERATION WORKSHEET

Planning, Building & Environmental Services

[illegible]

Clear Form

PROJECT DESCRIPTION

Winery Name: E & P Technology Way **Date Prepared:**

Existing Entitled Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday		
	Weekend		
Number of Part Time Employees*	Weekday		
	Weekend		
Maximum Daily Visitation	Weekday		
	Weekend		
Annual Gallons of Production			
Annual Tons of Grape Haul		0	N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average	Weekday		
	Weekend		

Proposed Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday	28	16
	Weekend	28	8
Number of Part Time Employees*	Weekday	7	7
	Weekend	7	7
Maximum Daily Visitation	Weekday	0	0
	Weekend	0	0
Annual Gallons of Production		450,000	
Annual Tons of Grape Haul		0	N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average	Weekday	0	0
	Weekend	0	0

*Number of full time and part time employees should represent the max number of employees that will be working on any given day (including all vendors and contractors employed for the largest event that occurs two or more times per month on average).

Planning, Building & Environmental Services - Hillary Gitelman, Director
1195 Third Street, Napa, CA 94559 - (707) 253-4417 - www.countyofnapa.org

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Project name & APN: E&P Technology Way - Building A, 057-250-030
Project number if known:
Contact person: Dennis Paulley / E&P Properties
Contact email & phone number: dennis@metrovan.com, (707) 745-1150
Today's date: 8/22/22

Voluntary Best Management Practices Checklist for Development Projects

Napa County General Plan Policy CON-65 (e) and Policy CON-67 (d) requires the consideration of Greenhouse Gas (GHG) emissions in the review of discretionary projects and to promote and encourage "green building" design. The below Best Management Practices (BMPs) reduce GHG emissions through energy and water conservation, waste reduction, efficient transportation, and land conservation. The voluntary checklist included here should be consulted early in the project and be considered for inclusion in new development. It is not intended, and likely not possible for all projects to adhere to all of the BMPs. Rather, these BMPs provide a portfolio of options from which a project could choose, taking into consideration cost, co-benefits, schedule, and project specific requirements. Please check the box for all BMPs that your project proposes to include and include a separate narrative if your project has special circumstances.

Practices with Measurable GHG Reduction Potential

The following measures reduce GHG emissions and if needed can be calculated. They are placed in descending order based on the amount of emission reduction potential.

Already Doing	Plan To Do	ID #	BMP Name
☐	☐	BMP-1	**Generation of on-site renewable energy**

If a project team designs with alternative energy in mind at the conceptual stage it can be integrated into the design. For instance, the roof can be oriented, sized, and engineered to accommodate photovoltaic (PV) panels. If you intend to do this BMP, please indicate the location of the proposed PV panels on the building elevations or the location of the ground mounted PV array on the site plan. Please indicate the total annual energy demand and the total annual kilowatt hours produced or purchased and the potential percentage reduction of electrical consumption. Please contact staff or refer to the handout to calcuate how much electrical energy your project may need.

☐	☐	BMP-2	**Preservation of developable open space in a conservation easement**

Please indicate the amount and location of developable land (i.e.: under 30% slope and not in creek setbacks or environmentally sensitive areas for vineyards) conserved in a permanent easement to prohibit future development.

Already Doing | Plan To Do

☐ ☐ **BMP-3 Habitat restoration or new vegetation (e.g. planting of additional trees over 1/2 acre)**

Napa County is famous for its land stewardship and preservation. Restoring areas within the creek setback reduces erosion potential while planting areas that are currently hardscape (such as doing a bio-retention swale rather than underground storm drains) reduces storm water and helps the groundwater recharge. Planting trees can also increase the annual uptake of CO2e and add the County's carbon stock.

_____

_____

☐ ☐ **BMP-4 Alternative fuel and electrical vehicles in fleet**

The magnitude of GHG reductions achieved through implementation of this measure varies depending on the analysis year, equipment, and fuel type replaced.

Number of total vehicles _____

Typical annual fuel consumption or VMT _____

Number of alternative fuel vehicles _____

Type of fuel/vehicle(s) _____

Potential annual fuel or VMT savings _____

☐ ☐ **BMP-5 Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 2**

The California Building Code update effective January 1, 2011 has new mandatory green building measures for all new construction and has been labeled CALGREEN. CALGREEN provides two voluntary higher levels labeled CALGREEN Tier I and CALGREEN Tier II. Each tier adds a further set of green building measures that go above and beyond the mandatory measures of the Code. In both tiers, buildings will use less energy than the current Title 24 California Energy Code. Tier I buildings achieve at least a 15% improvement and Tier 2 buildings are to achieve a 30% improvement. Both tiers require additional non-energy prerequisites, as well as a certain number of elective measures in each green building category (energy efficiency, water efficiency, resource conservation, indoor air quality and community).

_____

_____

☐ ☐ **BMP-6 Vehicle Miles Traveled (VMT) reduction plan**

Selecting this BMP states that the business operations intend to implement a VMT reduction plan reducing annual VMTs by at least 15%.

Tick box(es) for what your Transportation Demand Management Plan will/does include:

- ☐ employee incentives
- ☐ employee carpool or vanpool
- ☐ priority parking for efficient transporation (hybrid vehicles, carpools, etc.)
- ☐ bike riding incentives
- ☐ bus transportation for large marketing events
- ☐ Other:

_____

_____

Estimated annual VMT _____

Potential annual VMT saved _____

% Change _____

Already Doing	Plan To Do		
☐	☐	BMP-7	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 1** *See description below under BMP-5.*
☐	☐	BMP-8	**Solar hot water heating** *Solar water heating systems include storage tanks and solar collectors. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which don't. Both of them would still require additional heating to bring them to the temperature necessary for domestic purposes. They are commonly used to heat swimming pools.*
☐	☑	BMP-9	**Energy conserving lighting** *Lighting is approximately 25% of typical electrical consumption. This BMP recommends installing or replacing existing light bulbs with energy-efficient compact fluorescent (CF) bulbs or Light Emitting Diode (LED) for your most-used lights. Although they cost more initially, they save money in the long run by using only 1/4 the energy of an ordinary incandescent bulb and lasting 8-12 times longer. Typical payback from the initial purchase is about 18 months.*
☐	☐	BMP-10	**Energy Star Roof/Living Roof/Cool Roof** *Most roofs are dark-colored. In the heat of the full sun, the surface of a black roof can reach temperatures of 158 to 194 °F. Cool roofs, on the other hand, offer both immediate and long-term benefits including reduced building heat-gain and savings of up to 15% the annual air-conditioning energy use of a single-story building. A cool roof and a green roof are different in that the green roof provides living material to act as a both heat sink and thermal mass on the roof which provides both winter warming and summer cooling. A green (living) roof also reduces storm water runoff.*
☐	☐	BMP-11	**Bicycle Incentives** *Napa County Zoning Ordinance requires 1 bicycle rack per 20 parking spaces (§18.110.040). Incentives that go beyond this requirement can include on-site lockers for employees, showers, and for visitor's items such as directional signs and information on biking in Napa. Be creative!*
☐	☐	BMP-12	**Bicycle route improvements** *Refer to the Napa County Bicycle Plan (NCPTA, December 2011) and note on the site plan the nearest bike routes. Please note proximity, access, and connection to existing and proposed bike lanes (Class I: Completely separated right-of-way; Class II: Striped bike lane; Class III: Signed Bike Routes). Indicate bike accessibility to project and any proposed improvements as part of the project on the site plan or describe below.*

Already Doing | Plan To Do

☐ ☐ **BMP-13 Connection to recycled water**

Recycled water has been further treated and disinfected to provide a non-potable (non-drinking water) water supply. Using recycled water for irrigation in place of potable or groundwater helps conserve water resources.

☐ ☑ **BMP-14 Install Water Efficient fixtures**

WaterSense, a partnership program by the U.S. Environmental Protection Agency administers the review of products and services that have earned the WaterSense label. Products have been certified to be at least 20 percent more efficient without sacrificing performance. By checking this box you intend to install water efficient fixtures or fixtures that conserve water by 20%.

☐ ☐ **BMP-15 Low-impact development (LID)**

LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Please indicate on the site or landscape plan how your project is designed in this way.

☐ ☑ **BMP-16 Water efficient landscape**

If your project is a residential development proposing in excess of 5,000 sq. ft. or a commercial development proposing in excess of 2,500 sq. ft. The project will be required to comply with the Water Efficient Landscape Ordinance (WELO).

Please check the box if you will be complying with WELO or If your project is smaller than the minimum requirement and you are still proposing drought tolerant, zeroscape, native plantings, zoned irrigation or other water efficient landscape.

☐ ☐ **BMP-17 Recycle 75% of all waste**

Did you know that the County of Napa will provide recycling collectors for the interior of your business at no additional charge? With single stream recycling it is really easy and convenient to meet this goal. To qualify for this BMP, your business will have to be aggressive, proactive and purchase with this goal in mind.

Already Doing | Plan To Do

☐ ☐ **BMP-18 Compost 75% food and garden material**

The Napa County food composting program is for any business large or small that generates food scraps and compostable, including restaurants, hotels, wineries, assisted living facilities, grocery stores, schools, manufacturers, cafeterias, coffee shops, etc. All food scraps (including meat & dairy) as well as soiled paper and other compostable - see http://www.naparecycling.com/foodcomposting for more details.

☐ ☐ **BMP-19 Implement a sustainable purchasing and shipping programs**

Environmentally Preferable Purchasing (EPP) or Sustainable Purchasing refers to the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. By selecting this BMP, you agree to have an EPP on file for your employees to abide by.

☐ ☑ **BMP-20 Planting of shade trees within 40 feet of the south side of the building elevation**

Well-placed trees can help keep your building cool in summer. If you choose a deciduous tree after the leaves drop in autumn, sunlight will warm your building through south and west-facing windows during the colder months. Well-designed landscaping can reduce cooling costs by 20%. Trees deliver more than energy and cost savings; they are important carbon sinks. Select varieties that require minimal care and water, and can withstand local weather extremes. Fruit or nut trees that produce in your area are great choices, providing you with local food as well as shade. Please use the site or landscape plan to indicate where trees are proposed and which species you are using.

☐ ☑ **BMP-21 Electrical Vehicle Charging Station(s)**

As plug-in hybrid electric vehicles (EV) and battery electric vehicle ownership is expanding, there is a growing need for widely distributed accessible charging stations. Please indicate on the site plan where the station will be.

Dedicated parking will be provided for future EV charging stations.

☐ ☐ **BMP-22 Public Transit Accessibility**

Refer to http://www.ridethevine.com/vine and indicate on the site plan the closest bus stop/route. Please indicate if the site is accessed by transit or by a local shuttle. Provide an explanation of any incentives for visitors and employees to use public transit. Incentives can include bus passes, informational hand outs, construction of a bus shelter, transportation from bus stop, etc.

Already Doing | Plan To Do

☐ ☐ **BMP-23**

Site Design that is oriented and designed to optimize conditions for natural heating, cooling, and day lighting of interior spaces, and to maximize winter sun exposure; such as a cave.

The amount of energy a cave saves is dependent on the type of soil, the microclimate, and the user's request for temperature control. Inherently a cave or a building burned into the ground saves energy because the ground is a consistent temperature and it reduces the amount of heating and cooling required. On the same concept, a building that is oriented to have southern exposure for winter warmth and shading for summer cooling with an east-west cross breeze will naturally heat, cool, and ventilate the structure without using energy. Please check this box if your design includes a cave or exceptional site design that takes into consideration the natural topography and sitting. Be prepared to explain your approach and estimated energy savings.

_____

_____

☐ ☐ **BMP-24 Limit the amount of grading and tree removal**

Limiting the amount of earth disturbance reduces the amount of CO2 released from the soil and mechanical equipment. This BMP is for a project design that either proposes a project within an already disturbed area proposing development that follows the natural contours of the land, and that doesn't require substantial grading or tree removal.

_____

_____

☐ ☐ **BMP-25 Will this project be designed and built so that it could qualify for LEED?**

BMP-25 (a)	☐	**LEED™ Silver** (check box BMP-25 and this one)
BMP-25 (b)	☐	**LEED™ Gold** (check box BMP-25, BMP-25 (a), and this box)
BMP-25 (c)	☐	**LEED™ Platinum** (check all 4 boxes)

Practices with Un-Measured GHG Reduction Potential

☐ ☐ **BMP-26 Are you, or do you intend to become a Certified Green Business or certified as a"Napa Green Winery"?**

As part of the Bay Area Green Business Program, the Napa County Green Business Program is a free, voluntary program that allows businesses to demonstrate the care for the environment by going above and beyond business as usual and implementing environmentally friendly business practices. For more information check out the Napa County Green Business and Winery Program at www.countyofnapa.org.

☐ ☐ **BMP-27 Are you, or do you intend to become a Certified "Napa Green Land"?**

Napa Green Land, fish friendly farming, is a voluntary, comprehensive, "best practices" program for vineyards. Napa Valley vintners and growers develop farm-specific plans tailored to protect and enhance the ecological quality of the region, or create production facility programs that reduce energy and water use, waste and pollution. By selecting this measure either you are certified or you are in the process of certification.

Already Doing | Plan To Do

☐ ☐ **BMP-28 Use of recycled materials**

There are a lot of materials in the market that are made from recycled content. By ticking this box, you are committing to use post-consumer products in your construction and your ongoing operations.

_____

☐ ☐ **BMP-29 Local food production**

There are many intrinsic benefits of locally grown food, for instance reducing the transportation emissions, employing full time farm workers, and improving local access to fresh fruits and vegetables.

_____

☐ ☐ **BMP-30 Education to staff and visitors on sustainable practices**

This BMP can be performed in many ways. One way is to simply put up signs reminding employees to do simple things such as keeping the thermostat at a consistent temperature or turning the lights off after you leave a room. If the project proposes alternative energy or sustainable winegrowing, this BMP could include explaining those business practices to staff and visitors.

_____

☐ ☐ **BMP-31 Use 70-80% cover crop**

Cover crops reduce erosion and the amount of tilling which is required, which releases carbon into the environment.

☐ ☐ **BMP-32 Retain biomass removed via pruning and thinning by chipping the material and reusing it rather than burning on-site**

By selecting this BMP, you agree not to burn the material pruned on site.

☐ ☐ **BMP-33 Are you participating in any of the above BMPS at a 'Parent' or outside location?**

_____

_____

_____

_____

_____

☐ ☐ **BMP-34 Are you doing anything that deserves acknowledgement that isn't listed above?**

_____

_____

_____

Comments and Suggestions on this form?

_____

_____

_____

_____

Sources:

1. Napa County Bicycle Plan, NCTPA, December 2011

2. California Air Pollution Control Officers Associate (CAPCOA). January 2008. CEQA and Climate Change

3. Napa County General Plan, June 2008.

4. California Office of the Attorney General. 2010. Addressing Climate Change at at the Project Level available at http: //ag.ca.gove/global warming/pdf/GW_mitigation_measures.pdf

5. U.S. Green Building Council (2009). LEED 2009 for New Construction and Major Renovations Rating System. Washington, DC: United States Green Building Council, Inc.

6. California Energy Commission (2008). Title 24, Part 6, of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Sacramento, CA: California Energy Commission.

7. U.S. Department of Energy (2010). Cool roof fact sheet.

8. http://www1.eere.energy.gov/buildings/ssl/ledlightingfacts.html

9. Compact Fluorescent Light Bulbs". Energy Star. Retrieved 2013-05-01.

10. http://energy.gov/energysaver/articles/solar-water-heaters. Retrieved 2013-05-02.

11. http://energy.gov/energysaver/articles/solar-water-heater. Retrieved 2013-05-09

12. http://www.bchydro.com/powersmart/residential/guides_tips/green-your-home/cooling_guide/shade_trees.html

13.http://www.napagreen.org/about. Retrieved 2013-05-09

14. http://www.countyofnapa.org/pages/departmentcontent.aspx?id=4294971612

15. http://www.napasan.com/Pages/ContentMenu.aspx?id=109

16. http://water.epa.gov/polwaste/green/index.cfm

USE PERMIT: PROJECT STATEMENT
Warehouse Facility
Technology Way, Napa

APPLICANT/OWNER:
Dennis Paulley
2250 S. Watney Way.
Fairfield, CA 94533

APN: 057-250-031 & 032 ACREAGE: +/-6.87 acres

GENERAL PLAN MAP DESIGNATION: I: Industrial

ZONING DESIGNATION: IP: Industrial Park
AC: Airport Compatibility

GENERAL PROJECT DESCRIPTION:

The property is located on the north side of Technology Way and Morris Court within the Industrial Park Area of the Napa County Airport Business Park. The parcel is undeveloped. This proposal supplements application P22-00308 to allow warehouse uses within the proposed 66,915 SF building. The warehouse use would be consistent with allowable warehouse uses as outlined in Napa County Code (18.40.020).

The site plan shows the building, parking, on-site truck circulation, and general landscape areas. The floor area ratio (FAR) after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway that runs along the eastern property line. Trucks will then off load or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on the west side. The entrance driveway will be wide enough to accommodate two-way traffic.

The project will be provided with water service from the City of American Canyon. Napa Sanitation District (NSD) will provide sewer. The building will be sprinklered for fire protection.

The building will be utilized for warehousing. The facility will be run by up to 30 employees. The user has not yet been identified.

There will be no retail sales and no access for the general public. The only signage will be to identify the building for the future tenant.

SITE DEVELOPMENT AND PERFORMANCE STANDARDS
In the Industrial Park (IP) Zoning District, warehousing uses are allowed upon issuance of a use permit (18.40.020 B(4)). The IP Zoning District contains Development Standards (Article I, 18.40.030-18.40.170), which have been adhered to with this design. No variation to the IP development standards are requested. The IP Zoning District contains Use Performance Standards (Article II, 18.40.180-18.40.240).

The *Napa Valley Business Park Specific Plan includes development standards for the Business/Industrial Park area.*

> *The Business/Industrial Park land use designation is intended to attract development of a higher standard with respect to construction characteristics, on-site amenities, standards of acceptable use, and off-site improvement requirements. The designation is intended to accommodate light industrial uses such as research and development, light manufacturing, light assembly, warehousing and distribution, large administrative headquarters, and other professional and administrative uses. This designation allows the implementation of special requirements for common improvements, site and building design, landscaping, signage, off street parking, noise control, and outdoor storage. Design review is required for the implementation of these special requirements. (page 48, Napa Valley Business Park Specific Plan).*

The Napa Valley Business Park Specific Plan includes a requirement for an unnamed setback from Sheehy Creek, which is adjacent to this parcel on the north side. The necessary setbacks were evaluated and established under a previous application (P08-00557). A Conservation Easement has been recorded to established for habitat conservation (2006-0004963). First Carbon Solutions completed updated Biological Assessment and the recommendations in this report are included in the project.

This property is within Zone D of the Napa County Airport Land Use Compatibility Plan. The building use, coverage, building height and employment density meets the restrictions as outlined in this plan.

PARKING STANDARDS

Section 18.110.030 of the Zoning Code and pages 64-65 of the Napa Valley Business Park Specific Plan outline parking standards for this Zoning District.

Use	Square footage	Parking Requirement	Parking Demand
Warehouse	55,915	1 space/1,000 sf for first 20,000 sf and 1/2,000 for over 10,000 sf	38
Office	11,000	1 space per 250 sf	44

REQUIRED PARKING	82
PARKING PROVIDED	82

SEWER AND WATER SERVICE

The applicant is in the process of obtaining a “Will Serve” letter indicating that American Canyon will serve the property with water for the proposed use. Similarly, Napa Sanitation District (NSD) has been contacted to request a “Will Serve” letter indicating that they will serve the proposed facility for domestic and wastewater. Recycled water from NSD will be used for irrigation.

Planning, Building, & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559
Main: (707) 253-4417
Fax: (707) 253-4336

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PLANNING APPLICATION FORM

Applicant Information

Applicant Contact

Name: Dennis Paulley
Mailing Address: 2250 S. Watney Way
City: Fairfield State: CA Zip: 94533
Phone: (707) 745-1150
E-Mail Address: dennis@metrovan.com

Property Owner Contact

Name: Dennis Paulley / E&P Properties, Inc.
Mailing Address: 2250 S. Watney Way
City: Fairfield State: CA Zip: 94533
Phone: (707) 745-1150
E-Mail Address: dennis@metrovan.com

Agent Contact

Name: Mike Kelley
Mailing Address: 5150 Fair Oaks Blvd., Ste 101-219
City: Carmichael State: CA Zip: 95608
Phone: (916) 956-0524
E-Mail Address: mkelley@kelley-commercial.com

Other Representative Contact

☐ Engineer ☑ Architect ☐ Agent
Name: Jeff Leonhardt / RMW
Mailing Address: 1718 Third St., #101
City: Sacramento State: CA Zip: 95811
Phone: (916) 449-1400 ext 405
E-Mail Address: jleonhardt@rmw.com

Property Information

Project Name: E&P Technology Way - Building B
Project Address: North side of Technology Way and Morris Court
Assessor's Parcel Number(s): 057-250-031 & 032
Size of site (acreage and/or square footage): 5.3 acres, 230,868 SF
General Plan Designation: Industrial Zoning: IP:AC

Application Type[1]

File No(s) P22-00308

Administrative	Planning Commission/ALUC/BOS	Zoning Administrator
Erosion Control Plan: ☐ Track I ☐ Track II ☐ Admin Viewshed ☐ Fence Entry Structure Permit ☐ Land Division/Mergers ☐ Site Plan Approval/Modification ☐ Winery Administrative Permit ☐ Other Very Minor Modification ☐ Addressing ☐ Signs **Temporary Event:** ☐ 51-400 ☐ 401+ ☐ Late Application Submittal ☐ Application Entitled to Fee Waiver ☐ Other:	**Major Modification:** ☐ Winery ☑ Other **Use Permit:** ☐ Winery ☑ Other ☐ Viewshed ☐ AG Preserve Contract ☐ Development Agreement ☐ Airport Land Use Consistency Determination ☐ General, Specific or Airport Land Use Plan Amendment ☐ Variance ☐ Zoning Map/Text Amendment ☐ Road Exception ☐ Con. Reg. Exception ☐ Other:	☐ Certificate of Legal Non Conformity ☐ Other Minor Modification ☐ Road Exception ☐ Small Winery Exemption ☐ Winery Minor Modification ☐ Variance ☐ Viewshed ☐ Other: **Misc. Services** ☐ Use Determination ☐ Status Determination ☐ Other:

[1]: **Include corresponding submittal requirements for each application type.**

Detailed Project Description (required): A typed, detailed project description is required that describes the proposed development or use(s); the existing site conditions/uses; the number, size, type and nature of any proposed residential dwelling units or total amount of new non-residential square-footage by type of use. Please refer to specific Supplemental Application submittal handouts for details to describe the project and required special studies.

Conditions of Application

1. All materials (plans, studies, documents, etc.) and representations submitted in conjunction with this form shall be considered a part of this application and publicly available for review and use, including reproduction.
2. The owner shall inform the Planning Division in writing of any changes.
3. Agent authorization: The property owner authorizes the listed agent(s) and/or other representative(s) to appear before staff, the Director, the Zoning Administrator, and Planning Commission to represent the owner's interests and to file applications, plans and other information on the owner's behalf.
4. Certification and Indemnification Form: Refer to attached form for notifications and required signature.
5. Fees: The applicant agrees to pay the County any and all processing fees imposed by the Board of Supervisor's current Fee Resolution including the establishment of an hourly fee application agreement and initial deposit. Applicant understands that fees include, but not limited to: Planning, Engineering, Public Works, and County Counsel staff time billed at an hourly rate; required Consultant service billed rates; production or reproduction of materials and exhibits; public notice advertisements; and postage. In the event the property owner is different than the applicant, the property owner must sign to indicate consent to the filing and agreement to pay fees in the event of the applicant's failure to pay said fees. Failure to pay all accumulated fees by the time of public hearing will result in a continuance.
6. This form, together with the corresponding application forms for specific permits, will become the Permit Document.

I have read and agree with all of the above. The above information and attached documents are true and correct to the best of my knowledge. All property owners holding a title interest must sign the application form. If there are more than two property owners, list their names, mailing addresses, phone numbers and signatures on a separate sheet of paper.

If you wish notice of meetings/correspondence to be sent to parties other than those listed on Page 1, please list them on a separate piece of paper.

8/26/2022

Property Owner's Signature and Date

Property Owner's Signature and Date

Applicant/Agent Statement

I am authorized and empowered to act as an agent on behalf of the owner of record on all matters relating to this application. I declare that the foregoing is true and correct and accept that false or inaccurate owner authorization may invalidate or delay action on this application.

8/26/2022

Applicant's Signature and Date

	Application Fees	
Date Received: _____	Deposit Amount	$
Received by: _____	Flat Fee Due	$
Receipt No._____	Total	$
File No._____	Check No	

Checklist of Required Application Materials

Please make sure that the following documents are complete and legible. Consistent with the State Permit Streamlining Act and Departmental policy, the Planning, Building and Environmental Services (PBES) Department will make an application completeness determination within thirty days of application submittal and the payment of all required initial fees.

☑ **General Application Form:** The attached General Application Form must be completed in full and signed by the property owner or their authorized agent. Corporations, partnership, and the like have special signature requirements as noted on the Form.

☑ **Application Fee:**

Use Permit/Major Modification (All Uses): Total Fees are based on actual time and materials and flat fees. A deposit in the amount of **$10,000. Check made payable to County of Napa.**

Small Winery Exemption (Winery Uses): Total fees are based on actual time and materials and flat fees. A deposit in the amount of $5,000. Check made payable to County of Napa.

Minor Modification (Winery Uses): Total fees are based upon flat rates with exception to Engineering Services which are based on actual time and materials over 3 hours for Roads & Street Standards evaluation. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

Administrative Permit (Winery Uses): Total Fees are based on actual time and materials and flat fees. A deposit in the amount of $1,500. Check made payable to County of Napa.

Minor Modification (Non-Residential & Residential Uses): Total fees are based upon flat rates. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

Very Minor Modification (Non-Residential & Residential Uses): Total fees are based upon flat rates. All County Counsel fees are based on actual time and materials. Check made payable to County of Napa.

☑ **Read and Sign the Hourly Fee Agreement**

☑ **Detailed Project Description:** The Project Description should address all of the applicable items listed below:

1. Existing site conditions and uses.
2. Proposed type of development and size, proposed uses/business, development phases, changes or alterations to the property or building including new/modified improvements and off-site improvements.
3. Days of the week and hours of operation.
4. Maximum number of employees per shift and hours of shifts.
5. Are there additional licenses and/or approvals from outside agencies needed from a Special District, Regional, State, Federal?
6. What is your water supply? How/where is liquid/solid waste disposed?

☑ **To-Scale Site Development Plans (ALL plans must be to an identified architect's or engineer's scale and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans consistent with information contained in the ***Building Division – Design Information - Sample Site Plan Handout:*** https://www.countyofnapa.org/1890/Building-Documents .

☑ **To-Scale Floor Plans (ALL plans must be to an identified architect's or engineer's scale, shall show the existing and proposed conditions of the building and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans with the following information and details:

1. Dimensions and area of all rooms, hallways and covered or partially enclosed outdoor areas.
2. Use of each area within each structure/building.
3. Location of emergency exists.

☑ **To-Scale Building Elevations (ALL plans must be to an identified architect's or engineer's scale, shall show the existing and proposed conditions of the building and shall be legible):**

Submit **three (3)** 24" X 36" and **one** 11" x 17" copies of plans with the following information and details:

1. All relevant dimensions.
2. Exterior materials.
3. Exterior colors.
4. Existing grade.
5. Finished grade.
6. Finished floor level.
7. Building height consistent with Figure 209-1 of the 1997 UBC Handbook.

☒ **Technical Information and Reports**

The following technical information and studies are generally required unless waived by County Planning Staff at or following a Pre-Application Review Meeting. Please see County Planning Staff for a list of pre-qualified consultants.

N/A 1. FOR WINERY PROJECTS: Additional submittal information is necessary and should be included with the submittal packet consistent with the Winery Use Permit Supplemental Submittal Requirements.

2. ✓ Traffic Study consistent with Traffic Impact Study Preparation Requirements Please fill out the enclosed current Trip Generation Sheet for existing and proposed project to determine the need for the preparation of a Traffic Impact Study.

3. ✓ Archeological/Cultural Resources Study (consistent with *Guidelines for Preparing Cultural Resource Surveys* and State of California requirements)

N/A 4. Historic Resources Study (consistent with State Office of Historic Preservation requirements)

5. ✓ Biological Study – Includes Special Status Survey (consistent with *Guidelines for Preparing Biological Resources Reconnaissance Surveys* and *Guidelines for Preparing Special-Status Plant Studies*)

N/A 6. Water Availability/Groundwater Study (consistent with the *WAA Guidance Document* adopted by the Board 5/12/2015). Please refer to the following link: https://www.countyofnapa.org/876/Water-Availability-Analysis .

N/A 7. For projects located within Sensitive Domestic Water Supply Drainages and/or within the Agricultural Watershed (AW) zoning district, please provide vegetation coverage removal and retention information/analysis based on 1993 Vegetation totals and parcel configuration, including a map or figure that includes the following information:

Tree canopy coverage:

Tree canopy cover (1993): _____acres

Tree canopy cover to be removed: _____acres _____%

Tree canopy cover to be retained: _____acres _____%

Understory (i.e. brush, shrubs, grasses):

Understory cover (1993): _____acres

Understory to be removed: _____acres _____%

Understory to be retained: _____acres _____%

This information may be provided as part of the Biological Report if one is required for your project. Guidance on how to prepare vegetation removal and retention calculations can be found in the County's Water Quality & Tree Protection Ordinance Implementation Guide, located on our website: https://www.countyofnapa.org/DocumentCenter/View/12882/WQTPO-implementation-guide?bidId=

8. Special Studies (The following may be required on a project-specific basis at the discretion of the PBES Director.)

N/A
- ☐ Noise Study (demonstrating consistency with Napa County Code Chapter 8.16).
- ☐ Aviation Compatibility Study (consistent with Airport Land Use Compatibility Plan requirements)
- ☐ Visual Impacts Study (Photographic simulations)
- ☐ Geological/Geotechnical Hazard Report – Alquist Priolo Act
- ☐ Hydraulic Analysis (flood impact) if within Floodplain and/or Floodway

- ☒ Stormwater Control Plan (consistent with Napa County BASMAA Post Construction Manual)
- ☐ Other: _____
- ☐ Other: _____

☒ **Additional Information Required by the Environmental Health Department:**

N/A
1. Soil Evaluation Report if an on-site septic system is proposed.
2. Septic Feasibility Report for any new or upgraded septic systems or any expansion of use relying on an existing septic system.
3. Water System Feasibility Report if the water supply system will serve 25 or more people inclusive of employees, visitors, and residents or if kitchen is proposed. See enclosed handout provided by Environmental Services.
4. Water and/or Sewage Disposal Easement if an off-site spring, well, reservoir, storage tank, or individual sewage disposal system is proposed.
5. Completed Business Activities form, enclosed.

6. ✓ Solid Waste & Recycling Storage area location and size included on overall site plan. See guidelines at www.countyofnapa.org/DEM/.

N/A 7. Cave setback plan if a cave is proposed. See handout provided by Environmental Services.

Please click on Other Information tab at https://www.countyofnapa.org/1904/Environmental-Health-Division for forms and handouts related to use permit application submittal.

☐ **Additional Information Required by the Engineering Services:**

2020 Napa County Road & Street Standards
https://www.countyofnapa.org/DocumentCenter/View/3787/Napa-County-Road-and-Street-Standards---2020-PDF

Project Guidance for Stormwater Compliance
https://www.countyofnapa.org/DocumentCenter/View/3778/Project-Guidance-for-Stormwater-Quality-Compliance-PDF

BASMAA Post-Construction Stormwater Management Manual
https://www.countyofnapa.org/DocumentCenter/View/3780/Bay-Area--Stormwater-Management-Agencies-Association-BASMAA-Post-Construction-Manual-PDF

Napa Countywide Stormwater Pollution Prevention Program (NCSPPP) Erosion and Sediment Control Plan Guidance
https://www.countyofnapa.org/DocumentCenter/View/3780/Bay-Area--Stormwater-Management-Agencies-Association-BASMAA-Post-Construction-Manual-PDF

☐ *Please Note*
While this checklist includes all information generally required to process a Use Permit/Major Modification or other Use Permit related application, it is primarily focused on winery uses. Additional information may be required at the discretion of the Deputy Planning Director, and in particular in those cases where non-winery commercial uses (such as restaurants) or residential use related projects are proposed. **The Planning Division will make every effort to identify any additional required information at or directly following the Pre-application Review Meeting.**

☐ **Plans and Studies provided electronically via file share (coordinated at intake).**

Certification and Indemnification

Applicant certifies that all the information contained in this application, including all information required in the Checklist of Required Application Materials and any supplemental submitted information including, but not limited to, the information sheet, water supply/waste disposal information sheet, site plan, floor plan, building elevations, water supply/waste disposal system site plan and toxic materials list, is complete and accurate to the best of his/her knowledge. Applicant and property owner hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, *including the right of access to the property involved.*

Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

Dennis Paulley / E&P Properties, Inc.

Print Name of Property Owner

Print Name Signature of Applicant (if different)

8/24/2022

Signature of Property Owner — Date

Signature of Applicant — Date

Hourly Fee Agreement

PROJECT File: _____; request for _____ _____. I, Dennis Paulley, the undersigned, hereby authorize the County of Napa to process the above referenced permit request in accordance with the Napa County Code. I am providing $ _____ as a deposit to pay for County staff review, coordination and processing costs related to my permit request based on actual staff time expended and other direct costs. **In making this deposit, I acknowledge and understand that the deposit may only cover a portion of the total processing costs. Actual costs for staff time are based on hourly rates adopted by the Board of Supervisors in the most current Napa County fee schedule. I also understand and agree that I am responsible for paying these costs even if the application is withdrawn or not approved.**

I understand and agree to the following terms and conditions of this Hourly Fee Agreement:

1. Time spent by Napa County staff in processing my application and any direct costs will be billed against the available deposit. "Staff time" includes, but is not limited to, time spent reviewing application materials, site visits, responding by phone or correspondence to inquiries from the applicant, the applicant's representatives, neighbors and/or interested parties, attendance and participation at meetings and public hearings, preparation of staff reports and other correspondence, or responding to any legal challenges related to the application during the processing of your application. "Staff" includes any employee of the Planning, Building and Environmental Services Department (PBES), the Office of the County Counsel, or other County staff necessary for complete processing of the application. "Direct costs" include any consultant costs for the peer review of materials submitted with the application, preparation of California Environmental Quality Act (CEQA) documents, expanded technical studies, project management, and/or other outside professional assistance required by the County and agreed to by the applicant. The cost to manage consultant contracts by staff will also be billed against the available deposit.

2. Staff will review the application for completeness and provide me with a good faith estimate of the full cost of processing the permit. Any requested additional deposit shall be submitted to PBES to allow continued processing of the project.

3. I understand that the County desires to avoid incurring permit processing costs without having sufficient funds on deposit. If staff determines that inadequate funds are on deposit for continued processing, staff shall notify me in writing and request an additional deposit amount estimated necessary to complete processing of my application. I agree to submit sufficient funds as requested by staff to process the project through the hearing process within 30 days of the request.

4. I understand that if the amount on deposit falls below zero, staff will notify me and stop work on the application until sufficient additional funds are provided

5. If the final cost is less than the amount remaining on deposit, the unused portion of the deposit will be refunded to me. If the final cost is more than the available deposit, I agree to pay the amount due within 30 days of billing.

6. If I fail to pay any invoices or requests for additional deposits within 30 days, the County may either stop processing my permit application, or after conducting a hearing, may deny my permit application. If I fail to pay any amount due after my application is approved, I understand that my permit may not be exercised, or may be subject to revocation. I further agree that no building, grading, sewage, or other project related permits will be issued if my account is in arrears.

7. I may file a written request for a further explanation or itemization of invoices, but such a request does not alter my obligation to pay any invoices in accordance with the terms of this agreement.

Name of Applicant responsible for payment of all County processing fees (Please Print):

Dennis Paulley / E&P Properties, Inc.

Mailing Address of the Applicant responsible for paying processing fees:

2250 S. Watney Way

Fairfield, CA 94533

Signature:* 

Email Address: dennis@metrovan.com

Date: 8/26/2022

Phone Number: (707) 745-1150

*ATTENTION - The applicant will be held responsible for all charges.

Planning, Building & Environmental Services - Hillary Gitelman, Director
1195 Third Street, Napa, CA 94559 - (707) 253-4417 - www.countyofnapa.org

A Tradition of Stewardship
A Commitment to Service

Project name & APN: E&P Technology Way - Building B, 057-250-031&0
Project number if known:
Contact person: Dennis Paulley / E&P Properties
Contact email & phone number: dennis@metrovan.com, (707) 745-1150
Today's date: 8/22/22

Voluntary Best Management Practices Checklist for Development Projects

Napa County General Plan Policy CON-65 (e) and Policy CON-67 (d) requires the consideration of Greenhouse Gas (GHG) emissions in the review of discretionary projects and to promote and encourage "green building" design. The below Best Management Practices (BMPs) reduce GHG emissions through energy and water conservation, waste reduction, efficient transportation, and land conservation. The voluntary checklist included here should be consulted early in the project and be considered for inclusion in new development. It is not intended, and likely not possible for all projects to adhere to all of the BMPs. Rather, these BMPs provide a portfolio of options from which a project could choose, taking into consideration cost, co-benefits, schedule, and project specific requirements. Please check the box for all BMPs that your project proposes to include and include a separate narrative if your project has special circumstances.

Practices with Measurable GHG Reduction Potential

The following measures reduce GHG emissions and if needed can be calculated. They are placed in descending order based on the amount of emission reduction potential.

Already Doing	Plan To Do	ID #	BMP Name
☐	☐	BMP-1	**Generation of on-site renewable energy**

If a project team designs with alternative energy in mind at the conceptual stage it can be integrated into the design. For instance, the roof can be oriented, sized, and engineered to accommodate photovoltaic (PV) panels. If you intend to do this BMP, please indicate the location of the proposed PV panels on the building elevations or the location of the ground mounted PV array on the site plan. Please indicate the total annual energy demand and the total annual kilowatt hours produced or purchased and the potential percentage reduction of electrical consumption. Please contact staff or refer to the handout to calcuate how much electrical energy your project may need.

☐ ☐ **BMP-2** **Preservation of developable open space in a conservation easement**

Please indicate the amount and location of developable land (i.e.: under 30% slope and not in creek setbacks or environmentally sensitive areas for vineyards) conserved in a permanent easement to prohibit future development.

Already Doing | Plan To Do

☐ ☐ **BMP-3 Habitat restoration or new vegetation (e.g. planting of additional trees over 1/2 acre)**

Napa County is famous for its land stewardship and preservation. Restoring areas within the creek setback reduces erosion potential while planting areas that are currently hardscape (such as doing a bio-retention swale rather than underground storm drains) reduces storm water and helps the groundwater recharge. Planting trees can also increase the annual uptake of CO2e and add the County's carbon stock.

_____

_____

☐ ☐ **BMP-4 Alternative fuel and electrical vehicles in fleet**

The magnitude of GHG reductions achieved through implementation of this measure varies depending on the analysis year, equipment, and fuel type replaced.

Number of total vehicles _____

Typical annual fuel consumption or VMT _____

Number of alternative fuel vehicles _____

Type of fuel/vehicle(s) _____

Potential annual fuel or VMT savings _____

☐ ☐ **BMP-5 Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 2**

The California Building Code update effective January 1, 2011 has new mandatory green building measures for all new construction and has been labeled CALGREEN. CALGREEN provides two voluntary higher levels labeled CALGREEN Tier I and CALGREEN Tier II. Each tier adds a further set of green building measures that go above and beyond the mandatory measures of the Code. In both tiers, buildings will use less energy than the current Title 24 California Energy Code. Tier I buildings achieve at least a 15% improvement and Tier 2 buildings are to achieve a 30% improvement. Both tiers require additional non-energy prerequisites, as well as a certain number of elective measures in each green building category (energy efficiency, water efficiency, resource conservation, indoor air quality and community).

_____

_____

☐ ☐ **BMP-6 Vehicle Miles Traveled (VMT) reduction plan**

Selecting this BMP states that the business operations intend to implement a VMT reduction plan reducing annual VMTs by at least 15%.

Tick box(es) for what your Transportation Demand Management Plan will/does include:

- ☐ employee incentives
- ☐ employee carpool or vanpool
- ☐ priority parking for efficient transporation (hybrid vehicles, carpools, etc.)
- ☐ bike riding incentives
- ☐ bus transportation for large marketing events
- ☐ Other:

_____

_____

Estimated annual VMT _____

Potential annual VMT saved _____

% Change _____

Already Doing	Plan To Do		
☐	☐	BMP-7	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 1** *See description below under BMP-5.*
☐	☐	BMP-8	**Solar hot water heating** *Solar water heating systems include storage tanks and solar collectors. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which don't. Both of them would still require additional heating to bring them to the temperature necessary for domestic purposes. They are commonly used to heat swimming pools.*
☐	☑	BMP-9	**Energy conserving lighting** *Lighting is approximately 25% of typical electrical consumption. This BMP recommends installing or replacing existing light bulbs with energy-efficient compact fluorescent (CF) bulbs or Light Emitting Diode (LED) for your most-used lights. Although they cost more initially, they save money in the long run by using only 1/4 the energy of an ordinary incandescent bulb and lasting 8-12 times longer. Typical payback from the initial purchase is about 18 months.*
☐	☐	BMP-10	**Energy Star Roof/Living Roof/Cool Roof** *Most roofs are dark-colored. In the heat of the full sun, the surface of a black roof can reach temperatures of 158 to 194 °F. Cool roofs, on the other hand, offer both immediate and long-term benefits including reduced building heat-gain and savings of up to 15% the annual air-conditioning energy use of a single-story building. A cool roof and a green roof are different in that the green roof provides living material to act as a both heat sink and thermal mass on the roof which provides both winter warming and summer cooling. A green (living) roof also reduces storm water runoff.*
☐	☐	BMP-11	**Bicycle Incentives** *Napa County Zoning Ordinance requires 1 bicycle rack per 20 parking spaces (§18.110.040). Incentives that go beyond this requirement can include on-site lockers for employees, showers, and for visitor's items such as directional signs and information on biking in Napa. Be creative!*
☐	☐	BMP-12	**Bicycle route improvements** *Refer to the Napa County Bicycle Plan (NCPTA, December 2011) and note on the site plan the nearest bike routes. Please note proximity, access, and connection to existing and proposed bike lanes (Class I: Completely separated right-of-way; Class II: Striped bike lane; Class III: Signed Bike Routes). Indicate bike accessibility to project and any proposed improvements as part of the project on the site plan or describe below.*

Already Doing | Plan To Do

☐ ☐ **BMP-13 Connection to recycled water**

Recycled water has been further treated and disinfected to provide a non-potable (non-drinking water) water supply. Using recycled water for irrigation in place of potable or groundwater helps conserve water resources.

☐ ☑ **BMP-14 Install Water Efficient fixtures**

WaterSense, a partnership program by the U.S. Environmental Protection Agency administers the review of products and services that have earned the WaterSense label. Products have been certified to be at least 20 percent more efficient without sacrificing performance. By checking this box you intend to install water efficient fixtures or fixtures that conserve water by 20%.

☐ ☐ **BMP-15 Low-impact development (LID)**

LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Please indicate on the site or landscape plan how your project is designed in this way.

☐ ☑ **BMP-16 Water efficient landscape**

If your project is a residential development proposing in excess of 5,000 sq. ft. or a commercial development proposing in excess of 2,500 sq. ft. The project will be required to comply with the Water Efficient Landscape Ordinance (WELO).

Please check the box if you will be complying with WELO or If your project is smaller than the minimum requirement and you are still proposing drought tolerant, zeroscape, native plantings, zoned irrigation or other water efficient landscape.

☐ ☐ **BMP-17 Recycle 75% of all waste**

Did you know that the County of Napa will provide recycling collectors for the interior of your business at no additional charge? With single stream recycling it is really easy and convenient to meet this goal. To qualify for this BMP, your business will have to be aggressive, proactive and purchase with this goal in mind.

Already Doing	Plan To Do	
☐	☐	**BMP-18 Compost 75% food and garden material**

The Napa County food composting program is for any business large or small that generates food scraps and compostable, including restaurants, hotels, wineries, assisted living facilities, grocery stores, schools, manufacturers, cafeterias, coffee shops, etc. All food scraps (including meat & dairy) as well as soiled paper and other compostable - see http://www.naparecycling.com/foodcomposting for more details.

☐ ☐ **BMP-19 Implement a sustainable purchasing and shipping programs**

Environmentally Preferable Purchasing (EPP) or Sustainable Purchasing refers to the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. By selecting this BMP, you agree to have an EPP on file for your employees to abide by.

☐ ☑ **BMP-20 Planting of shade trees within 40 feet of the south side of the building elevation**

Well-placed trees can help keep your building cool in summer. If you choose a deciduous tree after the leaves drop in autumn, sunlight will warm your building through south and west-facing windows during the colder months. Well-designed landscaping can reduce cooling costs by 20%. Trees deliver more than energy and cost savings; they are important carbon sinks. Select varieties that require minimal care and water, and can withstand local weather extremes. Fruit or nut trees that produce in your area are great choices, providing you with local food as well as shade. Please use the site or landscape plan to indicate where trees are proposed and which species you are using.

☐ ☑ **BMP-21 Electrical Vehicle Charging Station(s)**

As plug-in hybrid electric vehicles (EV) and battery electric vehicle ownership is expanding, there is a growing need for widely distributed accessible charging stations. Please indicate on the site plan where the station will be.

Dedicated parking will be provided for future EV charging stations.

☐ ☐ **BMP-22 Public Transit Accessibility**

Refer to http://www.ridethevine.com/vine and indicate on the site plan the closest bus stop/route. Please indicate if the site is accessed by transit or by a local shuttle. Provide an explanation of any incentives for visitors and employees to use public transit. Incentives can include bus passes, informational hand outs, construction of a bus shelter, transportation from bus stop, etc.

Already Doing | Plan To Do

☐ ☐ **BMP-23**

Site Design that is oriented and designed to optimize conditions for natural heating, cooling, and day lighting of interior spaces, and to maximize winter sun exposure; such as a cave.

The amount of energy a cave saves is dependent on the type of soil, the microclimate, and the user's request for temperature control. Inherently a cave or a building burned into the ground saves energy because the ground is a consistent temperature and it reduces the amount of heating and cooling required. On the same concept, a building that is oriented to have southern exposure for winter warmth and shading for summer cooling with an east-west cross breeze will naturally heat, cool, and ventilate the structure without using energy. Please check this box if your design includes a cave or exceptional site design that takes into consideration the natural topography and sitting. Be prepared to explain your approach and estimated energy savings.

_____

_____

☐ ☐ **BMP-24 Limit the amount of grading and tree removal**

Limiting the amount of earth disturbance reduces the amount of CO2 released from the soil and mechanical equipment. This BMP is for a project design that either proposes a project within an already disturbed area proposing development that follows the natural contours of the land, and that doesn't require substantial grading or tree removal.

_____

_____

☐ ☐ **BMP-25 Will this project be designed and built so that it could qualify for LEED?**

BMP-25 (a)	☐	**LEED™ Silver** (check box BMP-25 and this one)
BMP-25 (b)	☐	**LEED™ Gold** (check box BMP-25, BMP-25 (a), and this box)
BMP-25 (c)	☐	**LEED™ Platinum** (check all 4 boxes)

Practices with Un-Measured GHG Reduction Potential

☐ ☐ **BMP-26 Are you, or do you intend to become a Certified Green Business or certified as a"Napa Green Winery"?**

As part of the Bay Area Green Business Program, the Napa County Green Business Program is a free, voluntary program that allows businesses to demonstrate the care for the environment by going above and beyond business as usual and implementing environmentally friendly business practices. For more information check out the Napa County Green Business and Winery Program at www.countyofnapa.org.

☐ ☐ **BMP-27 Are you, or do you intend to become a Certified "Napa Green Land"?**

Napa Green Land, fish friendly farming, is a voluntary, comprehensive, "best practices" program for vineyards. Napa Valley vintners and growers develop farm-specific plans tailored to protect and enhance the ecological quality of the region, or create production facility programs that reduce energy and water use, waste and pollution. By selecting this measure either you are certified or you are in the process of certification.

Already Doing | Plan To Do

☐ ☐ **BMP-28 Use of recycled materials**

There are a lot of materials in the market that are made from recycled content. By ticking this box, you are committing to use post-consumer products in your construction and your ongoing operations.

☐ ☐ **BMP-29 Local food production**

There are many intrinsic benefits of locally grown food, for instance reducing the transportation emissions, employing full time farm workers, and improving local access to fresh fruits and vegetables.

☐ ☐ **BMP-30 Education to staff and visitors on sustainable practices**

This BMP can be performed in many ways. One way is to simply put up signs reminding employees to do simple things such as keeping the thermostat at a consistent temperature or turning the lights off after you leave a room. If the project proposes alternative energy or sustainable winegrowing, this BMP could include explaining those business practices to staff and visitors.

☐ ☐ **BMP-31 Use 70-80% cover crop**

Cover crops reduce erosion and the amount of tilling which is required, which releases carbon into the environment.

☐ ☐ **BMP-32 Retain biomass removed via pruning and thinning by chipping the material and reusing it rather than burning on-site**

By selecting this BMP, you agree not to burn the material pruned on site.

☐ ☐ **BMP-33 Are you participating in any of the above BMPS at a 'Parent' or outside location?**

☐ ☐ **BMP-34 Are you doing anything that deserves acknowledgement that isn't listed above?**

Comments and Suggestions on this form?

“F”

Biological Resources Assessment

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

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Biological Resources Assessment
Technology Way Buildings A and B
Napa County, California

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SECTION 1: INTRODUCTION

1.1 - Purpose of Assessment

The purpose of this reconnaissance-level Biological Resources Assessment (BRA) is to evaluate the existence of special-status species and/or habitats, as well as assess the potential for SSS listed in Appendix B to occur on or near the site of commercial development activities. This BRA was prepared in order to support review of project impacts and mitigation measures under the California Environmental Quality Act (CEQA), pursuant to the County of Napa Guidelines for Preparing Biological Resources Reconnaissance Surveys (Napa County 2016). This BRA provides general information on the presence or potential presence of special-status species and their habitats, however, future protocol-level surveys for plants and animals may be required depending on the findings of this BRA. This BRA also analyzes the potential for jurisdictional wetlands and other waters of the State to exist on-site and classifies landforms that may potentially convey sediment to waters of the State, including dry creeks, washes, swales, gullys, and other erosional features, although a protocol-level wetland delineation was not performed. Also included is a set of mitigation measures that were prepared in order to ensure the protection of special-status species and their habitats.

1.2 - Project Summary

The site is currently undeveloped. The proposed project involves the construction of two warehouses measuring 143,325 square feet (Building A) and 66,915 square feet (Building B). The buildings would be located on the north side of Technology Way and Morris Court, on three parcels in unincorporated Napa County (Exhibit 1 and Exhibit 2). Surrounding the warehouses would be a combination of paved parking areas and permeable stormwater retention basins, as specified in the preliminary master plan set provided by RMW Architecture dated July 27, 2022. Building A would involve development of approximately 8.5 acres (75.7 percent) of the 13.2-acre west parcel with the remaining area preserving the existing riparian corridor surrounding Sheehy Creek (Exhibit 3). Building B would develop approximately 3.8 acres (77.5 percent) of the 4.9-acre middle parcel and approximately 1.9 acres (85.2 percent) of the 2.23-acre east parcel, with the remaining areas preserving the existing riparian corridor surrounding Sheehy Creek (Exhibit 4).

1.3 - Site Overview

The project site is located on the north side of Technology Way and Morris Court in unincorporated Napa County (County), 5 miles south of the City of Napa (City) (Exhibit 1). The topography is flat with no discernible topography aside from the engineered reach of Sheehy Creek, the thalweg of which is approximately 10 feet below grade and flows west along the north parcel boundary (Exhibit 2). The property consists of Assessor's Parcel Numbers (APNs) 057-250-030, 057-250-031, and 057-250-032 that are deeded 13.2, 4.9, and 2.23 acres respectively. The parcels are located in Section 2, Township 4 North, Range 4 West, on the United States Geological Survey (USGS) *Cutting's Wharf* 7.5-minute quadrangle (Exhibit 2). The approximate latitude and longitude of the centroid of the property is 38.2274 (N), -122.2679 (W). The property is under the jurisdiction of the San Francisco Bay (Region

2) Water Quality Control Board (RWQCB) and the Bay Delta Region (Region 3) of the California Department of Fish and Wildlife (CDFW).

1.4 - Methods

1.4.1 - Records Search and Literature Review

Based on a review of the literature and relevant databases, a list was compiled of special-status plant and animal species that are known to occur within Napa County or that occupy habitats known to be present on or near the project site (Appendices B-D). Sources of information referenced include the CDFW California Natural Diversity Database (CNDDB 2022), United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (USFWS 2022), the California Native Plants Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022), the CDFW Habitat Relationships System (HRS), and the knowledge of staff familiar with the species and habitats of Napa County. Additional information on sensitive habitats, including wetlands, was obtained from the USFWS National Wetlands Inventory (NWI 2022) and the County of Napa Geographic Information System Portal (Napa Co. 2022). Plant species included here are State or Federally Endangered or Threatened species and/or considered rare by CDFW, and/or recognized as special-status species by CNPS and/or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or CDFW Species of Special Concern, and/or CDFW fully protected species. In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the Migratory Bird Treaty Act (MBTA) and relevant sections of the California Fish and Game Code.

1.4.2 - Field Surveys

A wildlife and botanical survey was conducted at the site on December 8, 2022. The weather was cool and cloudy at the time of the survey, which began at 11:00 a.m. The temperature at the start of the survey was 50 degrees Fahrenheit (°F), relative humidity was 66 percent, and wind gust speed was 2–4 miles per hour (mph), as measured with Kestrel 3000 handheld weather station. Approximately 3 inches of rain fell the preceding 7 days, and most annual plants had germinated. Starting with the southeast corner of the property, the entire project site was surveyed on foot by Biologist Dr. Christopher T. DiVittorio, recording the location and identity of all plant and animal species encountered. Secondary plant identification was made by Botanist Dr. Zoya Akulova. Resumes of Dr. DiVittorio and Dr. Akulova are provided at the end of this BRA (Appendix A). Plant voucher specimens were taken of any species that were not identifiable in the field and that were not likely to be special-status. The majority of species were identifiable at the time of the survey, although some had to be identified based on vegetative parts. Photographs and voucher specimens were taken of any plants that were identified solely based on vegetative characters.

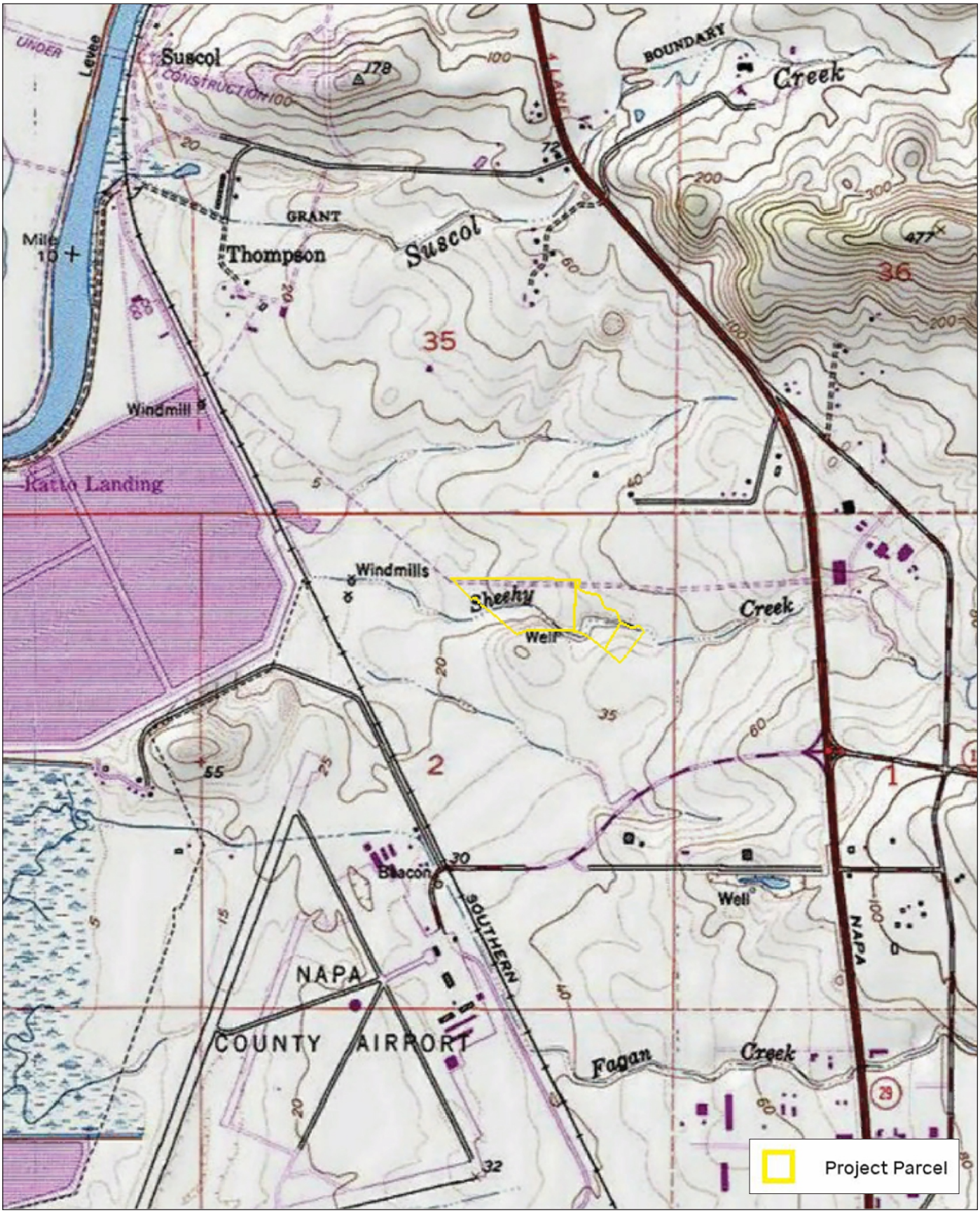


Source: Pinecrest Environmental Consulting; California Dept. of Fish & Wildlife (CDFW).

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Exhibit 1
Regional Location

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Source: Pinecrest Environmental Consulting; USGS.

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Exhibit 2
40-Foot Contours

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Source: Pinecrest Environmental Consulting, Google Earth PEC Inc.

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Exhibit 3
Watercourse - West

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Source: Pinecrest Environmental Consulting; Google Earth PEC Inc.

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Exhibit 4
Watercourse - East

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SECTION 2: REGULATORY FRAMEWORK

2.1 - Federal

2.1.1 - Endangered Species Act

The USFWS has jurisdiction over federally listed threatened and endangered species under the Endangered Species Act. USFWS also maintains a list of proposed and candidate species that are not legally protected under the Endangered Species Act, but are often included in their review of a project as they may become listed in the near future. The Endangered Species Act protects listed animal species from harm or take, which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as a take even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the Endangered Species Act if they occur on federal lands. Pursuant to the requirements of the Endangered Species Act, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species (plants and animals) may be present in the project area and determine whether the proposed project may affect such species. Any activities that could result in the take of a federally listed species will require formal consultation with the USFWS.

2.1.2 - Migratory Bird Treaty Act

The MBTA implements international treaties between the U.S. and other nations that were enacted to protect migratory birds, their parts, eggs, and nests from activities including hunting, pursuing, capturing, killing, selling, and shipping unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under MTBA (16 USC §703, *et. seq.*).

2.1.3 - Eagle Protection Acts

Both bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are additionally protected under the Eagle Protection Act (16 USC §669*, et. seq*.) and the Bald and Golden Eagle Protection Act (16 USC §668-668d).

2.1.4 - Clean Water Act

Section 404

Under Section 404 of the federal Clean Water Act (CWA), the United States Army Corps of Engineers (USACE) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the United States and their lateral limits are defined in 33 Code of Federal Regulations Part 328.3(a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the United States are termed isolated wetlands and, depending on the circumstances, may also be subject to USACE jurisdiction. In general, a USACE

permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill are sometimes covered by Nationwide Permits, which were established to streamline the permit process for projects with minimal impacts on wetlands or other waters of the United States. An Individual Permit is required for projects that result in more than a minimal impact on jurisdictional areas. The Individual Permit process requires evidence that fill of jurisdictional areas has been minimized to the extent practicable and provides an opportunity for public review of the project.

Section 401

Under Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states the discharge will comply with the applicable provisions under the federal Clean Water Act." In this case, applicants must obtain a Section 401 Water Quality Certification from the RWQCB from the region in which the proposed project would take place.

2.2 - State

2.2.1 - California Environmental Quality Act

The following CEQA guidelines are intended to determine significance thresholds when analyzing the potential impacts of a proposed project on biological resources. The following is a list of criteria for determining whether impacts are considered significant:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plan, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. It is similar to the federal Endangered Species Act but pertains to State-listed threatened and endangered species. CESA requires State agencies to consult with CDFW when preparing a CEQA document to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species if there are reasonable and prudent alternative available (FGC § 2080). CESA directs agencies to consult with CDFW on proposed projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify reasonable and prudent alternatives to the proposed project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species if the take is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of threatened and endangered species (FGC § 2070). Fish & Game Code Sections 2050-2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under CESA. Fish and Game Code Section 2081 establishes an incidental take permit program for State-listed species. CDFW also maintains a list of candidate species that it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by CDFW). An exception to this prohibition in NPPA allows landowners to take listed plant species under specified circumstances, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from the take prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under federal Endangered Species Act and CESA, some species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a Species of Special Concern. CDFW maintains lists of Species of Special Concern that serve as species "watch lists." Species with this status may have limited distributions or limited populations and/or the extent of their habitats may have been reduced substantially such that their populations may be threatened. Thus, their populations are monitored and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the CNDDB and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as Rare or Endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the CNPS List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500-5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may impact a candidate species. Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” This definition includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement (LSAA) will be required if CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the State” (Water Code §13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code §13050(e)).

2.2.5 - California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2A: Plants presumed extirpated in California but common elsewhere
- Rank 2B: Plants rare, threatened, or endangered in California but more common elsewhere
- Rank 3: Plants about which more information is needed
- Rank 4: Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on CNPS Lists 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, potential impacts to these species or their habitats should be analyzed during the preparation of environmental documents pursuant to CEQA, as they may meet the definition of Rare or Endangered under the CEQA Guidelines Section 15380 criteria.

2.3 - Regional and Local

2.3.1 - County of Napa Municipal Code

Natural resource use in Napa County is guided by the Napa County General Plan (Napa County 2008) and regulated by Napa County Code Section 18.108. Below are relevant policies from the General Plan pertaining to wetlands and biological resources which may be applicable to the proposed project.

Napa County Baseline Data Report

Sensitive biological communities are identified in the Napa County Baseline Data Report (NCBDR) (Napa County 2005). In addition to those biological communities identified by CDFW, the NCBDR also identifies biotic communities of limited distribution that "encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation" (Napa County 2005).

Natural Resource Goals and Policies

Policy CON-13 The County shall require that all discretionary residential, commercial, industrial, recreation, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to:

a) Maintain the following essentials for fish and wildlife resources:

- Sufficient dissolved oxygen in the water.
- Adequate amounts of proper food.
- Adequate amounts of feeding, escaping, and nesting habitat.
- Proper temperature through maintenance and enhancement of streamside vegetation volume flows, and velocity of water.

b) Employ supplemental planting and maintenance of grasses, shrubs and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially streams side areas, in good condition.
c) Provide protection for habitat supporting special-status species through buffering or other means.
d) Provide replacement habitat of like quantity and quality on- or off-site for special-status species to mitigate impacts to special-status species.
e) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.
f) Require temporary or permanent buffers of adequate size (based on the requirements of the special-status species) to avoid nest abandonment of birds and raptors associated with construction and site development activities.
g) Demonstrate compliance with applicable provisions and regulations of recovery plans for listed species.

Policy CON-17 Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards:

a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.
b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.
c) Promote protection from overgrazing and other destructive activities.
d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.
e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible.

Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

Policy CON-18 To reduce impacts on habitat conservation and connectivity:

a) In sensitive domestic water supply drainages where new development is required to retain between 40 and 60 percent of the existing (as of June 16, 1993) vegetation on-site, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity.
b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.
c) Preservation of habitat and connectivity of adequate size, quality and configuration to support special-status species should be required within the project area. The size of habitat and connectivity to be preserved shall be determined based on the specific needs of the species.
d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.
e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact cause by the new vineyard development.

Policy CON-19 The County shall encourage the preservation of critical habitat areas and habitat connectivity through the use of conservation easements or other methods as well as through continued implementation of the Napa County Conservation Regulations associated with vegetation retention and setbacks from waterways.

Policy CON-24 Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agriculture projects.
b) Comply with the Oak Woodlands Conservation Act regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.

c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.
d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil production be left standing.
e) Maintain, the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub and live oaks are common associations.

Vegetation Preservation and Replacement

Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than 5 percent):

a) Existing vegetation shall be preserved to the maximum extent consistent with the project.
b) Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by State or federal agencies with jurisdiction and identified on the County's environmental sensitivity maps.

Additionally, existing trees 6 inches in diameter or larger, measured at diameter breast height (DBH), or tree stands of trees 6-inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.

a) Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriated methods to be placed and maintained at their outboard drip line during the construction phase.
b) Where appropriate, the director may require an applicant to install and maintain construction fencing around the trees to ensure their protection during earthmoving activities.
c) Where removal of vegetation is necessitated or authorized, the director or designee may require the planting of replacement vegetation of an equivalent kind, quality and quantity.

2.3.2 - Habitat Conservation Plans

The project site is not located in an area that is covered by any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan. Therefore, no additional mitigation related to local or regional conservation plans is necessary.

SECTION 3: RESULTS

3.1 - Regional Ecological Setting

Using a review of published literature and the knowledge of staff, all of the natural communities and known special-status species present in the region surrounding the project site were assessed. Regionally, the land use types are light industrial and residential developments on upland valley bottoms, emergent wetland and slough habitats in low-lying portions of the valley near the Napa River, and mixed oak woodland and savanna on lower elevation slopes.

3.1.1 - Federal Critical Habitat

A graphical representation of regional Federal Critical Habitat (FCH) is provided in Appendix E. The nearest FCH to the project parcels is for vernal pool fairy shrimp (*Branchinecta lynchi*) and comes as close as 0.4 miles west of the project site in vernal pool habitat at the Napa County Airport. The next nearest FCH is for soft bird's beak (*Cordylanthus mollis* spp. *mollis*), located 0.9 miles to the southwest in tidal marsh to the west of the Napa County Airport. The next nearest FCH is for chinook salmon (*Oncorhynchus tshawytscha*), located in the Napa River and associated tributaries.

The next nearest FCH is for Contra Costa goldfields (*Lasthenia conjugens*), located 0.95 miles north of the site immediately to the east of CA-29. The next nearest FCH is for California red-legged frog (*Rana draytonii*; CRLF) located as close as 2.1 miles east of the parcel in the foothills south of Suscol Creek. The next nearest FCH is for western snowy plover (*Charadrius nivosus nivosus*) located 3.6 miles southwest of the parcel in tidal marsh to the north of Napa Slough. The next nearest FCH is for delta smelt (*Hypomesus transpacificus*) located 8.9 miles east of the parcel near Cordelia Slough. There is no other FCH within 10 miles of the project site.

3.1.2 - Regional Special-status Species

Special-status species are those species that receive special protections under either local, State, or federal law and include both State and Federally Endangered and Threatened species of animals and plants as well as candidate listing species and other species or populations of special concern for which additional information is required. The CNDDB provides information on most known SSS occurrences in the State of California.

A description of the habitat requirements and likelihood of occurrence of potential SSS on the project site based the CNDDB database, published scientific literature, and the expertise of staff, is provided in Appendix B, with a description of the nearest locality of all SSS known from within a 5-mile radius around the project site. Additionally, map-based representation of all of the SSS within an approximately 5-mile radius around the project site is provided in Appendix C and Appendix D.

3.1.3 - Landforms and Topography

The maximum elevation of the site is 37 feet above sea level along the south-central boundary of the property. The minimum elevation is 19 feet above sea level at the northwest corner of the property where Sheehy Creek exits the parcel (Exhibit 2). The topography of the site is flat, with grades

between 0 percent and 1 percent, as measured by Suunto PM5 handheld clinometer. The exception is the active channel of Sheehy Creek, which exhibits banks slopes of 5 percent to 10 percent. Water passing off-site flows west for 0.3 miles as Sheehy Creek before eventually entering a channelized drainage ditch, turning southwest, and flowing for 1.3 miles before the confluence with Steamboat Slough, which flows west for 0.7 miles before the confluence with the Napa River, that then flows south for 12 miles before emptying into the Carquinez Straight, San Pablo Bay, and then the Pacific Ocean (Exhibit 1). More information about wetlands and watercourses on-site is provided in Section 3.4, below.

3.2 - Natural Communities Within the Project Site

The site visit conducted on December 8, 2022, documented the existence of two distinct habitat types on the parcel: disked ruderal grassland and recreated Sheehy Creek channel and riparian corridor (Exhibit 3 and Exhibit 4). The grassland portion of the site is disked several times per year and has low cover of plants and low species diversity. The Sheehy Creek riparian corridor does contain native species, however, the entire habitat was recreated and moved to its present location sometime between July 2003 and July 2004 based on aerial imagery. The specific community descriptions below are organized based on these zones. The Manual of California Vegetation (Sawyer et al. 2009) was used to guide community classification, and The Jepson Manual (Baldwin et al. 2012) was used to guide plant nomenclature.

3.2.1 - Disked Upland *Bromus* Species Non-native Grassland

The majority of the site is disked ruderal grassland with low cover of plants and low species diversity (Exhibit 5). The only woody plants in this area occur on the margins of the parcel boundary, such as coyote brush shrubs along Technology Way (Exhibit 6). There is one coast live oak (*Quercus agrifolia*) individual that exists inside this habitat type that would have to be removed (Exhibit 4); otherwise, no trees exist in this area. Native shrub species observed in the upland include coyote brush (*Baccharis pilularis*). Non-native shrub species observed on-site include firethorn (*Pyracantha angustifolia*). Native herbaceous species include California poppy (*Eschscholzia californica*). Non-native herbaceous species include hairgrass (*Aira caryophyllea*), wild oatgrass (*Avena barbata*), soft chess (*Bromus hordeaceous*), foxtail barley (*Hordeum murinum*), Italian ryegrass (*Festuca perennis*), Harding grass (*Phalaris aquatica*), common geranium (*Geranium molle*), yellow star thistle (*Centaurea solstitialis*), shortpod mustard (*Hirschfeldia incana*), curly dock (*Rumex crispus*), field bindweed (*Convolvulus arvensis*), field parsley (*Torilis nodosa*), crane's bill filaree (*Erodium botrys*), wild radish (*Raphanus sativa*), common plantain (*Plantago major*), and bristly ox-tongue (*Helminthotheca echioides*).

3.2.2 - Recreated Sheehy Creek and Salix Lasiolepis-Populus Fremontii Riparian Corridor

The reach of Sheehy Creek that flows west along the north parcel line is a perennial Class I watercourse that was recreated between July 2003 and July 2004 as a part of development of the industrial park (Exhibit 3 and Exhibit 4). This recreated watercourse exhibits a well-developed riparian corridor with native riparian species having been planted throughout the corridor (Exhibit 7). Water pools in several places due to beaver dams (Exhibit 8) that create additional habitat for

aquatic plants and wildlife. Native aquatic species observed in Sheehy Creek include mosquito fern (*Azolla filiculoides*), duckweed (*Lemna minor*), common cattail (Typha latifolia), bog rush (*Juncus patens*), and hardstem bulrush (*Schoenoplectus acutus*). Native riparian species include those native species mentioned in Section 3.2.1 and additional species, including Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), California buckeye (*Aesculus californica*), willow herb (*Epilobium brachycarpum*), California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), coffeeberry (*Rhamnus californica*), toyon (*Heteromeles arbutifolia*), and black elderberry (*Sambucus nigra*). Non-native species in the riparian zone include those mentioned in Section 3.2.1, and additional species including dogstail grass (*Cynosurus echinatus*), spring vetch (*Vicia sativa*), chickweed (*Stellaria media*), curly dock (*Rumex crispus*), Himalayan blackberry (*Rubus armeniacus*), Fuller's teasel (*Dipsacus fullonum*), cheeseweed (*Malva parviflora*), poison hemlock (*Conium maculatum*), fennel (*Foeniculum vulgare*), and saltgrass (*Distichlis spicata*).

3.3 - Wildlife

Animal species observed directly and indirectly on-site include crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), western scrub jay (*Aphelocoma californica*), dark-eyed junco (*Junco hyemalis*), Anna's hummingbird (*Calypte anna*), white-crowned sparrow (*Zonotrichia leucophrys*), unidentified flycatcher (*Empidonax* spp.), unidentified gull (*Larus* spp.) and unidentified sandpiper (*Calidris* spp.).

Also observed in Sheehy Creek riparian corridor were American beaver (*Castor canadensis*) dams, skull bones, and chewed tree trunks (Exhibit 8). A raptor nest was observed in the northwest corner of the parcel in the riparian corridor in a dead Fremont cottonwood (*Populus fremontii*) tree (Exhibit 9). Two raptors were also observed soaring near the nest and they appeared to be either red-tailed hawks (*Buteo jamaicensis*) or Cooper's hawk (*Accipiter cooperii*); however, positive identification was not possible during the December 2022 site visit. This nest and the raptors are protected; thus, follow-up surveys are recommended as described in Section 4.3.1, below.

3.4 - Watercourses and Potential Wetlands

Jurisdictional watercourses on-site were classified according to the three-tier method used by the California Department of Forestry and Fire Protection (CAL FIRE 2017). Based on these criteria there are no jurisdictional watercourses in the project area (Exhibit 3 and Exhibit 4). There is one Class I jurisdictional watercourse on-site, a perennial reach of Sheehy Creek that was re-routed to its present location between July 2003 and July 2004 based on aerial imagery, as part of development of the rest of the industrial park to the south. There are no jurisdictional culverts on-site required to reach the project area, and no crossings over Sheehy Creek are included as part of the proposed project (Exhibit 3 and Exhibit 4).

Potential wetlands on-site were assessed based on the likelihood to satisfy the three-tier wetland delineation criteria used by the USACE Wetland Delineation Manual (USACE 1987); however, a protocol-level wetland delineation was not performed. For this BRA, we identified potential wetlands in Exhibit 3 based on the presence of one of the three USACE criteria, usually hydrophytic vegetation cover but sometimes soil indicators or hydrology or a combination of these. Based on

these criteria there are no potentially jurisdictional wetlands in the project area (Exhibit 3 and Exhibit 4). There is likely to be jurisdictional wetland in the riparian corridor and channel of Sheehy Creek, however, this area is protected from development and is not included in the project area.

3.5 - Soils and Local Geomorphology

Soil types were determined by using the SoilWeb service (USDA 2022). Soil formations on the entirety of the project site are mapped as Haire loam, 2–9 percent slopes (#146), with lesser proportions of Clear Lake (5 percent) soils. This soil type is composed of alluvium derived from sedimentary parent materials. This soil type is not alkaline and does not contain serpentinite. This soil type is classified as moderately well drained. There are no other mapped soil types on-site.



Source: Pinecrest Environmental Consulting, PEC Inc.

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Exhibit 5
Photograph of Disked Annual Grassland

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Source: Pinecrest Environmental Consulting, PEC Inc.

FIRSTCARBON SOLUTIONS™

Exhibit 6
Photograph of Technology Way Looking Northwest

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Source: Pinecrest Environmental Consulting, PEC Inc.

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Exhibit 7
Photograph of Sheehy Creek Riparian Corridor

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Source: Pinecrest Environmental Consulting, PEC Inc.

FIRSTCARBON SOLUTIONS™

Exhibit 8
Photograph of Beaver Dam

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Source: Pinecrest Environmental Consulting; PEC Inc.

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Exhibit 9
Photograph of Raptors Nest

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E&P PROPERTIES, INC.
TECHNOLOGY WAY BUILDINGS A AND
BIOLOGICAL RESOURCES ASSESSMEN

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SECTION 4: PROJECT ANALYSIS AND RECOMMENDATIONS

4.1 - Biological Communities

4.1.1 - Terrestrial

The project area does not contain significant natural biological communities or habitat for special-status species due to the history of disking and lack of vegetation present currently (Exhibit 6). Therefore, impacts to sensitive upland terrestrial biological communities in the footprint of the proposed development would not be anticipated. One coast live oak tree greater than 6-inches DBH that may provide wildlife habitat would have to be removed from the project area; this is discussed in Section 4.4, below.

4.1.2 - Aquatic

The recreated reach of Sheehy Creek that runs along the northern property is not in the project area and would be entirely avoided. Ground-disturbing activities occurring during the dry season will utilize silt fencing that will ameliorate any potential impacts to these aquatic natural resources. The following recommendation would protect the Sheehy Creek riparian corridor.

Recommendation 1

A Conservation Easement along Sheehy Creek was recorded in 2006 and extends approximately 1 mile of both banks of the Sheehy Creek riparian corridor, which provide high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County. The Conservation Easement, held by the County, is located within APNs 057-200-009; 057-210-038 and 039; and 057-250-008, 021, 024, and 025.

The boundary of this Conservation Easement would serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

4.2 - Special-status Plant Species

No special-status plant species were observed during the survey performed at the site in December 2022. There are no species whose CNDDB polygons overlap with the project site, and the project area has a low likelihood of harboring special-status plants due to the history of disking. Despite this,

the site visit was not performed during the flowering time of most herbaceous plant species in the region, thus the existence of special-status plants cannot be ruled out at this time. The following recommendation is provided to ensure that no special-status plants currently exist in the project area.

Recommendation 2

Protocol-level special-status plant surveys should be performed during the flowering time of the target species (see Appendix B), following protocols as specified in *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities* dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species should be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated. If spring plant surveys do detect special-status plant species on-site, species-specific mitigation measures shall be implemented in order to reduce the impacts from the proposed project to less than significant levels. Measures shall include transplanting of adult plants out of the project area, and collection of seed from on-site plants for propagation at a local nursery. Both nursery plants and transplanted adult plants should be planted in suitable habitat on-site that will not be subject to disturbance, such as the easement area surrounding Sheehy Creek. If no suitable habitat is available on-site for planting, plants shall be located on an off-site location confirmed by the project Biologist as a suitable location. Plants shall be replaced at a minimum of 3:1 ratio and monitored for a minimum of 5 years, with any dead plants replaced so as to maintain the desired replacement ratio.

4.3 - Special-status Wildlife Species

4.3.1 - Migratory Birds and Nesting Raptors

One raptor nest was observed on-site in December 2022, along with a pair of unidentified species of raptor soaring in the vicinity of the nest. There is also an occurrence of burrowing owl within 1 mile of the project site. Thus, it is indicated that protected species of raptors may be utilizing the habitat in the Sheehy Creek riparian corridor. Migratory birds may also utilize the shrubs and trees surrounding the Sheehy Creek riparian corridor. Because of the potential for bird species to nest on-site, the following measures are recommended.

Recommendation 3

Surveys for Swainson's hawk, burrowing owl, nesting raptors, and migratory passerine birds shall be conducted by a qualified Biologist prior to project implementation. Surveys shall follow protocols approved by CDFW for detecting the presence or absence of these species. A final pre-construction survey for these species shall also be performed no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities, if ground-disturbing activities commence during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Recommendation 4

If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist indicating that work activities are not significantly impacting the nest.

4.3.2 - Amphibians

Targeted surveys for foothill yellow-legged frog, California red-legged frog, and western pond turtle were not performed as part of this assessment; thus, their presence on-site is not known. Foothill yellow-legged frog, California red-legged frog, and western pond turtle require aquatic habitat but may move away from watercourses and ponds for dispersal, to seek refuge in the dry season, and to nest in adjacent uplands. To prevent foothill yellow-legged frog, California red-legged frog, and western pond turtle from entering the project area and to avoid any potential impacts to these species, the following measures are recommended.

Recommendation 5

Exclusion fence shall be installed during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for foothill yellow-legged frog, California red-legged frog, and western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for foothill yellow-legged frog, California red-legged frog, and western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Recommendation 6

Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified Biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of foothill yellow-legged frog, California red-legged frog, and western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications

for unauthorized take. The Biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The Biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified Biologist.

4.4 - County-designated Sensitive Habitats and Tree Removal

No sensitive habitat types such as serpentine soils or native grasslands were observed on-site. No impacts to fisheries or wildlife habitat are anticipated from work in the upland grassland portions of the site. No impairment to wildlife connectivity is anticipated due to the existence of this project in an entirely developed industrial park. There is one coast live oak tree greater than 6-inches DBH that exists in the project area (but not in the Sheehy Creek riparian zone). This tree was identified in the project area (Exhibit 4) and is subject to tree removal restrictions.

Recommendation 7

A qualified Biologist shall determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio to be determined in consultation with the County of Napa. Trees should be replaced at not less than a 3:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

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Appendix A:
Personnel Qualifications

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CHRISTOPHER T. DIVITTORIO, PHD

Co-Founder and President, Pinecrest Research Corp., Inc.

Summary

Dr. Christopher DiVittorio is the co-founder and President of Pinecrest Research Corporation, Inc., that performs research and advocacy in the public interest and performs environmental consulting and ecological restoration for private individuals and organizations doing business as Pinecrest Environmental Consulting (PEC). Dr. DiVittorio has taught and performed research throughout the world on a variety of topics including evolutionary biology and biological conservation and has published in journals such as *Proceedings of the National Academy of Sciences* and *New Phytologist*. With PEC, Dr. DiVittorio performs a variety of environmental assessments and special-status species surveys for rare plants and animals as well as designing and monitoring restoration of ecosystems including vernal pools, riparian corridors, and pygmy forest.

Education

PhD, Integrative Biology, University of California, Berkeley (Advisor: Dr. Bruce Baldwin)
BA with Honors, Integrative Biology, University of California, Berkeley

Awards and Service

Joseph LeConte Award (2003, U.C. Berkeley)
Outstanding Graduate Student Instructor (2010, U.C. Berkeley)
Vice Chair Elect, Natural History Section, Ecological Society of America (2011)

Publications

Singhal S, Roddy AB, DiVittorio CT, Sanchez-Amaya A, Henriquez CL, Brodersen CR, Fehlberg S, Zapata F. 2021. Diversification, disparification, and hybridization in the evolution of *Encelia*, an adaptive radiation in the deserts of the Americas. New Phytologist.

DiVittorio CT, Singhal S, Roddy A, Zapata F, Ackerly D, Baldwin B, Brodersen CR, Burquez A, Fine PVA, Padilla-Flores M, Solis E, Morales-Villavicencio J, Morales-Arce D, Kyhos DW. 2020. Natural selection maintains species despite widespread hybridization in the desert shrub *Encelia*. Proceedings of the National Academy of Sciences.

DiVittorio, C.T., J.D. Corbin and C.M. D'Antonio. 2007. Spatial and temporal patterns of seed dispersal: an important determinant of grassland invasion. Ecological Applications 17:311-316.

DiVittorio, C.T, M.E. Power, and seven others. *In preparation*. Hydrological determinants of White Alder riparian forest restoration in a Northern California stream.

Selected Presentations

DiVittorio, C.T. 2021. Darwinian speciation, publication inflation, and social reproduction in science. Center for Theoretical Genomics, invited seminar, April 2, 2021.

DiVittorio, C.T. 2014. Extremely strong natural selection across a wild sunflower hybrid zone. American Society of Naturalists, Asilomar, CA, January 12-15, 2014.

DiVittorio, C.T. and A. Burquez. 2011. Adaptación y hibridizacion en dos especies de arbusto endémico al Desierto Vizcaíno. Conservation Science Symposium, Loreto, Baja California Sur, Mexico, May 25-28, 2011.

DiVittorio, C.T., J. De Wolf, S. Workman, W. Dietrich, M. Power. 2005. Biological-physical coupling: reciprocal effects of White Alder tree recruitment on channel structure. National Center for Earth-Surface Dynamics, Minneapolis, Minnesota, August 29-30, 2005.

DiVittorio, C.T., W. Dietrich, and M. E. Power. 2005. Recovery of White Alder riparian forests in Northern California: influence of climate and disturbance history. 90th Annual Meeting, Ecological Society of America, Montreal, Quebec, Canada, August 7-12, 2005.

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DiVittorio, C.T., C.M. D'Antonio, and J. D. Corbin. 2003. Local dispersal and seed limitation promotes native grass persistence. 88th Annual Meeting, Ecological Society of America, Savannah, Georgia, August 3-8, 2003.

Professional Experience

Co-Founder and President, Pinecrest Research Corporation, Inc. dba Pinecrest Environmental Consulting (12/2016-present)

Co-Founder and President, TruBreed Technologies, Inc. (5/2015-present)

Postdoctoral Scholar (11/2015-2017) University of California, Institute for México and the U.S., Dr. Exequiel Ezcurra, supervisor.

Restoration Ecologist (5/2014 – 2016) LSA Associates Inc., Point Richmond, California, Dr. Ross Dobberteen, supervisor.

Research Assistant (6/2007, 1/2014) Smithsonian Tropical Research Institute, Galeta Research Station, Panamá, Dr. Wayne P. Sousa, supervisor.

Staff Research Associate (7/2003 – 10/2007) Angelo Coast Range Reserve, Mendocino County, Dr. Mary E. Power and Dr. William Dietrich, supervisors.

Biological Consultant (3/2005 – 7/2008), LSA Associates Inc., Point Richmond, California, Dr. Malcolm Sproul, supervisor.

Habitat Protection and Restoration Assistant (2/2005 – 12/2005), Audubon Canyon Ranch, Marin and Sonoma County, California, Dr. Dan Glusenkamp, supervisor.

Biological Technician (5/2002 – 8/2002), Institute of Arctic Biology, University of Alaska, Fairbanks, Drs. F. Stuart Chapin III, Ted Schurr and Michelle Mack, supervisors.

Research Assistant (9/2000 – 5/2002), Department of Integrative Biology, University of California, Berkeley, Dr. Carla M. D'Antonio, supervisor.

ZOYA V. AKULOVA-BARLOW, PHD

Independent Botanical Consultant

Expertise

Plant Identification and Taxonomy
Rare Plant Surveys
Vegetation Mapping and Analysis

Education

PhD, Botany, Russian Academy of Sciences, 1986.
MA, Biology and Chemistry, Leningrad University, Russia, 1975.

Professional Experience

Independent Environmental Consultant (1999, 2006–present)

Conducted botanical surveys independently and as a part of the team with environmental consulting companies Aspen, Sequoia, Environmental Collaborative, Coastal Range Biological, Jane Valerius Consulting, Realm, and Zander Associates in Sonoma, Napa, Madera, Mendocino, Fresno, Sacramento, Stanislaus, Merced, San Mateo, Monterey, and Yuba Counties, identified plants, prepared plant lists, mapped special-status species, mapped and described vegetation, including sensitive plant communities. Construction monitoring.

ICF International, Sacramento, CA
On-call Botanist (2012-2013, 2017–present)

Conducted botanical surveys in Yolo, Butte, Sant Barbara, Mendocino, and San Mateo Counties, identified plants, wrote plant lists, mapped special-status species, conducted vegetation and rare plant monitoring.

LSA Associates, Inc. Pt. Richmond, CA
Botanist, part-time employee (1998-1999, 2005–present)
Extensive experience in plant morphology, taxonomy, and ecology, expert in Californian flora.

Conduct special-status plant surveys, map and describe vegetation, identify plants and prepare lists of plants for the project areas, conduct floristic monitoring and re-vegetation monitoring of trees, shrubs, and grasslands, participate in restoration of habitats. Found many new locations of special-status plants, including a new record for counties, and distribution extensions. Found a non-native species new to California and North America. Took part in the LSA projects as a botanist in the following California counties: Alameda, Contra Costa, Kern, Lassen, Marin, Merced, Napa, San Mateo, Sonoma, Solano, Santa Clara, Santa Cruz, Stanislaus, and Santa Barbara.

UC Berkeley, Department of Plant and Microbial Biology, Freeling Lab
Lab Assistant III (2000-2005)

Phenotypic screening and photographing plant anomalies for the database, performing maize and grass genetics field and greenhouse experiments, harvesting, supervising undergraduate lab assistants and coordinating greenhouse planting, search for grass hybrids for worldwide grass hybrid list. Organized a trip to central Asia for collecting salt tolerant grasses in September 2000. Two field seasons worked in Hawaii making corn hybrids and collecting tissue samples.

Komarov Botanical Institute, Russian Academy of Sciences (1975-1996)
Botanist, Scientific Employee

Conducted scientific research in taxonomy, morphology, ecology, ontogenesis, population of plants, medicinal plant use, ethnobotany, and restoration of the native vegetation. Established a collection of medicinal plants in the Institute field station. Assistant of Curator in Caucasian sector of Herbarium. Participated in five scientific expeditions in different parts of Russia.

Selected Publications

2016. Unusual Shapes of Plants of California Coast. Fremontia, 2016.

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Participation in Conferences

2018 Plant Skeletons of California Deserts. CNPS Conservation Conference, Los Angeles
2017 Natural Mutations of California Plants. Symposium of Northern California Botanists, Chico
2016 California Plants-cushions. Symposium of Northern California Botanists, Chico
2015 A Diversity of Thorns, Spines, and Prickles of California Plants. CNPS Conservation Conference, San Jose
2014 Tendrils of California Plants. 6th Annual Symposium of Northern California Botanists, Chico
2013 Polymorphism of California Plants. 5th Annual Symposium of Northern California Botanists, Chico
2012 Seed Dispersal Methods of California Plants. CNPS Conservation Conference, San Diego
2011 A Diversity of Fruit and Seed Dispersal Methods in California Asteraceae. 4th Annual Symposium of Northern California Botanists, Chico
2010 Identification of Northern California plants in early stages of development. 3rd Annual Symposium of Northern California Botanists, Chico
2010 Distribution Extension of Some New to Bay Area Non-native Plants. First Annual BAEDN Meeting, Oakland
2003 The characterization of pleiotropic shoot phenotype in *leafy coleoptile (LCO) 1-R* (with N. Inada, M. Freeling). 45th Annual Maize Genetics Conference
2001 Some new mutants affecting the coleoptile in maize (with M. Freeling). 43rd Annual Maize Genetics Conference

Professional Activities

Botanical Society of America
California Botanical Society
Northern California Botanists
California Native Plant Society
San Francisco Succulent and Cactus Society
Cactus and Succulent Society of America
Donated more than 20,000 photos to UC Berkeley website CalPhotos
Donated photos of plants to Encyclopedia of Life and CalFlora
Plant photographer at UC Botanical Gardens at Berkeley
Collected data of weed distribution for BAEDN

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Appendix B:
Special-status Species Considered

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The following is a list of special-status plant and animal species generated based on knowledge of the species and habitats of Napa County by staff, various State and Federal databases, and from the California Natural Diversity Database (CNDDB). Known occurrences within 5 miles of the project site are shown in bold with a description of the location of the nearest known locality.

Special-status Species Considered

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Plants			
Alkali milk vetch (*Astragalus tener* var. *tener*)	**—/—/1B.2**	**Alkali grassland**	**Very Low: No alkali habitat exists in the project area. Nearest known occurrence is 1.5 miles N of the project site near Bordeaux Way.**
Anthony peak lupine (*Lupinus antoninus*)	—/—/1B.2	Coniferous forest	None: No coniferous forest habitat exists in the project area.
Baker's goldfields (*Lasthenia californica* ssp. *bakeri*)	—/—/1B.2	Coastal grasslands	Very Low: Some grassland habitat exists in the project area.
Baker's larkspur (*Delphinium bakeri*)	FE/SE/1B.1	Coastal scrub	Very Low: No coastal scrub habitat exists in the project area.
Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*)	—/—/1B.1	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	—/—/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Beaked tracyina (*Tracyina rostrata*)	—/—/1B.2	Grassland, foothill woodland	Very Low: Some grassland habitat exists in the project area.
Bent flowered fiddleneck (*Amsinckia lunaris*)	—/—/1B.2	Grassland, foothill woodland	Very Low: Some grassland habitat exists in the project area.
Big-scale balsamroot (*Balsamorhiza macrolepis*)	**—/—/1B.2**	**Grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 4.5 miles SE of the project site near American Canyon.**
Blasdale's bent grass (*Agrostis blasdalei*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Blue coast gilia (*Gilia capitata* ssp. *chamissonis*)	—/—/1B.1	Coastal sand dunes	None: No sand dune habitat exists in the project area.
Bluff wallflower (*Erysimum concinnum*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)	—/—/1B.2	Vernal pool, pond	None: No vernal pool habitat exists in the project area.
Bolander's horkelia (*Horkelia bolanderi*)	—/—/1B.2	Coniferous forest, grassland	Very Low: Some grassland exists in the project area.
Brandegee's eriastrum (*Eriastrum brandegeeae*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Bristly sedge (*Carex comosa*)	—/—/2B.1	Wetland, riparian	None: No potential wetland habitat exists in the project area.
Brownish beaked-rush (*Rhynchospora capitellata*)	—/—/2B.2	Wetland, riparian	None: No potential wetland habitat exists in the project area.
Burke's goldfields (*Lasthenia burkei*)	FE/SE/1B.1	Vernal pools, grassland	Very Low: Some grassland habitat exists in the project area.
California alkali grass (*Puccinellia simplex*)	—/—/1B.2	Alkali grassland	None: No alkali grassland habitat exists in the project area.
California beaked-rush (*Rhynchospora californica*)	—/—/1B.1	Freshwater wetlands	None: No potential wetland habitat exists in the project area.
California satintail (*Imperata brevifolia*)	—/—/2B.1	Chaparral, coastal scrub	None: No chaparral habitat exists in the project area.
California sedge (*Carex californica*)	—/—/2B.3	Wetlands	None: No wetland habitat exists in the project area.
Calistoga ceanothus (*Ceanothus divergens*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Calistoga popcornflower (*Plagiobothrys strictus*)	FE/ST/1B.1	Wetland, riparian	None: No wetland habitat exists in the project area.
Clara Hunt's milk vetch (*Astragalus claranus*)	—/—/1B.1	Chaparral, grassland	Very Low: Some grassland habitat exists in the project area.
Coast lily (*Lilium maritimum*)	—/—/1B.1	Coastal grassland	Very Low: Some grassland habitat exists in the project area.
Coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*)	—/—/1B.2	Coastal grassland	Very Low: Some grassland habitat exists in the project area.
Cobb Mountain lupine (*Lupinus sericatus*)	—/—/1B.2	Chaparral, coniferous forest	None: No chaparral habitat exists in the project area.
Colusa layia (*Layia septentrionalis*)	—/—/1B.2	Chaparral, valley grassland	Very Low: Some grassland habitat exists in the project area.
Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	—/—/1B.2	Grassland, coastal scrub	Low: Some grassland habitat exists in the project area.
Contra Costa goldfields (*Lasthenia conjugens*)	**FE/—/1B.1**	**Vernal pool**	**Very Low: No vernal pool habitat exists in the project area. Nearest known occurrence is 1.0 miles N of the project site near Soscol Creek Road.**
Crystal Springs lessingia (*Lessingia arachnoidea*)	—/—/1B.2	Serpentine grassland	None: No serpentine grassland habitat exists in the project area.
Cunningham Marsh cinquefoil (*Potentilla uliginosa*)	—/—/1A	Wetland	None: No wetland habitat exists in the project area.
Dark-eyed gilia (*Gilia millefoliata*)	—/—/1B.2	Coastal sand dunes	None: No coastal sand dune habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Deceiving sedge (*Carex saliniformis*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Deep-scarred cryptantha (*Cryptantha excavata*)	—/—/1B.2	Woodland	None: No woodland habitat exists in the project area.
Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*)	**—/—/1B.2**	**Freshwater and brackish marsh**	**Very Low: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles W of the project site near Sheehy Creek.**
Dimorphic snapdragon (*Antirrhinum subcordatum*)	—/—/4.3	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Dwarf downingia (*Downingia pusilla*)	**—/—/2B.2**	**Vernal pool, wetland**	**Very Low: No vernal pool habitat exists in the project area. Nearest known occurrence is 0.3 miles N of the project site near Delvin Road.**
Dwarf soaproot (*Chlorogalum pomeridianum* var. *minus*)	—/—/1B.2	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Eel-grass pondweed (*Potamogeton zosteriformis*)	—/—/2B.2	Wetland, pond	None: No wetland habitat exists in the project area.
Fragrant fritillary (*Fritillaria liliacea*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Few-flowered navarretia (*Navarretia leucocephala* ssp. *pauciflora*)	FE/SE/1B.1	Vernal pool, wetland	None: No vernal pool habitat exists in the project area.
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	**—/—/1B.2**	**Coastal grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 5.2 miles NE of the project site near Carneros Creek.**
Geysers panicum (*Panicum acuminatum* var. *thermale*)	—/—/1B.2	Chaparral, wetland	None: No chaparral habitat exists in the project area.
Glandular western flax (*Hesperolinon adenophyllum*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Golden larkspur (*Delphinium luteum*)	FE/SR/1B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Grassleaf water plantain (*Alisma gramineum*)	—/—/2B.2	Wetland, pond	None: No wetland habitat exists in the project area.
Greene's narrow-leaved daisy (*Erigeron greenei*)	**—/—/1B.2**	**Serpentine chaparral**	**None: No serpentine chaparral habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
Hall's harmonia (*Harmonia hallii*)	—/—/1B.2	Serpentine chaparral	None: No chaparral habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Hoffman's bristly jewelflower (*Streptanthus glandulosus* spp. *hoffmanii*)	—/—/1B.3	Chaparral, woodland	None: No chaparral habitat exists in the project area.
Holly-leaved ceanothus (*Ceanothus purpureus*)	**—/—/1B.2**	**Chaparral**	**None: No chaparral habitat exists in the project area. Nearest known occurrence is 2.6 miles NE of the project site near Skyline Park.**
Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*)	—/—/1B.2	Woodland	None: No woodland habitat exists in the project area.
Humboldt County milk vetch (*Astragalus agnicidus*)	—/—/1B.1	Coniferous forest	None: No coniferous forest habitat exists in the project area.
Jepson's coyote thistle (*Eryngium jepsonii*)	—/—/4.2	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Jepson's leptosiphon (*Leptosiphon jepsonii*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Jepson's milk vetch (*Astragalus rattanii* var. *jepsonianus*)	—/—/1B.2	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Kenwood Marsh checkerbloom (*Sidalcea oregana* ssp. *valida*)	FE/SE/1B.1	Wetland	None: No wetland habitat exists in the project area.
Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*)	—/—/1B.3	Chaparral, woodland	None: No chaparral habitat exists in the project area.
Lake County stonecrop (*Sedella leiocarpa*)	—/—/1B.1	Grassland, wetland	None: No wetland habitat exists in the project area.
Legenere (*Legenere limosa*)	**—/—/1B.1**	**Wetland, grassland**	**Very Low: No potential wetland habitat exists in the project area. Nearest known occurrence is 0.9 miles N of the project site near Soscol Creek.**
Loch Lomond button-celery (*Eryngium constancei*)	FE/SE/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*)	—/—/1B.2	Wetland, grassland	None: No potential wetland habitat exists in the project area.
Lyngbye's sedge (*Carex lyngbyei*)	**—/—/2B.2**	**Salt marsh**	**None: No salt marsh habitat exists in the project area. Nearest known occurrence is 2.2 miles SW of the project site near the community of Brazos.**
Many-flowered navarretia (*Navarretia leucocephala* spp. *plieantha*)	FE/SE/1B.2	Vernal pool	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Maple-leaved checkerbloom (*Sidalcea malachroides*)	—/—/4.2	Coastal grassland, coniferous forest	Very Low: Some grassland habitat exists in the project area.
Marin checker lily (*Fritillaria lanceolata* var. *tristulis*)	—/—/1B.1	Grassland	Very Low: Some grassland habitat exists in the project area.
Marin checkerbloom (*Sidalcea hickmanii* spp. *viridis*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Marin County navarretia (*Navarretia rosulata*)	—/—/1B.2	Serpentine forest	None: No serpentine habitat exists in the project area.
Marin knotweed (*Polygonum marinense*)	**—/—/3.1**	**Coastal salt marsh**	**None: No coastal salt marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Marin manzanita (*Arctostaphylos virgata*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Marin western flax (*Hesperolinon congestum*)	FT/ST/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*)	—/—/1B.2	Wetland, riparian	None: No wetland habitat exists in the project area.
Marsh microseris (*Microseris paludosa*)	—/—/1B.2	Wetland, grassland	None: No wetland habitat exists in the project area.
Marsh pea (*Lathyrus palustris*)	—/—/2B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Mason's ceanothus (*Ceanothus masonii*)	—/SR/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Mason's lilaeopsis (*Lilaeopsis masonii*)	**—/SR/1B.1**	**Freshwater and brackish marsh**	**None: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles W of the project site near the Napa River.**
Milo Baker's lupine (*Lupinus milo-bakeri*)	—/—/1B.1	Woodland, grassland	None: No woodland habitat exists in the project area.
Morrison's jewelflower (*Streptanthus morrisonii* ssp. *morrisonii*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Mt. St. Helena morning glory (*Calystegia collina* ssp. *oxyphylla*)	—/—/4.2	Serpentine chaparral	None: No serpentine habitat exists in the project area.
Mt. Tamalpais bristly jewelflower (*Streptanthus glandulosus* spp. *pulchellus*)	—/—/1B.2	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Mt. Tamalpais manzanita (*Arctostaphylos montana* spp. *montana*)	—/—/1B.3	Chaparral	None: No chaparral habitat exists in the project area.
Mt. Tamalpais thistle (*Cirsium hydrophilum* var. *vaseyi*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Napa blue grass (*Poa napensis*)	FE/SE/1B.1	Wetland, grassland	Very Low: Some grassland habitat exists in the project area.
Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Napa false indigo (*Amorpha californica* var. *napensis*)	—/—/1B.2	Forest, woodland	None: No woodland habitat exists in the project area.
Narrow-anthered brodiaea (*Brodiaea leptandra*)	**—/—/1B.2**	**Woodland, grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
North Coast semaphore grass (*Pleuropogon hooverianus*)	—/—/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*)	—/—/2B.2	Pond	None: No pond habitat exists in the project area.
Oval-leaved viburnum (*Viburnum ellipticum*)	**—/—/2B.3**	**Chaparral**	**None: No chaparral habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
Pacific gilia (*Gilia capitata* ssp. *pacifica*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Pacific Grove clover (*Trifolium polyodon*)	—/—/1B.1	Grassland, wetland	None: No wetland habitat exists in the project area.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	—/—/1B.2	Grassland, wetland	None: No wetland habitat exists in the project area.
Pennell's bird's beak (*Cordylanthus tenuis* ssp. *capillaris*)	FE/SR/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)	—/—/1B.2	Parasitic plant, grassland, chaparral	Very Low: Some grassland habitat exists in the project area.
Petaluma popcornflower (*Plagiobothrys mollis* var. *vestitus*)	—/—/1A	Coastal salt marsh	None: No coastal salt marsh habitat exists in the project area.
Pink sand verbena (*Abronia umbellata* var. *breviflora*)	—/—/1B.1	Coastal sand dune	None: No sand dune habitat exists in the project area.
Pitkin Marsh lily (*Lilium pardalinum* ssp. *pitkinense*)	FE/SE/1B.1	Wetland	None: No wetland habitat exists in the project area.
Pitkin Marsh paintbrush (*Castilleja uliginosa*)	FE/SE/1A	Wetland	None: No wetland habitat exists in the project area.
Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habiat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Point Reyes salty bird's beak (*Chloropyron maritimum* ssp. *palustre*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habitat exists in the project area.
Purple-stemmed checkerbloom (*Sidalcea malviflora* spp. *purpurea*)	—/—/1B.2	Wetland	None: No wetland habitat exists in the project area.
Pygmy cypress (*Hesperocyparis pygmaea*)	—/—/1B.2	Hardpan soil	None: No hardpan forest habitat exists in the project area.
Raiche's manzanita (*Arctostaphylos stanfordiana* ssp. *raichei*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Raiche's red ribbons (*Clarkia concinna* spp. *raichei*)	—/—/1B.1	Coastal scrub	Very Low: No coastal scrub habitat exists in the project area.
Rincon Ridge ceanothus (*Ceanothus confusus*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Rincon Ridge manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Rose leptosiphon (*Leptosiphon rosaceus*)	—/—/1B.1	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Round-headed beaked-rush (*Rhynchospora globularis*)	—/—/2B.1	Wetland, riparian	None: No wetland habitat exists in the project area.
Round-headed Chinese houses (*Collinsia corymbosa*)	—/—/1B.2	Coastal strand	None: No coastal strand habitat exists in the project area.
Round-leaved filaree (*California macrophylla*)	—/—/1B.2	Foothill grassland	Very Low: Some grassland habitat exists in the project area.
Saline clover (*Trifolium hydrophilum*)	**—/—/1B.2**	**Wetland, riparian**	**Very Low: No potential wetland habitat exists in the project area. Nearest known occurrence is 0.9 miles N of the project site near Soscol Creek.**
San Francisco spineflower (*Chorizanthe cuspidata* var. *cuspidata*)	—/—/1B.2	Coastal sand dunes	None: No coastal sand dune habitat exists in the project area.
San Joaquin spearscale (*Extriplex joaquinana*)	**—/—/1B.2**	**Alkali scrub, grassland**	**Very Low: No alkali scrub habitat exists in the project area. Nearest known occurrence is 3.2 miles N of the project site near Kennedy Park.**
Santa Cruz clover (*Trifolium buckwestiorum*)	—/—/1B.1	Wetland, grassland	Very Low: Some grassland habitat exists in the project area.
Santa Cruz microseris (*Stebbinsoseris decipiens*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Santa Cruz tarplant (*Holocarpha macradenia*)	FT/SE/1B.1	Coastal prairie	None: No coastal prairie habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Santa Rosa horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Seaside bittercress (*Cardamine angulata*)	—/—/2B.2	Forest, riparian	None: No forest habitat exists in the project area.
Sebastopol meadowfoam (*Limnanthes vinculans*)	FE/SE/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Serpentine cryptantha (*Cryptantha dissita*)	—/—/1B.2	Serpentine chaparral	None: No chaparral habitat exists in the project area.
Serpentine daisy (*Erigeron serpentinus*)	—/—/1B.3	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Short-leaved evax (*Hesperevax sparsiflora var. brevifolia*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Slender Orcutt grass (*Orcuttia tenuis*)	FT/SE/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Small-flowered calycadenia (*Calycadenia micrantha*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Small groundcone (*Kopsiopsis hookeri*)	—/—/2B.3	Redwood forest	None: No redwood forest habitat exists in the project area.
Soft salty bird's beak (*Chloropyron molle* ssp. *molle*)	**FE/ST/1B.2**	**Coastal salt marsh**	**None: No salt marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*)	FE/—/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*)	—/—/1B.3	Chaparral	Very Low: Some grassland habitat exists in the project area.
Sonoma ceanothus (*Ceanothus sonomensis*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Sonoma spineflower (*Chorizanthe valida*)	FE/SE/1B.1	Coastal grassland	Very Low: Some grassland habitat exists in the project area.
Sonoma sunshine (*Blennosperma bakeri*)	FE/SE/1B.1	Grassland, wetland	Very Low: Some grassland habitat exists in the project area.
Suisun marsh aster (*Symphyotrichum lentum*)	**—/—/1B.2**	**Freshwater and brackish marsh**	**None: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Supple daisy (*Erigeron supplex*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Swamp harebell (*Campanula californica*)	—/—/1B.2	Coastal grassland, wetland	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Tamalpais jewelflower (*Streptanthus batrachopus*)	—/—/1B.3	Serpentine	None: No serpentine habitat exists in the project area.
Tamalpais lessingia (*Lessingia micradenia* var. *micradenia*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Tamalpais oak (*Quercus parvula* var. *tamalpaisensis*)	—/—/1B.3	Woodland	None: No woodland habitat exists in the project area.
The Cedars fairy lantern (*Calochortus raichei*)	—/—/1B.2	Hardpan chaparral	None: No chaparral habitat exists in the project area.
The Cedars manzanita (*Arctostaphylos bakeri* ssp. *sublaevis*)	—/—/1B.2	Hardpan chaparral	None: No chaparral habitat exists in the project area.
Thin-lobed horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Thurber's reed grass (*Calamagrostis crassiglumis*)	—/—/2B.1	Coastal scrub, wetland	None: No wetland habitat exists in the project area.
Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*)	—/—/1B.2	Serpentine grassland	None: No serpentine grassland exists in the project area.
Tiburon paintbrush (*Castilleja affinis* var. *neglecta*)	**FE/ST/1B.2**	**Serpentine grassland**	**Very Low: No serpentine grassland exists in the project area. Nearest known occurrence is 4.5 miles SE of the project site near American Canyon.**
Two-carpellate western flax (*Hesperolinon bicarpellatum*)	—/—/1B.2	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Two-fork clover (*Trifolium amoenum*)	**FE/—/1B.1**	**Grassland, wetland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 2.5 miles W of the project site near Milton Road.**
Vine Hill ceanothus (*Ceanothus foliosus* var. *vineatus*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Vine Hill clarkia (*Clarkia imbricata*)	FE/SE/1B.1	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Vine Hill manzanita (*Arctostaphylos densiflora*)	—/SE/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Watershield (*Brasenia schreberi*)	—/—/2B.3	Pond	None: No pond habitat exists in the project area.
Western leatherwood (*Dirca occidentalis*)	—/—/1B.2	Woodland, chaparral	None: No woodland habitat exists in the project area.
White beaked-rush (*Rhynchospora alba*)	—/—/2B.2	Wetland, riparian	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
White-flowered rein orchid (*Piperia candida*)	—/—/1B.2	Coniferous forest	None: No coniferous forest habitat exists in the project area.
White-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE/SE/1B.1	Grassland	Very Low: Some grassland habitat exists in the project area.
Wolly-headed gilia (*Gilia capitata* ssp. *tomentosa*)	—/—/1B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Wolly meadowfoam (*Limnanthes floccosa* ssp. *floccosa*)	—/—/4.2	Vernal pool	None: No wetland habitat exists in the project area.
Wolly spineflower (*Chorizanthe cuspidata* var. *villosa*)	—/—/1B.2	Coastal sand dunes	None: No sand dune habitat exists in the project area.
Mosses, Lichens, and Liverworts			
Angel's hair lichen (*Ramalina thrausta*)	—/—/2B.1	Forest, woodland	None: No forest habitat exists in the project area.
Coastal triquetrella (*Triquetrella californica*)	—/—/1B.2	Forest, woodland	None: No forest habitat exists in the project area.
Elongate copper moss (*Mielichhoferia elongata*)	—/—/4.3	Rock outcrops	None: No rock outcrop habitat exists in the project area.
Koch's cord moss (*Entosthodon kochii*)	—/—/1B.3	Forest, woodland	None: No forest habitat exists in the project area.
Methuselah's beard lichen (*Dolichousnea longissima*)	—/—/4.2	Forest, woodland	None: No forest habitat exists in the project area.
Slender silver moss (*Anomobryum julaceum*)	—/—/4.2	Rocky substrates in forests	None: No forest habitat exists in the project area.
Torren's grimmia (*Grimmia torenii*)	—/—/1B.3	Forest, woodland	None: No forest habitat exists in the project area.
Fish			
Chinook salmon Coastal California DPS (*Oncorhynchus kisutch*)	**FT/SE/—**	**Freshwater streams, open ocean and estuaries**	**None: No suitable streams exist in the project area. Nearest known occurrence is 0.6 miles W of the project site in the Napa River.**
Coho salmon Central California Coast ESU (*Oncorhynchus kisutch*)	FE/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist in the project area.
Green sturgeon–Southern DPS Pop. 1 (*Acipenser medirostris*)	**FT/SSC/—**	**Freshwater streams**	**None: No suitable streams exist in the project area. Nearest known occurrence is 3.2 miles S of the project site in the Napa River.**
Gualala roach (*Lavinia symmetricus parvipinnis*)	—/SSC/—	Freshwater streams	None: No suitable streams exist in the project area.
Longfin smelt (*Spirinchus thaleichthys*)	**FT/ST/—**	**Estuaries and coastal lakes**	**None: No suitable estuary habitat exists in the project area. Nearest known occurrence is 0.6 miles W of the project site in the Napa River.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Navarro roach (*Lavinia symmetricus navarroensis*)	—/SSC/—	Freshwater streams	None: No suitable streams exist in the project area.
Russian River tule perch (*Hysterocarpus traski pomo*)	—/SSC/—	Low gradient rivers	None: No suitable habitat exists in the project area.
Sacramento perch (*Archoplites interruptus*)	—/SSC/—	Low gradient sloughs and lakes	None: No suitable habitat exists in the project area.
Sacramento splittail (*Pogonichthys macrolepidotus*)	—/SSC/—	Low gradient freshwater streams	None: No suitable streams exist in the project area.
Southern coastal roach (*Hesperoleucus venustus subditus*)	—/SSC/—	Freshwater streams	None: No suitable streams exist in the project area.
Steelhead trout Central California Coast DPS (*Oncorhynchus mykiss irideus*)	**FT/—/—**	**Freshwater streams, open ocean and estuaries**	**None: No suitable streams exist in the project area. Nearest known occurrence is 3.2 miles S of the project site in the Napa River.**
Tidewater goby (*Eucyclogobius newberryi*)	FE/SSC/—	Brackish coastal lagoons and streams	None: No brackish coastal lagoons exist in the project area.
Amphibians and Reptiles			
California giant salamander (*Dicamptodon ensatus*)	—/SSC/—	Wetlands and riparian areas	Very Low: No suitable wetland habitat exists in the project area.
California red-legged frog (CRLF) (*Rana draytonii*)	**FT/SSC/—**	**Lakes, stock ponds, and associated grasslands**	**Low: No suitable breeding habitat exists in the project area although some suitable habitat exists in Sheehy Creek. Some marginally suitable estivation habitat exists on-site. Nearest known occurrence is 2.3 miles S of the project site near North Slough.**
California tiger salamander (*Ambystoma californiense*)	FE/ST/—	Ponds, streams, drainages, and associated uplands	Vey Low: No suitable breeding habitat exists in the project area.
Foothill yellow-legged frog (FYLF) North Coast DPS (*Rana boylii*)	**—/ST/—**	**Wetlands, riparian, streams and ponds**	**Low: No suitable breeding habitat exists in the project area although some suitable habitat exists in Sheehy Creek. Some marginally suitable estivation habitat exists on-site. Nearest known occurrence is 2.0 miles S of the project site near the community of Lombard.**
Red-bellied newt (*Taricha rivularis*)	—/SSC/—	Woodland streams, riparian corridors	None: No suitable habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Western pond turtle (*Emys marmorata*)	**—/SSC/—**	**Slow-moving creeks, streams, ponds, rivers, ditches**	**None: No suitable pond habitat exists in the project area although some suitable habitat exists in Sheehy Creek. Some marginally suitable nesting habitat exists on-site. Nearest known occurrence is 2.2 miles N of the project site near Napa Golf Course.**
Invertebrates			
Barr's amphipod (*Stygobromus cherylae*)	—/SSC/—	Subterranean, aquatic	None: No suitable aquatic habitat in the project area.
Behren's silverspot butterfly (*Speyeria zerene behrensii*)	FE/SSC/—	Coastal grassland, blue violet host plants	Very Low: No suitable host plants exist in the project area.
Blennosperma vernal pool andrenid bee (*Andrena blennospermatis*)	—/SSC/—	Upland areas near vernal pools	None: No vernal pool habitat exists in the project area.
California brackishwater snail (*Tryonia imitator*)	—/SSC/—	Brackish wetland	None: No wetland habitat exists in the project area.
California floater (*Anodonta californiensis*)	—/SSC/—	Ponds, stream	None: No suitable stream habitat exists in the project area.
California freshwater shrimp (*Syncaris pacifica*)	FE/SE/—	Ponds, stream	None: No suitable stream habitat exists in the project area.
California isopod (*Calasellus californicus*)	**—/SSC/—**	**Freshwater ponds**	**None: No pond habitat exists in the project area. Nearest known occurrence is 3.9 miles N of the project site near the City of Napa.**
California linderiella (*Linderiella occidentalis*)	—/SSC/—	Vernal pool	None: No vernal pool habitat exists in the project area.
Crotch bumble bee (*Bombus crotchii*)	—/SSC/—	Grassland, chaparral	Medium: Some grassland habitat exists in the project area.
Giuliani's dubiraphian riffle beetle (*Dubiraphia giulianii*)	—/SSC/—	Stream	None: No suitable habitat exists in the project area.
Hypoheic amphipod (*Stygobromus hyporheicus*)	—/SSC/—	Soil	None: No suitable habitat exists in the project area.
Leech's skyline diving beetle (*Hydroporus leechi*)	—/SSC/—	Pond	None: No suitable pond habitat exists in the project area.
Marin elfin butterfly (*Callophrys mossii marinensis*)	—/SSC/—	Coastal grassland	Very Low: Some suitable grassland habitat exists in the project area.
Marin hesperian (*Vespericola marinensis*)	—/SSC/—	Woodland	None: No woodland habitat exists in the project area.
Myrtle silverspot butterfly (*Speyeria zerene myrtleae*)	FE/SSC/—	Coastal grassland, chaparral with *Viola* plants	None: No suitable host plants exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Monarch butterfly California overwintering Population #1 (*Danaus plexippus*)	—/SSC/—	Large trees for roosting	Very Low: Some suitable trees for roosting in the project area.
Obscure bumble bee (*Bombus caliginosus*)	—/SSC/—	Grassland, woodland, chaparral	Low: Some grassland habitat exists in the project area.
Opler's longhorn moth (*Adela oplerella*)	—/SSC/—	Usually associated with *Platystemon* (creamcups)	None: No suitable host plants observed in the project area.
Oregon floater (*Anodonta oregonensis*)	—/SSC/—	High order stream	None: No suitable stream habitat exists in the project area.
Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)	—/SSC/—	Freshwater pond	None: No suitable pond habitat exists in the project area.
San Francisco leaf-cutter bee (*Trachusa gummifera*)	—/SSC/—	Wood cavities	None: No suitable habitat exists in the project area.
Sonoma arctic skipper (*Carterocephalus palaemon magnus*)	—/SSC/—	Grasslands with suitable host plants	None: No suitable host plants exist in the project area.
Sonoma zerene fritillary (*Speyeria zerene sonomensis*)	—/SSC/—	Grassland with *Viola* plants	None: No suitable host plants exists in the project area.
Tomales isopod (*Caecidotea tomalensis*)	—/SSC/—	Pond, stream	None: No pond or stream habitat exists in the project area.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	**—/SSC/—**	**Vernal pools**	**None: No vernal pool habitat exists in the project area. Nearest known occurrence is 1.5 miles SW of the project site near Napa Airport.**
Western bumblebee (*Bombus occidentalis*)	**—/SSC/—**	**Grassland**	**Low: Some disturbed grassland habitat exists in the project area. Nearest known occurrence is 4.0 miles N of the project site near the City of Napa.**
Western ridged mussel (*Gonidea angulata*)	—/SSC/—	Stream	None: No suitable stream habitat exists in the project area.
Birds			
American perigrine falcon (*Falco peregrinus anatum*)	**—/SSC/—**	**Nests in rock outcrops**	**Very Low: No suitable nesting habitat exists in the project area. Some marginal foraging habitat exists on-site. Nearest known occurrence is located somewhere in the USGS *Cordelia* 7.5 minute quad, that comes as close as 0.9 miles E of the project site.**
Bald eagle (*Haliaeetus leucocephalus*)	—/SSC/—	Nests in forests, forages over lakes and streams.	Very Low: No suitable nesting or foraging habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Bank swallow (*Riparia riparia*)	FE/SE/—	Banks of lakes, streams	None: No suitable stream habitat exists in the project area.
Black-crowned night heron (*Nycticorax nycticorax*)	**—/SSC/—**	**Nests in colonies in trees**	**Very Low: No suitable nesting habitat exists in the project area. Nearest known occurrence is 4.8 miles NW of the project site in Congress Valley.**
Black swift (*Cypseloides niger*)	—/SSC/—	Cliff faces near water	None: No suitable stream habitat exists in the project area.
Burrowing owl (*Athene cunicularia*)	**—/SSC/—**	**Grasslands with ground squirrel burrows**	**Very Low: Some disturbed grassland habitat exists in the project area. Nearest known occurrence is 0.15 miles E of the project site near Delvin Road.**
California black rail (*Laterallus jamaicensis coturniculus*)	**FE/SE/—**	**Coastal salt marshes, mudflats**	**None: No suitable salt marsh habitat exists in the project area. Nearest known occurrence is 0.7 miles SW of the project site near Fagan Creek.**
California horned lark (*Eremophila alpestris actia*)	—/SSC/—	Herbaceous vegetation, chaparral	None: No suitable nesting and foraging habitat exists in the project area.
Cooper's hawk (*Accipiter cooperii*)	—/WL/—	Forages over open grassland, nests in old growth trees	None: No suitable nesting and foraging habitat exists in the project area. Some potential nesting habitat in Sheehy Creek.
Ferruginous hawk (*Buteo regalis*)	**—/SSC/—**	**Forages over open grassland, nests in old growth trees**	**Low: Some suitable nesting and foraging habitat exists in the project area. Some potential nesting habitat in Sheehy Creek. Nearest known occurrence is a CNDDB polygon that overlaps with the project parcel.**
Golden eagle (*Aquila chrysaetos*)	**—/SSC/—**	**Forages over open grassland, nests in old growth trees**	**Low: No suitable nesting habitat exists in the project area. Some potential nesting habitat in Sheehy Creek. Nearest known occurrence is 1.7 miles NW of the project site near Stanly Crossroad.**
Grasshopper sparrow (*Ammodramus savannarum*)	—/SSC/—	Forages over open grassland	Very Low: No suitable nesting and foraging habitat exists in the project area.
Great blue heron (*Ardea herodias*)	—/SSC/—	Nests in trees, forages in wetlands and grasslands	Very Low: No suitable nesting and foraging habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Great egret (*Ardea alba*)	FE/SE/—	Nests in trees, forages in wetlands and grasslands	Very Low: No suitable nesting and foraging habitat exists in the project area.
Marbled murrelet (*Brachyramphus marmoratus*)	FT/SE/—	Old growth forest	None: No suitable nesting or foraging habitat exists in the project area.
Northern goshawk (*Accipiter gentilis*)	—/SSC/—	Old growth forest	Very Low: No suitable nesting and foraging habitat exists in the project area.
Northern harrier (*Circus hudsonius*)	**FT/ST/—**	**Nests and forages in prairies and forests**	**Low: No suitable nesting or foraging habitat exists in the project area. Some potential nesting habitat in Sheehy Creek. Nearest known occurrence is 3.5 miles SW of the project site near Napa Slough.**
Northern spotted owl (*Strix occidentalis*)	FT/ST/—	Nests primarily in old growth forest	None: No suitable nesting or foraging habitat exists in the project area.
Osprey (*Pandion haliaetus*)	—/WL/—	Areas with fish	Very Low: No suitable nesting or foraging habitat exists in the project area.
Prairie falcon (*Falco mexicanus*)	—/SSC/—	Forages over grasslands	Very Low: No suitable nesting and foraging habitat exists in the project area.
Purple martin (*Progne subis*)	FE/SE/—	Insectivorous, nests in cavities	Very Low: No suitable nesting and foraging habitat exists in the project area.
Ridgway's rail (*Rallus obsoletus obsoletus*)	**FE/SE/—**	**Mudflats and tidal sloughs**	**None: No suitable tidal habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)	**—/SSC/—**	**Forages in grasslands, nests in dense freshwater marshes**	**Very Low: No suitable nesting habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
San Pablo song sparrow (*Melospiza melodia samuelis*)	**—/SSC/—**	**Marsh, grassland**	**Very Low: No suitable nesting habitat exists in the project area. Nearest known occurrence is 1.7 miles W of the project site near Steamboat Slough.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Sharp-shinned hawk (*Accipiter striatus*)	—/SSC/—	Forest, woodland	Very Low: No suitable nesting habitat exists in the project area. Some potential nesting habitat in Sheehy Creek.
Swainson's hawk (*Buteo swainsoni*)	**—/SSC/—**	**Forages in grasslands, nests in trees**	**Very Low: No suitable nesting habitat exists in the project area. Some potential nesting habitat in Sheehy Creek. Nearest known occurrence is 0.25 miles N of the project site near Sheehy Creek.**
Tricolored blackbird (*Agelaius tricolor*)	**—/SSC/—**	**Nests in dense vegetation**	**Very Low: No suitable nesting habitat exists in the project area. Nearest known occurrence is 0.7 miles SE of the project site near Delvin Road.**
Western snowy plover (*Charadrius nivosus nivosus*)	**FT/SSC/—**	**Tidal marshes**	**None: No suitable marsh habitat exists in the project area. Nearest known occurrence is 3.3 miles W of the project site near Napa Slough.**
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	—/SE/—	Woodland, riparian	Very Low: No suitable nesting habitat exists in the project area.
White-tailed kite (*Elanus leucurus*)	**—/CFP/—**	**Grassland, woodland**	**Very Low: No suitable nesting habitat exists in the project area. Some potential nesting habitat in Sheehy Creek. Nearest known occurrence is 2.2 miles N of the project site near Napa Golf Course.**
Yellow-breasted chat (*Icteria virens*)	—/SSC/—	Dense shrubby growth, farmland	Very Low: No suitable nesting habitat exists in the project area.
Yellow rail (*Coturnicops noveboracensis*)	—/SSC/—	Breeds in marshes, forages in wet meadows	None: No suitable marsh habiat exists in the project area.
Yellow warbler (*Coturnicops noveboracensis*)	—/SSC/—	Riparian, shrubland, farmland	Very Low: No suitable nesting habitat exists in the project area.
Mammals			
American badger (*Taxidea taxus*)	**—/SSC/—**	**Open grassland habitats with plenty of prey**	**None: No suitable habitat exists in the project area. Nearest known occurrence is 2.0 miles NW of the project site near Stanly Lane.**
Big free-tailed bat (*Nyctinomops macrotis*)	—/SSC/—	Forages over open areas, roots in trees or caves	Very Low: No suitable foraging or roosting habitat exists in the project area.
Fisher (*Pekania pennanti*)	—/SSC/—	Forages and breeds primarily in forests	None: No suitable forest habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Fringed myotis (*Myotis thysanodes*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Very Low: No suitable foraging or roosting habitat exists in the project area.
Hoary bat (*Lasiurus cinereus*)	—/SSC/—	Forages over open areas, roots in trees or caves at high altitude	Very Low: No suitable foraging or roosting habitat exists in the project area.
Long-eared myotis (*Myotis evotis*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Very Low: No suitable foraging or roosting habitat exists in the project area.
Long-legged myotis (*Myotis volans*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Very Low: No suitable foraging or roosting habitat exists in the project area.
North American porcupine (*Erethizon dorsatum*)	—/SSC/—	Require rocky areas or trees for dens, abundant open space for foraging	Very Low: Some suitable foraging habitat, no suitable den habitat.
Pallid bat (*Antrozous pallidus*)	**—/SSC/—**	**Common in open dry habitats with rocky areas for roosting**	**Very Low: No suitable foraging or roosting habitat exists in the project area. Nearest known occurrence is 2.8 miles NW of the project site near Cutting's Wharf Road.**
Point Reyes mountain beaver (*Aplodontia rufa phaea*)	—/SE/—	Coastal scrub	None: No suitable coastal scrub habitat exists in the project area.
Salt marsh harvest mouse (*Reithrodontomys raviventris*)	**FE/SE/—**	**Salt marshes**	**None: No suitable salt marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan's Marsh.**
Silver-haired bat (*Lasionycteris noctivagans*)	—/SSC/—	Nocturnal, migratory, solitary, roosts in tree cavities	Very Low: No suitable foraging or roosting habitat exists in the project area.
Sonoma tree vole (*Arborimus pomo*)	—/SSC/—	Old growth Douglas fir canopies	None: No suitable Douglas fir forest habitat exists in the project area.
Townsend's big-eared bat (*Corynorhinus townsendii*)	—/SSC/—	Hibernate in mines or caves, roost in man made structures and caves	Very Low: No suitable foraging or roosting habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Western red bat (*Lasiurus blossevillii*)	—/SSC/—	Forages over open areas, roots in trees or caves	Very Low: No suitable foraging or roosting habitat exists in the project area.
Yuma myotis (*Myotis yumanensis*)	—/SSC/—	Forages over open areas, roots in trees or caves	Very Low: No suitable foraging or roosting habitat exists in the project area.
Habitats			
Coastal and Valley Freshwater Marsh (CVFM)	—	—	None: No marsh habitat exists in the project area.
Coastal Brackish Marsh (CVFM)	—	—	None: No brackish marshes exist in the project area.
Northern Coastal Salt Marsh (NCSM)	—	—	None: No salt marsh habitat exists in the project area.
Northern Hardpan Vernal Pool (NHVP)	—	—	None: No hardpan vernal pool habitat exists in the project area.
Northern Vernal Pool (NVP)	—	—	None: No vernal pool habitat exists in the project area.
Sycamore Alluvial Woodland (SAW)	—	—	None: No woodland habitat exists in the project area.
Valley Needlegrass Grassland (VNG)	—	—	Very Low: Some disturbed grassland habitat exists in the project area.
Valley Oak Woodland (VOW)	—	—	None: No valley oaks exist in the project area.
Valley Sink Scrub (VSS)	—	—	None: No sink habitat exists in the project area.

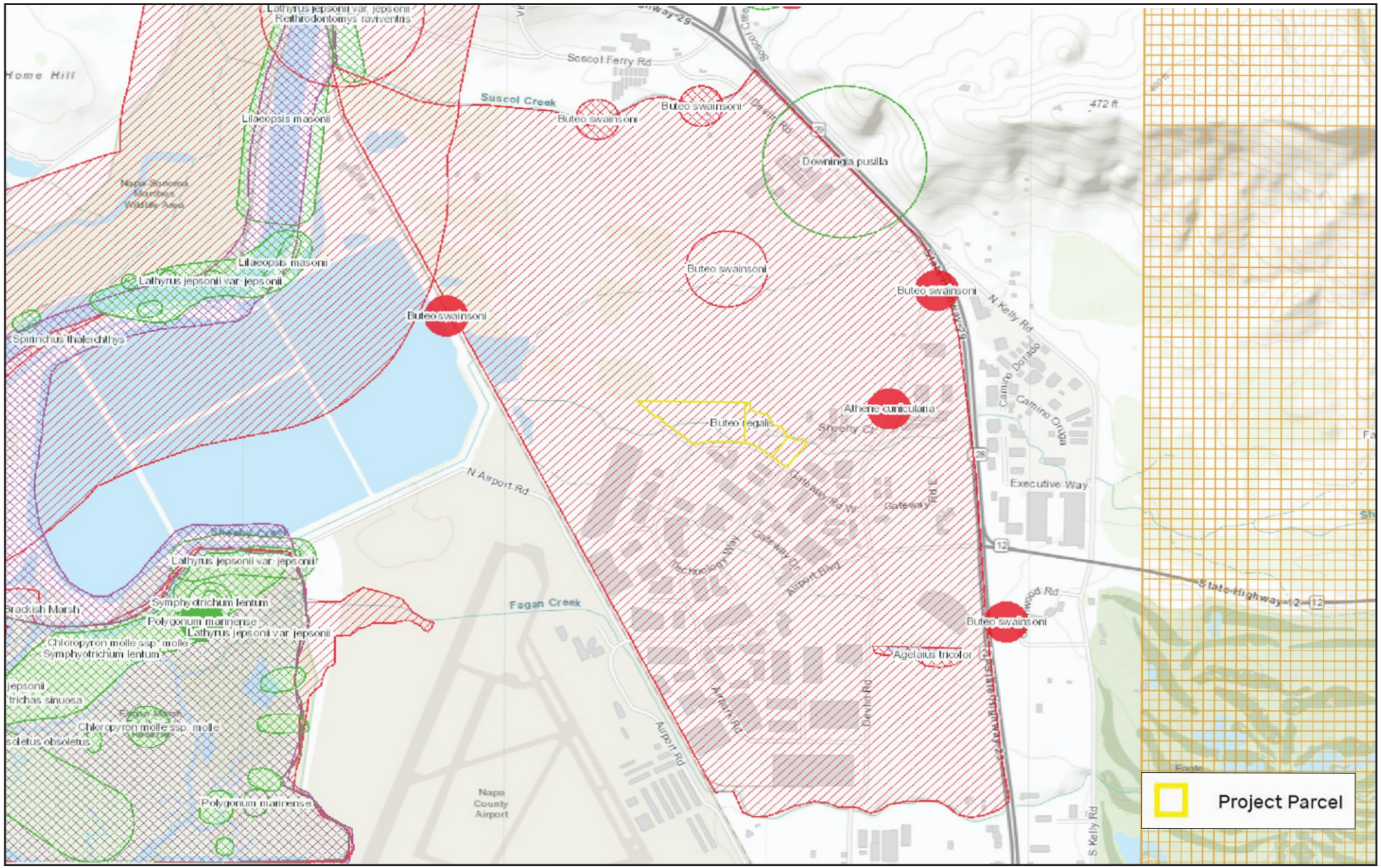
Notes:
[1] Status:
Federal
FE = Federally Endangered Species
FT = Federally Threatened Species

State
SE = State Endangered Species
ST = State Threatened Species
SSC = California Species of Special Concern
CFP = California Fully Protected Species

CNPS (applies to plants only)
List 1B = plants considered rare, threatened, or endangered in California and elsewhere
List 2B = plants rare, threatened or endangered in California, but more common elsewhere
List 3 = plant is likely rare but more information is required
List 4 = plants of limited distribution

Appendix C:
CNDDB Occurrences Map

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Source: Pinecrest Environmental Consulting; United States Fish & Wildlife Service (USFWS): CNDDB.

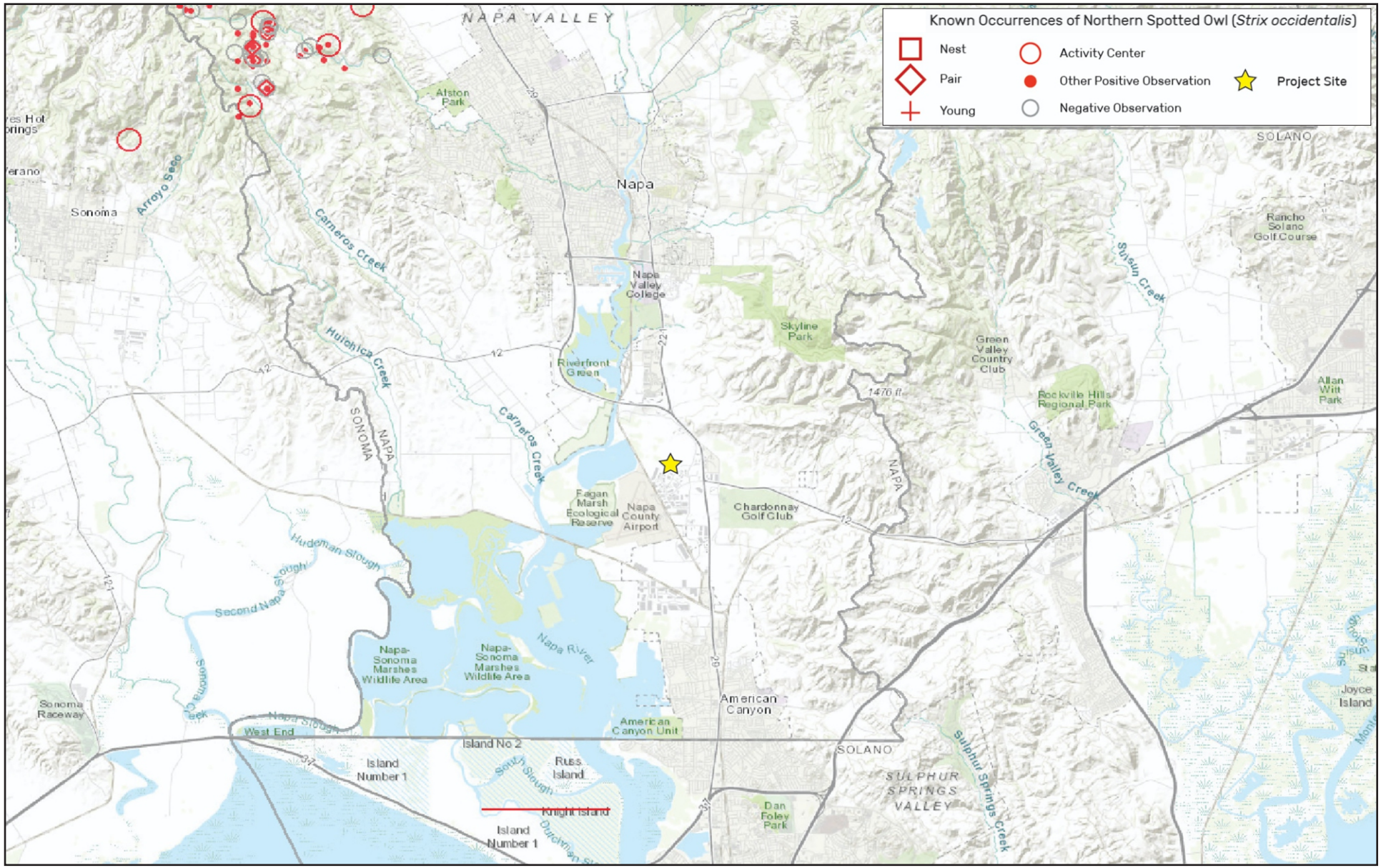
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Appendix C
CNDDB Occurrences Map

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Appendix D:
NSO Occurrences Map

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Source: Pinecrest Environmental Consulting; United States Fish & Wildlife Service (USFWS).

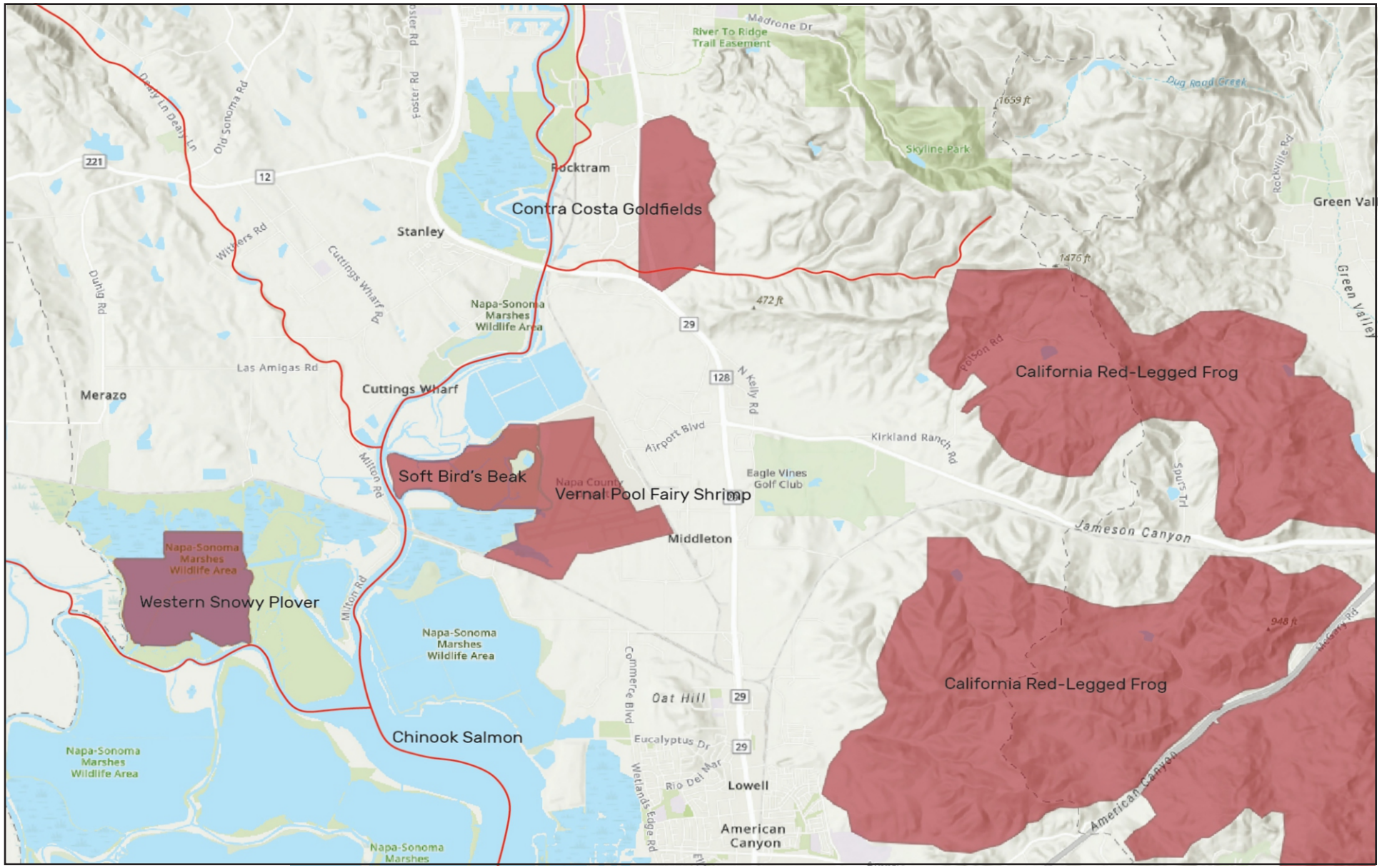
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Appendix D
NSO Occurrences Map

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Appendix E:
Critical Habitat Map

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Source: Pinecrest Environmental Consulting; United States Fish & Wildlife Service (USFWS).

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Appendix E
Critical Habitat Map

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Transportation Impact Study

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

Transportation Impact Study for the Winery and Warehouse at the Napa Airport Business Park



Prepared for the County of Napa

File Numbers: PP22-00307 and PP22-00308

Submitted by

W-Trans

November 21, 2023

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Executive Summary

The potential transportation impacts that would be associated with two proposed developments at the Napa Airport Business Park in the County of Napa were evaluated, though a specific tenant has not yet been identified for either project. The proposed winery project includes a 143,312 square foot building for tank fermentation and storage of bulk wine. The facility would normally be staffed with 16 full-time and 7 part-time employees, with employment increasing to approximately 35 total employees during harvest. The winery is expected to generate an average of 71 daily trips during non-harvest months, including 23 weekday a.m. and p.m. peak hour trips, and during harvest months, it would be expected to generate 104 trips per day, with 34 weekday peak hour trips. Because the winery would be a production-only facility and have no tasting room, the weekend peak period was not evaluated.

The proposed warehouse building would be 66,915 square feet in size; it is anticipated that the use would be classified as a warehouse for trip generation purposes. The facility would be staffed with up to 30 employees and is expected to generate 114 trips per day, including 11 morning peak hour trips and 12 evening peak hour trips.

Pedestrian, bicycle, and transit facilities are adequate and would be improved by the sidewalk installation included as part of each project. A left-turn lane would not be warranted at either project's driveways. The project would not cause any queues to increase and cause an impact. The proposed projects would be designed to adequately accommodate emergency response vehicles if applicable standards are followed, resulting in a less-than-significant impact on emergency response. To ensure adequate sight distance at the projects' driveways, proposed landscaping within the vision triangle should consist of either low-lying foliage (three feet high or less) or trees with all branches trimmed to a minimum height of seven feet above the roadway elevation.

Though the winery project would be presumed to have a less-than-significant impact on VMT, potential impacts would be anticipated due to the warehouse project. The implementation of TDM measures, which could include a commute trip reduction program, a ridesharing program, telework/compressed/flex schedules, and providing end-of-trip bicycle facilities, could reduce VMT by approximately 15 percent and result in a less-than-significant impact. Transportation Demand Management (TDM) Plans should be prepared by future tenants and include measures necessary to achieve this 15-percent reduction.

Under Existing Conditions, the study intersections are operating acceptably with the exception of SR 12-29/Airport Boulevard, which operates unacceptably. All intersections would be expected to continue operating at the same service levels with volumes from one or both projects added. Under Future and Future plus Project Conditions, the eastbound Gateway Road approach to Devlin Road/Gateway Road is expected to operate unacceptably during the p.m. peak hour, and SR 12-29/Airport Boulevard would continue to operate unacceptably during both peak hours. Under all conditions, the projects would have an acceptable effect on operation since the addition of either project individually or together does not cause delay to increase on eastbound Gateway Road at Devlin Road over what it would be without the projects, and the projects increase the volumes at SR 12-29/Airport Boulevard, which operates deficiently, by less than one percent.

Each of the proposed projects as planned would provide a parking supply that would satisfy the County Zoning Code's off-street parking requirements, and it is recommended that each project provide a minimum of ten (10) bicycle parking spaces, with at least five for each project covered.

Introduction

This report presents an analysis of the potential transportation impacts that would be associated with two proposed developments at the Napa Airport Business Park in the County of Napa. The traffic study was completed in accordance with the criteria established by the County and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide County staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under CEQA, the County's General Plan, or other policies. This report provides an analysis of those items that are identified as areas of environmental concern under the California Environmental Quality Act (CEQA) and that, if significant, require an EIR. Impacts associated with consistency with policies related to pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the project; potential safety concerns such as increased queuing in dedicated turn lanes, adequacy of sight distance, need for turn lanes, and need for additional right-of-way controls; and emergency access are addressed in the context of the CEQA criteria. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the study intersections and any need for improvements to maintain acceptable operation. Adequacy of parking is also addressed as a policy issue.

Applied Criteria

The report is organized to provide background data that supports the various aspects of the analysis, followed by the assessment of CEQA issues and the evaluation of policy-related issues. The CEQA criteria evaluated are as follows.

Would the project:

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
b. Conflict or be inconsistent with CEQA Guidelines § 15064. 3, subdivision (b)?
c. Substantially increase hazards due to a geometric design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e. g., farm equipment)?
d. Result in inadequate emergency access?

Project Profile

The proposed winery project includes a 143,312 square foot building for tank fermentation and storage for bulk wine in stainless steel tanks. The facility would be staffed with 16 full-time and 7 part-time employees during non-harvest season. During harvest season, typically August through October, employment would increase to approximately 35 total employees. The building would be used during

harvest for crushing up to 450,000 gallons of wine. Wine storage (tank and barrel) and bottling would take place on a year-round basis.

The proposed warehouse building would be 66,915 square feet in size and the use would be consistent with allowable warehouse uses as outlined in the Napa County Zoning Code. The facility would be staffed with up to 30 employees.

A specific user has not yet been identified for either project.

The County of Napa file numbers for these projects are PP22-00307 and PP22-00308. The project sites are located on the north side of Technology Way and east of Morris Court, as shown in Figure 1.



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Transportation Impact Study for a Winery and Warehouse at the Napa Airport Business Park

Figure 1 – Study Area and Existing Lane Configurations

Transportation Setting

Study Area and Periods

The study area varies depending on the topic. For pedestrian trips it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel or those leading to nearby generators. For bicycle trips it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and operational analyses, it consists of the project frontage and the following intersections:

1. Devlin Road/Gateway Road
1. Devlin Road/Airport Boulevard
2. SR 12-29/Airport Boulevard

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute. It is noted that while a weekend peak is often evaluated for winery projects, because the proposed project is a production-only facility and would not have visitors, it would not generate trips on the weekend except during harvest. Counts were obtained for the study intersections on Thursday, August 24, 2023. Copies are provided in Appendix A.

Study Intersections

Devlin Road/Gateway Road is a two-way stop-controlled intersection with the Gateway Road approaches stop-controlled. The eastbound and westbound right lanes are flared, and there are Class II bike lanes on both approaches of Devlin Road.

Devlin Road/Airport Boulevard is a four-way signalized intersection with protected left-turn phasing on the eastbound and westbound approaches and split phasing on the northbound and southbound approaches. Marked crosswalks exist on all four legs, with the east and west legs having continental crosswalks. Pedestrian phasing exists on all four legs, and Class II bike lanes exist on all but the south leg of the intersection.

SR 12-29/Airport Boulevard is a signalized four-legged intersection with protected left-turn phasing on the northbound and southbound approaches and split phasing on the eastbound and westbound approaches. Marked crosswalks and pedestrian phasing do not exist on any of the legs of the intersection. Channelized right turns exist on all except the northbound approach, which is flared. Class II bike lanes exist on the eastbound and westbound approaches.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Collision History

The collision histories for the study intersections were reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is January 1, 2018, through December 31, 2022.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2020 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same rural environment, with the same number of approaches (three or four), and the same controls (two-way stop or traffic signal). All three study intersections have collision rates below the statewide average. Therefore, no remedial actions or improvements are recommended. The collision rate calculations are provided in Appendix B.

Table 1 – Collision Rates at the Study Intersections

Study Intersection	Number of Collisions (2018-2022)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. Devlin Rd/Gateway Rd	7	0.30	0.36
2. Devlin Rd/Airport Blvd	14	0.49	0.74
3. SR 12-29/Airport Blvd	19	0.22	0.74

Note: c/mve = collisions per million vehicles entering

Project Data

The two projects consist of a winery project and a warehouse project. The proposed winery project (Project 1) includes a 143,312 square foot building for tank fermentation and storage for bulk wine in stainless steel tanks. The facility would be staffed with 16 full-time and 7 part-time employees during non-harvest season. During harvest season, typically August through October, employment would increase to approximately 35 total employees. The building would be used during harvest for crushing up to 450,000 gallons of wine. Wine storage (tank and barrel) and bottling would take place on a year-round basis.

The proposed warehouse building (Project 2) would be 66,915 square feet in size and the use would be consistent with allowable warehouse uses as outlined in Napa County Zoning Code. The facility would be staffed with up to 30 employees.

Specific users have not been identified for either project. Both projects would be located on the north side of Technology Way and Morris Court within the Industrial Park Area of the Napa County Airport Business Park.

The proposed project site plans are shown in Figures 2 and 3.

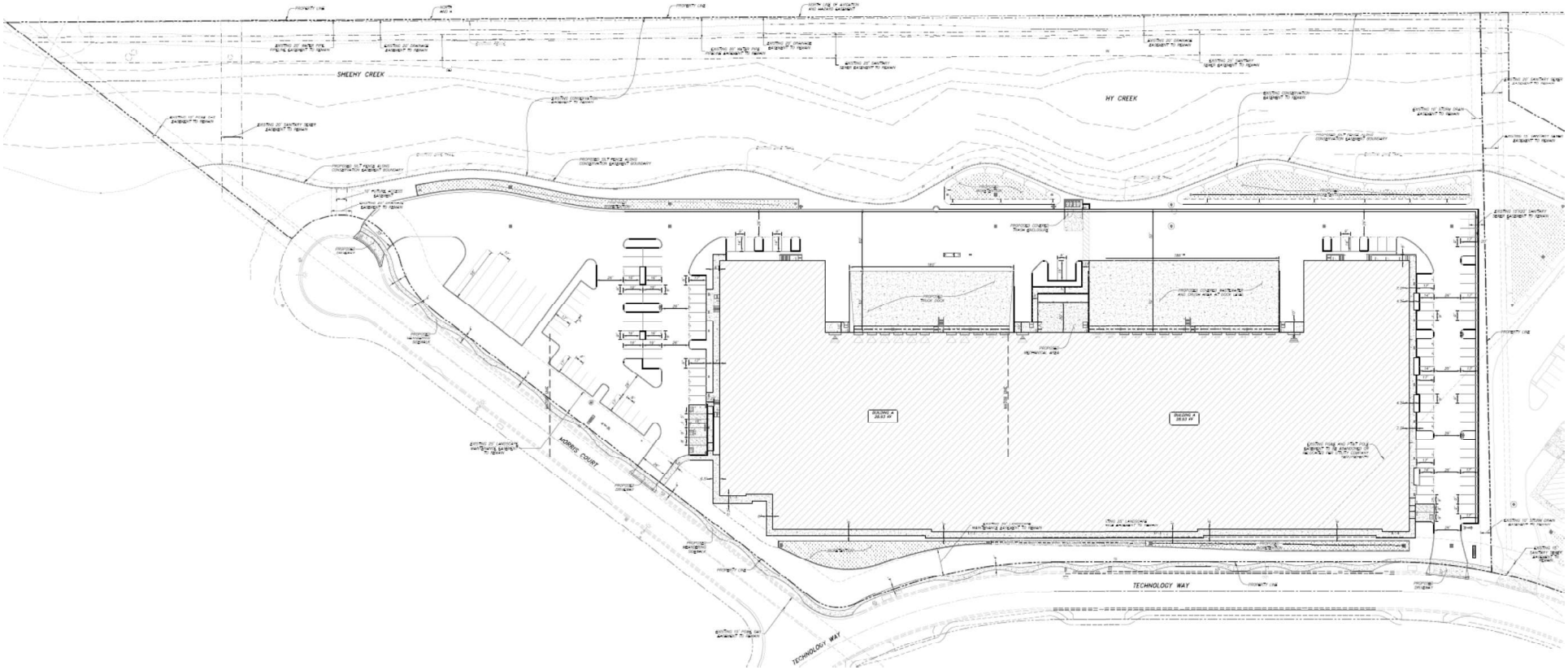
Trip Generation

The anticipated trip generation for Project 1 was estimated using the Napa County Winery Trip Generation Worksheet, a copy of which is provided in Appendix C. Based on output from this worksheet, the proposed winery project would be expected to generate an average of 71 trips per day during non-harvest months, including 23 weekday p.m. peak hour trips. During harvest season the winery would be expected to generate 104 daily trips, with 34 weekday peak hour trips. It was assumed that the a.m. weekday peak hour trips would be approximately the same as the p.m. trips. These results are summarized in Table 2.

Table 2 – Winery Trip Generation Summary (Project 1)

Land Use	Units	Weekday Daily Trips	Weekday Peak Hour		
			Trips	In	Out
Non-Harvest	450,000 gal	71	23	6	17
Harvest	450,000 gal	104	34	8	26

The anticipated trip generation for Project 2 was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, for Warehousing (LU #150). Based on the application of these rates, the proposed warehouse project would be expected to generate an average of 114 trips per day, including 11 a.m. peak hour trips and 12 trips during the p.m. peak hour. These results are summarized in Table 3.

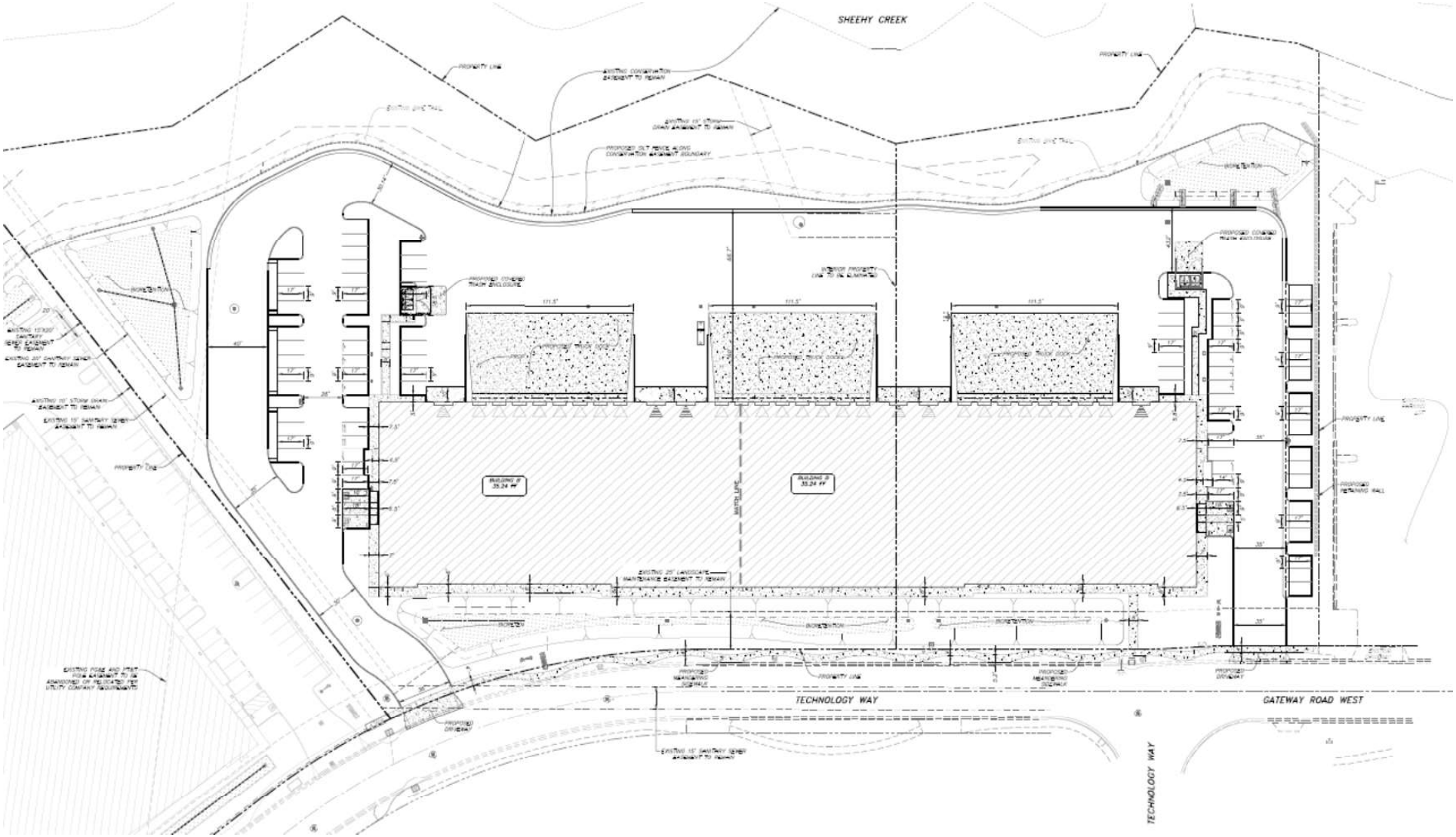


Source: RMW Architecture Interiors 8/16

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Transportation Impact Study for a Winery and Warehouse at the Napa Airport Business Park

Figure 2 – Winery Site Plan



Source: RMW Architecture Interiors 8/16

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Transportation Impact Study for a Winery and Warehouse at the Napa Airport Business Park

Figure 3 – Warehouse Site Plan

Table 3 – Warehouse Trip Generation Summary (Project 2)											
Land Use	**Units**	**Daily**		**AM Peak Hour**				**PM Peak Hour**			
		Rate	**Trips**	**Rate**	**Trips**	**In**	**Out**	**Rate**	**Trips**	**In**	**Out**
Warehousing	66.915 ksf	1.71	114	0.17	11	9	2	0.18	12	3	9

Note: ksf = 1,000 square feet

Trip Distribution

The pattern used to allocate new project trips to the street network was determined based on employment patterns for residents of Napa County as indicated by the 2000 Census as well as the shortest route to the regional roadways system. Based on these parameters, 50 percent of trips were routed on SR 12-29 from/to the north and 50 percent from/to the south on SR 29. All trips going north and south were distributed through the intersection of SR 12-29/Airport Boulevard in order to represent a more conservative analysis of existing and future conditions.

Circulation System

This section addresses the first transportation bullet point on the CEQA checklist, which relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks provide access for pedestrians in the vicinity of the proposed project site; however, sidewalk gaps can be found along all of the roadways connecting to the project site. Existing gaps and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present potential safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points.

- **Technology Way** – Sidewalks are provided on the entirety of the inner circle of Technology Way and are provided on the outer circle between Technology Court and Alexis Court as well as between Gateway Drive and Gateway Road West with a small gap in the middle. Marked crosswalks do not exist at any of the intersections with Technology Way.
- **Devlin Road** – Within the project vicinity, sidewalk coverage is provided along the majority of Devlin Road with gaps to the north of Gateway Road West.
- **Airport Boulevard** – Sidewalks are provided on the south side of Airport Boulevard between Gateway Drive-Sena Street and the driveway east of Devlin Road.
- **Project Site 1** – Sidewalks are proposed along the project frontages on the north side of Technology Way and the east side of Morris Court.
- **Project Site 2** – Sidewalks are proposed along the project frontage on the north side of Technology Way.

Pedestrian Safety

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians. Collision records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports were reviewed for the most current five-year period available, which was January 1, 2018, through December 31, 2022, at the time of the analysis. During the five-year study period there were no reported collisions involving pedestrians at the study intersections.

Project Impacts on Pedestrian Facilities

Given that there are a limited number of residential land uses within the proximity of the site and the semi-rural location of the site, it is reasonable to assume that project employees would not walk to or from the proposed project site. However, some may wish to walk between the site and the nearby commercial sites.

Project Site – Sidewalks currently exist on the south side of Technology Way and do not currently exist along the project frontages. However, sidewalks are proposed to be built on the north side of Technology Way and east side of Morris Court as part of the proposed projects.

Finding – Pedestrian facilities serving the project sites are considered adequate for the semi-rural location and the projects would provide sidewalks along their frontages as required per County policy.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2020, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on Devlin Road between Soscol Ferry Road and Airport Boulevard, on SR 12 (Jameson Canyon Road) east of SR 29 (Napa-Vallejo Highway), and on Airport Boulevard between North Airport Road and SR 29. Bicycle facilities are not proposed anywhere within the project vicinity according to the *Napa Countywide Bicycle Plan,* 2019*.* Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area.

Bicyclist Safety

Collision records for the study area were reviewed to determine if there had been any bicyclist-involved crashes. During the five-year study period between January 1, 2018, through December 31, 2022, there was no reported collision involving a bicyclist at any of the study intersections.

Project Impacts on Bicycle Facilities

Existing bicycle facilities in the projects' vicinity provide adequate access for bicyclists. The project would not preclude any planned future facilities, so is consistent with the County's plans.

Bicycle Storage

Neither project site plan identifies the provision of bicycle parking or storage facilities. According to Chapter 18.110.040 of the Napa County Municipal Code, ten (10) bicycle parking spaces are required for all nonresidential uses requiring more than ten automobile parking spaces. Therefore, a minimum of ten bicycle parking spaces are required for each project. Half of these spaces must be covered since the automobile parking requirement is more than 20 spaces.

Finding – Bicycle facilities serving the project sites would be adequate if a minimum of ten (10) bicycle parking spaces are provided for each project.

Recommendation – Provide a minimum of ten (10) bicycle parking spaces for each project, with at least five of these spaces being covered.

Transit Facilities

Existing Transit Facilities

Napa Valley Transportation Agency (NVTA) Vine Transit provides fixed route bus service in Napa County and nearby areas. Route 11 provides loop service to destinations between Napa and Vallejo and stops at Devlin Road/Gateway Road. Route 11 operates with approximately one-hour headways between 6:30 a.m. and 9:25 p.m. on weekdays and between 8:45 a.m. and 9:15 p.m. on weekends.

Two to three bicycles can be carried on all NVTA buses. Bike rack space is on a first come, first served basis and riders are responsible for loading and unloading their bicycles.

Dial-a-ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. NVTA VineGo Paratransit Service is designed to serve the needs of individuals with disabilities and provides transportation curb to curb within three-quarters of a mile from a fixed route system.

Impact on Transit Facilities

The existing transit route is adequate to accommodate project-generated transit trips, though there may be a limited number of them. The existing bus stops are within an acceptable walking distance of the site, and continuous pedestrian access to the bus stops would exist with the construction of sidewalks as part of the two projects.

Finding – Transit facilities serving the project site are considered adequate for the semi-rural location. The project would not conflict with any policies or plans for transit service.

Significance Finding – The proposed projects would have a less-than-significant impact on pedestrian, bicycle, and transit trips as they would provide sidewalks along their frontages, so would not conflict with any policies for these modes.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines § 15064. 3, subdivision (b) was evaluated based on the project's anticipated Vehicle Miles Traveled (VMT).

Senate Bill (SB) 743 established the increase in Vehicle Miles Traveled (VMT) as a result of a project as the basis for determining impacts with respect to transportation under the California Environmental Quality Act (CEQA). Local agencies have the authority to adopt thresholds of significance for CEQA analysis, and the County of Napa has developed guidance for VMT analysis that has been published in the document *Napa County Traffic Impact Study (TIS) Guidelines*, February 2020. According to the County guidelines, if a project would generate more than 110 net new daily passenger vehicle trips, a VMT analysis is required to determine if the project causes a significant environmental impact as defined by General Plan Policy CIR-7. For all land use types, if a significant VMT impact is identified, feasible mitigation measures must be identified to reduce the project's VMT by at least 15 percent for the impact to be considered less than significant. The recommended significance threshold represents a 15 percent reduction in VMT compared to unmitigated VMT as estimated using standard ITE trip generation rates or County-approved rates from its trip generation worksheet that is used for analyzing winery projects. Because Project 1 would generate fewer than 110 daily trips, it would be presumed to have a less-than-significant VMT impact and does not require a quantitative analysis or mitigation.

It is noted that as defined in Section 15064.3 of the CEQA guidelines, VMT is defined for CEQA purposes as the "amount and distance of automobile travel attributable to a project". As further described in *Technical Advisory on Evaluating Transportation Impacts Under CEQA*, 2018, published by the Governor's Office of Planning and Research, (OPR), this includes only miles driven by automobile and light duty trucks, and does not consider travel associated with heavy trucks.

Napa County's guidelines further state that the most appropriate metric for assessing project impacts is total VMT, which includes VMT produced by all project-related passenger vehicle trips. To establish a baseline, the guidelines indicate that project-related VMT should be estimated by multiplying the number of project-generated trips by the countywide average trip length as determined in the *Napa Valley Travel Behavior Study*, March 2020, which is 11.8 miles. Assuming an average trip length of 11.8 miles, the warehouse is estimated to generate 114 trips and 1,345 VMT per day. The results of these calculations are summarized in Table 4.

Table 4 – Vehicle Miles Traveled (VMT) Estimate for Project 2

Proposed Land Use	Average Daily Trips	Project VMT (average trip length = 11.8 miles)
Project 2 (Warehouse)	114	1,345

As noted, in accordance with County policy, the number of project trips would need to be reduced by at least 15 percent, or 202 VMT per day for the warehouse project, for the VMT impacts to be considered less than significant.

Potential Employee TDM Measures

Transportation Demand Management (TDM) measures aim to reduce single-occupant vehicle trips, parking demand, and total vehicle miles traveled (VMT) through use of alternative modes of transportation and/or more efficiently planned trips. The County policy includes recommended TDM measures for use in winery and other projects, although it indicates that additional measures may be recommended if determined to be appropriate for the project and can be demonstrated to be feasible.

The project's TDM Program should provide information, encouragement, and access to non-motorized travel options to reduce the number of vehicle trips, shifting these trips to other modes and thus reducing VMT. The following measures are quantifiable strategies intended to reduce the project's employee-based VMT. A TDM plan specific to future uses would need to be designed and implemented by future tenants of the project space.

Commute Trip Reduction Program

A voluntary commute trip reduction program encourages alternative modes of transportation such as carpooling, transit, and biking. This program must include employer-provided services, infrastructure, and incentives for alternative modes, discounted transit, bicycling, vanpool, and guaranteed ride home. Additionally, information, coordination, and marketing for services, infrastructure, and incentives must be provided.

Rideshare Program

Providing a rideshare program would encourage carpooled vehicle trips over single-occupant vehicle trips. This should be promoted through a multi-faceted approach, which could include designating a certain percentage of desirable parking spaces for ridesharing vehicles or providing an app or website for coordinating rides.

Tele-Work/Compressed/Flex Schedules

Telework (i.e., working from home), compressed schedules (i.e., working more than eight hours each day and shortening the work week), and flex schedules (i.e., varying arrival and departure times to avoid peak commute hours) are three of the most commonly-employed scheduling options used to reduce vehicle trips. They are effective at reducing vehicle trips to work, particularly during peak commute hours. Employee work hours could be staggered to reduce congestion during peak traffic hours.

End-of-Trip Bicycle Facilities

Bicycle Parking

The provision of both short-term and long-term bicycle parking is important for encouraging employees to commute by bicycle. Secure long-term parking (e.g., bike lockers) is often a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent to doing so. Short-term parking (e.g., bike racks) could be used by employees and is generally an inexpensive way to accommodate visitors as well.

According to the Napa County Municipal Code Section 18.110.040, all nonresidential uses are required to provide at least ten bicycle parking spaces if the number of automobile parking spaces required is more than ten. Therefore, a minimum of ten bicycle racks should be provided for each project.

Bicycle Maintenance Tools

In addition to providing bicycle parking, some businesses are now encouraging bicycle use by providing employees and visitors with the basic tools necessary to maintain their bicycles on site. Often, these tools can be kept in bicycle storage areas and include simple items such as a bike pump and tire patches that are essential, yet inexpensive, for bike travel.

Employee VMT Reduction

The expected VMT reductions associated with the various TDM measures identified were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report *Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, CAPCOA, 2022, and the Napa Mobility Management VMT Reduction Calculator Tool, which supports the goals of SB 743, as well as the location of the project site and knowledge of transportation characteristics of the area. The TDM strategies listed above are projected to result in a VMT reduction of 15 percent, accounting for the potentially overlapping effects of each strategy. The estimated VMT reduction calculations are summarized in Table 5.

Table 5 – Estimated Employee VMT Reduction

TDM Measure	Project VMT % Reduction Estimate
Commute Trip Reduction Program	4.0
Ridesharing Program	4.0
Telework/Compressed/Flex Schedules	5.9
Provide End-of-Trip Bicycle Facilities	2.7
Total Potential VMT Reduction	16.6
Adjusted to Account for Combined Measures	**15.0**

Notes: TDM = transportation demand management; VMT = vehicle miles traveled

Significance Finding – Project 1 would generate fewer than 110 daily trips and can be presumed to have a less-than-significant VMT impact. The warehouse project could achieve a less-than-significant impact on VMT if appropriate TDM measures are implemented.

Mitigation Measure – Future tenants of Project 2 should prepare a TDM plan specific to their use that achieves the 15-percent reduction in vehicle travel required. The plan would need to be reviewed and approved by the County.

Safety Issues

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project accesses as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips and need for additional right-of-way controls. This section addresses the third transportation bullet on the CEQA checklist which is whether or not the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses.

Site Access

Both projects would be accessed via new driveways located on the southern property lines. All trucks would be able to loop around the buildings on-site and exit at a second driveway on the west side of the buildings.

Sight Distance

Sight distance along Technology Way at both project driveways was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance private driveways is based on stopping sight distances with the approach travel speeds used as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway was evaluated based on stopping sight distance criteria and the approach speed on the major street. Field measurements were obtained at the proposed driveway locations, and based on a design speed of 25 mph, the minimum stopping sight distance needed is 150 feet. Both project driveways have sufficient sight distance in both directions.

Proposed landscaping within the vision triangle at each driveway should consist of either low-lying (three feet high or less) or trees with all branches trimmed to a minimum height of seven feet above the roadway elevation to avoid introducing any impediments to sight distance.

Access Analysis

Left-Turn Lane Warrants

The need for left-turn channelization in the form of a left-turn pocket on Technology Way at each project driveway was evaluated using the criteria published by the County in the *Napa County Road and Street Standards*, February 4, 2020. The roadway ADT was estimated by converting the p.m. peak hour turning movement counts at Devlin Road/Gateway Road to segment volumes and multiplying by 10, a common practice when only peak hour volumes are available. This results in an estimated average daily traffic volume of 880 vehicles on Gateway Road west of Devlin Road. While some of the volume entering and exiting Gateway Road from Devlin Road would be associated with other nearby uses along Technology Way between Devlin Road and the project sites and therefore not be present at the driveway locations, the total volume in and out of Gateway Road at Devlin Road was conservatively used along with the higher of the daily trip generations for the two projects. Based on the derived existing volumes, left-turn lanes are not warranted on Technology Way at either of the proposed driveways for the two projects. The turn lane warrant graph is provided in Appendix D.

Queuing

The County of Napa does not prescribe thresholds of significance regarding queue lengths. The change in queuing would be considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane, or the back of queue into a visually restricted area, such as a blind corner or an adjacent intersection. If queues would already be expected to extend past a dedicated turn lane or into a visually restricted area without project traffic, the lengthening of the queue due to project traffic so that it would exceed a second threshold was considered to constitute a potentially significant impact.

Unsignalized Intersection

Eastbound left-turn storage at Devlin Road/Gateway Road was determined using the "Two-Way Stop-Controlled" methodology contained in *Highway Capacity Manual* (HCM), Transportation Research Board, 6th Edition. Maximum queue lengths were estimated by assuming vehicle lengths of 25 feet and multiplying that by the number of vehicles expected to queue. These queuing results are included with the Level of Service calculations in Appendix E. Under future volumes with the addition of traffic from both projects, which represents the worst-case condition, a maximum of three vehicles would be expected to queue in the eastbound left-turn lane during the p.m. peak hour, which represents a maximum queue of approximately 75 feet. A maximum of one vehicle would be expected to queue in the northbound left-turn lane during either peak hour. This is less than the eastbound and northbound left-turn storage lengths of 160 feet and 175 feet, respectively. Therefore, there is adequate vehicle storage space.

Finding – Adequate left- and right-turn vehicle storage space is available at Devlin Road/Gateway Road.

Signalized Intersections

Under each scenario, the projected maximum queues in left-turn pockets at the study intersections were determined using the SIMTRAFFIC application of the Synchro traffic analysis software and averaging the maximum projected queue for each of five runs. Summarized in Table 6 are the predicted queue lengths for all dedicated turn lanes at the two signalized study intersections under existing volumes, with each project added individually and with both projects. Copies of the SIMTRAFFIC projections are contained in Appendix F.

Table 6 – Maximum Queues at Signalized Intersections for Existing Scenarios

Study Intersection Approach	Available Storage[1]	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		E	E+P1	E+P2	E+P1&2	E	E+P1	E+P2	E+P1&2
Devlin Rd/Airport Blvd									
NB Left Turn	110	53	45	44	57	16	19	17	19
NB Through/Right Turn	380	136	141	134	139	65	65	66	62
EB Left Turn	300	30	32	31	31	63	64	63	61
WB Left Turn	370	102	103	102	109	56	55	54	57
SR 12-29/Airport Blvd									
NB Left Turn	870	230	238	243	249	68	83	79	85
NB Right Turn	220	96	118	102	100	167	151	182	138
SB Left Turn	1450[2]	1304	1307	1273	1182	**1986**	**2070**	**2016**	**1739**
EB Left Turn	310	80	84	76	87	**364**	**367**	**344**	**363**
EB Right Turn	315	12	21	21	20	**399**	**379**	**365**	**389**
WB Left Turn	195	**210**	177	188	**196**	84	88	86	92

Notes: Maximum Queue based on the average of 95th-percentile from ten SIMTRAFFIC runs; all distances are measured in feet; E = Existing Conditions; E+P1 = Existing plus Project 1 Conditions; E+P2 = Existing plus Project 2 Conditions; E+P1+P2 = Existing plus Project 1 and 2 Conditions; **Bold** text = queue length exceeds available storage; [1]storage lengths were measured using Google Maps; [2]storage length modeled as unlimited due to Synchro limitations

At SR 12-29/Airport Boulevard, turn queues are expected to exceed existing storage capacity at four locations: in the southbound left-turn, eastbound left-turn, and eastbound right-turn lanes for all scenarios during the p.m. peak hour, and in the westbound left-turn lane during the a.m. peak hour under Existing and Existing plus Project 1 and 2 conditions only. As the addition of project traffic does not cause any of the analyzed queues to extend beyond the available stacking space that would not do so without each project, the effect on queuing is less than significant.

The queuing results under future volumes and with one or both projects are shown in Table 7.

Table 7 – Maximum Left-Turn Queues at Signalized Intersections for Future Scenarios

Study Intersection Approach	Available Storage[1]	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		F	F+P1	F+P2	F+P1&2	F	F+P1	F+P2	F+P1&2
Devlin Rd/Airport Blvd									
NB Left Turn	110	69	72	72	68	19	20	19	19
NB Through/Right Turn	380	181	177	183	178	79	82	78	82
EB Left Turn	300	37	35	33	32	77	85	74	76
WB Left Turn	370	114	116	122	118	60	65	67	56
SR 12-29/Airport Blvd									
NB Left Turn	870	341	321	343	307	427	330	280	314
NB Right Turn	220	196	202	190	185	**260**	**244**	**260**	**263**
SB Left Turn	1450[2]	**4565**	**4606**	**4572**	**4548**	**4750**	**4721**	**4700**	**4703**
EB Left Turn	310	89	100	98	98	**410**	**403**	**407**	**403**
EB Right Turn	315	24	24	23	43	**470**	**460**	**467**	**468**
WB Left Turn	195	**204**	178	**203**	**196**	108	101	102	103

Notes: Maximum Queue based on the average of 95th-percentile from ten SIMTRAFFIC runs; all distances are measured in feet; F = Future Conditions; F+P1 = Future plus Project 1 Conditions; F+P2 = Future plus Project 2 conditions; F+P1+P2 = Future plus Project 1 and 2 Conditions; **Bold** text = queue length exceeds available storage; [1]storage lengths were measured using Google Maps; [2]storage length modeled as unlimited due to Synchro limitations

Under the future scenarios, queueing at SR 12-29/Airport Boulevard is expected to exceed existing capacity in the northbound right-turn, eastbound left-turn, and eastbound right-turn lanes for all p.m. peak hour scenarios. Additionally, queueing in the southbound left-turn lane is expected to exceed capacity for all scenarios evaluated, and queuing in the westbound left-turn lane is expected to exceed capacity under Future, Future plus Project 2, and Future plus Project 1 and 2 Conditions during the a.m. peak hour.

Finding – The project does not cause any queues to exceed available storage that would not do so without the project, so the impact is considered less than significant.

Emergency Access

The final transportation bullet on the CEQA checklist requires an evaluation of whether the project would result in inadequate emergency access.

Adequacy of Site Access

Both projects would be accessed via new driveways on the east side of each project site. The winery would be accessed via Technology Way, while the warehouse would be accessed via Gateway Road West, directly east of Technology Way. Emergency vehicles would be able to loop around the building and exit at driveways located on the west side of each project. The western driveway for the winery would be on Morris Court.

Section 104.2 of the California Fire Code requires buildings exceeding 62,000 square feet in area to have two separate and approved fire apparatus access roads. Fire apparatus would be able to access the projects from both the entering and exit driveways, so California Fire Code Standards are met. Fire vehicle access is illustrated in Appendix G.

Off-Site Impacts

While the project would be expected to result in slight increases in delay for traffic in the surrounding vicinity, emergency response vehicles can claim the right-of-way by using their lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times.

Significance Finding – The proposed projects would be designed to accommodate emergency response vehicles and would not impede access for emergency responders. It would therefore have a less-than-significant impact on emergency response.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the HCM 6th Edition. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. Peak Hour Factors (PHF) as determined by the traffic counts were used for Existing Conditions scenarios, while a PHF of 0.95 was applied for all Future Conditions scenarios. Heavy vehicle percentages were assumed to be five percent for each movement under existing and future conditions in accordance with Napa County policy.

The Levels of Service for the intersection of Devlin Road/Gateway Road, which is unsignalized with two-way stop control on Gateway Road, were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The remaining study intersections were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using signal timing obtained from Napa County and Caltrans.

The ranges of delay associated with the various levels of service are indicated in Table 8.

Table 8 – Intersection Level of Service Criteria		
LOS	**Two-Way Stop-Controlled**	**Signalized**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop, and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic to exit the side streets, creating long queues.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway* Capacity *Manual,* Transportation Research Board, 6th Edition

Traffic Operation Standards

Napa County

In the Circulation Element of the *Napa County General Plan*, the following policies have been adopted:

- **Policy CIR-31** – The County seeks to provide a roadway system that maintains current roadway capacities in most locations and is efficient in providing local access.

- **Policy CIR-38** – The County seeks to maintain operations of roads and intersections in the unincorporated County area that minimize travel delays and promote safe access for all users. Operational analysis shall be conducted according to the latest version of the Highway Capacity Manual and as described in the current version of the County's Transportation Impact Study Guidelines. In general, the County seeks to maintain Level of Service (LOS) D on arterial roadways and at signalized intersections, as the service level that best aligns with the County's desire to balance its rural character with the needs of supporting economic vitality and growth.

  In situations where the County determines that achieving LOS D would cause an unacceptable conflict with other goals and objectives, minimizing collisions and the adequacy of local access will be the County's priorities. Mitigating operational impacts should first focus on reducing the project's vehicular trips through modifying the project definition, applying TDM strategies, and/or applying new technologies that could reduce vehicular travel and associated delays; then secondarily should consider physical infrastructure changes. Proposed mitigations will be

evaluated for their effect on collisions and local access, and for their effectiveness in achieving the maximum potential reduction in the project's operational impacts (see the County's Transportation Impact Study Guidelines for a list of potential mitigation measures).

The following roadway segments are exceptions to the LOS D standard described above:

- *State Route 29 in the unincorporated areas between Yountville and Calistoga: LOS F is acceptable.*
- *Silverado Trail between State Route 128 and Yountville Cross Road: LOS E is acceptable.*
- *State Route 12/121 between the Napa/Sonoma county line and Carneros Junction: LOS F is acceptable.*
- *American Canyon Road from I-80 to American Canyon City Limit: LOS E is acceptable.*

To provide a more quantitative method of adhering to the above standards, the County establishes thresholds of significance for road segments and different intersection control types in the *Napa County Traffic Impact Study Guidelines,* 2021. The memorandum states a project would cause a significant impact requiring mitigation if for existing conditions:

- A signalized intersection operates at LOS A, B, C, or D during the selected peak hours without Project trips, and the LOS deteriorates to LOS E or F with the addition of Project trips; or
- A signalized intersection operates at LOS E or F during the selected peak hours without Project trips, and the addition of Project trips increases the total entering volume by one percent or more.
    - *Project Contribution % = Project Trips ÷ Existing Volumes*
- An unsignalized intersection operates at LOS A, B, C, or D during the one or more peak hours without Project trips, and the LOS deteriorates to LOS E or F with the addition of Project traffic; the peak hour traffic signal warrant criteria should also be evaluated; or
- An unsignalized intersection operates at LOS E or F during one or more peak hours without Project trips, and the Project would increase delay by five seconds or more; the peak hour traffic signal warrant should also be evaluated.
    - *<u>All-Way Stop-Controlled Intersections</u> – increase in delay should be calculated based on the overall average delay.*
    - *<u>Side-Street Stop-Controlled Intersections</u> – increase in delay should be calculated based on the delay for the worst approach(es). Each stop-controlled approach that operates at LOS E or F should be analyzed individually.*
- An arterial segment operates at LOS A, B, C or D during the selected peak hours without Project trips, and deteriorates to LOS E or F with the addition of Project trips; or
- An arterial segment operates at LOS E or F during the selected peak hours without Project trips, and the addition of Project trips increases the total segment volume by one percent or more. The following equation should be used if the arterial segment operates at LOS E or F without the Project:
    - *Project Contribution % = Project Trips ÷ Existing Volumes*

- Cumulative Conditions – A Project's contribution to a substantial cumulative effect would be considerable if it is equal to or greater than five percent to total growth in traffic at failing intersections. The following equation should be used to evaluate the project:

    - *Project Contribution % = Project Trips ÷ Growth between Existing and Cumulative Value*

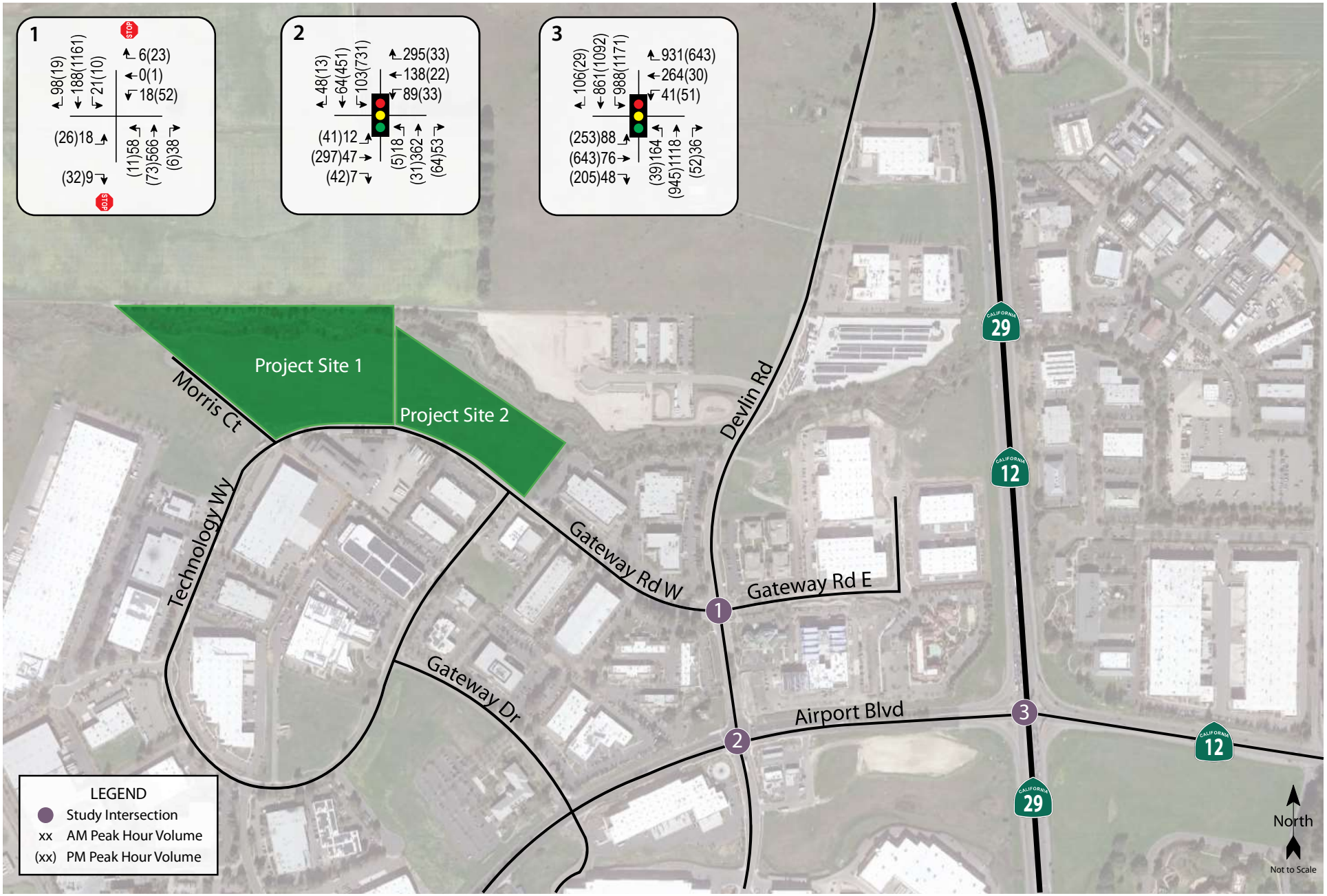
Significance threshold for failing intersections: General Plan policy accepts LOS E and F in certain instances. If an unsignalized intersection is operating acceptably (LOS A through D), and the project would cause the intersection to fall to LOS E or F, the applicant must mitigate the adverse impact to restore to LOS D at minimum, or the project is considered to adversely impact the intersection. If an intersection is already LOS E or F, and the project would increase delay by five or more seconds, the applicant must mitigate the impact to lower the increase in delay, or else the project would be considered to adversely impact the intersection. The same standards apply to the analysis of minor approaches to unsignalized intersections. As CEQA Guidelines shift away from LOS and toward VMT as the determining factor in identifying significant transportation impacts, adverse effects to intersections may still be the basis for conditioning transportation improvements to improve or maintain existing LOS or denying a project for the project's potentially negative impacts to public safety (use permit finding).

Caltrans

Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and instead focuses on Vehicle Miles Traveled (VMT). The County's standards for signalized intersections were therefore applied to SR 12-29/Airport Boulevard.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected on Thursday, August 24, 2023, while local schools were in session. Under existing conditions, the approaches at Devlin Road/Gateway Road and the intersection of Devlin Road/Airport Boulevard operate acceptably at LOS D or better, while SR 12-29/Airport Boulevard operates at LOS E and F during the a.m. and p.m. peak hours, respectively. The existing traffic volumes are shown in Figure 4. A summary of the intersection Level of Service calculations is contained in Table 9, and copies of the calculations are provided in Appendix E.



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Figure 4 – Existing Traffic Volumes

Table 9 – Existing Peak Hour Intersection Levels of Service				
Study Intersection ***Approach***	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. Devlin Rd/Gateway Rd	1.6	A	2.5	A
Eastbound (Gateway Rd) Approach	*16.6*	*C*	*32.1*	*D*
Westbound (Gateway Rd) Approach	*22.9*	*C*	*19.3*	*C*
2. Devlin Rd/Airport Blvd	18.7	B	31.3	C
3. SR 12-29/Airport Blvd	**58.7**	**E**	**111**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; **Bold** text = deficient operation

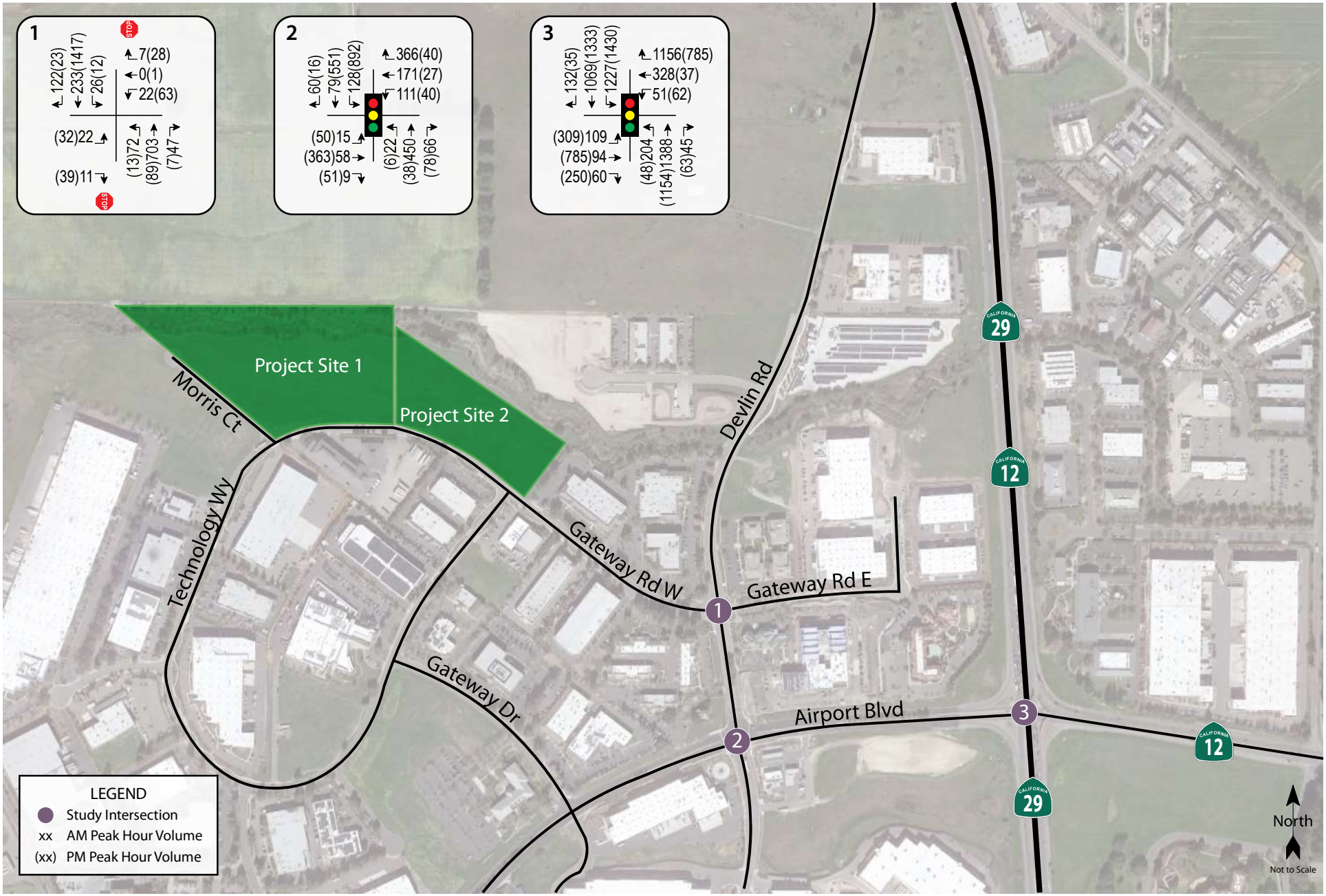
Future Conditions

Year 2040 intersection turning movements were developed by developing an annual growth rate based on 2015 and projected 2040 link volumes for SR 12-29/Airport Boulevard from the Solano-Napa Activity-Based Model. Based on this, 1.28 percent and 1.18 percent annual growth rates were grown to determine a 17-year growth rate, which was then applied to the existing volumes to achieve projected 2040 volumes.

Under the anticipated future volumes, the intersection of Devlin Road/Airport Boulevard is expected to operate acceptably while SR 12-29/Airport Boulevard and the eastbound approach to Devlin Road/Gateway Road are expected to operate deficiently. Future volumes are shown in Figure 5 and operating conditions are summarized in Table 10.

Table 10 – Future Peak Hour Intersection Levels of Service				
Study Intersection ***Approach***	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. Devlin Rd/Gateway Rd	1.8	A	4.2	A
Eastbound (Gateway Rd) Approach	*19.4*	*C*	***60.9***	***F***
Westbound (Gateway Rd) Approach	*29.5*	*D*	*27.5*	*D*
2. Devlin Rd/Airport Blvd	20.0	B	39.2	D
3. SR 12-29/Airport Blvd	**108**	**F**	**192**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation



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Figure 5 – Future Traffic Volumes

W-Trans

Project Conditions

Existing plus Project Conditions

Existing plus Project 1

Upon the addition of traffic related to Project 1 to the existing volumes, the study intersections are expected to operate acceptably except for SR 12-29/Airport Boulevard, which would continue operating at LOS E and F. However, as the addition of project trips increases the entering volume by less than one percent, the project would have an acceptable effect on traffic operation. These results are summarized in Table 11. Project 1 traffic volumes are shown in Figure 6 and Existing plus Project 1 volumes are shown in Figure 7.

Table 11 – Existing and Existing plus Project 1 Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Existing Conditions				Existing plus Project 1			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Devlin Rd/Gateway Rd	1.6	A	2.5	A	1.9	A	3.0	A
EB (Gateway Rd) Approach	*16.6*	*C*	*32.1*	*D*	*13.4*	*B*	*28.0*	*D*
WB (Gateway Rd) Approach	*22.9*	*C*	*19.3*	*C*	*24.4*	*C*	*21.3*	*C*
2. Devlin Rd/Airport Blvd	18.7	B	31.3	C	18.7	B	31.4	C
3. SR 12-29/Airport Blvd	**58.7**	**E**	**111**	**F**	**58.8**	**E**	**113**	**F**

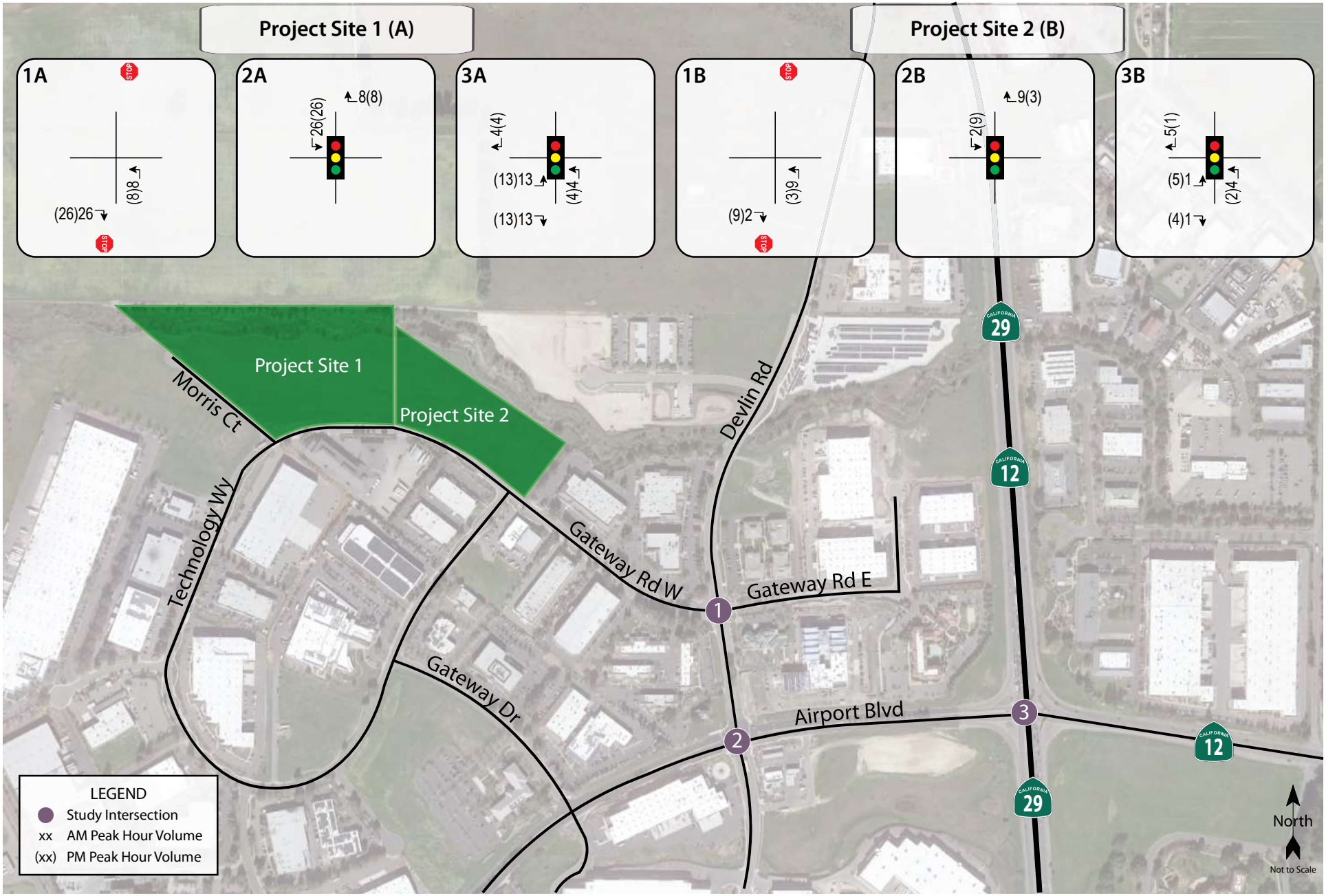
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; **Bold** text = deficient operation

It should be noted that with the addition of project-related traffic volumes, average delay at the eastbound Gateway Road approach to Devlin Road decreases during both peak hours. While this is counter-intuitive, this condition occurs when a project adds trips to movements that are currently underutilized or have delays that are below the intersection average, resulting in a better balance between approaches and lower overall average delay. The project adds traffic to the eastbound right-turn movement, which has an average delay that is lower than the average for the approach, resulting in a slight reduction in the delay. The conclusion could be incorrectly drawn that the project actually improves operation at the approach based on this data alone; however, it is more appropriate to conclude that the project trips are expected to make use of excess capacity, so drivers will experience little, if any, change in conditions as a result of the project.

The addition of project trips increases the entering volume at SR 12-29/Airport Boulevard by less than one percent, so Project 1's effect on operation is considered acceptable.

Existing plus Project 2

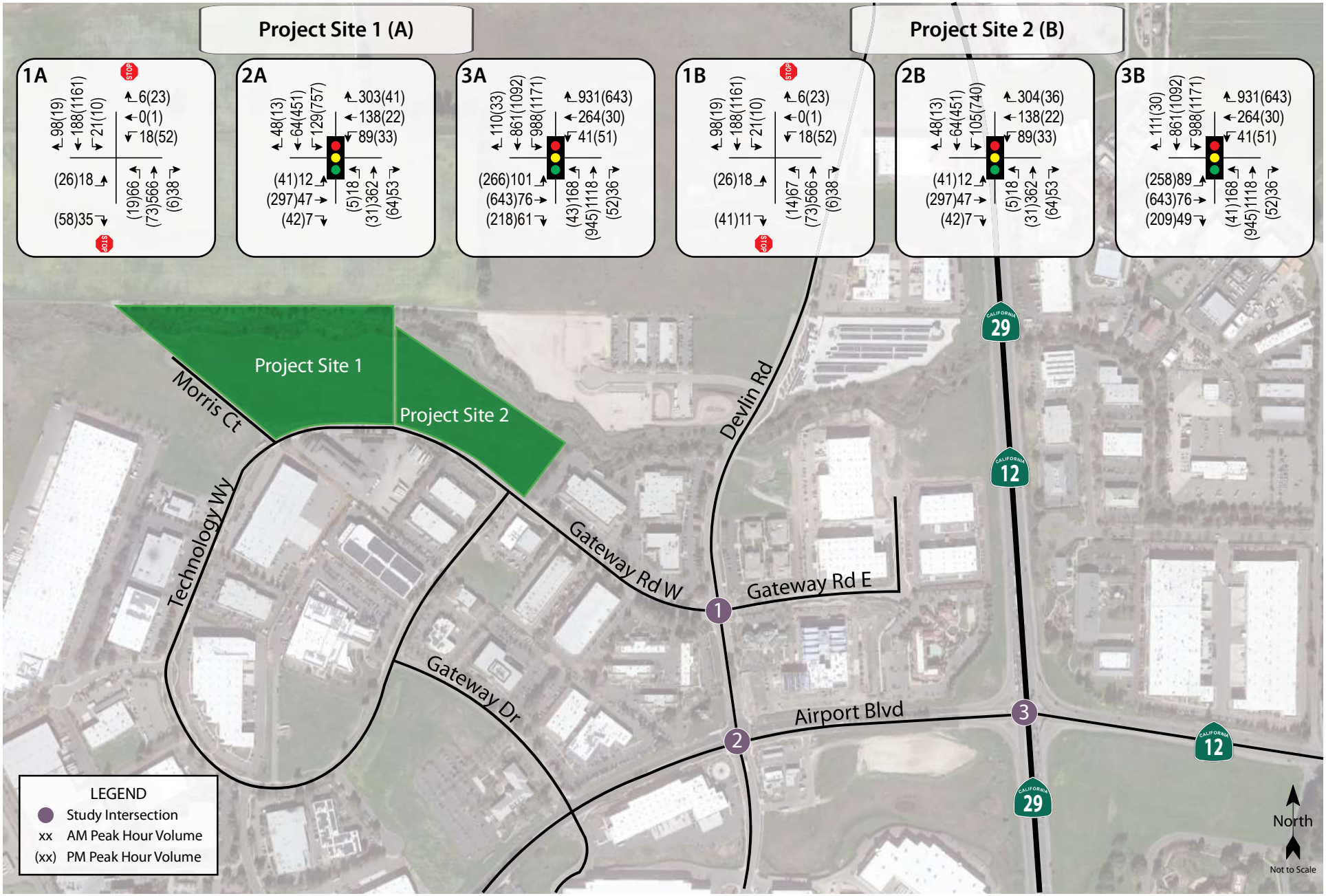
Upon the addition of traffic related to Project 2 to the existing volumes, the study intersections are expected to operate acceptably at LOS D or better with the exception of SR 12-29/Airport Boulevard, which would continue to operate at LOS E and F. These results are summarized in Table 12. Project 2 traffic volumes are shown in Figure 6 and Existing plus Project 2 volumes are shown in Figure 7.



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Figure 6 – Project Traffic Volumes



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Figure 7 – Existing plus Project Traffic Volumes

Table 12 – Existing and Existing plus Project 2 Peak Hour Intersection Levels of Service								
Study Intersection ***Approach***	**Existing Conditions**				**Existing plus Project 2**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. Devlin Rd/Gateway Rd	1.6	A	2.5	A	1.7	A	2.7	A
EB (Gateway Rd) Approach	*16.6*	*C*	*32.1*	*D*	*16.5*	*C*	*30.1*	*D*
WB (Gateway Rd) Approach	*22.9*	*C*	*19.3*	*C*	*23.9*	*C*	*19.9*	*C*
2. Devlin Rd/Airport Blvd	18.7	B	31.3	C	18.7	B	31.4	C
3. SR 12-29/Airport Blvd	**58.7**	**E**	**111**	**F**	**58.8**	**E**	**112**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; **Bold** text = deficient operation

The addition of project trips at SR 12-29/Airport Boulevard does not increase the entering volumes by more than one percent, so the project would not have an adverse effect on operations.

Existing plus Projects 1 and 2

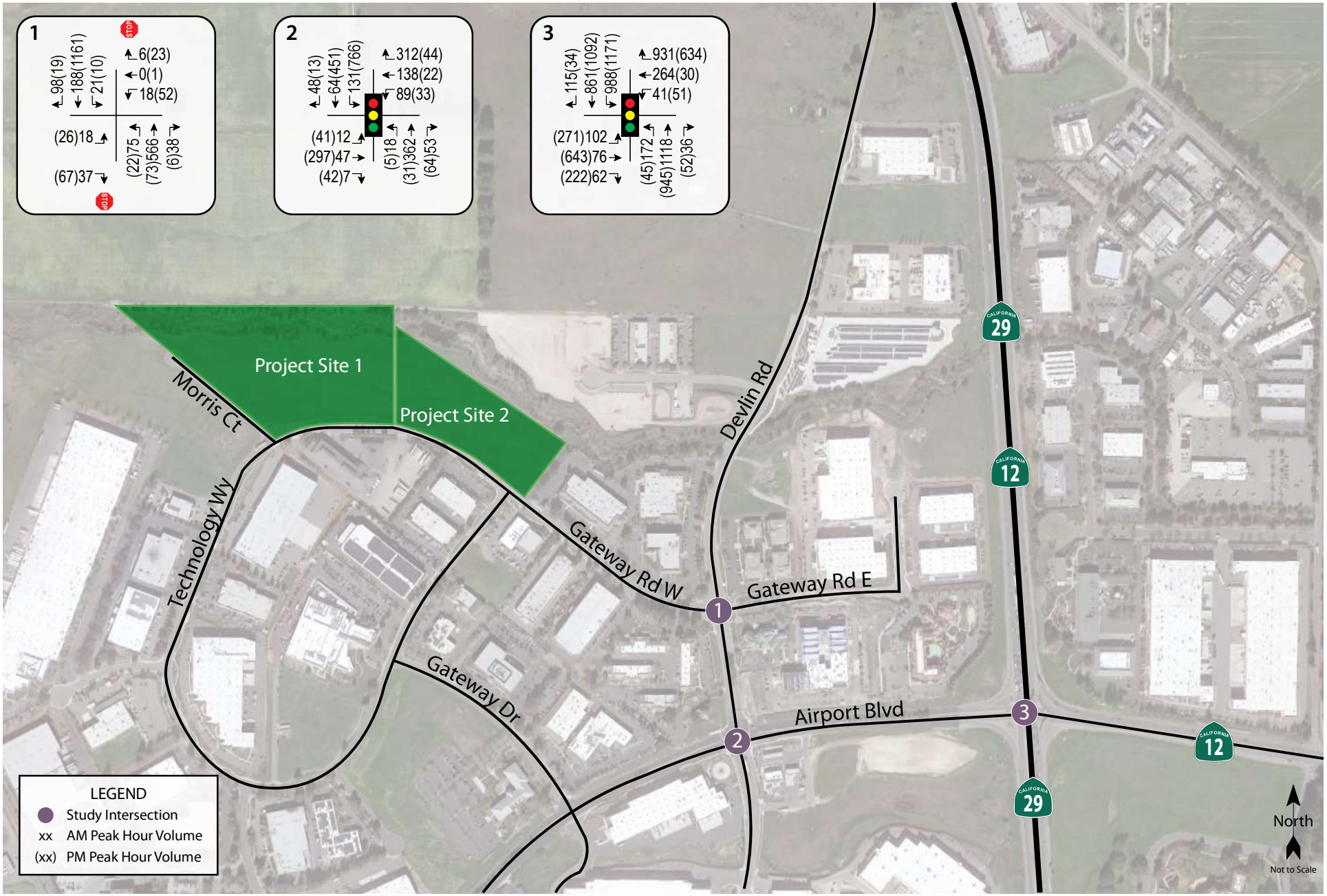
Upon the addition of traffic related to both Project 1 and Project 2 to the existing volumes, the study intersections are expected to operate acceptably except for SR 12-29/Airport Boulevard. These results are summarized in Table 13, and volumes are shown in Figure 8.

Table 13 – Existing and Existing plus Project 1 and 2 Peak Hour Intersection Levels of Service								
Study Intersection ***Approach***	**Existing Conditions**				**Existing plus Project 1 & 2**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. Devlin Rd/Gateway Rd	1.6	A	2.5	A	2.0	A	3.2	A
EB (Gateway Rd) Approach	*16.6*	*C*	*32.1*	*D*	*13.6*	*B*	*27.2*	*D*
WB (Gateway Rd) Approach	*22.9*	*C*	*19.3*	*C*	*25.4*	*D*	*22.3*	*C*
2. Devlin Rd/Airport Blvd	18.7	B	31.3	C	18.7	B	31.5	C
3. SR 12-29/Airport Blvd	**58.7**	**E**	**111**	**F**	**59.0**	**E**	**114**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

Both projects analyzed together would not have an adverse effect on intersection operations since the addition of trips generated by both projects increases entering volumes at SR 12-29/Airport Boulevard by less than one percent.

Finding – Devlin Road/Gateway Road and Devlin Road/Airport Boulevard are expected to continue operating acceptably upon the addition of project-generated traffic. Although SR 12-29/Airport Boulevard is expected to continue operating unacceptably with the addition of project trips, the volume for both projects together is less than one percent of existing operation so the effect on operation is considered acceptable.



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Figure 8 – Existing plus Project 1 and 2 Traffic Volumes

W-Trans

Future plus Project Conditions

Future plus Project 1

Upon the addition of project-generated traffic for Project 1 to the anticipated future volumes, the eastbound approach to Devlin Road/Gateway Road would operate unacceptably during the evening peak hour and SR 12-29/Airport Boulevard would operate at LOS F during both peak hours. The Future plus Project 1 operating conditions are summarized in Table 14. Future plus Project 1 volumes are provided in Figure 9.

Table 14 – Future and Future plus Project 1 Peak Hour Intersection Levels of Service

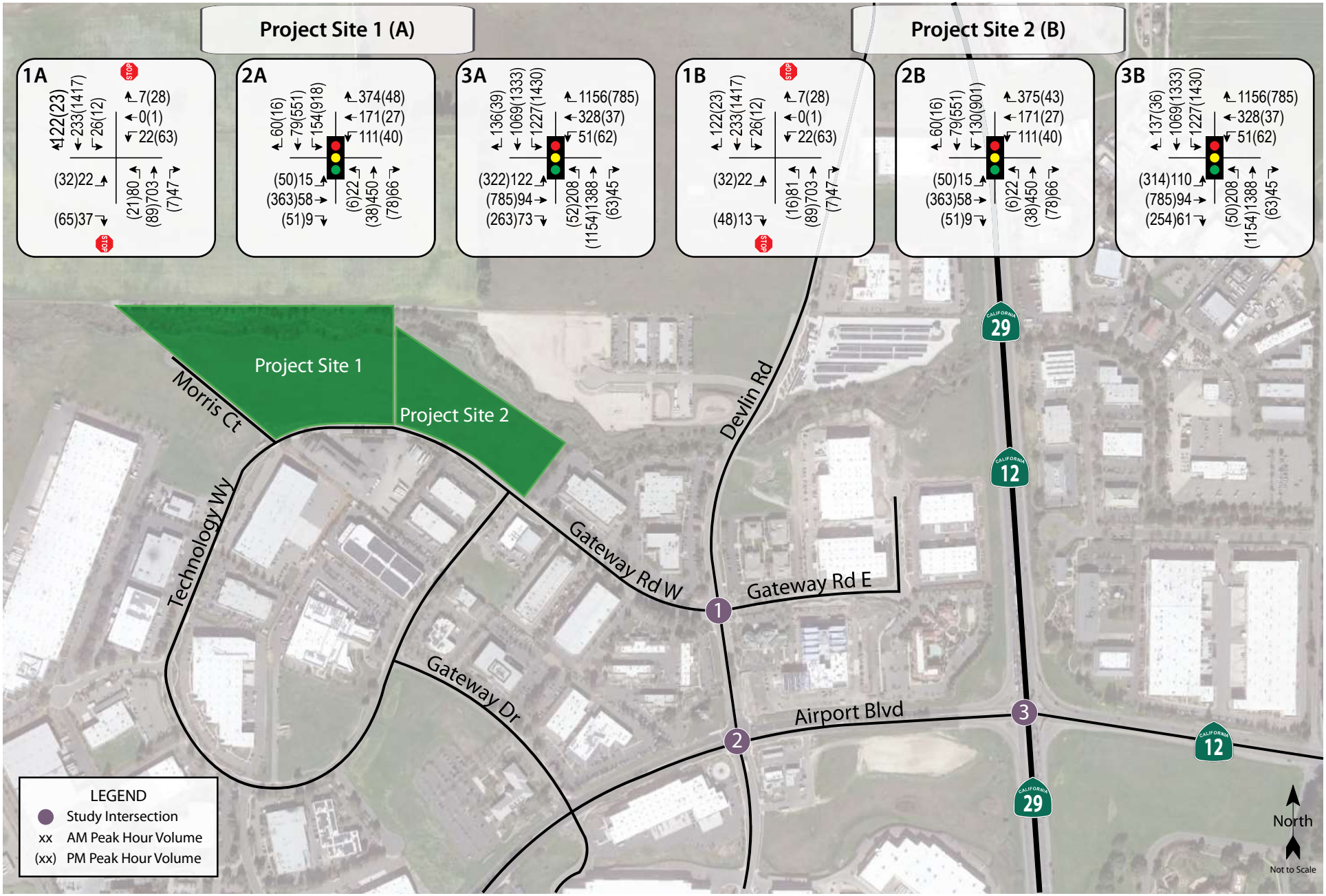
Study Intersection ***Approach***	Future Conditions				Future plus Project 1			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Devlin Rd/Gateway Rd	1.8	A	4.2	A	2.1	A	4.8	A
EB (Gateway Rd) Approach	*19.4*	*C*	***60.9***	***F***	*15.5*	*C*	***52.0***	***F***
WB (Gateway Rd) Approach	*29.5*	*D*	*27.5*	*D*	*31.5*	*D*	*32.8*	*D*
2. Devlin Rd/Airport Blvd	20.0	B	39.2	D	20.2	C	40.2	D
3. SR 12-29/Airport Blvd	**108**	**F**	**192**	**F**	**108**	**F**	**194**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

Because the project would be expected to add trips predominantly to the stop-controlled eastbound right-turn movement at Devlin Road/Gateway Road, the added trips would reduce average delay on the approach, resulting in an acceptable effect on traffic operation. The project would increase entering volumes at SR 12-29/Airport Boulevard by less than one percent, so its effect on operation is acceptable at this intersection as well.

Future plus Project 2

Upon the addition of traffic associated with Project 2 to the anticipated future volumes, the study intersection of SR 12-29/Airport Boulevard would continue to operate unacceptably at LOS F and the eastbound approach to Devlin Road/Gateway Road would operate at LOS F during the p.m. peak hour. The Future plus Project 2 operating conditions are summarized in Table 15 and volumes are shown in Figure 9.



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Transportation Impact Study for a Winery and Warehouse at the Napa Airport Business Park

Figure 9 – Future plus Project Traffic Volumes

Table 15 – Future and Future plus Project 2 Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions				Future plus Project 2			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Devlin Rd/Gateway Rd	1.8	A	4.2	A	2.0	A	4.4	A
EB (Gateway Rd) Approach	*19.4*	*C*	***60.9***	***F***	*19.3*	*C*	***57.4***	***F***
WB (Gateway Rd) Approach	*29.5*	*D*	*27.5*	*D*	*30.8*	*D*	*29.3*	*D*
2. Devlin Rd/Airport Blvd	20.0	B	39.2	D	20.1	C	39.5	D
3. SR 12-29/Airport Blvd	**108**	**F**	**192**	**F**	**108**	**F**	**193**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

The added project trips would again be expected to reduce average delay on the eastbound Gateway Road approach to Devlin Road, resulting in an acceptable effect. As the project increases entering volumes at SR 12-29/Airport Boulevard by less than one percent, its effect on operation at this location is acceptable.

Future plus Projects 1 and 2

Upon the addition of traffic associated with both projects to the anticipated future volumes, SR 12-29/Airport Boulevard would continue to operate at LOS F during both peaks and the eastbound approach to Devlin Road/Gateway Road would continue to operate at LOS F during the p.m. peak hour. The Future plus Project operating conditions are summarized in Table 16, and volumes are shown in Figure 10.

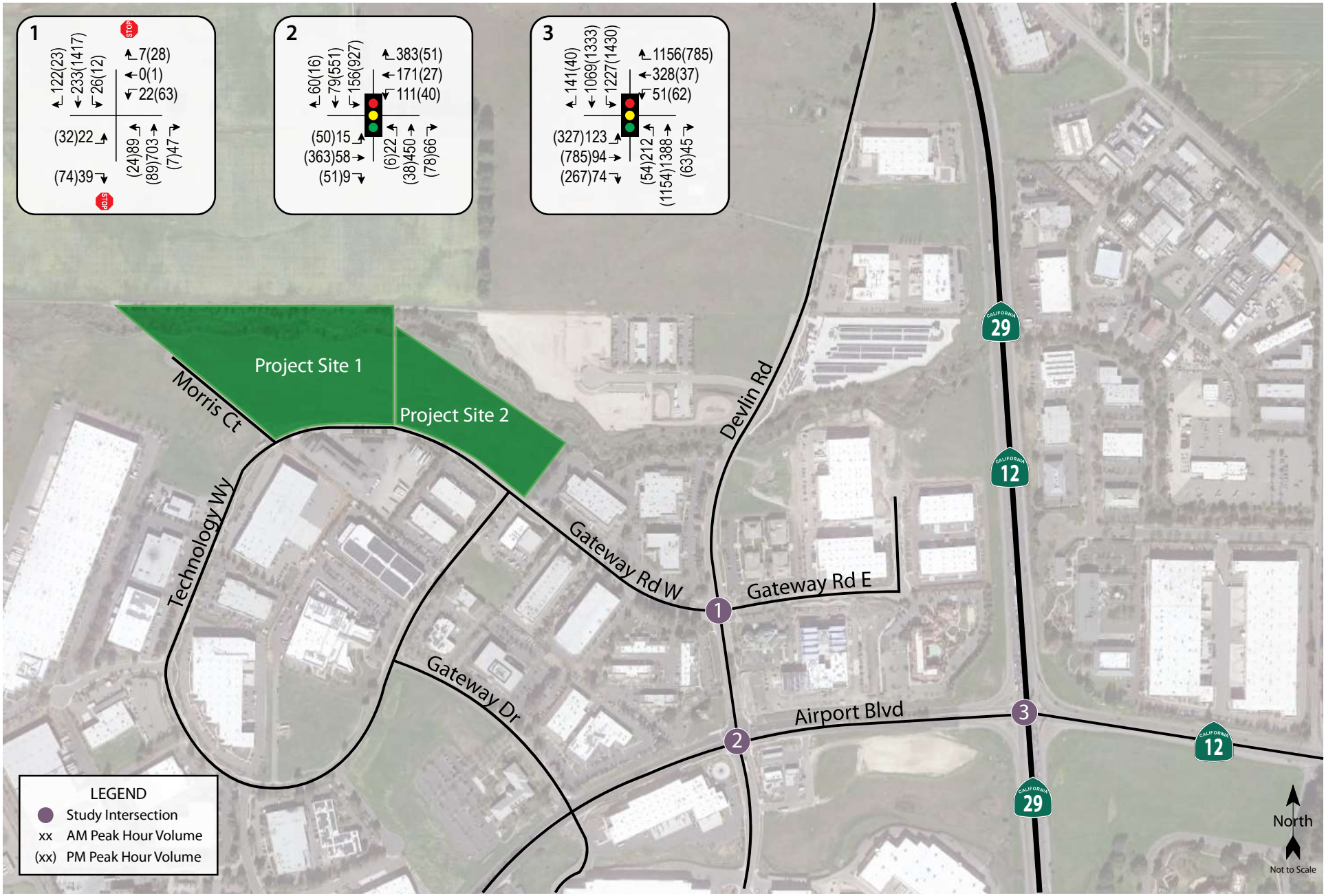
Table 16 – Future and Future plus Projects 1 and 2 Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions				Future plus Project 1 & 2			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Devlin Rd/Gateway Rd	1.8	A	4.2	A	2.2	A	5.1	A
EB (Gateway Rd) Approach	*19.4*	*C*	***60.9***	***F***	*15.6*	*C*	***50.4***	***F***
WB (Gateway Rd) Approach	*29.5*	*D*	*27.5*	*D*	*32.9*	*D*	*34.9*	*D*
2. Devlin Rd/Airport Blvd	20.0	B	39.2	D	20.4	C	40.6	D
3. SR 12-29/Airport Blvd	**108**	**F**	**192**	**F**	**108**	**F**	**195**	**F**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

The project would not increase delay on the stop-controlled eastbound approach to Devlin Road/Gateway Road, so the effect on traffic operation would be acceptable. The addition of project-generated trips from both projects increases entering volumes at SR 12-29/Airport Boulevard by less than one percent, so the projects would have an acceptable effect on operation.

Finding – Upon the addition of both project-generated traffic volumes to future volumes, the eastbound approach at Devlin Road/Gateway Road and the intersection of SR 12-29/Airport Boulevard are expected to continue operating unacceptably. However, both projects would have an acceptable effect on operation under Napa County traffic operation standards.



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Transportation Impact Study for a Winery and Warehouse at the Napa Airport Business Park

Figure 10 – Future plus Project 1 and 2 Traffic Volumes

W-Trans

Parking

The project was analyzed to determine whether the proposed parking supply would be sufficient to satisfy the number of parking spaces required by the County's Zoning Code for industrial uses. The winery as proposed would provide a total of 68 parking spaces for tank and barrel storage, 47 spaces for production and bottling, and 14 spaces for the office for a total of 129 parking spaces. The warehouse as proposed would provide 82 total parking spaces, 38 of which would be for the warehouse and 44 for the office.

Jurisdictional parking supply requirements are based on the Napa County Zoning Code, Section 18.44.080. The proposed parking supply is anticipated to adequately satisfy the required number of parking spaces for the winery and warehouse projects individually.

The proposed parking supply and requirements are shown in Table 17.

Table 17 – Parking Analysis Summary

Land Use	Units	Supply (spaces)	Napa County Parking Requirements	
			Rate	Spaces Required
Project 1 (Winery)				
Tank/Barrel Storage	116.112 ksf	68	1 per 1 ksf for the first 20 ksf 1 per 2 ksf above 20 ksf	68
Production/Bottling	23.7 ksf	47	1 per 500 square ft	47
Office	3.5 ksf	14	1 per 250 square ft	14
Project 1 Total		**129**		**129**
Project 2 (Warehouse)				
Warehouse	55.915 ksf	38	1 per 1 ksf for the first 20 ksf 1 per 2 ksf above 20 ksf	38
Office	11 ksf	44	1 per 250 square ft	44
Project 2 Total		**82**		**82**

Notes: ksf = 1,000 square feet.

Finding – Each of the proposed projects as planned would satisfy the County's Zoning Code off-street parking requirements.

Conclusions and Recommendations

Conclusions

- The proposed winery is expected to generate an average of 71 daily trips during non-harvest months, including 23 weekday a.m. and p.m. peak hour trips. During harvest months, the winery would be expected to generate 104 trips per day, with 34 weekday peak hour trips.
- The proposed warehouse is expected to generate 114 trips per day, including 11 morning peak hour trips and 12 evening peak hour trips.
- Pedestrian, bicycle, and transit facilities are adequate and would be improved by the sidewalk installation included as part of each project. This would be consistent with the County's policies.
- Project 1 screens out as being presumed to have a less-than-significant impact on VMT. Project 2 would need to achieve a reduction of 15 percent of daily vehicle travel, or 202 VMT per day, for the VMT impact to be considered less than significant.
- The implementation of TDM measures, which would include a commute trip reduction program, a ridesharing program, telework/compressed/flex schedules, and providing end-of-trip bicycle facilities, would be expected to reduce VMT by approximately 15 percent and result in a less-than-significant impact for the warehouse project.
- A left-turn lane would not be warranted at either project's driveways.
- The proposed projects would be designed to adequately accommodate emergency response vehicles if applicable standards are followed, resulting in a less-than-significant impact on emergency response.
- Under Existing Conditions, the study intersections are operating acceptably with the exception of SR 12-29/Airport Boulevard, which operates unacceptably. All intersections would be expected to continue operating at the same service levels with project volumes added. The projects have an acceptable effect on operation since the addition of either project individually or both projects together increase the volumes at SR 12-29/Airport Boulevard, which operates deficiently, by less than one percent.
- Under Future Conditions and Future plus Project Conditions, the eastbound Gateway Road approach to Devlin Road/Gateway Road is expected to operate unacceptably during the p.m. peak hour and SR 12-29/Airport Boulevard would continue to operate unacceptably during both peak hours. The projects have an acceptable effect on operation since delay would not increase on the eastbound approach to Devlin Road/Gateway Road and the volumes at SR 12-29/Airport Boulevard would increase by less than one percent.
- Each of the proposed projects as planned would provide a parking supply that would satisfy the County's Zoning Code off-street parking requirements.

Recommendations

- Each project should provide a minimum of ten (10) bicycle parking spaces, with at least five for each project covered.
- A Transportation Demand Management (TDM) Plan should be prepared by the future tenants of the warehouse project and include measures necessary to achieve a 15-percent reduction in project-related trips.
- Proposed landscaping within the vision triangle at the project driveways should consist of either low-lying (three feet high or less) or trees with all branches trimmed to a minimum height of seven feet above the roadway elevation.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE (Civil, Traffic), PTOE
Associate Planner	Mark Brown
Assistant Engineer	Valerie Haines, EIT
Graphics	Cameron Wong, Jessica Bender
Editing/Formatting	Jessica Bender
Quality Control	Dalene J. Whitlock, PE (Civil, Traffic), PTOE

References

2019 Collision Data on California State Highways, California Department of Transportation, 2021
Highway Capacity Manual (HCM), Transportation Research Board, 2022
Highway Design Manual, 7th Edition, California Department of Transportation, 2020
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Napa County Traffic Impact Study Guidelines, County of Napa, 2021
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Appendix A

Intersection Turning Movement Counts

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National Data & Surveying Services Intersection Turning Movement Count

Location: Devlin Rd & Gateway Rd
City: Napa
Control: 2-Way Stop(EB/WB)

Project ID: 23-080228-001
Date: 8/24/2023

Data - Totals

NS/EW Streets:	Devlin Rd				Devlin Rd				Gateway Rd				Gateway Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	13	96	4	0	3	46	23	0	7	0	2	0	3	0	9	0	206
7:15 AM	12	116	3	0	4	38	24	0	2	0	2	0	1	0	2	0	204
7:30 AM	12	162	4	0	3	34	17	0	4	0	3	0	2	0	1	0	242
7:45 AM	16	168	12	0	6	50	24	0	3	0	4	0	5	0	2	0	290
8:00 AM	15	143	6	0	6	55	33	0	5	0	1	0	4	0	0	0	268
8:15 AM	15	93	16	0	5	49	24	1	6	0	1	0	7	0	3	0	220
8:30 AM	21	98	14	0	9	46	26	0	2	0	3	0	11	0	1	0	231
8:45 AM	11	61	15	0	6	57	19	0	12	0	3	0	0	0	3	0	187
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	115	937	74	0	42	375	190	1	41	0	19	0	33	0	21	0	1848
APPROACH %'s :	10.21%	83.21%	6.57%	0.00%	6.91%	61.68%	31.25%	0.16%	68.33%	0.00%	31.67%	0.00%	61.11%	0.00%	38.89%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	58	566	38	0	20	188	98	1	18	0	9	0	18	0	6	0	1020
PEAK HR FACTOR :	0.906	0.842	0.594	0.000	0.833	0.855	0.742	0.250	0.750	0.000	0.563	0.000	0.643	0.000	0.500	0.000	0.879
	0.844				0.816				0.964				0.600				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	5	35	0	2	0	177	4	0	10	0	11	0	2	2	8	0	256
4:15 PM	2	33	1	1	3	275	4	0	7	0	10	0	5	0	3	0	344
4:30 PM	1	38	6	0	1	226	5	0	20	0	15	0	6	0	3	0	321
4:45 PM	2	14	2	0	1	300	5	0	5	0	5	0	6	1	3	0	344
5:00 PM	1	24	2	0	3	242	7	0	10	0	13	0	23	0	2	0	327
5:15 PM	4	15	2	1	4	312	5	0	9	0	7	0	11	0	11	0	381
5:30 PM	3	20	0	0	2	307	2	0	2	0	7	0	12	0	7	0	362
5:45 PM	1	17	1	2	3	295	0	0	3	0	5	0	4	0	2	0	333
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	196	14	6	17	2134	32	0	66	0	73	0	69	3	39	0	2668
APPROACH %'s :	8.09%	83.40%	5.96%	2.55%	0.78%	97.76%	1.47%	0.00%	47.48%	0.00%	52.52%	0.00%	62.16%	2.70%	35.14%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	10	73	6	1	10	1161	19	0	26	0	32	0	52	1	23	0	1414
PEAK HR FACTOR :	0.625	0.760	0.750	0.250	0.625	0.930	0.679	0.000	0.650	0.000	0.615	0.000	0.565	0.250	0.523	0.000	0.928
	0.833				0.927				0.630				0.760				

National Data & Surveying Services Intersection Turning Movement Count

Location: Devlin Rd & Airport Blvd
City: Napa
Control: Signalized

Project ID: 23-080228-002
Date: 8/24/2023

Data - Totals

NS/EW Streets:	Devlin Rd				Devlin Rd				Airport Blvd				Airport Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	49	10	0	24	14	8	0	2	12	2	0	30	27	70	0	251
7:15 AM	3	58	18	0	19	17	4	0	2	5	0	0	17	33	77	1	254
7:30 AM	5	97	15	0	16	15	7	0	3	9	0	0	21	25	89	2	304
7:45 AM	3	106	16	0	22	22	13	0	4	14	2	0	24	41	75	1	343
8:00 AM	5	92	12	0	31	14	15	0	2	11	3	0	21	36	69	0	311
8:15 AM	5	67	10	0	34	13	13	0	3	13	2	0	20	36	62	0	278
8:30 AM	6	61	19	0	38	15	9	0	5	7	2	0	20	47	68	0	297
8:45 AM	2	34	11	0	21	27	10	0	1	12	1	0	18	26	52	0	215
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	564	111	0	205	137	79	0	22	83	12	0	171	271	562	4	2253
APPROACH %'s :	4.53%	79.77%	15.70%	0.00%	48.69%	32.54%	18.76%	0.00%	18.80%	70.94%	10.26%	0.00%	16.96%	26.88%	55.75%	0.40%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	18	362	53	0	103	64	48	0	12	47	7	0	86	138	295	3	1236
PEAK HR FACTOR :	0.900	0.854	0.828	0.000	0.757	0.727	0.800	0.000	0.750	0.839	0.583	0.000	0.896	0.841	0.829	0.375	0.901
	0.866				0.896				0.825				0.926				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	17	19	0	142	76	1	0	13	55	25	0	5	6	10	1	371
4:15 PM	1	8	12	0	174	116	1	0	14	53	14	0	8	5	14	0	420
4:30 PM	0	14	20	0	162	100	4	0	17	108	11	0	8	6	11	0	461
4:45 PM	0	2	10	0	166	139	5	0	8	63	11	0	8	9	7	0	428
5:00 PM	4	8	23	0	168	105	2	0	12	84	12	0	11	2	9	0	440
5:15 PM	1	7	11	0	235	107	2	0	4	42	8	0	6	5	6	0	434
5:30 PM	0	5	5	0	217	107	5	0	6	22	1	0	6	2	12	0	388
5:45 PM	0	5	5	0	207	89	2	0	4	32	1	0	11	3	12	2	373
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	66	105	0	1471	839	22	0	78	459	83	0	63	38	81	3	3315
APPROACH %'s :	3.93%	37.08%	58.99%	0.00%	63.08%	35.98%	0.94%	0.00%	12.58%	74.03%	13.39%	0.00%	34.05%	20.54%	43.78%	1.62%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	5	31	64	0	731	451	13	0	41	297	42	0	33	22	33	0	1763
PEAK HR FACTOR :	0.313	0.554	0.696	0.000	0.778	0.811	0.650	0.000	0.603	0.688	0.875	0.000	0.750	0.611	0.750	0.000	0.956
	0.714				0.868				0.699				0.880				

National Data & Surveying Services Intersection Turning Movement Count

Location: SR 29 & SR 12/Airport Blvd
City: Napa
Control: Signalized

Project ID: 23-080228-003
Date: 8/24/2023

Data - Totals

NS/EW Streets:	SR 29				SR 29				SR 12/Airport Blvd				SR 12/Airport Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	48	345	5	0	229	226	23	2	25	12	12	0	10	55	227	0	1219
7:15 AM	44	260	7	0	259	194	23	4	23	21	12	0	12	75	242	0	1176
7:30 AM	44	307	15	0	220	221	21	2	16	21	10	0	4	58	235	0	1174
7:45 AM	28	206	9	0	267	220	39	5	24	22	14	0	15	76	227	0	1152
8:00 AM	40	252	11	0	223	187	26	2	35	29	15	0	25	58	187	0	1090
8:15 AM	38	335	10	2	215	213	33	1	22	24	15	0	12	53	185	0	1158
8:30 AM	47	258	7	0	274	218	29	1	16	35	16	0	11	53	180	0	1145
8:45 AM	31	261	8	0	215	188	19	1	18	25	11	0	22	51	183	0	1033
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	320	2224	72	2	1902	1667	213	18	179	189	105	0	111	479	1666	0	9147
APPROACH %'s :	12.22%	84.95%	2.75%	0.08%	50.05%	43.87%	5.61%	0.47%	37.84%	39.96%	22.20%	0.00%	4.92%	21.23%	73.85%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	164	1118	36	0	975	861	106	13	88	76	48	0	41	264	931	0	4721
PEAK HR FACTOR :	0.854	0.810	0.600	0.000	0.913	0.952	0.679	0.650	0.880	0.864	0.857	0.000	0.683	0.868	0.962	0.000	0.968
	0.828				0.920				0.883				0.939				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				hah				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	5	268	13	0	270	242	10	0	39	153	33	0	11	10	121	0	1175
4:15 PM	12	248	7	0	330	272	8	3	47	148	43	0	9	4	193	0	1324
4:30 PM	6	237	19	0	277	271	8	0	81	156	61	0	21	12	157	0	1306
4:45 PM	11	188	14	1	278	277	4	2	53	190	49	0	11	8	143	0	1229
5:00 PM	8	272	12	1	281	272	9	0	72	149	52	0	10	6	150	0	1294
5:15 PM	6	218	10	1	337	277	6	0	46	146	60	0	10	4	167	0	1288
5:30 PM	8	179	13	1	281	234	4	1	39	184	60	0	13	8	163	0	1188
5:45 PM	5	252	7	0	273	314	17	0	37	169	79	0	11	6	150	0	1320
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	61	1862	95	4	2327	2159	66	6	414	1295	437	0	96	58	1244	0	10124
APPROACH %'s :	3.02%	92.09%	4.70%	0.20%	51.05%	47.37%	1.45%	0.13%	19.29%	60.34%	20.36%	0.00%	6.87%	4.15%	88.98%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	37	945	52	2	1166	1092	29	5	253	643	205	0	51	30	643	0	5153
PEAK HR FACTOR :	0.771	0.869	0.684	0.500	0.883	0.986	0.806	0.417	0.781	0.846	0.840	0.000	0.607	0.625	0.833	0.000	0.973
	0.884				0.935				0.924				0.879				

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Appendix B

Collision Rate Calculations

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Intersection Collision Rate Worksheet

TIS for a Winery and Warehouse at the Napa Airport Business Park

Intersection # 1: Devlin Road & Gateway Road
Date of Count: Thursday, August 24, 2023

Number of Collisions: 7
Number of Injuries: 4
Number of Fatalities: 0
Average Daily Traffic (ADT): 12800
Start Date: January 1, 2018
End Date: December 31, 2022
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Rural

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{7 \times 1{,}000{,}000}{12{,}800 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.30 c/mve**	**0.0%**	**57.1%**
Statewide Average*	**0.36 c/mve**	**2.4%**	**43.4%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection # 2: Devlin Road & Airport Boulevard
Date of Count: Thursday, August 24, 2023

Number of Collisions: 14
Number of Injuries: 2
Number of Fatalities: 0
Average Daily Traffic (ADT): 15500
Start Date: January 1, 2018
End Date: December 31, 2022
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Signals
Area: Rural

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{14 \times 1{,}000{,}000}{15{,}500 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.49 c/mve**	**0.0%**	**14.3%**
Statewide Average*	**0.74 c/mve**	**0.6%**	**34.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

TIS for a Winery and Warehouse at the Napa Airport Business Park

Intersection # 3: SR 12-29 & Airport Boulevard
Date of Count: Thursday, August 24, 2023

Number of Collisions: 19
Number of Injuries: 3
Number of Fatalities: 0
Average Daily Traffic (ADT): 47200
Start Date: January 1, 2018
End Date: December 31, 2022
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Signals
Area: Rural

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{19 \times 1{,}000{,}000}{47{,}200 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.22 c/mve**	**0.0%**	**15.8%**
Statewide Average*	**0.74 c/mve**	**0.6%**	**34.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Appendix C

Napa County Winery Trip Generation Worksheet

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WINERY TRIP GENERATION WORKSHEET

Planning, Building & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559-3082
(707) 253-4417

A Tradition of Stewardship
A Commitment to Service

Clear Form

PROJECT DESCRIPTION

Winery Name: Napa Airport Business Park Wine Production Facility **Date Prepared:** 7/13/23

Existing Winery	Harvest	Non-Harvest
Number of Full Time Employees*		
Number of Part Time Employees*		
Maximum Daily Visitation		
Annual Gallons of Production		
Annual Tons of Grape Haul		N/A
Square Footage of the Building(s) that Houses the Tasting Room		N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average		

Proposed Winery	Harvest	Non-Harvest
Number of Full Time Employees*	25	16
Number of Part Time Employees*	10	7
Maximum Daily Visitation	0	0
Annual Gallons of Production	450,000	450,000
Annual Tons of Grape Haul		N/A
Square Footage of the Building(s) that Houses the Tasting Room	0	N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average	0	0

*Number of full time and part time employees should represent the max number of employees that will be working on any given day (including the largest event that occurs two or more times per month on average).

Napa Airport Business Park Wine Production Facility

TRIP GENERATION

Existing Winery					**Harvest**	**Non-Harvest**
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees			3.05 one way trips/employee	FT Employee Daily Trips	0.0	0.0
PT Employees			1.9 one way trips/employee	PT Employee Daily Trips	0.0	0.0
Max Visitors	0	0	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	0.0	0.0
Gallons of Production			0.000018 truck trips	Production Daily Trips	0.0	0.0
Tons of Grape Haul#			0.013889 truck trips	Grape Haul Daily Trips	0.0	0
				Total Weekday Daily Trips	**0**	**0**
				Total Weekday Peak Hour Trips*	**0**	**0**
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees			3.05 one way trips/employee	FT Employee Daily Trips	0.0	0.0
PT Employees			1.9 one way trips/employee	PT Employee Daily Trips	0.0	0.0
Max Visitors	0	0	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	0.0	0.0
Gallons of Production			0.000018 truck trips	Production Daily Trips	0.0	0.0
Tons of Grape Haul#			0.013889 truck trips	Grape Haul Daily Trips	0.0	0
				Total Weekend Daily Trips	**0**	**0**
				Total Weekend Peak Hour Trips*	**0**	**0**
Maximum Annual Traffic						
				Total Annual Trips**	**0**	

Proposed Winery					**Harvest**	**Non-Harvest**
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees	25	16	3.05 one way trips/employee	FT Employee Daily Trips	76.3	48.8
PT Employees	10	7	1.9 one way trips/employee	PT Employee Daily Trips	19.0	13.3
Max Visitors	0	0	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	0.0	0.0
Gallons of Production	450,000		0.000018 truck trips	Production Daily Trips	8.1	8.1
Tons of Grape Haul#			0.013889 truck trips	Grape Haul Daily Trips	0.0	0.0
				Total Weekday Daily Trips	**104**	**71**
				Total Weekday Peak Hour Trips*	**34**	**23**
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees	25	16	3.05 one way trips/employee	FT Employee Daily Trips	76.3	48.8
PT Employees	10	7	1.9 one way trips/employee	PT Employee Daily Trips	19.0	13.3
Max Visitors	0	0	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	0.0	0.0
Gallons of Production	450,000		0.000018 truck trips	Production Daily Trips	8.1	8.1
Tons of Grape Haul#			0.013889 truck trips	Grape Haul Daily Trips	0.0	0.0
				Total Weekend Daily Trips	**104**	**71**
				Total Weekend Peak Hour Trips*	**35**	**25**
Maximum Annual Traffic						
				Total Annual Trips**	**28,456**	

Net New Trips			**Harvest**	**Non-Harvest**
Maximum Weekday Traffic (Friday)				
If total net new daily trips is greater than 40, a TIS is required		**Net New Weekday Daily Trips**	**104**	**71**
		Net New Weekday Peak Hour Trips*	**34**	**23**
Maximum Weekend Traffic (Saturday)				
If total net new daily trips is greater than 40, a TIS is required		**Net New Weekend Daily Trips**	**104**	**71**
		Net New Weekend Peak Hour Trips*	**35**	**25**
Maximum Annual Traffic	*Please Prepare a Traffic Impact Study*	**Net New Annual Trips****	**28,456**	

#Trips associated with Grape Haul represent harvest season only.

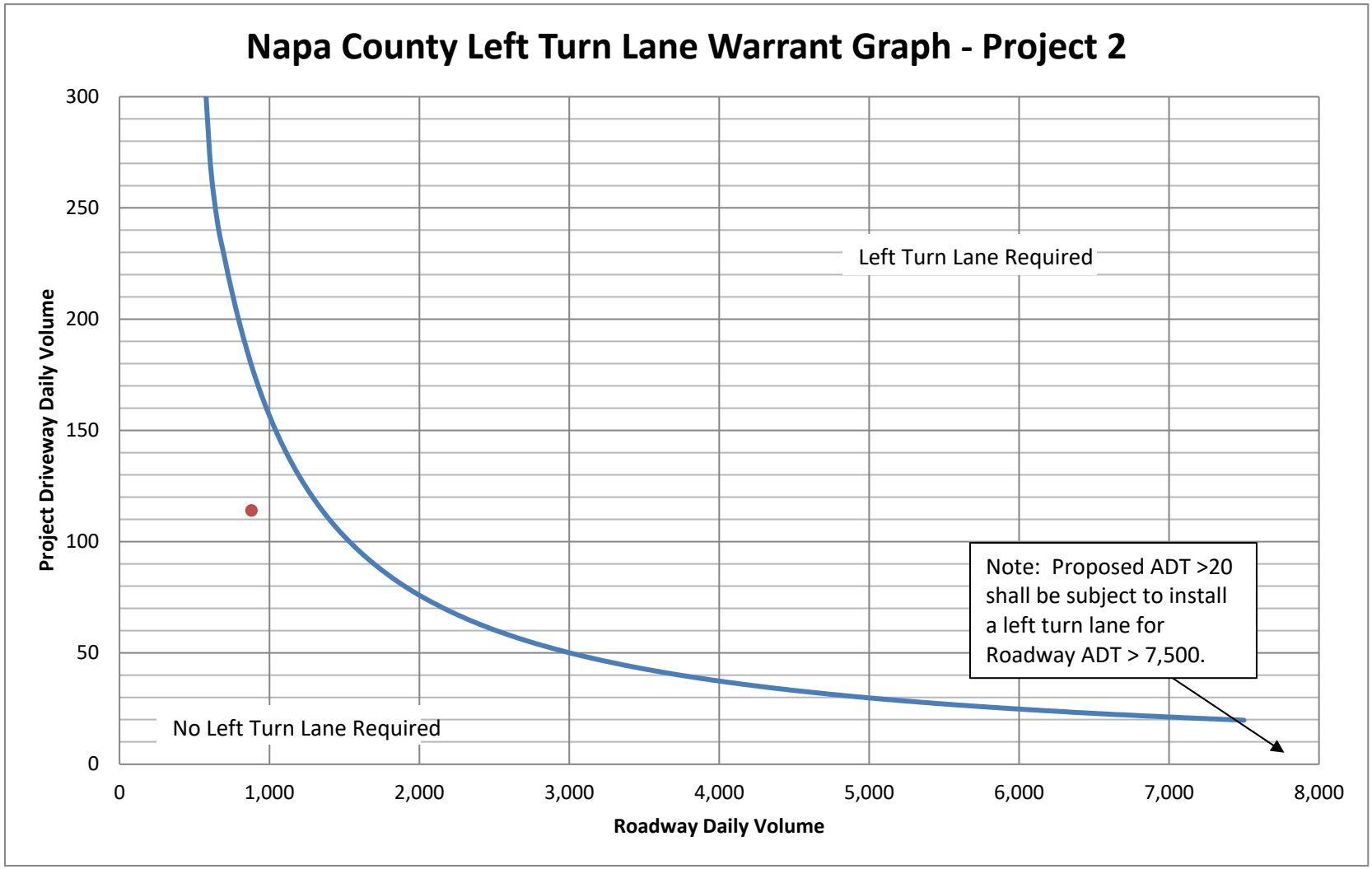
*Weekday peak hour trips are calculated as 38% of daily trips associated with visitors and production plus one trip per employee. Weekend peak hour trips are calculated as 57% of daily trips associated with visitors and production plus one trip per employee.

**Annual trips represent a conservative calculation that assumes 11 weeks of harvest, all weekdays are Fridays, all weekends are Saturdays, and assumes that the largest event that occurs two or more times per month on average occurs every day.

Appendix D

Turn Lane Warrant Graph

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Napa County Left Turn Lane Warrant Graph - Project 2
Project Driveway Daily Volume
300
250
200
150
100
50
0
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Roadway Daily Volume
Left Turn Lane Required
No Left Turn Lane Required
Note: Proposed ADT >20 shall be subject to install a left turn lane for Roadway ADT > 7,500.

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Appendix E

Intersection Level of Service Calculations

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HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	9	18	0	6	58	566	38	21	188	98
Future Vol, veh/h	18	0	9	18	0	6	58	566	38	21	188	98
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	20	0	10	20	0	7	66	643	43	24	214	111

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	780	1149	177	965	1183	350	332	0	0	692	0	0
Stage 1	325	325	-	803	803	-	-	-	-	-	-	-
Stage 2	455	824	-	162	380	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	280	193	826	205	184	638	1203	-	-	879	-	-
Stage 1	653	640	-	337	387	-	-	-	-	-	-	-
Stage 2	547	378	-	815	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	175	815	188	167	634	1195	-	-	874	-	-
Mov Cap-2 Maneuver	258	175	-	188	167	-	-	-	-	-	-	-
Stage 1	613	618	-	316	363	-	-	-	-	-	-	-
Stage 2	511	355	-	777	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	22.9	0.7	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	258	-	815	228	874	-	-
HCM Lane V/C Ratio	0.055	-	-	0.079	-	0.013	0.12	0.027	-	-
HCM Control Delay (s)	8.2	-	-	20.2	0	9.5	22.9	9.2	-	-
HCM Lane LOS	A	-	-	C	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-	0	0.4	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	47	7	89	138	295	18	362	53	103	64	48
Future Volume (veh/h)	12	47	7	89	138	295	18	362	53	103	64	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	13	52	5	99	153	186	20	402	36	75	126	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	40	456	43	183	390	347	338	626	56	245	377	115
Arrive On Green	0.02	0.14	0.14	0.11	0.22	0.22	0.19	0.19	0.19	0.14	0.14	0.14
Sat Flow, veh/h	1739	3202	303	1739	1735	1543	1739	3221	287	1739	2676	814
Grp Volume(v), veh/h	13	28	29	99	153	186	20	216	222	75	84	82
Grp Sat Flow(s),veh/h/ln	1739	1735	1771	1739	1735	1543	1739	1735	1773	1739	1826	1664
Q Serve(g_s), s	0.4	0.7	0.7	2.7	3.7	5.2	0.5	5.6	5.7	1.9	2.0	2.2
Cycle Q Clear(g_c), s	0.4	0.7	0.7	2.7	3.7	5.2	0.5	5.6	5.7	1.9	2.0	2.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.16	1.00		0.49
Lane Grp Cap(c), veh/h	40	247	252	183	390	347	338	337	345	245	257	234
V/C Ratio(X)	0.32	0.11	0.12	0.54	0.39	0.54	0.06	0.64	0.64	0.31	0.33	0.35
Avail Cap(c_a), veh/h	707	1058	1080	707	1270	1129	1273	1270	1298	1237	1299	1184
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	18.4	18.4	20.9	16.2	16.8	16.1	18.2	18.2	19.0	19.0	19.1
Incr Delay (d2), s/veh	1.7	0.1	0.1	0.9	0.2	0.5	0.0	0.8	0.8	0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.2	1.0	1.2	1.5	0.2	2.0	2.0	0.7	0.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	18.5	18.5	21.8	16.5	17.3	16.2	19.0	19.0	19.2	19.3	19.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		70			438			458			241	
Approach Delay, s/veh		19.7			18.0			18.9			19.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	16.9		12.3	9.4	12.8		14.7				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.4	7.2		4.2	4.7	2.7		7.7				
Green Ext Time (p_c), s	0.0	1.2		0.6	0.1	0.1		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	76	48	41	264	931	164	1118	36	988	861	106
Future Volume (veh/h)	88	76	48	41	264	931	164	1118	36	988	861	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	94	74	0	42	272	0	169	1153	14	1019	888	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	305	160		282	296		191	1371	426	1025	1669	
Arrive On Green	0.09	0.09	0.00	0.16	0.16	0.00	0.11	0.28	0.28	0.30	0.48	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	94	74	0	42	272	0	169	1153	14	1019	888	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	3.8	5.7	0.0	3.1	21.7	0.0	14.2	32.3	1.0	44.6	26.4	0.0
Cycle Q Clear(g_c), s	3.8	5.7	0.0	3.1	21.7	0.0	14.2	32.3	1.0	44.6	26.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	160		282	296		191	1371	426	1025	1669	
V/C Ratio(X)	0.31	0.46		0.15	0.92		0.88	0.84	0.03	0.99	0.53	
Avail Cap(c_a), veh/h	376	197		305	321		282	1515	470	1025	1669	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.3	64.2	0.0	53.2	61.0	0.0	64.9	50.6	39.3	51.4	26.8	0.0
Incr Delay (d2), s/veh	0.6	2.1	0.0	0.2	29.0	0.0	14.7	4.4	0.0	26.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.7	0.0	1.3	12.1	0.0	6.9	13.5	0.4	21.7	10.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	66.3	0.0	53.5	90.0	0.0	79.6	55.0	39.3	77.9	27.2	0.0
LnGrp LOS	E	E		D	F		E	D	D	E	C	
Approach Vol, veh/h		168			314			1336			1907	
Approach Delay, s/veh		64.9			85.1			57.9			54.3	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	77.7		30.5	51.5	47.2		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	12.4	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	16.2	28.4		23.7	46.6	34.3		7.7
Green Ext Time (p_c), s	0.1	6.7		0.3	0.0	6.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	32	52	1	23	11	73	6	10	1161	19
Future Vol, veh/h	26	0	32	52	1	23	11	73	6	10	1161	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	28	0	34	56	1	25	12	78	6	11	1248	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1344	1388	634	751	1395	42	1268	0	0	84	0	0
Stage 1	1280	1280	-	105	105	-	-	-	-	-	-	-
Stage 2	64	108	-	646	1290	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	107	138	415	294	137	1010	528	-	-	1489	-	-
Stage 1	171	229	-	881	800	-	-	-	-	-	-	-
Stage 2	931	798	-	420	226	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	134	415	263	133	1010	528	-	-	1489	-	-
Mov Cap-2 Maneuver	101	134	-	263	133	-	-	-	-	-	-	-
Stage 1	167	227	-	861	782	-	-	-	-	-	-	-
Stage 2	886	780	-	382	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.1	19.3	1.5	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	528	-	-	101	-	415	333	1489	-	-
HCM Lane V/C Ratio	0.022	-	-	0.277	-	0.083	0.245	0.007	-	-
HCM Control Delay (s)	12	-	-	53.8	0	14.5	19.3	7.4	-	-
HCM Lane LOS	B	-	-	F	A	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1	-	0.3	0.9	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	297	42	33	22	33	5	31	64	731	451	13
Future Volume (veh/h)	41	297	42	33	22	33	5	31	64	731	451	13
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	43	309	24	34	23	17	5	32	35	854	340	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	124	502	36	89	277	184	147	146	128	1159	570	19
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.09	0.09	0.09	0.32	0.32	0.32
Sat Flow, veh/h	1739	3263	252	1739	1999	1324	1739	1735	1521	3478	1747	67
Grp Volume(v), veh/h	43	163	170	34	20	20	5	32	35	854	0	353
Grp Sat Flow(s),veh/h/ln	1739	1735	1781	1739	1735	1588	1739	1735	1521	1739	0	1814
Q Serve(g_s), s	1.2	4.6	4.7	1.0	0.5	0.6	0.1	0.9	1.1	11.5	0.0	8.6
Cycle Q Clear(g_c), s	1.2	4.6	4.7	1.0	0.5	0.6	0.1	0.9	1.1	11.5	0.0	8.6
Prop In Lane	1.00		0.14	1.00		0.83	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	124	265	272	89	241	220	147	146	128	1159	0	590
V/C Ratio(X)	0.35	0.62	0.62	0.38	0.08	0.09	0.03	0.22	0.27	0.74	0.00	0.60
Avail Cap(c_a), veh/h	667	998	1025	667	1198	1096	1201	1198	1050	2335	0	1218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	21.3	21.3	26.1	21.2	21.3	23.9	24.3	24.4	20.1	0.0	16.7
Incr Delay (d2), s/veh	0.6	0.9	0.9	1.0	0.1	0.1	0.0	0.3	0.4	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	17.9	2.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	18.4	0.0	4.2
%ile BackOfQ(50%),veh/ln	1.6	2.1	2.2	0.4	0.2	0.2	0.1	0.4	0.4	9.5	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	24.6	24.5	27.1	21.3	21.3	24.0	24.6	24.8	38.8	0.0	21.3
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		376			74			72			1207	
Approach Delay, s/veh		26.6			23.9			24.7			33.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	13.0		22.1	6.9	13.5		9.6				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.2	2.6		13.5	3.0	6.7		3.1				
Green Ext Time (p_c), s	0.0	0.1		3.0	0.0	1.0		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	643	205	51	30	643	39	945	52	1171	1092	29
Future Volume (veh/h)	253	643	205	51	30	643	39	945	52	1171	1092	29
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	261	663	0	53	31	0	40	974	24	1207	1126	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		123	212		96	1019	316	1047	1797	
Arrive On Green	0.21	0.21	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.35	0.52	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	261	663	0	53	31	0	40	974	24	1207	1126	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	21.9	27.5	0.0	4.6	2.5	0.0	3.5	29.7	1.9	55.0	35.9	0.0
Cycle Q Clear(g_c), s	21.9	27.5	0.0	4.6	2.5	0.0	3.5	29.7	1.9	55.0	35.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		123	212		96	1019	316	1047	1797	
V/C Ratio(X)	0.74	0.89		0.43	0.15		0.42	0.96	0.08	1.15	0.63	
Avail Cap(c_a), veh/h	400	841		289	304		311	1116	346	1187	1810	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	71.0	67.2	0.0	77.5	66.8	54.6	61.1	27.8	0.0
Incr Delay (d2), s/veh	6.2	11.1	0.0	2.4	0.3	0.0	1.1	16.9	0.1	80.1	0.8	0.0
Initial Q Delay(d3),s/veh	168.1	73.7	0.0	13.5	0.0	0.0	0.0	0.0	0.0	20.6	0.4	0.0
%ile BackOfQ(50%),veh/ln	32.9	25.3	0.0	3.3	1.2	0.0	1.7	15.1	0.8	37.4	15.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	245.0	155.5	0.0	86.9	67.5	0.0	78.6	83.7	54.7	161.9	29.0	0.0
LnGrp LOS	F	F		F	E		E	F	D	F	C	
Approach Vol, veh/h		924			84			1038			2333	
Approach Delay, s/veh		180.8			79.7			82.8			97.8	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	88.1		16.5	61.5	40.3		38.0				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	12.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	5.5	37.9		6.6	57.0	31.7		29.5				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		2.6				

Intersection Summary	
HCM 6th Ctrl Delay	111.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection												
Int Delay, s/veh	1.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	11	22	0	7	72	703	47	26	233	122
Future Vol, veh/h	22	0	11	22	0	7	72	703	47	26	233	122
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	23	0	12	23	0	7	76	740	49	27	245	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	893	1317	201	1107	1357	402	380	0	0	795	0	0
Stage 1	370	370	-	923	923	-	-	-	-	-	-	-
Stage 2	523	947	-	184	434	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	232	152	797	161	144	590	1154	-	-	803	-	-
Stage 1	614	611	-	284	340	-	-	-	-	-	-	-
Stage 2	498	331	-	791	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	210	135	786	145	128	586	1146	-	-	798	-	-
Mov Cap-2 Maneuver	210	135	-	145	128	-	-	-	-	-	-	-
Stage 1	569	586	-	264	316	-	-	-	-	-	-	-
Stage 2	459	307	-	748	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.4	29.5	0.7	0.7
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	210	-	786	177	798	-	-
HCM Lane V/C Ratio	0.066	-	-	0.11	-	0.015	0.172	0.034	-	-
HCM Control Delay (s)	8.4	-	-	24.3	0	9.6	29.5	9.7	-	-
HCM Lane LOS	A	-	-	C	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-	0	0.6	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	58	9	111	171	366	22	450	66	128	79	60
Future Volume (veh/h)	15	58	9	111	171	366	22	450	66	128	79	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	16	61	6	117	180	250	23	474	47	89	147	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	48	456	44	191	390	347	379	695	69	237	357	116
Arrive On Green	0.03	0.14	0.14	0.11	0.22	0.22	0.22	0.22	0.22	0.14	0.14	0.14
Sat Flow, veh/h	1739	3195	310	1739	1735	1543	1739	3188	315	1739	2625	856
Grp Volume(v), veh/h	16	33	34	117	180	250	23	257	264	89	100	97
Grp Sat Flow(s),veh/h/ln	1739	1735	1770	1739	1735	1543	1739	1735	1768	1739	1826	1656
Q Serve(g_s), s	0.5	0.9	0.9	3.3	4.7	7.8	0.5	7.1	7.1	2.4	2.6	2.8
Cycle Q Clear(g_c), s	0.5	0.9	0.9	3.3	4.7	7.8	0.5	7.1	7.1	2.4	2.6	2.8
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.18	1.00		0.52
Lane Grp Cap(c), veh/h	48	248	253	191	390	347	379	378	386	237	248	225
V/C Ratio(X)	0.33	0.13	0.14	0.61	0.46	0.72	0.06	0.68	0.68	0.38	0.40	0.43
Avail Cap(c_a), veh/h	667	999	1019	667	1198	1066	1201	1198	1222	1168	1226	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	19.5	19.5	22.1	17.5	18.7	16.1	18.7	18.7	20.5	20.6	20.7
Incr Delay (d2), s/veh	1.5	0.1	0.1	1.2	0.3	1.1	0.0	0.8	0.8	0.4	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.2	1.6	2.4	0.2	2.5	2.6	0.9	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	19.6	19.6	23.3	17.8	19.8	16.2	19.5	19.5	20.9	21.0	21.1
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		83			547			544			286	
Approach Delay, s/veh		20.9			19.9			19.4			21.0	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	17.5		12.5	9.9	13.2		16.5				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.5	9.8		4.8	5.3	2.9		9.1				
Green Ext Time (p_c), s	0.0	1.5		0.8	0.1	0.2		1.9				

Intersection Summary		
HCM 6th Ctrl Delay	20.0	
HCM 6th LOS	B	

Notes
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	94	60	51	328	1156	204	1388	45	1227	1069	132
Future Volume (veh/h)	109	94	60	51	328	1156	204	1388	45	1227	1069	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	119	93	0	54	345	0	215	1461	24	1292	1125	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	293	154		293	308		236	1454	451	984	1594	
Arrive On Green	0.08	0.08	0.00	0.17	0.17	0.00	0.14	0.29	0.29	0.29	0.46	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	119	93	0	54	345	0	215	1461	24	1292	1125	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	5.0	7.6	0.0	4.1	26.0	0.0	18.8	45.0	1.7	45.0	40.0	0.0
Cycle Q Clear(g_c), s	5.0	7.6	0.0	4.1	26.0	0.0	18.8	45.0	1.7	45.0	40.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	154		293	308		236	1454	451	984	1594	
V/C Ratio(X)	0.41	0.60		0.18	1.12		0.91	1.00	0.05	1.31	0.71	
Avail Cap(c_a), veh/h	361	189		293	308		270	1454	451	984	1594	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.0	68.2	0.0	55.1	64.2	0.0	65.8	54.6	39.3	54.6	33.4	0.0
Incr Delay (d2), s/veh	0.9	3.8	0.0	0.3	88.1	0.0	28.7	24.8	0.1	148.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.7	0.0	1.8	19.2	0.0	10.0	21.4	0.7	38.5	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	72.0	0.0	55.3	152.3	0.0	94.5	79.5	39.4	202.9	34.9	0.0
LnGrp LOS	E	E		E	F		F	F	D	F	C	
Approach Vol, veh/h		212			399			1700			2417	
Approach Delay, s/veh		69.7			139.1			80.8			124.7	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	77.4		32.5	51.5	51.5		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	24	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	20.8	42.0		28.0	47.0	47.0		9.6
Green Ext Time (p_c), s	0.1	2.1		0.0	0.0	0.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	107.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	39	63	1	28	13	89	7	12	1417	23
Future Vol, veh/h	32	0	39	63	1	28	13	89	7	12	1417	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	34	0	41	66	1	29	14	94	7	13	1492	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1606	1659	758	898	1668	51	1516	0	0	101	0	0
Stage 1	1530	1530	-	126	126	-	-	-	-	-	-	-
Stage 2	76	129	-	772	1542	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	68	94	343	230	93	996	422	-	-	1468	-	-
Stage 1	119	172	-	856	784	-	-	-	-	-	-	-
Stage 2	916	781	-	352	170	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	63	90	343	196	89	996	422	-	-	1468	-	-
Mov Cap-2 Maneuver	63	90	-	196	89	-	-	-	-	-	-	-
Stage 1	115	170	-	828	758	-	-	-	-	-	-	-
Stage 2	858	755	-	307	168	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	60.9	27.5	1.6	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	422	-	-	63	-	343	255	1468	-	-
HCM Lane V/C Ratio	0.032	-	-	0.535	-	0.12	0.38	0.009	-	-
HCM Control Delay (s)	13.8	-	-	114.6	0	16.9	27.5	7.5	-	-
HCM Lane LOS	B	-	-	F	A	C	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	-	0.4	1.7	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	363	51	40	27	40	6	38	78	892	551	16
Future Volume (veh/h)	50	363	51	40	27	40	6	38	78	892	551	16
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	53	382	34	42	28	25	6	40	49	1054	419	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	551	46	98	286	225	149	148	130	1265	643	21
Arrive On Green	0.07	0.16	0.16	0.06	0.16	0.16	0.09	0.09	0.09	0.37	0.37	0.37
Sat Flow, veh/h	1739	3224	285	1739	1848	1452	1739	1735	1519	3478	1747	67
Grp Volume(v), veh/h	53	205	211	42	26	27	6	40	49	1054	0	435
Grp Sat Flow(s),veh/h/ln	1739	1735	1775	1739	1735	1565	1739	1735	1519	1739	0	1814
Q Serve(g_s), s	1.9	7.1	7.2	1.5	0.8	0.9	0.2	1.4	1.9	17.5	0.0	12.7
Cycle Q Clear(g_c), s	1.9	7.1	7.2	1.5	0.8	0.9	0.2	1.4	1.9	17.5	0.0	12.7
Prop In Lane	1.00		0.16	1.00		0.93	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	132	295	301	98	269	242	149	148	130	1265	0	664
V/C Ratio(X)	0.40	0.69	0.70	0.43	0.10	0.11	0.04	0.27	0.38	0.83	0.00	0.66
Avail Cap(c_a), veh/h	546	817	836	546	981	884	983	981	859	1911	0	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	25.5	25.5	31.8	25.2	25.3	29.3	29.9	30.1	25.7	0.0	19.1
Incr Delay (d2), s/veh	0.7	1.1	1.1	1.1	0.1	0.1	0.0	0.4	0.7	1.2	0.0	0.4
Initial Q Delay(d3),s/veh	17.2	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	24.2	0.0	3.8
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.3	0.7	0.3	0.4	0.1	0.6	0.8	14.9	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	29.0	29.0	32.9	25.3	25.3	29.3	30.2	30.8	51.1	0.0	23.3
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		469			95			95			1489	
Approach Delay, s/veh		31.1			28.7			30.5			43.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	15.7		28.7	7.9	16.3		10.8				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.9	2.9		19.5	3.5	9.2		3.9				
Green Ext Time (p_c), s	0.0	0.1		3.7	0.0	1.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	785	250	62	37	785	48	1154	63	1430	1333	35
Future Volume (veh/h)	309	785	250	62	37	785	48	1154	63	1430	1333	35
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	325	826	0	65	39	0	51	1215	35	1505	1403	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		120	223		101	984	314	1047	1735	
Arrive On Green	0.22	0.22	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.34	0.51	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	325	826	0	65	39	0	51	1215	35	1505	1403	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	28.8	36.0	0.0	5.9	3.3	0.0	4.6	35.0	2.9	55.0	53.9	0.0
Cycle Q Clear(g_c), s	28.8	36.0	0.0	5.9	3.3	0.0	4.6	35.0	2.9	55.0	53.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		120	223		101	984	314	1047	1735	
V/C Ratio(X)	0.92	1.11		0.54	0.18		0.50	1.23	0.11	1.44	0.81	
Avail Cap(c_a), veh/h	388	815		280	294		302	1082	336	1150	1762	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	73.9	67.9	0.0	78.9	71.2	56.1	61.1	35.3	0.0
Incr Delay (d2), s/veh	25.6	68.9	0.0	3.7	0.4	0.0	1.4	114.5	0.2	202.6	3.0	0.0
Initial Q Delay(d3),s/veh	249.7	121.4	0.0	17.4	0.0	0.0	0.0	0.0	0.0	20.6	0.8	0.0
%ile BackOfQ(50%),veh/ln	12.8	36.2	0.0	4.0	1.5	0.0	2.2	24.9	1.2	55.2	24.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	346.0	261.0	0.0	95.0	68.2	0.0	80.3	185.7	56.4	284.4	39.1	0.0
LnGrp LOS	F	F		F	E		F	F	E	F	D	
Approach Vol, veh/h		1151			104			1301			2908	
Approach Delay, s/veh		285.0			85.0			178.1			166.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	88.4		16.5	61.5	41.5		41.8				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	10.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	13.6	55.9		7.9	57.0	37.0		38.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	192.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	35	18	0	6	66	566	38	21	188	98
Future Vol, veh/h	18	0	35	18	0	6	66	566	38	21	188	98
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	20	0	40	20	0	7	75	643	43	24	214	111

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	798	1167	177	983	1201	350	332	0	0	692	0	0
Stage 1	325	325	-	821	821	-	-	-	-	-	-	-
Stage 2	473	842	-	162	380	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	272	188	826	199	179	638	1203	-	-	879	-	-
Stage 1	653	640	-	328	380	-	-	-	-	-	-	-
Stage 2	533	371	-	815	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	249	169	815	174	161	634	1195	-	-	874	-	-
Mov Cap-2 Maneuver	249	169	-	174	161	-	-	-	-	-	-	-
Stage 1	608	618	-	306	354	-	-	-	-	-	-	-
Stage 2	494	345	-	749	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	24.4	0.8	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	249	-	815	213	874	-	-
HCM Lane V/C Ratio	0.063	-	-	0.082	-	0.049	0.128	0.027	-	-
HCM Control Delay (s)	8.2	-	-	20.7	0	9.6	24.4	9.2	-	-
HCM Lane LOS	A	-	-	C	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-	0.2	0.4	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	47	7	89	138	303	18	362	53	129	64	48
Future Volume (veh/h)	12	47	7	89	138	303	18	362	53	129	64	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	13	52	5	99	153	195	20	402	36	166	39	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	40	456	43	183	390	347	338	626	56	491	116	119
Arrive On Green	0.02	0.14	0.14	0.11	0.22	0.22	0.19	0.19	0.19	0.14	0.14	0.14
Sat Flow, veh/h	1739	3202	303	1739	1735	1543	1739	3221	287	3478	819	840
Grp Volume(v), veh/h	13	28	29	99	153	195	20	216	222	166	0	79
Grp Sat Flow(s),veh/h/ln	1739	1735	1771	1739	1735	1543	1739	1735	1773	1739	0	1659
Q Serve(g_s), s	0.4	0.7	0.7	2.7	3.7	5.5	0.5	5.6	5.7	2.1	0.0	2.1
Cycle Q Clear(g_c), s	0.4	0.7	0.7	2.7	3.7	5.5	0.5	5.6	5.7	2.1	0.0	2.1
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.16	1.00		0.51
Lane Grp Cap(c), veh/h	40	247	252	183	390	347	338	337	345	491	0	234
V/C Ratio(X)	0.32	0.11	0.12	0.54	0.39	0.56	0.06	0.64	0.64	0.34	0.00	0.34
Avail Cap(c_a), veh/h	707	1058	1080	707	1269	1129	1272	1269	1297	2474	0	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	18.4	18.4	20.9	16.2	16.9	16.1	18.2	18.3	19.1	0.0	19.1
Incr Delay (d2), s/veh	1.7	0.1	0.1	0.9	0.2	0.5	0.0	0.8	0.8	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.2	1.0	1.2	1.6	0.2	2.0	2.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	18.5	18.5	21.8	16.5	17.5	16.2	19.0	19.0	19.2	0.0	19.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		70			447			458			245	
Approach Delay, s/veh		19.8			18.1			18.9			19.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	16.9		12.3	9.4	12.8		14.7				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.4	7.5		4.1	4.7	2.7		7.7				
Green Ext Time (p_c), s	0.0	1.2		0.6	0.1	0.1		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	76	61	41	264	931	168	1118	36	988	861	110
Future Volume (veh/h)	101	76	61	41	264	931	168	1118	36	988	861	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	104	78	0	42	272	0	173	1153	14	1019	888	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	305	160		282	296		195	1371	426	1025	1661	
Arrive On Green	0.09	0.09	0.00	0.16	0.16	0.00	0.11	0.28	0.28	0.30	0.48	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	104	78	0	42	272	0	173	1153	14	1019	888	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	4.2	6.0	0.0	3.1	21.7	0.0	14.5	32.3	1.0	44.6	26.5	0.0
Cycle Q Clear(g_c), s	4.2	6.0	0.0	3.1	21.7	0.0	14.5	32.3	1.0	44.6	26.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	160		282	296		195	1371	426	1025	1661	
V/C Ratio(X)	0.34	0.49		0.15	0.92		0.89	0.84	0.03	0.99	0.53	
Avail Cap(c_a), veh/h	376	197		305	321		282	1515	470	1025	1661	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.5	64.3	0.0	53.2	61.0	0.0	64.8	50.6	39.3	51.4	27.0	0.0
Incr Delay (d2), s/veh	0.7	2.3	0.0	0.2	29.0	0.0	15.8	4.4	0.0	26.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.9	0.0	1.3	12.1	0.0	7.1	13.5	0.4	21.7	10.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	66.6	0.0	53.5	90.0	0.0	80.6	55.0	39.3	77.9	27.5	0.0
LnGrp LOS	E	E		D	F		F	D	D	E	C	
Approach Vol, veh/h		182			314			1340			1907	
Approach Delay, s/veh		65.2			85.1			58.1			54.4	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.3	77.4		30.5	51.5	47.2		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	24.6	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	16.5	28.5		23.7	46.6	34.3		8.0
Green Ext Time (p_c), s	0.1	6.7		0.3	0.0	6.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	58.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	58	52	1	23	19	73	6	10	1161	19
Future Vol, veh/h	26	0	58	52	1	23	19	73	6	10	1161	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	28	0	62	56	1	25	20	78	6	11	1248	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1360	1404	634	767	1411	42	1268	0	0	84	0	0
Stage 1	1280	1280	-	121	121	-	-	-	-	-	-	-
Stage 2	80	124	-	646	1290	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	104	135	415	286	133	1010	528	-	-	1489	-	-
Stage 1	171	229	-	862	788	-	-	-	-	-	-	-
Stage 2	911	785	-	420	226	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	129	415	235	127	1010	528	-	-	1489	-	-
Mov Cap-2 Maneuver	97	129	-	235	127	-	-	-	-	-	-	-
Stage 1	165	227	-	829	758	-	-	-	-	-	-	-
Stage 2	854	755	-	354	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28	21.3	2.3	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	528	-	-	97	-	415	302	1489	-	-
HCM Lane V/C Ratio	0.039	-	-	0.288	-	0.15	0.271	0.007	-	-
HCM Control Delay (s)	12.1	-	-	56.5	0	15.2	21.3	7.4	-	-
HCM Lane LOS	B	-	-	F	A	C	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	-	0.5	1.1	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	297	42	33	22	41	5	31	64	757	451	13
Future Volume (veh/h)	41	297	42	33	22	41	5	31	64	757	451	13
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	43	309	24	34	23	26	5	32	35	869	359	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	124	500	36	89	240	214	146	146	128	1172	579	19
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.09	0.09	0.09	0.32	0.32	0.32
Sat Flow, veh/h	1739	3263	252	1739	1735	1547	1739	1735	1521	3478	1751	63
Grp Volume(v), veh/h	43	163	170	34	23	26	5	32	35	869	0	372
Grp Sat Flow(s),veh/h/ln	1739	1735	1781	1739	1735	1547	1739	1735	1521	1739	0	1814
Q Serve(g_s), s	1.3	4.7	4.7	1.0	0.6	0.8	0.1	0.9	1.1	11.8	0.0	9.2
Cycle Q Clear(g_c), s	1.3	4.7	4.7	1.0	0.6	0.8	0.1	0.9	1.1	11.8	0.0	9.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	124	264	271	89	240	214	146	146	128	1172	0	599
V/C Ratio(X)	0.35	0.62	0.63	0.38	0.10	0.12	0.03	0.22	0.27	0.74	0.00	0.62
Avail Cap(c_a), veh/h	661	989	1015	661	1186	1058	1189	1186	1040	2312	0	1206
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	21.5	21.5	26.3	21.5	21.6	24.2	24.6	24.7	20.3	0.0	17.0
Incr Delay (d2), s/veh	0.6	0.9	0.9	1.0	0.1	0.1	0.0	0.3	0.4	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	18.0	2.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	18.2	0.0	4.3
%ile BackOfQ(50%),veh/ln	1.6	2.2	2.2	0.4	0.2	0.3	0.1	0.4	0.4	9.7	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	24.8	24.7	27.3	21.6	21.7	24.2	24.9	25.1	38.8	0.0	21.6
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		376			83			72			1241	
Approach Delay, s/veh		26.9			24.0			25.0			33.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	13.0		22.5	6.9	13.5		9.7				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.3	2.8		13.8	3.0	6.7		3.1				
Green Ext Time (p_c), s	0.0	0.1		3.1	0.0	1.0		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	643	218	51	30	643	43	945	52	1171	1092	33
Future Volume (veh/h)	266	643	218	51	30	643	43	945	52	1171	1092	33
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	274	663	0	53	31	0	44	974	24	1207	1126	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		123	212		99	1019	316	1047	1790	
Arrive On Green	0.21	0.21	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.35	0.52	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	274	663	0	53	31	0	44	974	24	1207	1126	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	23.2	27.5	0.0	4.6	2.5	0.0	3.8	29.8	1.9	55.0	36.1	0.0
Cycle Q Clear(g_c), s	23.2	27.5	0.0	4.6	2.5	0.0	3.8	29.8	1.9	55.0	36.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		123	212		99	1019	316	1047	1790	
V/C Ratio(X)	0.78	0.89		0.43	0.15		0.45	0.96	0.08	1.15	0.63	
Avail Cap(c_a), veh/h	400	841		289	304		311	1116	346	1187	1803	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	71.0	67.2	0.0	77.4	66.8	54.6	61.1	28.1	0.0
Incr Delay (d2), s/veh	8.2	11.1	0.0	2.4	0.3	0.0	1.2	16.9	0.1	80.1	0.8	0.0
Initial Q Delay(d3),s/veh	184.7	73.7	0.0	13.5	0.0	0.0	0.0	0.0	0.0	20.6	0.4	0.0
%ile BackOfQ(50%),veh/ln	34.7	25.3	0.0	3.3	1.2	0.0	1.9	15.1	0.8	37.4	15.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	263.6	155.5	0.0	86.9	67.5	0.0	78.6	83.7	54.7	161.9	29.3	0.0
LnGrp LOS	F	F		F	E		E	F	D	F	C	
Approach Vol, veh/h		937			84			1042			2333	
Approach Delay, s/veh		187.1			79.8			82.8			97.9	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.1	87.8		16.5	61.5	40.4		38.0				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	12.8	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	5.8	38.1		6.6	57.0	31.8		29.5				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	113.0
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	11	18	0	6	67	566	38	21	188	98
Future Vol, veh/h	18	0	11	18	0	6	67	566	38	21	188	98
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	20	0	13	20	0	7	76	643	43	24	214	111

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	800	1169	177	985	1203	350	332	0	0	692	0	0
Stage 1	325	325	-	823	823	-	-	-	-	-	-	-
Stage 2	475	844	-	162	380	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	271	187	826	198	179	638	1203	-	-	879	-	-
Stage 1	653	640	-	327	379	-	-	-	-	-	-	-
Stage 2	532	370	-	815	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	248	168	815	179	161	634	1195	-	-	874	-	-
Mov Cap-2 Maneuver	248	168	-	179	161	-	-	-	-	-	-	-
Stage 1	607	618	-	304	352	-	-	-	-	-	-	-
Stage 2	492	344	-	775	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	23.9	0.8	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	248	-	815	218	874	-	-
HCM Lane V/C Ratio	0.064	-	-	0.082	-	0.015	0.125	0.027	-	-
HCM Control Delay (s)	8.2	-	-	20.8	0	9.5	23.9	9.2	-	-
HCM Lane LOS	A	-	-	C	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-	0	0.4	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	47	7	89	138	304	18	362	53	105	64	48
Future Volume (veh/h)	12	47	7	89	138	304	18	362	53	105	64	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	13	52	5	99	153	196	20	402	36	76	129	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	40	456	43	183	390	347	338	626	56	245	380	113
Arrive On Green	0.02	0.14	0.14	0.11	0.22	0.22	0.19	0.19	0.19	0.14	0.14	0.14
Sat Flow, veh/h	1739	3202	303	1739	1735	1543	1739	3221	287	1739	2692	801
Grp Volume(v), veh/h	13	28	29	99	153	196	20	216	222	76	86	83
Grp Sat Flow(s),veh/h/ln	1739	1735	1771	1739	1735	1543	1739	1735	1773	1739	1826	1667
Q Serve(g_s), s	0.4	0.7	0.7	2.7	3.7	5.6	0.5	5.6	5.7	1.9	2.1	2.2
Cycle Q Clear(g_c), s	0.4	0.7	0.7	2.7	3.7	5.6	0.5	5.6	5.7	1.9	2.1	2.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.16	1.00		0.48
Lane Grp Cap(c), veh/h	40	247	252	183	390	347	338	337	345	245	258	235
V/C Ratio(X)	0.32	0.11	0.12	0.54	0.39	0.57	0.06	0.64	0.64	0.31	0.33	0.35
Avail Cap(c_a), veh/h	707	1058	1080	707	1269	1129	1272	1269	1297	1237	1299	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	18.4	18.4	20.9	16.2	16.9	16.1	18.2	18.3	19.0	19.0	19.1
Incr Delay (d2), s/veh	1.7	0.1	0.1	0.9	0.2	0.5	0.0	0.8	0.8	0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.2	1.0	1.2	1.6	0.2	2.0	2.0	0.7	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	18.5	18.5	21.8	16.5	17.5	16.2	19.0	19.0	19.2	19.3	19.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		70			448			458			245	
Approach Delay, s/veh		19.8			18.1			18.9			19.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	5.3	16.9	12.3	9.4	12.8	14.7
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 4.2	5.8	5.1
Max Green Setting (Gmax), s	* 20	36.0	35.0	* 20	30.0	36.0
Max Q Clear Time (g_c+I1), s	2.4	7.6	4.2	4.7	2.7	7.7
Green Ext Time (p_c), s	0.0	1.2	0.6	0.1	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	76	49	41	264	931	168	1118	36	988	861	111
Future Volume (veh/h)	89	76	49	41	264	931	168	1118	36	988	861	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	95	74	0	42	272	0	173	1153	14	1019	888	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	305	160		282	296		195	1371	426	1025	1661	
Arrive On Green	0.09	0.09	0.00	0.16	0.16	0.00	0.11	0.28	0.28	0.30	0.48	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	95	74	0	42	272	0	173	1153	14	1019	888	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	3.8	5.7	0.0	3.1	21.7	0.0	14.5	32.3	1.0	44.6	26.5	0.0
Cycle Q Clear(g_c), s	3.8	5.7	0.0	3.1	21.7	0.0	14.5	32.3	1.0	44.6	26.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	160		282	296		195	1371	426	1025	1661	
V/C Ratio(X)	0.31	0.46		0.15	0.92		0.89	0.84	0.03	0.99	0.53	
Avail Cap(c_a), veh/h	376	197		305	321		282	1515	470	1025	1661	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.3	64.2	0.0	53.2	61.0	0.0	64.8	50.6	39.3	51.4	27.0	0.0
Incr Delay (d2), s/veh	0.6	2.1	0.0	0.2	29.0	0.0	15.8	4.4	0.0	26.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.7	0.0	1.3	12.1	0.0	7.1	13.5	0.4	21.7	10.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	66.3	0.0	53.5	90.0	0.0	80.6	55.0	39.3	77.9	27.5	0.0
LnGrp LOS	E	E		D	F		F	D	D	E	C	
Approach Vol, veh/h		169			314			1340			1907	
Approach Delay, s/veh		64.9			85.1			58.1			54.4	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.3	77.4		30.5	51.5	47.2		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	24.6	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	16.5	28.5		23.7	46.6	34.3		7.7
Green Ext Time (p_c), s	0.1	6.7		0.3	0.0	6.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	58.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	41	52	1	23	14	73	6	10	1161	19
Future Vol, veh/h	26	0	41	52	1	23	14	73	6	10	1161	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	28	0	44	56	1	25	15	78	6	11	1248	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1350	1394	634	757	1401	42	1268	0	0	84	0	0
Stage 1	1280	1280	-	111	111	-	-	-	-	-	-	-
Stage 2	70	114	-	646	1290	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	106	137	415	291	135	1010	528	-	-	1489	-	-
Stage 1	171	229	-	873	796	-	-	-	-	-	-	-
Stage 2	923	793	-	420	226	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	132	415	253	130	1010	528	-	-	1489	-	-
Mov Cap-2 Maneuver	100	132	-	253	130	-	-	-	-	-	-	-
Stage 1	166	227	-	849	774	-	-	-	-	-	-	-
Stage 2	874	771	-	373	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.1	19.9	1.8	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	528	-	-	100	-	415	322	1489	-	-
HCM Lane V/C Ratio	0.029	-	-	0.28	-	0.106	0.254	0.007	-	-
HCM Control Delay (s)	12	-	-	54.4	0	14.7	19.9	7.4	-	-
HCM Lane LOS	B	-	-	F	A	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1	-	0.4	1	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	297	42	33	22	36	5	31	64	740	451	13
Future Volume (veh/h)	41	297	42	33	22	36	5	31	64	740	451	13
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	43	309	24	34	23	21	5	32	35	859	347	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	124	501	36	89	254	203	146	146	128	1163	573	19
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.09	0.09	0.09	0.32	0.32	0.32
Sat Flow, veh/h	1739	3263	252	1739	1832	1465	1739	1735	1521	3478	1749	66
Grp Volume(v), veh/h	43	163	170	34	22	22	5	32	35	859	0	360
Grp Sat Flow(s),veh/h/ln	1739	1735	1781	1739	1735	1562	1739	1735	1521	1739	0	1814
Q Serve(g_s), s	1.2	4.6	4.7	1.0	0.6	0.7	0.1	0.9	1.1	11.6	0.0	8.8
Cycle Q Clear(g_c), s	1.2	4.6	4.7	1.0	0.6	0.7	0.1	0.9	1.1	11.6	0.0	8.8
Prop In Lane	1.00		0.14	1.00		0.94	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	124	265	272	89	240	217	146	146	128	1163	0	593
V/C Ratio(X)	0.35	0.62	0.62	0.38	0.09	0.10	0.03	0.22	0.27	0.74	0.00	0.61
Avail Cap(c_a), veh/h	665	995	1021	665	1194	1075	1197	1194	1047	2327	0	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	21.4	21.4	26.2	21.3	21.4	24.0	24.4	24.5	20.1	0.0	16.8
Incr Delay (d2), s/veh	0.6	0.9	0.9	1.0	0.1	0.1	0.0	0.3	0.4	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	17.9	2.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	18.3	0.0	4.2
%ile BackOfQ(50%),veh/ln	1.6	2.1	2.2	0.4	0.2	0.2	0.1	0.4	0.4	9.6	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	24.6	24.6	27.2	21.4	21.5	24.1	24.7	24.9	38.8	0.0	21.4
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		376			78			72			1219	
Approach Delay, s/veh		26.7			23.9			24.8			33.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	13.0		22.2	6.9	13.5		9.6				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.2	2.7		13.6	3.0	6.7		3.1				
Green Ext Time (p_c), s	0.0	0.1		3.1	0.0	1.0		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	643	209	51	30	643	41	945	52	1171	1092	30
Future Volume (veh/h)	258	643	209	51	30	643	41	945	52	1171	1092	30
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	266	663	0	53	31	0	42	974	24	1207	1126	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		123	212		97	1019	316	1047	1794	
Arrive On Green	0.21	0.21	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.35	0.52	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	266	663	0	53	31	0	42	974	24	1207	1126	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	22.4	27.5	0.0	4.6	2.5	0.0	3.6	29.7	1.9	55.0	36.0	0.0
Cycle Q Clear(g_c), s	22.4	27.5	0.0	4.6	2.5	0.0	3.6	29.7	1.9	55.0	36.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		123	212		97	1019	316	1047	1794	
V/C Ratio(X)	0.75	0.89		0.43	0.15		0.43	0.96	0.08	1.15	0.63	
Avail Cap(c_a), veh/h	400	841		289	304		311	1116	346	1187	1807	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	71.0	67.2	0.0	77.4	66.8	54.6	61.1	28.0	0.0
Incr Delay (d2), s/veh	6.9	11.1	0.0	2.4	0.3	0.0	1.1	16.9	0.1	80.1	0.8	0.0
Initial Q Delay(d3),s/veh	174.5	73.7	0.0	13.5	0.0	0.0	0.0	0.0	0.0	20.6	0.4	0.0
%ile BackOfQ(50%),veh/ln	38.6	25.3	0.0	3.3	1.2	0.0	1.8	15.1	0.8	37.4	15.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	252.1	155.5	0.0	86.9	67.5	0.0	78.6	83.7	54.7	161.9	29.2	0.0
LnGrp LOS	F	F		F	E		E	F	D	F	C	
Approach Vol, veh/h		929			84			1040			2333	
Approach Delay, s/veh		183.2			79.7			82.8			97.9	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	87.9		16.5	61.5	40.3		38.0				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	12.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	5.6	38.0		6.6	57.0	31.7		29.5				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	112.0
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	37	18	0	6	75	566	38	21	188	98
Future Vol, veh/h	18	0	37	18	0	6	75	566	38	21	188	98
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	20	0	42	20	0	7	85	643	43	24	214	111

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	818	1187	177	1003	1221	350	332	0	0	692	0	0
Stage 1	325	325	-	841	841	-	-	-	-	-	-	-
Stage 2	493	862	-	162	380	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	263	183	826	192	174	638	1203	-	-	879	-	-
Stage 1	653	640	-	319	372	-	-	-	-	-	-	-
Stage 2	519	363	-	815	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	239	163	815	166	155	634	1195	-	-	874	-	-
Mov Cap-2 Maneuver	239	163	-	166	155	-	-	-	-	-	-	-
Stage 1	603	618	-	295	343	-	-	-	-	-	-	-
Stage 2	476	335	-	747	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	25.4	0.9	0.6
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	239	-	815	204	874	-	-
HCM Lane V/C Ratio	0.071	-	-	0.086	-	0.052	0.134	0.027	-	-
HCM Control Delay (s)	8.2	-	-	21.5	0	9.7	25.4	9.2	-	-
HCM Lane LOS	A	-	-	C	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-	0.2	0.5	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	47	7	89	138	312	18	362	53	131	64	48
Future Volume (veh/h)	12	47	7	89	138	312	18	362	53	131	64	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	13	52	5	99	153	205	20	402	36	168	41	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	40	455	43	183	389	347	338	626	56	492	119	116
Arrive On Green	0.02	0.14	0.14	0.11	0.22	0.22	0.19	0.19	0.19	0.14	0.14	0.14
Sat Flow, veh/h	1739	3202	303	1739	1735	1543	1739	3221	287	3478	842	821
Grp Volume(v), veh/h	13	28	29	99	153	205	20	216	222	168	0	81
Grp Sat Flow(s),veh/h/ln	1739	1735	1771	1739	1735	1543	1739	1735	1773	1739	0	1663
Q Serve(g_s), s	0.4	0.7	0.7	2.7	3.7	5.8	0.5	5.6	5.7	2.1	0.0	2.2
Cycle Q Clear(g_c), s	0.4	0.7	0.7	2.7	3.7	5.8	0.5	5.6	5.7	2.1	0.0	2.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.16	1.00		0.49
Lane Grp Cap(c), veh/h	40	247	252	183	389	347	338	337	345	492	0	235
V/C Ratio(X)	0.32	0.11	0.12	0.54	0.39	0.59	0.06	0.64	0.64	0.34	0.00	0.34
Avail Cap(c_a), veh/h	707	1057	1080	707	1269	1129	1272	1269	1297	2473	0	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	18.4	18.4	20.9	16.2	17.1	16.2	18.2	18.3	19.1	0.0	19.1
Incr Delay (d2), s/veh	1.7	0.1	0.1	0.9	0.2	0.6	0.0	0.8	0.8	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.2	1.0	1.2	1.7	0.2	2.0	2.0	0.8	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	18.5	18.5	21.8	16.5	17.7	16.2	19.0	19.0	19.2	0.0	19.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		70			457			458			249	
Approach Delay, s/veh		19.8			18.2			18.9			19.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	16.9		12.4	9.4	12.8		14.7				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.4	7.8		4.2	4.7	2.7		7.7				
Green Ext Time (p_c), s	0.0	1.3		0.6	0.1	0.1		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	76	62	41	264	931	172	1118	36	988	861	115
Future Volume (veh/h)	102	76	62	41	264	931	172	1118	36	988	861	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	105	78	0	42	272	0	177	1153	14	1019	888	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	305	160		282	296		199	1371	426	1025	1653	
Arrive On Green	0.09	0.09	0.00	0.16	0.16	0.00	0.11	0.28	0.28	0.30	0.48	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	105	78	0	42	272	0	177	1153	14	1019	888	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	4.2	6.0	0.0	3.1	21.7	0.0	14.9	32.3	1.0	44.6	26.7	0.0
Cycle Q Clear(g_c), s	4.2	6.0	0.0	3.1	21.7	0.0	14.9	32.3	1.0	44.6	26.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	160		282	296		199	1371	426	1025	1653	
V/C Ratio(X)	0.34	0.49		0.15	0.92		0.89	0.84	0.03	0.99	0.54	
Avail Cap(c_a), veh/h	376	197		305	321		282	1515	470	1025	1653	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.5	64.3	0.0	53.2	61.0	0.0	64.6	50.6	39.3	51.4	27.3	0.0
Incr Delay (d2), s/veh	0.7	2.3	0.0	0.2	29.0	0.0	17.0	4.4	0.0	26.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.9	0.0	1.3	12.1	0.0	7.3	13.5	0.4	21.7	10.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	66.6	0.0	53.5	90.0	0.0	81.6	55.0	39.3	77.9	27.7	0.0
LnGrp LOS	E	E		D	F		F	D	D	E	C	
Approach Vol, veh/h		183			314			1344			1907	
Approach Delay, s/veh		65.2			85.1			58.3			54.5	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.7	77.1		30.5	51.5	47.2		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	24.0	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	16.9	28.7		23.7	46.6	34.3		8.0
Green Ext Time (p_c), s	0.1	6.7		0.3	0.0	6.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	59.0
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	67	52	1	23	22	73	6	10	1161	19
Future Vol, veh/h	26	0	67	52	1	23	22	73	6	10	1161	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	28	0	72	56	1	25	24	78	6	11	1248	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1368	1412	634	775	1419	42	1268	0	0	84	0	0
Stage 1	1280	1280	-	129	129	-	-	-	-	-	-	-
Stage 2	88	132	-	646	1290	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	103	133	415	282	132	1010	528	-	-	1489	-	-
Stage 1	171	229	-	852	781	-	-	-	-	-	-	-
Stage 2	901	779	-	420	226	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	96	126	415	224	125	1010	528	-	-	1489	-	-
Mov Cap-2 Maneuver	96	126	-	224	125	-	-	-	-	-	-	-
Stage 1	163	227	-	814	746	-	-	-	-	-	-	-
Stage 2	838	744	-	345	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.2	22.3	2.6	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	528	-	-	96	-	415	289	1489	-	-
HCM Lane V/C Ratio	0.045	-	-	0.291	-	0.174	0.283	0.007	-	-
HCM Control Delay (s)	12.1	-	-	57.2	0	15.5	22.3	7.4	-	-
HCM Lane LOS	B	-	-	F	A	C	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	-	0.6	1.1	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	297	42	33	22	44	5	31	64	766	451	13
Future Volume (veh/h)	41	297	42	33	22	44	5	31	64	766	451	13
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	43	309	24	34	23	29	5	32	35	873	365	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	124	500	36	89	240	214	146	145	127	1176	581	18
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.09	0.09	0.09	0.33	0.33	0.33
Sat Flow, veh/h	1739	3263	252	1739	1735	1547	1739	1735	1521	3478	1752	62
Grp Volume(v), veh/h	43	163	170	34	23	29	5	32	35	873	0	378
Grp Sat Flow(s),veh/h/ln	1739	1735	1781	1739	1735	1547	1739	1735	1521	1739	0	1815
Q Serve(g_s), s	1.3	4.7	4.7	1.0	0.6	0.9	0.1	0.9	1.1	11.9	0.0	9.4
Cycle Q Clear(g_c), s	1.3	4.7	4.7	1.0	0.6	0.9	0.1	0.9	1.1	11.9	0.0	9.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	124	264	271	89	240	214	146	145	127	1176	0	601
V/C Ratio(X)	0.35	0.62	0.63	0.38	0.10	0.14	0.03	0.22	0.27	0.74	0.00	0.63
Avail Cap(c_a), veh/h	659	986	1012	659	1183	1055	1186	1183	1037	2306	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	21.6	21.6	26.4	21.6	21.7	24.3	24.7	24.8	20.3	0.0	17.0
Incr Delay (d2), s/veh	0.6	0.9	0.9	1.0	0.1	0.1	0.0	0.3	0.4	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	18.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	18.2	0.0	4.3
%ile BackOfQ(50%),veh/ln	1.6	2.2	2.2	0.4	0.2	0.3	0.1	0.4	0.4	9.8	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	24.9	24.8	27.4	21.7	21.8	24.3	25.0	25.2	38.9	0.0	21.8
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		376			86			72			1251	
Approach Delay, s/veh		27.0			24.0			25.0			33.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	13.0		22.6	6.9	13.6		9.7				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.3	2.9		13.9	3.0	6.7		3.1				
Green Ext Time (p_c), s	0.0	0.1		3.2	0.0	1.0		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	643	222	51	30	643	45	945	52	1171	1092	34
Future Volume (veh/h)	271	643	222	51	30	643	45	945	52	1171	1092	34
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	279	663	0	53	31	0	46	974	24	1207	1126	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		123	212		100	1019	316	1047	1787	
Arrive On Green	0.21	0.21	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.35	0.52	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	279	663	0	53	31	0	46	974	24	1207	1126	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	23.7	27.5	0.0	4.6	2.5	0.0	4.0	29.8	1.9	55.0	36.1	0.0
Cycle Q Clear(g_c), s	23.7	27.5	0.0	4.6	2.5	0.0	4.0	29.8	1.9	55.0	36.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		123	212		100	1019	316	1047	1787	
V/C Ratio(X)	0.79	0.89		0.43	0.15		0.46	0.96	0.08	1.15	0.63	
Avail Cap(c_a), veh/h	400	841		289	304		311	1116	346	1187	1800	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	71.1	67.2	0.0	77.4	66.8	54.6	61.1	28.2	0.0
Incr Delay (d2), s/veh	9.2	11.1	0.0	2.4	0.3	0.0	1.2	16.9	0.1	80.1	0.8	0.0
Initial Q Delay(d3),s/veh	191.1	73.7	0.0	13.5	0.0	0.0	0.0	0.0	0.0	20.6	0.4	0.0
%ile BackOfQ(50%),veh/ln	15.4	25.3	0.0	3.3	1.2	0.0	1.9	15.1	0.8	37.4	15.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	270.9	155.5	0.0	86.9	67.5	0.0	78.6	83.7	54.7	161.9	29.4	0.0
LnGrp LOS	F	F		F	E		E	F	D	F	C	
Approach Vol, veh/h		942			84			1044			2333	
Approach Delay, s/veh		189.7			79.8			82.8			98.0	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	87.6		16.5	61.5	40.4		38.0				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	23.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	13.8	38.1		6.6	57.0	31.8		29.5				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	113.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	37	22	0	7	80	703	47	26	233	122
Future Vol, veh/h	22	0	37	22	0	7	80	703	47	26	233	122
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	23	0	39	23	0	7	84	740	49	27	245	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	909	1333	201	1123	1373	402	380	0	0	795	0	0
Stage 1	370	370	-	939	939	-	-	-	-	-	-	-
Stage 2	539	963	-	184	434	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	225	149	797	157	141	590	1154	-	-	803	-	-
Stage 1	614	611	-	278	334	-	-	-	-	-	-	-
Stage 2	487	325	-	791	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	132	786	135	125	586	1146	-	-	798	-	-
Mov Cap-2 Maneuver	203	132	-	135	125	-	-	-	-	-	-	-
Stage 1	565	586	-	256	308	-	-	-	-	-	-	-
Stage 2	445	299	-	722	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	31.5	0.8	0.7
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	203	-	786	166	798	-	-
HCM Lane V/C Ratio	0.073	-	-	0.114	-	0.05	0.184	0.034	-	-
HCM Control Delay (s)	8.4	-	-	25	0	9.8	31.5	9.7	-	-
HCM Lane LOS	A	-	-	D	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-	0.2	0.7	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	58	9	111	171	374	22	450	66	154	79	60
Future Volume (veh/h)	15	58	9	111	171	374	22	450	66	154	79	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	16	61	6	117	180	259	23	474	47	98	172	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	48	475	46	189	399	355	378	693	68	236	370	104
Arrive On Green	0.03	0.15	0.15	0.11	0.23	0.23	0.22	0.22	0.22	0.14	0.14	0.14
Sat Flow, veh/h	1739	3195	310	1739	1735	1543	1739	3188	315	1739	2731	768
Grp Volume(v), veh/h	16	33	34	117	180	259	23	257	264	98	113	109
Grp Sat Flow(s),veh/h/ln	1739	1735	1770	1739	1735	1543	1739	1735	1768	1739	1826	1673
Q Serve(g_s), s	0.5	0.9	0.9	3.4	4.7	8.2	0.6	7.2	7.2	2.7	3.0	3.2
Cycle Q Clear(g_c), s	0.5	0.9	0.9	3.4	4.7	8.2	0.6	7.2	7.2	2.7	3.0	3.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.18	1.00		0.46
Lane Grp Cap(c), veh/h	48	258	263	189	399	355	378	377	385	236	247	227
V/C Ratio(X)	0.33	0.13	0.13	0.62	0.45	0.73	0.06	0.68	0.69	0.42	0.46	0.48
Avail Cap(c_a), veh/h	661	988	1009	661	1186	1055	1189	1186	1209	1156	1214	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	19.4	19.5	22.4	17.4	18.8	16.3	18.9	18.9	20.8	21.0	21.0
Incr Delay (d2), s/veh	1.5	0.1	0.1	1.2	0.3	1.1	0.0	0.8	0.8	0.4	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.3	1.6	2.5	0.2	2.5	2.6	1.0	1.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	19.5	19.5	23.6	17.7	19.9	16.4	19.7	19.8	21.3	21.5	21.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		83			556			544			320	
Approach Delay, s/veh		20.9			20.0			19.6			21.5	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	17.9		12.5	9.9	13.6		16.6				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.5	10.2		5.2	5.4	2.9		9.2				
Green Ext Time (p_c), s	0.0	1.6		0.9	0.1	0.2		1.9				

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	94	73	51	328	1156	208	1388	45	1227	1069	136
Future Volume (veh/h)	122	94	73	51	328	1156	208	1388	45	1227	1069	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	128	99	0	54	345	0	219	1461	24	1292	1125	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	293	154		293	308		239	1454	451	984	1586	
Arrive On Green	0.08	0.08	0.00	0.17	0.17	0.00	0.14	0.29	0.29	0.29	0.46	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	128	99	0	54	345	0	219	1461	24	1292	1125	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	5.4	8.1	0.0	4.1	26.0	0.0	19.2	45.0	1.7	45.0	40.2	0.0
Cycle Q Clear(g_c), s	5.4	8.1	0.0	4.1	26.0	0.0	19.2	45.0	1.7	45.0	40.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	154		293	308		239	1454	451	984	1586	
V/C Ratio(X)	0.44	0.64		0.18	1.12		0.91	1.00	0.05	1.31	0.71	
Avail Cap(c_a), veh/h	361	189		293	308		270	1454	451	984	1586	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.2	68.4	0.0	55.1	64.2	0.0	65.6	54.6	39.3	54.6	33.6	0.0
Incr Delay (d2), s/veh	1.0	5.2	0.0	0.3	88.1	0.0	29.5	24.8	0.1	148.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.0	0.0	1.8	19.2	0.0	10.2	21.4	0.7	38.5	16.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	73.6	0.0	55.3	152.3	0.0	95.2	79.5	39.4	202.9	35.3	0.0
LnGrp LOS	E	E		E	F		F	F	D	F	D	
Approach Vol, veh/h		227			399			1704			2417	
Approach Delay, s/veh		70.5			139.1			80.9			124.9	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	77.0		32.5	51.5	51.5		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	21.4	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	21.2	42.2		28.0	47.0	47.0		10.1
Green Ext Time (p_c), s	0.1	2.0		0.0	0.0	0.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	107.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	65	63	1	28	21	89	7	12	1417	23
Future Vol, veh/h	32	0	65	63	1	28	21	89	7	12	1417	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	34	0	68	66	1	29	22	94	7	13	1492	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1622	1675	758	914	1684	51	1516	0	0	101	0	0
Stage 1	1530	1530	-	142	142	-	-	-	-	-	-	-
Stage 2	92	145	-	772	1542	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	66	92	343	223	90	996	422	-	-	1468	-	-
Stage 1	119	172	-	838	771	-	-	-	-	-	-	-
Stage 2	896	769	-	352	170	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	86	343	170	85	996	422	-	-	1468	-	-
Mov Cap-2 Maneuver	61	86	-	170	85	-	-	-	-	-	-	-
Stage 1	113	170	-	794	731	-	-	-	-	-	-	-
Stage 2	823	729	-	279	168	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52	32.8	2.5	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	422	-	-	61	-	343	224	1468	-	-
HCM Lane V/C Ratio	0.052	-	-	0.552	-	0.199	0.432	0.009	-	-
HCM Control Delay (s)	14	-	-	120.8	0	18.1	32.8	7.5	-	-
HCM Lane LOS	B	-	-	F	A	C	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.2	-	0.7	2	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	363	51	40	27	48	6	38	78	918	551	16
Future Volume (veh/h)	50	363	51	40	27	48	6	38	78	918	551	16
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	53	382	34	42	28	34	6	40	49	1068	437	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	549	46	97	268	239	147	147	129	1270	649	21
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.09	0.09	0.09	0.37	0.37	0.37
Sat Flow, veh/h	1739	3224	285	1739	1735	1547	1739	1735	1519	3478	1750	64
Grp Volume(v), veh/h	53	205	211	42	28	34	6	40	49	1068	0	453
Grp Sat Flow(s),veh/h/ln	1739	1735	1775	1739	1735	1547	1739	1735	1519	1739	0	1814
Q Serve(g_s), s	1.9	7.2	7.3	1.5	0.9	1.2	0.2	1.4	2.0	17.9	0.0	13.5
Cycle Q Clear(g_c), s	1.9	7.2	7.3	1.5	0.9	1.2	0.2	1.4	2.0	17.9	0.0	13.5
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	132	294	301	97	268	239	147	147	129	1270	0	670
V/C Ratio(X)	0.40	0.70	0.70	0.43	0.10	0.14	0.04	0.27	0.38	0.84	0.00	0.68
Avail Cap(c_a), veh/h	541	810	828	541	972	867	974	972	851	1894	0	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	25.7	25.8	32.2	25.6	25.7	29.7	30.3	30.6	26.2	0.0	19.4
Incr Delay (d2), s/veh	0.7	1.1	1.1	1.1	0.1	0.1	0.0	0.4	0.7	1.5	0.0	0.4
Initial Q Delay(d3),s/veh	17.3	2.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	25.3	0.0	4.0
%ile BackOfQ(50%),veh/ln	1.9	3.3	3.3	0.7	0.4	0.5	0.1	0.6	0.8	15.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	29.3	29.3	33.3	25.6	25.8	29.7	30.6	31.2	52.9	0.0	23.8
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		469			104			95			1521	
Approach Delay, s/veh		31.4			28.8			30.9			44.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	15.8		29.2	7.9	16.3		10.8				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.9	3.2		19.9	3.5	9.3		4.0				
Green Ext Time (p_c), s	0.0	0.2		3.8	0.0	1.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	785	263	62	37	785	52	1154	63	1430	1333	39
Future Volume (veh/h)	322	785	263	62	37	785	52	1154	63	1430	1333	39
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	339	826	0	65	39	0	55	1215	35	1505	1403	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		120	223		103	984	314	1047	1731	
Arrive On Green	0.22	0.22	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.34	0.51	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	339	826	0	65	39	0	55	1215	35	1505	1403	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	30.3	36.0	0.0	5.9	3.3	0.0	4.9	35.0	2.9	55.0	54.0	0.0
Cycle Q Clear(g_c), s	30.3	36.0	0.0	5.9	3.3	0.0	4.9	35.0	2.9	55.0	54.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		120	223		103	984	314	1047	1731	
V/C Ratio(X)	0.96	1.11		0.54	0.18		0.53	1.23	0.11	1.44	0.81	
Avail Cap(c_a), veh/h	388	815		280	294		302	1082	336	1150	1758	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	73.9	67.9	0.0	78.9	71.2	56.1	61.1	35.4	0.0
Incr Delay (d2), s/veh	34.0	68.9	0.0	3.7	0.4	0.0	1.6	114.5	0.2	202.6	3.1	0.0
Initial Q Delay(d3),s/veh	267.5	121.4	0.0	17.4	0.0	0.0	0.0	0.0	0.0	20.6	0.8	0.0
%ile BackOfQ(50%),veh/ln	45.4	36.2	0.0	4.0	1.5	0.0	2.4	24.9	1.2	55.2	24.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	372.2	261.0	0.0	95.0	68.2	0.0	80.5	185.7	56.4	284.4	39.3	0.0
LnGrp LOS	F	F		F	E		F	F	E	F	D	
Approach Vol, veh/h		1165			104			1305			2908	
Approach Delay, s/veh		293.3			85.0			177.8			166.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	88.2		16.5	61.5	41.5		41.8				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	10.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	9.9	56.0		7.9	57.0	37.0		38.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	194.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E 11/14/2023

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	13	22	0	7	81	703	47	26	233	122
Future Vol, veh/h	22	0	13	22	0	7	81	703	47	26	233	122
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	23	0	14	23	0	7	85	740	49	27	245	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	911	1335	201	1125	1375	402	380	0	0	795	0	0
Stage 1	370	370	-	941	941	-	-	-	-	-	-	-
Stage 2	541	965	-	184	434	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	225	149	797	156	140	590	1154	-	-	803	-	-
Stage 1	614	611	-	277	333	-	-	-	-	-	-	-
Stage 2	485	325	-	791	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	132	786	139	124	586	1146	-	-	798	-	-
Mov Cap-2 Maneuver	203	132	-	139	124	-	-	-	-	-	-	-
Stage 1	565	586	-	255	306	-	-	-	-	-	-	-
Stage 2	443	299	-	746	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	30.8	0.8	0.7
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	203	-	786	170	798	-	-
HCM Lane V/C Ratio	0.074	-	-	0.114	-	0.017	0.18	0.034	-	-
HCM Control Delay (s)	8.4	-	-	25	0	9.7	30.8	9.7	-	-
HCM Lane LOS	A	-	-	D	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-	0.1	0.6	0.1	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd 11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	58	9	111	171	375	22	450	66	130	79	60
Future Volume (veh/h)	15	58	9	111	171	375	22	450	66	130	79	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	16	61	6	117	180	260	23	474	47	90	149	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	48	477	46	189	400	356	378	693	68	234	355	114
Arrive On Green	0.03	0.15	0.15	0.11	0.23	0.23	0.22	0.22	0.22	0.13	0.13	0.13
Sat Flow, veh/h	1739	3195	310	1739	1735	1543	1739	3188	315	1739	2635	848
Grp Volume(v), veh/h	16	33	34	117	180	260	23	257	264	90	101	98
Grp Sat Flow(s),veh/h/ln	1739	1735	1770	1739	1735	1543	1739	1735	1768	1739	1826	1657
Q Serve(g_s), s	0.5	0.9	0.9	3.4	4.7	8.2	0.6	7.2	7.2	2.5	2.7	2.9
Cycle Q Clear(g_c), s	0.5	0.9	0.9	3.4	4.7	8.2	0.6	7.2	7.2	2.5	2.7	2.9
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.18	1.00		0.51
Lane Grp Cap(c), veh/h	48	259	264	189	400	356	378	377	385	234	246	223
V/C Ratio(X)	0.33	0.13	0.13	0.62	0.45	0.73	0.06	0.68	0.69	0.38	0.41	0.44
Avail Cap(c_a), veh/h	661	988	1009	661	1186	1055	1189	1186	1209	1156	1214	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	19.4	19.4	22.4	17.4	18.7	16.3	18.9	18.9	20.8	20.9	20.9
Incr Delay (d2), s/veh	1.5	0.1	0.1	1.2	0.3	1.1	0.0	0.8	0.8	0.4	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.3	1.6	2.5	0.2	2.5	2.6	0.9	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	19.5	19.5	23.6	17.7	19.8	16.4	19.7	19.8	21.2	21.3	21.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		83			557			544			289	
Approach Delay, s/veh		20.9			19.9			19.6			21.3	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	17.9		12.5	9.9	13.7		16.6				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.5	10.2		4.9	5.4	2.9		9.2				
Green Ext Time (p_c), s	0.0	1.6		0.8	0.1	0.2		1.9				

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	94	61	51	328	1156	208	1388	45	1227	1069	137
Future Volume (veh/h)	110	94	61	51	328	1156	208	1388	45	1227	1069	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	120	94	0	54	345	0	219	1461	24	1292	1125	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	293	154		293	308		239	1454	451	984	1586	
Arrive On Green	0.08	0.08	0.00	0.17	0.17	0.00	0.14	0.29	0.29	0.29	0.46	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	120	94	0	54	345	0	219	1461	24	1292	1125	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	5.0	7.7	0.0	4.1	26.0	0.0	19.2	45.0	1.7	45.0	40.2	0.0
Cycle Q Clear(g_c), s	5.0	7.7	0.0	4.1	26.0	0.0	19.2	45.0	1.7	45.0	40.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	154		293	308		239	1454	451	984	1586	
V/C Ratio(X)	0.41	0.61		0.18	1.12		0.91	1.00	0.05	1.31	0.71	
Avail Cap(c_a), veh/h	361	189		293	308		270	1454	451	984	1586	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.0	68.2	0.0	55.1	64.2	0.0	65.6	54.6	39.3	54.6	33.6	0.0
Incr Delay (d2), s/veh	0.9	3.9	0.0	0.3	88.1	0.0	29.5	24.8	0.1	148.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	0.0	1.8	19.2	0.0	10.2	21.4	0.7	38.5	16.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	72.1	0.0	55.3	152.3	0.0	95.2	79.5	39.4	202.9	35.3	0.0
LnGrp LOS	E	E		E	F		F	F	D	F	D	
Approach Vol, veh/h		214			399			1704			2417	
Approach Delay, s/veh		69.8			139.1			80.9			124.9	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	16.0	77.0	32.5	51.5	51.5	18.8
Change Period (Y+Rc), s	4.7	6.5	6.5	6.5	* 6.5	5.8
Max Green Setting (Gmax), s	11.4	45.0	26.0	45.0	* 45	16.0
Max Q Clear Time (g_c+I1), s	21.2	42.2	28.0	47.0	47.0	9.7
Green Ext Time (p_c), s	0.1	2.0	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	107.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	48	63	1	28	16	89	7	12	1417	23
Future Vol, veh/h	32	0	48	63	1	28	16	89	7	12	1417	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	34	0	51	66	1	29	17	94	7	13	1492	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1612	1665	758	904	1674	51	1516	0	0	101	0	0
Stage 1	1530	1530	-	132	132	-	-	-	-	-	-	-
Stage 2	82	135	-	772	1542	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	67	93	343	227	92	996	422	-	-	1468	-	-
Stage 1	119	172	-	849	779	-	-	-	-	-	-	-
Stage 2	908	777	-	352	170	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	62	88	343	186	87	996	422	-	-	1468	-	-
Mov Cap-2 Maneuver	62	88	-	186	87	-	-	-	-	-	-	-
Stage 1	114	170	-	815	748	-	-	-	-	-	-	-
Stage 2	844	746	-	297	168	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	57.4	29.3	2	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	422	-	-	62	-	343	243	1468	-	-
HCM Lane V/C Ratio	0.04	-	-	0.543	-	0.147	0.399	0.009	-	-
HCM Control Delay (s)	13.9	-	-	117.6	0	17.3	29.3	7.5	-	-
HCM Lane LOS	B	-	-	F	A	C	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	-	0.5	1.8	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	363	51	40	27	43	6	38	78	901	551	16
Future Volume (veh/h)	50	363	51	40	27	43	6	38	78	901	551	16
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	53	382	34	42	28	28	6	40	49	1058	425	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	550	46	97	272	236	148	148	129	1267	645	21
Arrive On Green	0.07	0.16	0.16	0.06	0.16	0.16	0.09	0.09	0.09	0.37	0.37	0.37
Sat Flow, veh/h	1739	3224	285	1739	1759	1527	1739	1735	1519	3478	1748	66
Grp Volume(v), veh/h	53	205	211	42	28	28	6	40	49	1058	0	441
Grp Sat Flow(s),veh/h/ln	1739	1735	1775	1739	1735	1551	1739	1735	1519	1739	0	1814
Q Serve(g_s), s	1.9	7.1	7.2	1.5	0.9	1.0	0.2	1.4	1.9	17.7	0.0	13.0
Cycle Q Clear(g_c), s	1.9	7.1	7.2	1.5	0.9	1.0	0.2	1.4	1.9	17.7	0.0	13.0
Prop In Lane	1.00		0.16	1.00		0.98	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	132	294	301	97	268	240	148	148	129	1267	0	666
V/C Ratio(X)	0.40	0.70	0.70	0.43	0.10	0.12	0.04	0.27	0.38	0.84	0.00	0.66
Avail Cap(c_a), veh/h	545	815	834	545	978	874	980	978	857	1906	0	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	25.6	25.6	31.9	25.3	25.4	29.4	30.0	30.3	25.8	0.0	19.2
Incr Delay (d2), s/veh	0.7	1.1	1.1	1.1	0.1	0.1	0.0	0.4	0.7	1.3	0.0	0.4
Initial Q Delay(d3),s/veh	17.2	2.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	24.5	0.0	3.9
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.3	0.7	0.4	0.4	0.1	0.6	0.8	15.1	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	29.1	29.1	33.0	25.4	25.5	29.4	30.3	30.9	51.6	0.0	23.5
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		469			98			95			1499	
Approach Delay, s/veh		31.2			28.7			30.6			43.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	15.7		28.9	7.9	16.3		10.8				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.9	3.0		19.7	3.5	9.2		3.9				
Green Ext Time (p_c), s	0.0	0.1		3.7	0.0	1.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	785	254	62	37	785	50	1154	63	1430	1333	36
Future Volume (veh/h)	314	785	254	62	37	785	50	1154	63	1430	1333	36
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	331	826	0	65	39	0	53	1215	35	1505	1403	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		120	223		102	984	314	1047	1733	
Arrive On Green	0.22	0.22	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.34	0.51	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	331	826	0	65	39	0	53	1215	35	1505	1403	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	29.5	36.0	0.0	5.9	3.3	0.0	4.8	35.0	2.9	55.0	54.0	0.0
Cycle Q Clear(g_c), s	29.5	36.0	0.0	5.9	3.3	0.0	4.8	35.0	2.9	55.0	54.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		120	223		102	984	314	1047	1733	
V/C Ratio(X)	0.94	1.11		0.54	0.18		0.52	1.23	0.11	1.44	0.81	
Avail Cap(c_a), veh/h	388	815		280	294		302	1082	336	1150	1760	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	73.9	67.9	0.0	78.9	71.2	56.1	61.1	35.3	0.0
Incr Delay (d2), s/veh	29.0	68.9	0.0	3.7	0.4	0.0	1.5	114.5	0.2	202.6	3.1	0.0
Initial Q Delay(d3),s/veh	257.3	121.4	0.0	17.4	0.0	0.0	0.0	0.0	0.0	20.6	0.8	0.0
%ile BackOfQ(50%),veh/ln	18.9	36.2	0.0	4.0	1.5	0.0	2.3	24.9	1.2	55.2	24.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	356.9	261.0	0.0	95.0	68.2	0.0	80.4	185.7	56.4	284.4	39.2	0.0
LnGrp LOS	F	F		F	E		F	F	E	F	D	
Approach Vol, veh/h		1157			104			1303			2908	
Approach Delay, s/veh		288.4			85.0			177.9			166.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	88.3		16.5	61.5	41.5		41.8				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	10.8	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	13.8	56.0		7.9	57.0	37.0		38.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	193.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	39	22	0	7	89	703	47	26	233	122
Future Vol, veh/h	22	0	39	22	0	7	89	703	47	26	233	122
Conflicting Peds, #/hr	1	0	7	6	0	0	7	0	6	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	23	0	41	23	0	7	94	740	49	27	245	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	929	1353	201	1143	1393	402	380	0	0	795	0	0
Stage 1	370	370	-	959	959	-	-	-	-	-	-	-
Stage 2	559	983	-	184	434	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	218	145	797	151	137	590	1154	-	-	803	-	-
Stage 1	614	611	-	270	327	-	-	-	-	-	-	-
Stage 2	473	318	-	791	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	195	127	786	129	120	586	1146	-	-	798	-	-
Mov Cap-2 Maneuver	195	127	-	129	120	-	-	-	-	-	-	-
Stage 1	560	586	-	247	298	-	-	-	-	-	-	-
Stage 2	428	290	-	719	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	32.9	0.9	0.7
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	195	-	786	159	798	-	-
HCM Lane V/C Ratio	0.082	-	-	0.119	-	0.052	0.192	0.034	-	-
HCM Control Delay (s)	8.4	-	-	25.9	0	9.8	32.9	9.7	-	-
HCM Lane LOS	A	-	-	D	A	A	D	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	-	0.2	0.7	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	58	9	111	171	383	22	450	66	156	79	60
Future Volume (veh/h)	15	58	9	111	171	383	22	450	66	156	79	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	16	61	6	117	180	268	23	474	47	99	174	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	48	494	48	188	408	363	377	691	68	234	368	102
Arrive On Green	0.03	0.15	0.15	0.11	0.24	0.24	0.22	0.22	0.22	0.13	0.13	0.13
Sat Flow, veh/h	1739	3195	310	1739	1735	1543	1739	3188	315	1739	2739	761
Grp Volume(v), veh/h	16	33	34	117	180	268	23	257	264	99	114	110
Grp Sat Flow(s),veh/h/ln	1739	1735	1770	1739	1735	1543	1739	1735	1768	1739	1826	1674
Q Serve(g_s), s	0.5	0.9	0.9	3.4	4.7	8.5	0.6	7.2	7.3	2.8	3.1	3.2
Cycle Q Clear(g_c), s	0.5	0.9	0.9	3.4	4.7	8.5	0.6	7.2	7.3	2.8	3.1	3.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.18	1.00		0.45
Lane Grp Cap(c), veh/h	48	268	274	188	408	363	377	376	383	234	245	225
V/C Ratio(X)	0.33	0.12	0.13	0.62	0.44	0.74	0.06	0.68	0.69	0.42	0.46	0.49
Avail Cap(c_a), veh/h	654	979	999	654	1175	1045	1178	1175	1198	1145	1202	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	19.4	19.4	22.7	17.3	18.8	16.5	19.1	19.2	21.1	21.2	21.3
Incr Delay (d2), s/veh	1.5	0.1	0.1	1.2	0.3	1.1	0.0	0.8	0.8	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.3	1.6	2.6	0.2	2.6	2.6	1.0	1.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	19.4	19.4	23.9	17.6	19.9	16.5	20.0	20.0	21.6	21.7	21.9
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		83			565			544			323	
Approach Delay, s/veh		20.9			20.0			19.8			21.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	18.3		12.5	10.0	14.0		16.6				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	2.5	10.5		5.2	5.4	2.9		9.3				
Green Ext Time (p_c), s	0.0	1.6		0.9	0.1	0.2		1.9				

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	94	74	51	328	1156	212	1388	45	1227	1069	141
Future Volume (veh/h)	123	94	74	51	328	1156	212	1388	45	1227	1069	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	129	99	0	54	345	0	223	1461	24	1292	1125	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	293	154		293	308		243	1454	451	984	1578	
Arrive On Green	0.08	0.08	0.00	0.17	0.17	0.00	0.14	0.29	0.29	0.29	0.45	0.00
Sat Flow, veh/h	3478	1826	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	129	99	0	54	345	0	223	1461	24	1292	1125	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	5.4	8.1	0.0	4.1	26.0	0.0	19.5	45.0	1.7	45.0	40.4	0.0
Cycle Q Clear(g_c), s	5.4	8.1	0.0	4.1	26.0	0.0	19.5	45.0	1.7	45.0	40.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	154		293	308		243	1454	451	984	1578	
V/C Ratio(X)	0.44	0.64		0.18	1.12		0.92	1.00	0.05	1.31	0.71	
Avail Cap(c_a), veh/h	361	189		293	308		270	1454	451	984	1578	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.2	68.4	0.0	55.1	64.2	0.0	65.5	54.6	39.3	54.6	33.9	0.0
Incr Delay (d2), s/veh	1.0	5.2	0.0	0.3	88.1	0.0	30.4	24.8	0.1	148.2	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.0	0.0	1.8	19.2	0.0	10.5	21.4	0.7	38.5	16.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	73.6	0.0	55.3	152.3	0.0	95.8	79.5	39.4	202.9	35.6	0.0
LnGrp LOS	E	E		E	F		F	F	D	F	D	
Approach Vol, veh/h		228			399			1708			2417	
Approach Delay, s/veh		70.5			139.1			81.0			125.0	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.3	76.7		32.5	51.5	51.5		18.8
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8
Max Green Setting (Gmax), s	21.6	45.0		26.0	45.0	* 45		16.0
Max Q Clear Time (g_c+I1), s	21.5	42.4		28.0	47.0	47.0		10.1
Green Ext Time (p_c), s	0.1	1.9		0.0	0.0	0.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	107.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
1: Devlin Rd & Gateway Rd W/Gateway Rd E

11/14/2023

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	74	63	1	28	24	89	7	12	1417	23
Future Vol, veh/h	32	0	74	63	1	28	24	89	7	12	1417	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	370	-	-	-	175	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	34	0	78	66	1	29	25	94	7	13	1492	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1628	1681	758	920	1690	51	1516	0	0	101	0	0
Stage 1	1530	1530	-	148	148	-	-	-	-	-	-	-
Stage 2	98	151	-	772	1542	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	66	91	343	221	90	996	422	-	-	1468	-	-
Stage 1	119	172	-	831	767	-	-	-	-	-	-	-
Stage 2	889	764	-	352	170	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	60	85	343	162	84	996	422	-	-	1468	-	-
Mov Cap-2 Maneuver	60	85	-	162	84	-	-	-	-	-	-	-
Stage 1	112	170	-	782	722	-	-	-	-	-	-	-
Stage 2	810	719	-	270	168	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	50.4	34.9	2.8	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	422	-	-	60	-	343	214	1468	-	-
HCM Lane V/C Ratio	0.06	-	-	0.561	-	0.227	0.453	0.009	-	-
HCM Control Delay (s)	14.1	-	-	124.1	0	18.6	34.9	7.5	-	-
HCM Lane LOS	B	-	-	F	A	C	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.3	-	0.9	2.2	0	-	-

HCM 6th Signalized Intersection Summary
2: Devlin Rd & Airport Blvd

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	363	51	40	27	51	6	38	78	927	551	16
Future Volume (veh/h)	50	363	51	40	27	51	6	38	78	927	551	16
Initial Q (Qb), veh	5	6	0	0	0	0	0	0	0	30	9	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	53	382	34	42	28	37	6	40	49	1073	444	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	549	46	97	268	239	147	147	128	1271	652	20
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.09	0.09	0.09	0.37	0.37	0.37
Sat Flow, veh/h	1739	3224	285	1739	1735	1547	1739	1735	1519	3478	1751	63
Grp Volume(v), veh/h	53	205	211	42	28	37	6	40	49	1073	0	460
Grp Sat Flow(s),veh/h/ln	1739	1735	1775	1739	1735	1547	1739	1735	1519	1739	0	1814
Q Serve(g_s), s	1.9	7.2	7.3	1.5	0.9	1.3	0.2	1.4	2.0	18.1	0.0	13.8
Cycle Q Clear(g_c), s	1.9	7.2	7.3	1.5	0.9	1.3	0.2	1.4	2.0	18.1	0.0	13.8
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	132	294	300	97	268	239	147	147	128	1271	0	672
V/C Ratio(X)	0.40	0.70	0.70	0.43	0.10	0.15	0.04	0.27	0.38	0.84	0.00	0.68
Avail Cap(c_a), veh/h	539	807	826	539	968	864	971	968	848	1888	0	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	25.8	25.8	32.3	25.7	25.9	29.8	30.4	30.7	26.4	0.0	19.5
Incr Delay (d2), s/veh	0.7	1.1	1.1	1.1	0.1	0.1	0.0	0.4	0.7	1.5	0.0	0.5
Initial Q Delay(d3),s/veh	17.4	2.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	25.7	0.0	4.1
%ile BackOfQ(50%),veh/ln	1.9	3.3	3.4	0.7	0.4	0.5	0.1	0.6	0.8	15.8	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	29.4	29.4	33.5	25.8	26.0	29.9	30.8	31.4	53.7	0.0	24.1
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	A	C
Approach Vol, veh/h		469			107			95			1533	
Approach Delay, s/veh		31.5			28.9			31.0			44.8	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	15.8		29.4	7.9	16.4		10.8				
Change Period (Y+Rc), s	* 4.2	5.8		5.4	* 4.2	5.8		5.1				
Max Green Setting (Gmax), s	* 20	36.0		35.0	* 20	30.0		36.0				
Max Q Clear Time (g_c+I1), s	3.9	3.3		20.1	3.5	9.3		4.0				
Green Ext Time (p_c), s	0.0	0.2		3.8	0.0	1.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR-29/SR-12/29 & Airport Blvd/SR-12

11/14/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	785	267	62	37	785	54	1154	63	1430	1333	40
Future Volume (veh/h)	327	785	267	62	37	785	54	1154	63	1430	1333	40
Initial Q (Qb), veh	28	25	0	4	0	0	0	0	0	6	8	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	344	826	0	65	39	0	57	1215	35	1505	1403	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	353	741		120	223		104	984	314	1047	1729	
Arrive On Green	0.22	0.22	0.00	0.06	0.06	0.00	0.06	0.22	0.22	0.34	0.51	0.00
Sat Flow, veh/h	1739	3652	1547	1739	1826	1547	1739	4985	1547	3374	3469	1547
Grp Volume(v), veh/h	344	826	0	65	39	0	57	1215	35	1505	1403	0
Grp Sat Flow(s),veh/h/ln	1739	1826	1547	1739	1826	1547	1739	1662	1547	1687	1735	1547
Q Serve(g_s), s	30.9	36.0	0.0	5.9	3.3	0.0	5.1	35.0	2.9	55.0	54.1	0.0
Cycle Q Clear(g_c), s	30.9	36.0	0.0	5.9	3.3	0.0	5.1	35.0	2.9	55.0	54.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	741		120	223		104	984	314	1047	1729	
V/C Ratio(X)	0.97	1.11		0.54	0.18		0.55	1.23	0.11	1.44	0.81	
Avail Cap(c_a), veh/h	388	815		280	294		302	1082	336	1150	1756	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.7	70.7	0.0	73.9	67.9	0.0	78.9	71.2	56.1	61.1	35.5	0.0
Incr Delay (d2), s/veh	37.5	68.9	0.0	3.7	0.4	0.0	1.7	114.5	0.2	202.6	3.1	0.0
Initial Q Delay(d3),s/veh	273.9	121.4	0.0	17.4	0.0	0.0	0.0	0.0	0.0	20.6	0.8	0.0
%ile BackOfQ(50%),veh/ln	46.3	36.2	0.0	4.0	1.5	0.0	2.5	24.9	1.2	55.2	24.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	382.0	261.0	0.0	95.0	68.2	0.0	80.6	185.7	56.4	284.4	39.4	0.0
LnGrp LOS	F	F		F	E		F	F	E	F	D	
Approach Vol, veh/h		1170			104			1307			2908	
Approach Delay, s/veh		296.6			85.0			177.6			166.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	88.2		16.5	61.5	41.5		41.8				
Change Period (Y+Rc), s	4.7	6.5		6.5	6.5	* 6.5		5.8				
Max Green Setting (Gmax), s	10.3	35.0		26.0	55.0	* 35		36.0				
Max Q Clear Time (g_c+I1), s	7.1	56.1		7.9	57.0	37.0		38.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	195.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Appendix F

Queuing Calculations and Reports

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Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	47	65	42	134	110	229	94	218	187	94	102	72
Average Queue (ft)	8	17	11	51	33	90	13	112	62	39	41	24
95th Queue (ft)	30	47	35	102	79	173	53	179	136	78	79	54
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								8			0	0
Queuing Penalty (veh)								20			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	100	125	117	22	220	724	1139	263	458	440	382	168
Average Queue (ft)	35	69	51	1	68	339	698	135	324	308	237	26
95th Queue (ft)	80	110	100	12	210	671	1373	230	428	410	349	96
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	34					6	0
Queuing Penalty (veh)					0	14					2	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	1171	1143	471	430	42
Average Queue (ft)	818	805	229	221	1
95th Queue (ft)	1304	1285	401	365	42
Link Distance (ft)	2526	2526	2526	2526	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					400
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Zone Summary

Zone wide Queuing Penalty: 37

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	76	164	146	78	30	56	26	69	84	253	322	135
Average Queue (ft)	28	81	64	21	5	12	3	24	34	139	176	113
95th Queue (ft)	63	140	124	56	20	35	16	57	65	216	275	168
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								0			16	2
Queuing Penalty (veh)								0			38	11

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	542	564	340	108	108	375	93	471	450	393	244
Average Queue (ft)	213	323	342	148	34	13	131	26	336	313	251	53
95th Queue (ft)	364	475	501	399	84	72	284	68	451	424	365	167
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	0	10	12	0							9	0
Queuing Penalty (veh)	0	12	24	0							5	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	1910	1885	1288	1183	127
Average Queue (ft)	1248	1232	419	356	6
95th Queue (ft)	1986	1954	1033	771	85
Link Distance (ft)	2526	2526	2526	2526	
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				0	0

Zone Summary

Zone wide Queuing Penalty: 92

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	52	63	59	128	139	282	117	241	221	121	122	92
Average Queue (ft)	13	23	17	62	43	123	16	140	90	47	51	34
95th Queue (ft)	37	54	45	114	102	227	69	214	181	92	96	72
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								15			0	0
Queuing Penalty (veh)								46			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	107	150	126	51	219	2695	2693	361	579	565	517	226
Average Queue (ft)	45	84	62	3	63	2520	2591	204	423	409	351	58
95th Queue (ft)	89	132	111	24	204	3245	2974	341	551	535	490	196
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)						67	82					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	47					23	0
Queuing Penalty (veh)					0	24					10	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4022	4028	4013	4001	297
Average Queue (ft)	2919	2914	2360	1576	20
95th Queue (ft)	4565	4550	4889	3863	167
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	24	21	9	4	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				2	0

Zone Summary

Zone wide Queuing Penalty: 82

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	100	202	204	77	31	66	36	73	100	474	504	135
Average Queue (ft)	35	104	95	25	6	16	4	26	41	275	335	128
95th Queue (ft)	77	169	172	60	24	45	19	61	79	492	545	158
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)										4	7	
Queuing Penalty (veh)										29	50	
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)		0						0			38	9
Queuing Penalty (veh)		0						0			111	62

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	1140	1146	340	153	93	572	431	944	912	871	245
Average Queue (ft)	296	883	889	278	44	19	273	87	694	668	607	99
95th Queue (ft)	410	1376	1367	470	108	62	502	427	1103	1065	999	260
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)		4	4									
Queuing Penalty (veh)		26	23									
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	1	56	58	0	0			0	9		59	0
Queuing Penalty (veh)	7	87	145	2	0			0	4		37	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4034	4037	4031	4025	212
Average Queue (ft)	3269	3263	2893	2352	11
95th Queue (ft)	4750	4738	5209	4897	124
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	40	41	31	14	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				4	0
Queuing Penalty (veh)				1	0

Zone Summary

Zone wide Queuing Penalty: 586

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	48	59	50	121	104	208	76	233	183	100	100	82
Average Queue (ft)	9	16	13	55	31	90	11	112	66	41	45	29
95th Queue (ft)	32	46	39	103	74	170	45	185	141	82	85	62
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								9			0	0
Queuing Penalty (veh)								22			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	101	129	107	36	219	692	1039	276	439	427	362	225
Average Queue (ft)	37	74	49	2	52	315	548	145	310	295	230	31
95th Queue (ft)	84	117	96	21	177	636	1132	238	410	390	333	118
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	33					5	0
Queuing Penalty (veh)					0	14					2	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	1147	1157	435	409
Average Queue (ft)	803	809	214	224
95th Queue (ft)	1303	1307	338	339
Link Distance (ft)	3980	3980	3980	3980
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Zone Summary

Zone wide Queuing Penalty: 38

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	87	156	146	79	25	67	29	73	83	263	353	135
Average Queue (ft)	27	79	64	21	5	15	4	23	32	145	182	113
95th Queue (ft)	64	131	120	55	20	43	19	57	65	230	297	168
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								0			17	2
Queuing Penalty (veh)								0			41	12

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	552	574	340	115	58	316	108	463	438	370	231
Average Queue (ft)	215	324	332	140	36	13	118	34	328	309	248	49
95th Queue (ft)	367	494	507	379	88	42	240	83	431	410	353	151
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	0	10	11	0							8	0
Queuing Penalty (veh)	1	14	24	0							4	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	1773	1784	1238	1089	42
Average Queue (ft)	1235	1244	361	344	1
95th Queue (ft)	2070	2069	839	722	41
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				0	0

Zone Summary

Zone wide Queuing Penalty: 97

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	48	60	56	123	106	224	68	201	166	90	95	80
Average Queue (ft)	9	17	12	51	31	92	12	106	63	36	40	27
95th Queue (ft)	31	45	39	102	77	176	44	170	134	74	77	57
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								7			0	0
Queuing Penalty (veh)								18			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	96	122	115	32	220	593	938	274	422	406	364	209
Average Queue (ft)	34	71	48	2	57	251	455	141	311	290	223	27
95th Queue (ft)	76	112	97	21	188	478	928	243	397	376	321	102
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	24					4	0
Queuing Penalty (veh)					0	10					1	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	1067	1064	439	371
Average Queue (ft)	770	780	209	220
95th Queue (ft)	1273	1273	380	326
Link Distance (ft)	3980	3980	3980	3980
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Zone Summary

Zone wide Queuing Penalty: 29

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	76	150	131	71	28	68	26	72	84	267	337	135
Average Queue (ft)	29	80	63	21	5	16	4	22	34	141	175	111
95th Queue (ft)	63	133	116	54	20	44	17	57	66	223	283	169
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								0			15	2
Queuing Penalty (veh)								0			36	13

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	507	515	340	108	83	324	105	458	436	385	244
Average Queue (ft)	198	308	317	131	36	14	124	31	328	304	251	60
95th Queue (ft)	344	456	464	365	86	52	265	79	430	407	362	182
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	0	9	10	0							9	0
Queuing Penalty (veh)	0	11	20	0							5	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	1921	1908	1366	969	42
Average Queue (ft)	1253	1259	358	322	1
95th Queue (ft)	2016	2012	875	656	42
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	
Queuing Penalty (veh)				0	

Zone Summary

Zone wide Queuing Penalty: 86

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	43	68	48	132	105	217	106	212	181	106	104	88
Average Queue (ft)	9	18	11	54	33	100	13	120	65	44	47	27
95th Queue (ft)	31	50	36	109	78	182	57	187	139	85	88	62
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)							0	10			0	0
Queuing Penalty (veh)							0	26			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	102	131	116	34	220	618	856	287	427	402	350	189
Average Queue (ft)	42	76	54	2	60	321	454	149	308	291	227	27
95th Queue (ft)	87	121	103	20	196	610	884	249	398	381	328	100
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)						38					5	0
Queuing Penalty (veh)						16					2	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	1043	1053	396	423
Average Queue (ft)	692	707	216	229
95th Queue (ft)	1171	1182	355	353
Link Distance (ft)	3980	3980	3980	3980
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Zone Summary

Zone wide Queuing Penalty: 44

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	74	161	155	69	32	48	31	66	77	284	346	135
Average Queue (ft)	27	79	68	23	5	13	4	21	33	152	191	113
95th Queue (ft)	61	134	128	57	20	34	19	52	62	243	306	169
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								0			18	2
Queuing Penalty (veh)								0			43	12

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	334	540	554	340	122	56	330	107	451	436	369	211
Average Queue (ft)	212	325	335	153	37	13	122	36	328	305	245	45
95th Queue (ft)	363	498	510	389	92	41	257	85	427	400	345	138
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	0	11	11	0							8	0
Queuing Penalty (veh)	0	14	25	0							4	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	1579	1580	972	886	127
Average Queue (ft)	1113	1123	312	313	6
95th Queue (ft)	1731	1739	674	636	86
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	
Queuing Penalty (veh)				0	

Zone Summary

Zone wide Queuing Penalty: 100

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	53	84	57	145	115	248	127	244	203	117	124	123
Average Queue (ft)	11	24	17	60	38	117	18	138	90	51	56	39
95th Queue (ft)	35	59	46	116	89	212	72	214	177	95	101	89
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								15			1	0
Queuing Penalty (veh)								48			1	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	118	150	134	48	219	2694	2692	362	597	573	525	245
Average Queue (ft)	51	83	64	3	53	2598	2638	194	429	412	354	61
95th Queue (ft)	100	134	114	24	178	3059	2824	321	574	559	509	202
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)						71	87					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	42			0		23	0
Queuing Penalty (veh)					0	21			0		10	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4023	4028	4018	3998	296
Average Queue (ft)	3077	3072	2569	1639	18
95th Queue (ft)	4606	4588	5017	3794	160
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	26	23	7	3	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				2	0

Zone Summary

Zone wide Queuing Penalty: 83

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	105	222	222	82	25	54	28	76	104	519	522	135
Average Queue (ft)	40	117	108	29	5	16	5	28	42	386	421	132
95th Queue (ft)	85	191	192	65	20	40	20	62	82	609	610	148
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)										13	21	
Queuing Penalty (veh)										99	161	
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)		0						0			53	13
Queuing Penalty (veh)		0						0			153	99

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	1238	1248	340	126	72	590	356	853	828	752	245
Average Queue (ft)	305	1109	1109	291	45	20	269	73	627	601	540	93
95th Queue (ft)	403	1383	1379	460	101	56	505	330	957	929	847	244
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)		9	9									
Queuing Penalty (veh)		61	58									
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	3	65	66	1					4		55	0
Queuing Penalty (veh)	16	104	174	2					2		35	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4031	4034	4029	4022	297
Average Queue (ft)	3214	3211	2855	2258	15
95th Queue (ft)	4721	4713	5116	4732	146
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	37	37	27	13	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				5	0
Queuing Penalty (veh)				2	0

Zone Summary

Zone wide Queuing Penalty: 967

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	50	68	56	146	129	242	134	240	204	101	120	106
Average Queue (ft)	10	23	14	63	40	118	18	141	92	47	52	35
95th Queue (ft)	33	56	43	122	93	212	72	217	183	88	97	76
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								16			0	0
Queuing Penalty (veh)								51			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	111	152	125	45	220	2695	2692	385	590	570	530	243
Average Queue (ft)	48	82	58	3	63	2562	2614	205	421	406	352	55
95th Queue (ft)	98	134	110	23	203	3168	2951	343	572	559	515	190
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)						69	86					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	44					24	0
Queuing Penalty (veh)					0	22					11	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4023	4021	4009	3972	170
Average Queue (ft)	2994	2985	2458	1596	7
95th Queue (ft)	4572	4559	4945	3813	97
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	24	23	10	6	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				2	0

Zone Summary

Zone wide Queuing Penalty: 86

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	95	196	200	81	32	58	30	79	90	478	510	135
Average Queue (ft)	35	107	96	28	6	17	4	29	42	304	361	130
95th Queue (ft)	74	177	172	67	22	41	19	64	78	525	563	153
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)										6	10	
Queuing Penalty (veh)										43	78	
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)		0						0			44	10
Queuing Penalty (veh)		0						0			127	74

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	1226	1230	340	134	70	626	194	776	764	712	245
Average Queue (ft)	300	945	951	268	43	17	272	61	588	566	505	99
95th Queue (ft)	407	1435	1428	467	102	51	512	280	852	821	761	260
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)		5	5									
Queuing Penalty (veh)		36	36									
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	1	58	59	0	0				2		52	0
Queuing Penalty (veh)	6	90	151	1	0				1		33	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4030	4032	4030	4020	382
Average Queue (ft)	3192	3191	2828	2181	30
95th Queue (ft)	4700	4688	5094	4599	208
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	34	34	24	11	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				5	0
Queuing Penalty (veh)				2	0

Zone Summary

Zone wide Queuing Penalty: 680

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	47	64	59	140	114	273	110	262	220	113	116	114
Average Queue (ft)	10	19	16	61	40	119	16	142	89	52	53	36
95th Queue (ft)	32	49	45	118	89	218	68	217	178	95	96	78
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								16			0	0
Queuing Penalty (veh)								52			0	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	117	155	130	81	220	2696	2698	348	564	547	507	245
Average Queue (ft)	49	83	58	7	60	2552	2611	193	418	402	346	54
95th Queue (ft)	98	134	111	43	196	3185	2962	307	558	547	500	185
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)						71	85					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)					0	36					21	0
Queuing Penalty (veh)					0	18					10	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4029	4026	4007	3997	337
Average Queue (ft)	3034	3025	2481	1604	18
95th Queue (ft)	4548	4531	4927	3888	159
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	26	23	9	4	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				1	0

Zone Summary

Zone wide Queuing Penalty: 82

Intersection: 2: Devlin Rd & Airport Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	LT	TR
Maximum Queue (ft)	87	194	188	70	36	63	26	68	101	488	494	135
Average Queue (ft)	36	105	95	24	7	20	4	23	42	297	354	130
95th Queue (ft)	76	174	164	56	25	50	19	55	82	530	563	154
Link Distance (ft)		1198	1198		1201	1201		1130		492	492	
Upstream Blk Time (%)										7	11	
Queuing Penalty (veh)										53	82	
Storage Bay Dist (ft)	300			370			110		380			110
Storage Blk Time (%)								0			40	10
Queuing Penalty (veh)								0			117	76

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	R	L	T	T	T	R
Maximum Queue (ft)	335	1165	1159	340	129	73	572	360	942	895	829	245
Average Queue (ft)	301	865	870	281	46	17	273	68	651	623	568	102
95th Queue (ft)	403	1394	1391	468	103	53	521	314	986	955	889	263
Link Distance (ft)		1201	1201			2637	2637		1658	1658	1658	
Upstream Blk Time (%)		5	4									
Queuing Penalty (veh)		32	30									
Storage Bay Dist (ft)	310			315	195			870				220
Storage Blk Time (%)	2	53	55	0	0				6		59	0
Queuing Penalty (veh)	9	87	147	2	0				3		37	0

Intersection: 3: SR-29/SR-12/29 & Airport Blvd/SR-12

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	4030	4034	4027	4021	340
Average Queue (ft)	3299	3292	2943	2318	21
95th Queue (ft)	4703	4697	5159	4865	173
Link Distance (ft)	3980	3980	3980	3980	
Upstream Blk Time (%)	39	39	29	13	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					400
Storage Blk Time (%)				5	0
Queuing Penalty (veh)				2	0

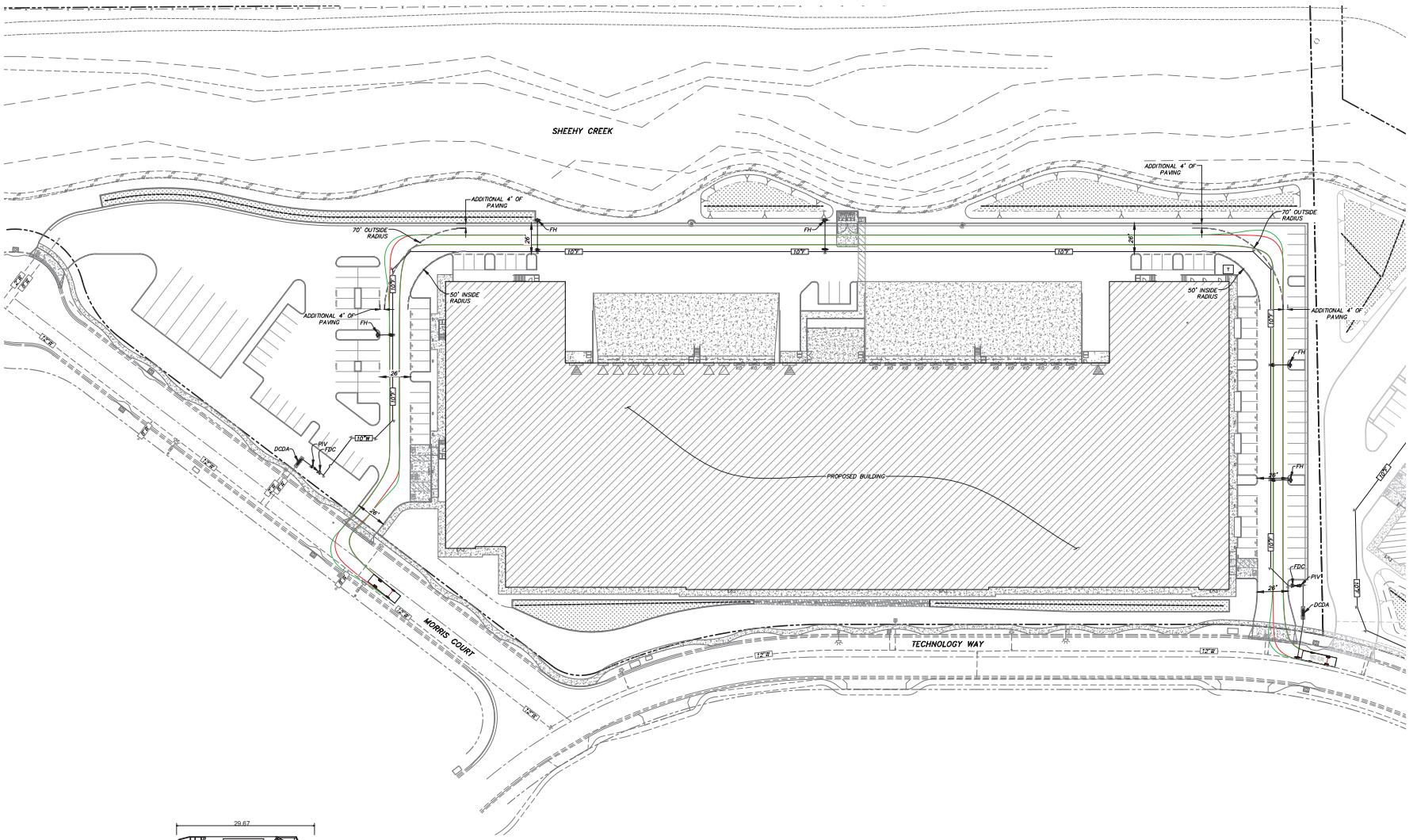
Zone Summary

Zone wide Queuing Penalty: 677

Appendix G

Fire Access Circulation

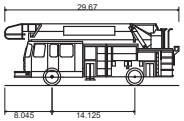
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LEGEND

BODY ENVELOPE

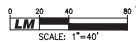
OUTER WHEEL WALLS



PIERCE - VEL7000

Overall Length	29.670ft
Overall Width	8.000ft
Overall Body Height	10.514ft
Min Body Ground Clearance	0.944ft
Track Width	8.470ft
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	30.000ft

1 NAPA COUNTY FIRE ENGINE
NTS



RMW
Architecture
Interiors

1718 Third Street
Suite 101
Sacramento
California 95811

Office
916 449-1400

rmw.com

OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE STORAGE FACILITY BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022
B	REASSUED FOR PLANNING REVIEW	01-01-2023

GENERAL CONTRACTOR:

drawn by : PJ plot date : 01-31-2023

checked by : PF

stamp

REGISTERED PROFESSIONAL ENGINEER
BRIAN P. BOWLING
No. 41804
CIVIL
STATE OF CALIFORNIA

scale : AS NOTED

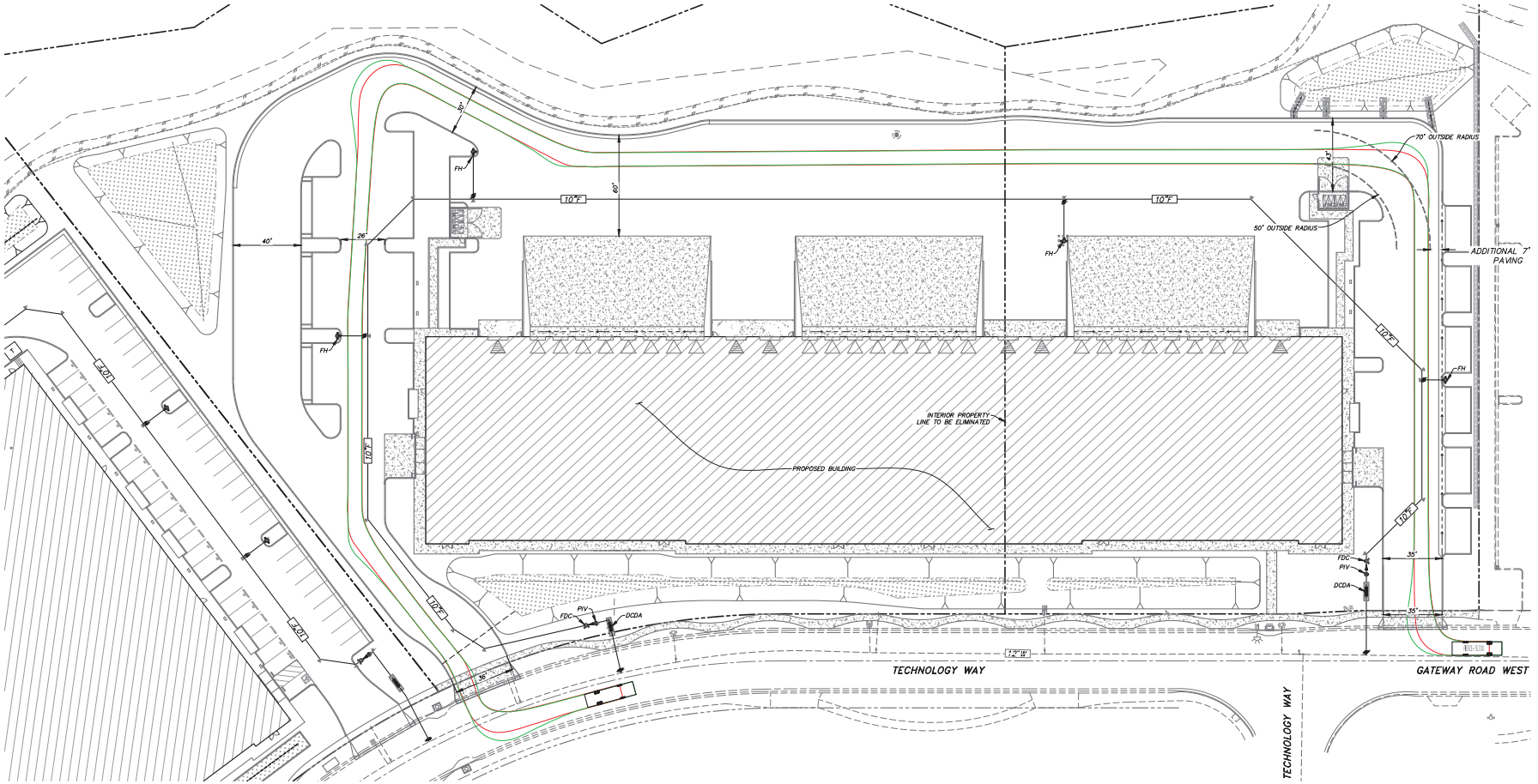
project number : 3687-13

FIRE PLAN

sheet no. :

C901

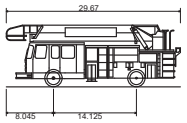
File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C901.dwg Date Plotted: February 02, 2023 - 8:59am



LEGEND

BODY ENVELOPE

OUTER WHEEL WALLS



PIERCE - VEL7000	
Overall Length	29.670ft
Overall Width	8.000ft
Overall Body Height	10.514ft
Min Body Ground Clearance	0.944ft
Track Width	8.470ft
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	30.000ft

1 NAPA COUNTY FIRE ENGINE
NTS

0 15 30 60
SCALE: 1"=30'

RMW
Architecture
Interiors

1718 Third Street
Suite 101
Sacramento
California 95811

Office
916 449-1400

rmw.com

OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022
B	REISSUED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by : PJ plot date : 01-31-2023

checked by : PF

stamp

REGISTERED PROFESSIONAL ENGINEER BRIAN P. BONINO No. 41804 CIVIL STATE OF CALIFORNIA

scale : AS NOTED

project number : 3687-13

FIRE PLAN

sheet no. :

C901

“H”

Water Supply Reports

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

DocuSign Envelope ID: 6A50525C-56D7-4439-B4D8-611D8DE57821

CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

E&P Tech Way

Technology Way, Napa, CA 94558
Napa County Assessor's Parcel Number
057-250-030

Prepared by:

Edison Bisnar
Development Services Engineer

Approved by:

DocuSigned by:
Erica Ahmann Smithies
A02D678043A74E7...

3/13/2023

Erica Ahmann Smithies, P.E. **Date**
Public Works Director/City Engineer

DocuSign Envelope ID: 6A50525C-56D7-4439-B4D8-611D8DE57821

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PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

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SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property is located on Technology Way (Assessor's Parcel Number: 057-250-030) on approximately 13.2 acres referred to herein as the "Property." The Property is zoned Industrial Park (IP) with Airport Compatibility (AC) and is located within the City's Extraterritorial Water Service Area (ETSA)[1].

1.2 - Project Description

The proposed project is to build a 143,325 winery. Entitlements required include a Use Permit from Napa County (P22-00307) and Will-Serve Letters from the City (for potable water service – domestic and fire service) and Napa Sanitation District (for sewer and recycled water)[2].

The project incorporates the following water conservation best management practices:

- Dual plumbed the building to receive recycled water for toilet flushing
- Motion sensor faucets
- Use recycled water for landscaping
- On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
- Education of employees regarding water conservation (offered in both English and Spanish)

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property is located within the Napa Sanitation District's (NSD) recycled water service area. Recycled water is available in the area.

1.4 - Will Serve Application

A Will-Serve Application dated January 30, 2023 was submitted on behalf of the Owner, Dennis Paulley. The application submitted details the anticipated and existing water demands for the Site. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.
[2] The project site is located within the Napa Sanitation District's (Napasan) recycled water service area.

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1.5 – Average Day Demand (ADD)

As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 11,495 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
230	11,265	0	11,495

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 1,018 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
460	22,530	0	22,990

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 – Project Demand Consistency with UWMP and ACMC 13.10

The City's 2010 Urban Water Management Plan (UWMP) assumes industrially zoned property will have up to a maximum ADD of 675 gpd per acre. American Canyon Municipal Code Section 13.10 further limits industrially zoned property within City limits and the broader City ETSA up to a maximum ADD of 650 gpd per acre. As shown in Table 3 below, the Property's estimated ADD (1,735 gpd per acre) is greater than the maximum allowed by the ACMC 13.10 (650 gpd per acre):

Table 3 – Maximum ADD			
Parcel Size (acres)	UWMP (gpd/acre)	ACMC 13.10 (gpd/acre)	Property ADD (gpd/acre)
13.2	675	650	1,735

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2.2 - Baseline Water Footprint

The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 4 below, the Property's baseline water footprint is 0 gpd.

Table 4 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	0	N/A	0

2.3 - Zero Water Footprint Determination

Because the Property ADD (11,495 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.4 - Demand Offset

The City has established various programs intended to offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $106,107.69[3] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 11,495 gpd, thereby offsetting the Property's new ADD.

2.5 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after the implementation of the ZWF Policy are determined to potentially

[3] Calculation: 11,495 gpd/65 gpd x $600 = $106,107.69

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have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.6 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it will make to the water capacity fee program in addition to the ZWF Mitigation fee to mitigate 100% of the Property's new water demand.

2.7 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[4]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[5], the Project shall pay a Water Capacity Fee is $754,301.90. This amount one-time fee is based on the rate of $32.81 per gallon x MDD (22,990 gpd).

[4] ACMC §13.14.070

[5] ACMC §13.06.090

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3.2 – Service Charge

The Property is located outside the City's corporate boundary but within the City's Extraterritorial Water Service Area as defined by LAFCO. Based on the American Canyon Water Capacity Fee Ordinance[6], the Property shall accrue a monthly service charge in the amount of $8.15/100 cubic feet (in effect at the time of service and are subject to change), plus monthly meter fees.

3.3 - Reimbursable Improvements

The Property proposes no improvement that would be eligible for reimbursement.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts with Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,640 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,976 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario".

[6] ACMC §13.06.040

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New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) was anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total ADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario". The Project will offset its new demand by paying an ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-030)

I, Dennis Paulley, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated 3/13/2023.

DocuSigned by:
Dennis Paulley
34E37F8C8EC1484...
(Signature)

Date: 3/15/2023

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CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

E&P Tech Way

Technology Way, Napa, CA 94558
Napa County Assessor's Parcel Number
057-250-031 & -032

Prepared by:

Edison Bisnar
Development Services Engineer

Approved by:

DocuSigned by:
Erica Ahmann Smithies
A02D878043A74E7...

3/13/2023

Erica Ahmann Smithies, P.E.
Public Works Director/City Engineer

Date

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PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

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SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property is located on Technology Way (Assessor's Parcel Number: 057-250-031 & -032) on approximately 6.87 acres referred to herein as the "Property." The Property is zoned Industrial Park (IP) with Airport Compatibility (AC) and is located within the City's Extraterritorial Water Service Area (ETSA)[1].

1.2 - Project Description

The proposed project is to build a 66,915 square foot warehouse. Entitlements required include a Use Permit from Napa County (P22-00308) and Will-Serve Letters from the City (for potable water service – domestic and fire service) and Napa Sanitation District (for sewer and recycled water)[2].

The project incorporates the following water conservation best management practices:

- Dual plumbed the building to receive recycled water for toilet flushing
- Motion sensor faucets
- Use recycled water for landscaping
- On demand (Instahot) hot water heaters for individual restrooms or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
- Education of employees regarding water conservation (offered in both English and Spanish)

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property is located within the Napa Sanitation District's (NSD) recycled water service area. Recycled water is available in the area.

1.4 - Will Serve Application

A Will-Serve Application, dated August 22, 2022, was submitted on behalf of the Owner, Dennis Paulley. The application submitted details the anticipated and existing water demands for the Site. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

1.5 – Average Day Demand (ADD)

[1] As defined by Napa County Local Agency Formation Commission Policy 07-27.
[2] The project site is located within the Napa Sanitation District's (Napasan) recycled water service area.

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As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 233 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
233	0	0	233

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 466 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
466	0	0	466

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 – Project Demand Consistency with UWMP and ACMC 13.10

The City's 2010 Urban Water Management Plan (UWMP) assumes industrially zoned property will have up to a maximum ADD of 675 gpd per acre. American Canyon Municipal Code Section 13.10 further limits industrially zoned property within City limits and the broader City ETSA up to a maximum ADD of 650 gpd per acre. As shown in Table 3 below, the Property's estimated ADD (33.92 gpd per acre) is less than the maximum allowed by the ACMC 13.10 (650 gpd per acre):

Table 3 – Maximum ADD			
Parcel Size (acres)	UWMP (gpd/acre)	ACMC 13.10 (gpd/acre)	Property ADD (gpd/acre)
6.87	675	650	33.92

2.2 - Baseline Water Footprint

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The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 4 below, the Property's baseline water footprint is 0 gpd.

Table 4 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	0	N/A	0

2.3 - Zero Water Footprint Determination

Because the Property ADD (233 gpd) exceeds the Property's Baseline Water Footprint, the Property does not have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.4 - Demand Offset

The City has established various programs intended to offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $2,150.77[3] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 233 gpd, thereby offsetting the Property's new ADD.

2.5 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after

[3] Calculation: 233 gpd/65 gpd x $600 = $2,150.77

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the implementation of the ZWF Policy are determined to potentially have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.6 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it will make to the water capacity fee program in addition to the ZWF Mitigation fee to mitigate 100% of the Property's new water demand.

2.7 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[4]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

[4] ACMC §13.14.070

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SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[5], the Project shall pay a Water Capacity Fee is $15,289.46. This amount one-time fee is based on the rate of $32.81 per gallon x MDD (466 gpd).

3.2 – Service Charge

The Property is located outside the City's corporate boundary but within the City's Extraterritorial Water Service Area as defined by LAFCO. Based on the American Canyon Water Capacity Fee Ordinance[6], the Property shall accrue a monthly service charge in the amount of $7.33/100 cubic feet (in effect at the time of service and are subject to change), plus monthly meter fees.

3.3 - Reimbursable Improvements

The Property proposes no improvement that would be eligible for reimbursement.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts with Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water

[5] ACMC §13.06.090
[6] ACMC §13.06.040

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Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,640 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,976 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario".

New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) was anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total ADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except for the "2030 single-dry scenario". The Project will offset its new demand by paying an ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water

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conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

E&P Tech Way
Technology Way, Napa, CA 94558
(APN 057-250-031 & 032)

I, Dennis Paulley, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated 3/13/2023.

DocuSigned by:
Dennis Paulley
34E37F8C6EC1404...
(Signature)

Date: 3/15/2023

“I”

Geotechnical Investigation

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

GEOTECHNICAL INVESTIGATION
TWO DISTRIBUTION BUILDINGS
Technology Way Easterly of Morris Court
Napa, California

File No. 192-352

Raney Geotechnical Inc

Raney Geotechnical Inc

September 30, 2021

Panattoni Development Company, Inc
Attention: Abbie Wertheim
8775 Folsom Boulevard
Suite 200
Sacramento, CA 95826

GEOTECHNICAL INVESTIGATION
TWO DISTRIBUTION BUILDINGS
Technology Way Easterly of Morris Court
Napa, California
File No. 192-352

INTRODUCTION

In accordance with your request and our proposal letter of August 18, 2021, we have performed a Geotechnical Investigation for use in the design and construction of two distribution buildings fronting on Technology Way easterly of Morris Court. This report presents the results of our investigation. The westerly building will be of about 160,000 square feet in plan and the easterly one of about 65,000 square feet in plan. In preparing this study, we have considered two nearby studies performed by our firm within about the last decade.[1][2]

The locations of our exploratory borings performed for this study are shown relative to the proposed buildings over an aerial photo base on Plate 1, *Plot Plan.* Logs of the borings are presented on Plate 2 through 12, *Log of Boring, Borings A through G and 1 -4,* respectively. The results of moisture, density and unconfined strength testing performed on relatively undisturbed samples obtained from the borings are presented on the logs at the depth of each sample tested. The nomenclature used to describe the soils on the Boring Logs is defined on Plate 13, *Unified Soil Classification System.* The results of testing performed to assess soil plasticity are presented on Plate 14, *Atterberg Limit Data.* The results of testing performed to assess the organic content of selected samples of the more organic soils encountered on the property are presented on Plate 15, *Organic Content Data.* Data

[1] Raney Geotechnical, Inc; "Geotechnical Investigation, Metropolitan Warehouse, Alexis Court, Airport Road and Airport Boulevard, Napa, California"; January 7, 2011; File No. 3574-001.
[2] Raney Geotechnical, Inc; "Geotechnical Investigation, Technology Way Warehouse, Technology Way and Airpark Road, Napa, California"; June 28, 2013; File No. 3574-002.

generated for use in assessment nt of soil liquefaction potential are presented on Plate 16, *Grain Size Data.* Pavement subgrade property data are presented on Plate 17, *Resistance Value Data.*

PROPOSED CONSTRUCTION

As indicated, the proposed construction consists of two distribution buildings, the westerly one of about 160,000 square feet and the easterly one of 65,000 square feet. The larger building will have about 24 recessed dock doors and two at-grade doors, and the smaller one 24 recessed dock doors and six at grade doors. Building clear height is expected to be 28 to 30 feet. Owing to the buildings' proximity to the West Napa Fault about one mile west of the composite site, we would expect relatively thick tilt panels giving rise to a perimeter line load on the order of 5,500 pounds per lineal foot, largely dead load. The widest internal column grid spacing would appear to be on the order of 50- by 60-feet, giving rise to a maximum spot load on the order of about 75 kips, dead plus live. There will be three entries off the street and accessing the westerly building, one off Technology Way and two off Morris Court, and two entries to the easterly building off Technology Way. Assuming one delivery per recessed dock door per operating day by a fully loaded semi, the traffic index (TI) for total traffic to each building would be nearly 8.0.

SITE CONDITIONS

SURFACE

The composite property, that is the ground that will support both buildings is made up of three parcels. The largest is an approximate 13-acre parcel which will sustain the westerly building and is defined by Morris Court on the west, Sheehy Creek on the north, Technology Way on the south, and the westerly most of the two parcels that will support the easterly building on the east. The easterly building will overlie two parcels totaling nearly seven acres. The composite of the two easterly parcels also fronts on Technology Way and is defined on the north by Sheehy Creek; there is an existing tilt-up concrete building to the east (240 West Gateway). Elevations on the property which will support the westerly building generally slope downward to the north toward Sheehy Creek; the high point of this property would appear to be about +35 feet near the intersection of Technology Way and Morris Court. The slope to the north from the high point near the intersection would appear to be at a configuration on the order of one on ten, whereas the remainder of the property slopes comparatively gently and has an average elevation on the order of about +25 feet. Elevations on the property which will support the easterly building (the two easterly parcels) generally slope downward reasonably uniformly to the west from the parking lot of the building addressed as 240 Gateway at about Elevation +35 feet, to about Elevation +26 feet at a point about 100 feet westerly

of the proposed easterly building; the average natural ground elevation within the footprint area of the proposed easterly building is about +30 feet.

Ground surfaces on both the westerly and easterly properties are covered with low, dry volunteer grasses. We noted a monitoring well on the westerly property and situated at about the northeasterly corner of the proposed westerly building site. We also noted that there is fill on both properties, which is most significant on the easterly portion of the easterly property. The approximate location of the pre-existing trace of Sheehy Creek, which according to Gogle Earth® imagery was moved to its present location within the interval between the summers of 2003 and 2004, crosses the property as shown approximately on Plate 1. The backfill of the pre-existing creek trace is discussed in the next section.

SUBSURFACE

It should be recognized that eight of the 11 borings drilled on the composite property were located over the pre-existing creek trace in order to assess the quality of the creek backfill. In locating borings over the former creek trace we considered historic aerial photography, and by virtue of the composition of the creek fill materials we engaged, it is apparent that our exploratory location methodology was appropriate. The depths of fill engaged in the creek-specific borings ranged from 5.3 to 19 feet, likely reflecting the locations of our explorations relative to the centerline of the trace; the quality of the creek backfill appears to be good. The immediate surface of the creek backfill soils consists of a foot or less of silt which is typically underlain by a six- to 20-foot-thick dark, high plasticity clay stratum, although the dark heavy clays also appear at the surface locally, and also are interlayered with leaner, lighter-colored silty clays and silty sands locally. Within areas outside the pre-existing creek trace, it would appear that the native soil profile consists of two to four feet of locally loose but generally medium dense silt at ground surfaces, underlain by comparatively thin strata of dark heavy clay soils, which are locally interrupted by lighter, leaner silty clays and clayey silts. At depths of six to seven feet within the native soils, silty clays of stiff to very stiff consistency were engaged; these soils were found to extend to depths of nearly 20 feet. Below about 20 feet the native soils consist of a complex sequence of silty sand, sandy silt, silty clay, and even fine gravel locally, which appear to extend beyond our maximum 50-depth of our exploration; consistencies of the soils in this lowermost interval generally are stiff to hard/dense.

GROUNDWATER

Free groundwater was encountered in nine of the 11 borings drilled for this study. Measured depths ranged from, as little as eight feet, to 17.5 feet, although no water was engaged in either the 20-foot-deep Boring 3 or the 15-foot-deep Boring 4. Nearly three feet of artesian pressure was measured in Boring B where the free groundwater is confined by dark heavy clay backfill materials. In the face of the current drought condition, we would expect "typical" groundwater levels to be several feet

higher during more so "normal" rainy season weather. The higher levels we measured appear to have occurred at a location where we were directly (or nearly so) over the pre-existing creek trace. In as much as both building pads will be raised significantly, we would not expect groundwater/dock foundation construction conflict, unless the work were undertaken during very wet weather and high stage conditions on Sheehy Creek.

EXPANSIVE SOILS

As indicated above, the plasticity of the uppermost native clays is quite high. These near surface clays are capable of exerting high to very high expansion pressures on slabs, flatwork, pavements and foundations with variations in moisture content. As with other projects in this setting, soil expansion potential will be addressed by chemical treatment.

BEARING CAPACITY

The uppermost native soils exhibit generally favorable consistency, strength and compressibility properties. Furthermore, significant fill material will be required to achieve pad grades in almost all pad areas, such that most at grade foundations will be based in fill, although the area of the easterly portion of the easterly building, and most of the dock foundations will not.

SOIL CHEMISTRY

The chemical testing was performed in conjunction with our referenced studies, as well as in conjunction with the consideration a property you plan to borrow from on the southeasterly corner of South Kelly and Devlin Roads.[3] These test data all would indicate that the dark heavy clay soils present on the composite site and in significant portions of the indicated borrow site have a low to neutral pH, low resistivity, and are low sulfate, and moderate chloride concentration. Based upon these data, ACI 318 would indicate an exposure class of S0. Furthermore, conventional Type II portland cement should be suitable for use, and the indicated clays should not be corrosive to properly covered reinforcement. We also would expect the site soils to be corrosive to unprotected iron.

SEISMIC DESIGN

In design using the Equivalent Lateral Force or Modal Response Spectrum Analysis procedures of the 2019 CBC/ASCE 7-16, the parameters in Table I on the next page should be used. With Site Class D and a Mapped Spectral Response Acceleration S_1 equal to or greater than 0.2g, the Seismic

[3] Raney Geotechnical, Inc; "Geotechnical Investigation Update, Napa Airport Corporate Center, Buildings "A" and "B", South Kelly and Devlin Roads, American Canyon, California"; March 17, 2015; File No. 192-313.

Response Coefficient C_S used to scale base shear must be increased as indicated below, otherwise, a site-specific ground motion hazard analysis is required.

When using the Equivalent Lateral Force or Modal Response Spectrum Analysis procedures, the calculated maximum value of C_S (Equation 12.8-2) should be used for structures with fundamental periods of up to $1.5*(S_{D1}/S_{DS})$ =0.756 If either building has a greater period, the calculated limitations on values of C_S (Equations 12.8-3 and 12.8-4) should be increased by 50 percent.

TABLE I
2019 CBC/ASCE 7-16 SEISMIC DESIGN PARAMETERS

Period (seconds)	Mapped Spectral Response Accelerations	Site Class	Site Coefficients	Maximum Considered Earthquake Spectral Response Accelerations	Design Spectral Response Accelerations
0.2	S_S 2.131g	D	F_a 1.2	S_{MS} 2.557g	S_{DS} 1.705g
1.0	S_1 0.758g		F_v 1.7	S_{M1} 1.289g*	S_{D1} 0.859g*

* To be used only for calculation of T_s

LIQUEFACTION POTENTIAL

Liquefaction analyses were performed using CivilTech software and the soil profile data at Boring E, a 50-foot-deep boring located near the center of the proposed westerly building. We assumed a ground motion with a two percent chance of being exceeded in 50 years and attributable to 6.8 moment magnitude earthquake event. No liquefaction settlement was determined, although we note that relatively thin strata of predominately granular soils of moderate density are locally present below free groundwater. Based upon this, and the proximity of the site to the West Napa Fault, we estimate that modest (less than about one-half inch) total liquefaction settlement could be experienced locally. The results of the liquefaction analyses performed on the profile at Boring E are presented as Figure 1 in the next page.

RECOMMENDATIONS

EARTHWORK

Site clearance should begin with the removal of any rubble and rubbish. Underground pipes and conduit within two feet of original or final grades also should be removed; deep excavations for the removal of buried items should be dished out so as to expose firm undisturbed soils as identified by our representatives. Backfill of all such excavations should be in accordance with the recommendations of this report. If so designated, the decommissioning of the existing monitoring well should be performed in accordance with County standards. Based upon the condition of the volunteer vegetation on ground surfaces at this time, site preparation should include a thorough disc and cross-disc effort sufficient to uniformly incorporate existing dry organic matter into the upper eight inches of the profile. The extent of new actively growing vegetation on the composite site should be reviewed by our representatives immediately prior to earthwork construction to confirm the suitability of the above site preparation procedure. Within areas designated to receive fill (almost the entire site) and support buildings or pavements, or the limited areas to be left at existing grades, the disc soils should be moisture conditioned to an over-optimum state (at least three percent over in the case of the dark heavy clays) and recompacted in place to a least degree of relative compaction of 90 percent in accordance with the ASTM D1557 procedure. Engineered fill should be placed in maximum eight-inch loose lifts, moisture conditioned to an over optimum condition (at least three percent over in the case of the dark heavy clays) and compacted to a least degree of relative compaction of 90 percent.

Excavations for undergrounds and recessed dock areas should be performed to the lines and grades shown on the project drawings. On-site soils are suitable for use as engineered fill, provided the soils do not contain significant vegetable matter, rubble, rubbish, or other undesirable substances. The dark, heavy clay soils indicated to be present both on the site and within the presently designated borrow source, however, should be excluded from use as recessed wall backfill. Imported soils from other than the South Kelly/Devlin Road should be tested and approved by our firm prior to importation to the site.

The upper 15 inches of the building pads and the areas five feet beyond, as well as any other flatwork areas should be chemically treated to reduce soil expansion and provide for a durable working surface. Swelling of the soils from the untreated to treated state should be expected. For purposes of estimating an average dry unit weight of the site soils, and of the initially indicated borrow soils, we suggest use of an average dry unit weight of 105 pounds per cubic foot, and chemical concentrations of three percent lime and five percent cement. This is expected to require spread rates of 4.0 pounds of lime and 6.5 pounds of cement per square foot of treated area for the recommended 15-inches of treatment. These relatively high estimated spread rates are attributable to the organic concentrations within the dark heavy clay soils (see Plate 15). Actual treatment levels

may be expected to vary depending upon the composition of the soils designated for treatment, and hopefully will be lesser than those suggested above for use in estimating. Final location-specific assessment of treatment concentrations, and type could perhaps eliminate the need for treatment with both lime and cement within some areas; this final assessment of treatment type and method will be made following rough grading which should enable determination of finished pad composition.

The lime/soil mixtures should be brought to over-optimum moisture, thoroughly mixed, lightly compacted to seal the surface, and allowed to cure for a minimum of 16 hours but no more than three days. The cured lime treated soils should then be treated with portland cement. Final shaping and compaction of cement treated soils should be completed within three hours of the placement of the cement. A minimum degree of relative compaction of treated soils of 92 percent of the maximum dry density determined by the ASTM D1557 procedure should be provided. Treatment should conform to the applicable provisions of the Caltrans Standard Specifications. The treated soils should be kept moist for a period of at least three days following treatment as recommended in Section 24 of the Caltrans Standard Specifications.

The upper eight inches of untreated pavement subgrades, if any, should be compacted to at least 90 percent of the ASTM D1557 maximum dry density, regardless of whether the final grade is achieved by cutting, filling, or left at existing grade. Permanent excavation and embankment slopes should not exceed an inclination of one vertical on two and one-half horizontal. A representative of this firm should be present during grading and chemical treatment to test and observe the work.

FOUNDATIONS

The proposed buildings may be supported on conventional continuous and isolated spread foundations based within the recompacted native oils and fill materials prepared as recommended above. A least depth of foundation confinement of 24 inches should be provided relative to pad grades. In the case of recessed dock area foundations, the confinement depth may be reduced to 18 inches relative to adjacent dock pavement subgrade level. Foundations based as recommended may be designed for maximum allowable bearing pressures of 2,400 pounds per square foot (psf) for dead plus live load and 3,200 psf for total load, including the effect of either seismic or wind forces. A least perimeter foundation width of 33 inches should be provided. The weight of foundation concrete below grade may be neglected in sizing computations. All bearing surfaces should be free of slough and water, and should be approved by our firm prior to the placement of foundation concrete. In the event that groundwater is engaged in any of the dock foundations, recommendations for the remedial stabilization of these areas should be developed by our firm at the time of construction. We would expect this remediation to consist of the forcing of granular materials into the foundation subgrades, or similar.

Resistance to lateral forces may be calculated using either friction or passive earth pressure but not both, except as recommended in this paragraph. The coefficient of friction acting between structural foundation or pedestal bases and the native soils may be assumed to be 0.27. Passive resistance acting against appropriate faces of spread foundations and/or pedestals/stems may be considered equal to the stress exerted by a fluid weighing 325 pounds per cubic foot. A combination of both friction and passive earth pressure may be used, provided that the larger mode of resistance is reduced by 50 percent. The recommended friction and passive earth pressure values have been modified by appropriate factors of safety and may be applied directly in design calculations.

Foundations for trash enclosures or similar "lightly loaded" construction associated with the buildings also may be supported in the fill materials and uppermost native soils, although owing to soil expansion potential, a least depth of foundation confinement of 24 inches should be provided. These foundations may be sized using the allowable bearing pressures recommended above for the buildings. A least "lightly loaded" foundation width of 12 inches should be provided.

Foundation excavations should be clean, free of loose and/or soft material, and observed by our representatives prior to concrete placement. A indicated above, some remedial stabilization may be required locally in the case of recessed dock foundations.

We would expect settlement of building foundations designed as recommended to be less than one inch.

SLAB-ON-GRADE

Floor slabs may be supported upon the chemically treated building pads prepared as recommend above. In as much as the slab likely will be required to support a truck crane during panel erection, will be subject to forklift traffic in everyday use, and the soils below the treated sections will be highly expansive, at least locally, a minimum six-inch-thick slab is recommended, together with least slab reinforcing consisting of No.3 bars on 16-inch centers in both directions, and a maximum control joint spacing of 15 feet. Construction control joints should contain dowels or other equivalent proprietary load transfer mechanism in accordance with Portland Cement Association (PCA) guidelines. We recommend a least slab concrete unconfined strength of 4,000 psi at 28 days. Depending upon the forklift size and traffic, a thicker slab may be required, although a six-inch thick slab should be sufficient for forklifts up to 4,000-pound capacity. Racking post loads also may require increased slab thickness. In any case, slab edges should be thickened by 20 percent at drive through doors and anywhere that heavy materials/equipment will be stored within five feet of a free edge. In assessing slab thickness, a modulus of subgrade reaction of 150 pounds per inch cubed may be used for the treated pads. In warehouse portions of the slab, where minor moisture vapor penetration through the slab can be tolerated, a minimum three-inch layer of AB should be placed beneath the slabs as a leveling course, and to promote slab curing. The AB should be moist but not

overly wet just prior to slab concrete placement. In order to prevent free water about exterior of the building from contacting the AB beneath the slab, the AB should be removed, and the slab edge thickened and placed directly on the treated pad for a minimum eight-inch width about warehouse portions of the building perimeter.

In office areas of both buildings, or other areas that are designated to receive floor coverings, and moisture cannot be tolerated, slab concrete, including portions within the closure strip, should be placed directly on a durable proprietary membrane such as Stego® 15 mil material. The membrane should be underlain by a minimum of three inches of AB which should be continuous beneath the closure strip and cut tight around plumbing stands, and any other penetrations. The seams of the membrane also should be taped. Laterally migrating moisture from building perimeters or from warehouse areas without a membrane should be cutoff for a distance of at least eight inches by removing the AB, suppressing the membrane to the treated pad within this interval and placement of a thickened perimeter slab edge directly on the suppressed membrane. Even with the above recommended procedures, impervious floor coverings installed using water-based flooring adhesives may blister and de-bond due to moisture vapor condensation beneath the coverings. If there are specific concerns regarding moisture vapor condensation beneath floor coverings, consideration could be given to use of a concrete sealant.

DOCK WALLS/EARTH RETAINING

Retaining walls alongside docks could be subject to both earth pressure and traffic surcharge loads. In as much as these walls must remain fixed, we recommend use of an at-rest equivalent fluid earth pressure of 55 pounds per cubic foot (pcf) in design, in addition to an appropriate traffic surcharge load. Similarly, the at-rest earth pressure condition also will be imposed on the recessed portions of dock walls. Because of the highly expansive nature of both the dark native and imported clays, these soils should be excluded from use behind the recessed portions of dock panels and retaining walls. Consideration should be given to the use of select granular material such as three-quarter inch crushed rock for purposes of recessed wall backfill.

PAVEMENTS

The pavement subgrade properties of the surface and dark heavy clay soils, which are likely to make up significant portions of pavement subgrades, are poor. Resistance value five was measured for these soils and was used in the Caltrans Design Method for Flexible Pavements together with TI's that can be related to design life and wheel loads. PCA design methods have been used in the case of rigid pavements. It is common practice to use an assumed useful pavement life of 20 years when applying the indicated design methods, and we have done so in the case of the subject buildings.

The Asphalt Institute has suggested that a TI of 4.5 may be reasonably representative of automobile parking lot wheel loads. Areas subject to channelized automobile traffic only probably should be designed for a traffic index of 5.0, and areas subject to weekly waste removal truck traffic only probably should be TI of 5.5 to 6.0. The TI's considered appropriate for use within areas of the pavement subject to one-fourth total truck traffic, one-half total truck traffic and total truck traffic give rise to TI's of 6.5, 7.0 and nearly 8.0. Alternative asphalt and portland cement concrete pavement sections for TI's of 4.5, 5.0, 6.0, 6.5 7.0 and 8.0 are presented in Table II on the next page.

The recommended alternative sections include options with chemically stabilized bases. Chemical treatment of pavement subgrades should prove cost efficient, although it is not possible to determine the exact means of treatment prior to achieving finished pavement subgrade levels. Treatment costs may be estimated using the methods suggested for the building pads. We can provide additional pavement sections and consider other traffic load cases upon request. Decisions regarding pavement sections should be made on the basis of economics and the desired level of future maintenance.

TABLE II
PAVEMENT SECTION ALTERNATIVES

Design Traffic Index	Type B Asphalt Concrete (inches)	Portland Cement Concrete (inches)	Class 2 Aggregate Base (inches)	Chemically Stabilized Base (inches)
4.5	2.5	--	9.0	--
	3.0	--	7.0	--
	2.5	--	3.0	12
5.0	3.0	--	9.5	--
	3.0	--	3.0	12
	--	5.80	3.0	12
6.0	3.0	--	13.5	--
	3.0	--	3.0	12
	--	6.15	3.0	12
6.5	3.0	--	15,5	--
	3.0	--	3.0	12
	--	6.4	3.0	12
7.5	4.0	--	17. 5	--
	3.5	--	5.0	12
	--	6.65	3.0	12
8.0	4.0	--	19.0	--
	4.0	--	6.0	12
	--	6.85	3.0	12

Untreated pavement subgrades should be prepared as recommended in the *Earthwork* section of this report. The recommended concrete pavements assume un-reinforced sections composed of concrete with a minimum unconfined strength of 4,000 psi at 28 days. We would suggest maximum control joint spacing of 12 feet in concrete pavements. Construction joints should contain dowels consisting

of 14-inch-long No. 6 bars in the case of approximate six-inch-thick pavements, and 14-inch-long No. 7 bars in the case of approximate seven-inch-thick pavements, all on 12-inch centers. Equivalent proprietary joinery systems also may be used. Concrete pavements joining asphalt concrete pavements and free concrete edges should be tapered to 1.2 times the recommended thickness within five feet of free edges.

LIMITATIONS

This report necessarily assumes uniform variation of soils between our borings and sample points. Our recommendations are based upon this assumed uniformity and the information provided regarding the proposed construction. If unusual conditions are encountered during construction, the contractor or his representative should notify this firm immediately so that alternate written recommendations can be developed.

This report is applicable only to the proposed construction, as described herein, and should not be utilized for design or construction on any other site.

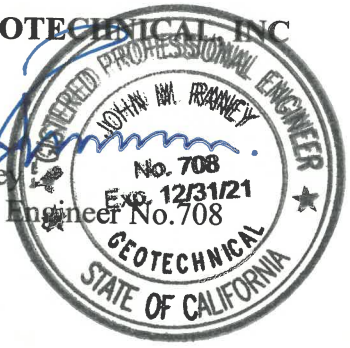
oOo

The following Plates are attached and complete this report:

Plate 1 - Plot Plan
Plate 2 - Log of Boring, Boring A
Plate 3 - Log of Boring, Boring B
Plate 4 - Log of Boring, Boring C
Plate 5 - Log of Boring, Boring D
Plate 6 - Log of Boring, Boring E
Plate 7 - Log of Boring, Boring F
Plate 8 - Log of Boring, Boring G
Plate 9 - Log of Boring, Boring 1
Plate 10- Log of Boring, Boring 2
Plate 11- Log of Boring, Boring 3
Plate 12- Log of Boring, Boring 4
Plate 13- Unified Soil Classification System
Plate 14- Atterberg Limit Data
Plate 15- Organic Content Data
Plate 16- Grain Size Data
Plate 17- Resistance Value Data

Very truly yours,

RANEY GEOTECHNICAL, INC



9/30/21.

John M. Raney
Geotechnical Engineer No.708

Addressee
Bryan Bonino

PROJECT NUMBER: 192-352



NOTES:

1. BORING AND SAMPLING LOCATIONS SHOWN ARE APPROXIMATE.
2. PREPARED FROM A SITE PLAN BY RMW AND A 10/21/20 GOOGLE EARTH IMAGE.

KEY:

A — BORING LOCATION AND NUMBER

S1 — SURFACE SAMPLING LOCATION AND NUMBER

PLOT PLAN

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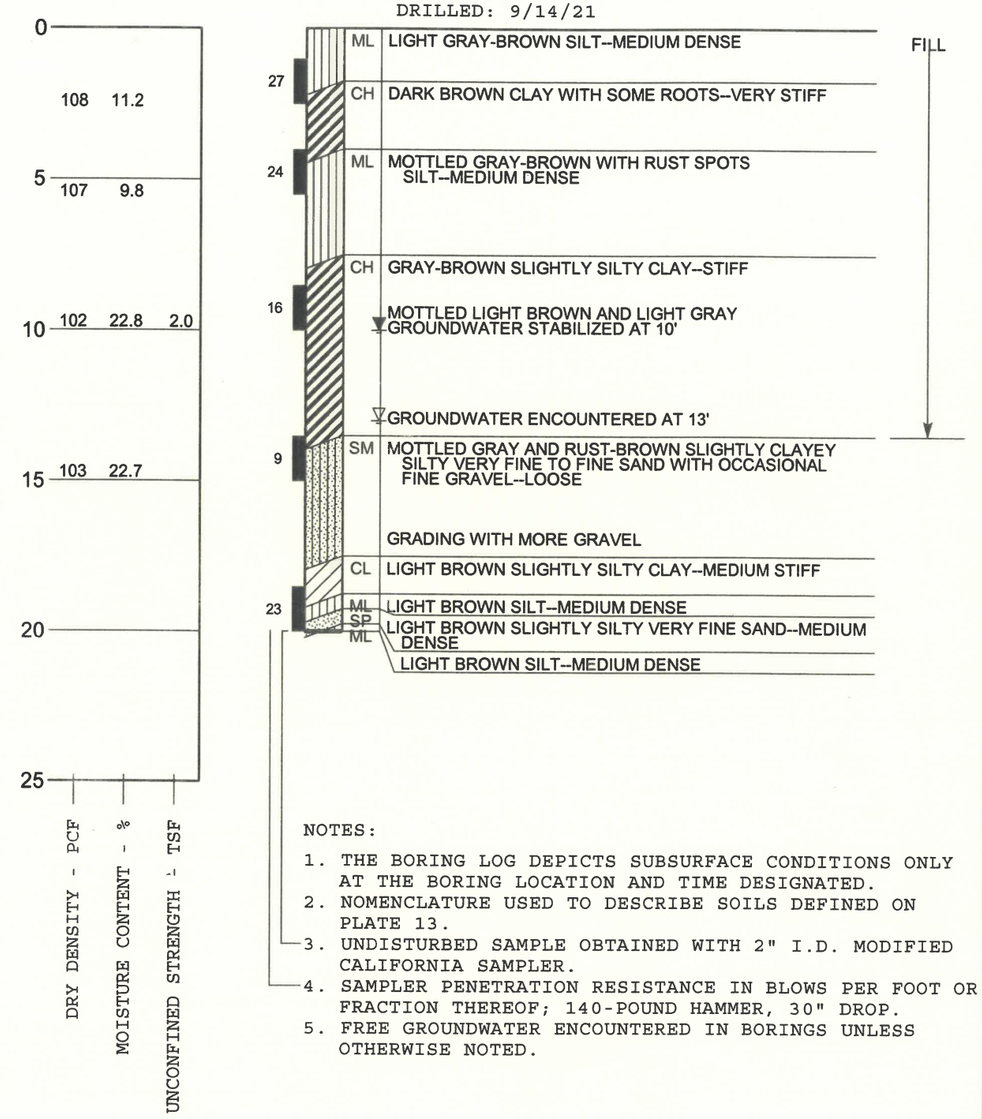
PLATE 1

DRAWN BY: TL
DATE: 9/9/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 2

BORING A

DRILLED: 9/14/21



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. UNDISTURBED SAMPLE OBTAINED WITH 2" I.D. MODIFIED CALIFORNIA SAMPLER.
4. SAMPLER PENETRATION RESISTANCE IN BLOWS PER FOOT OR FRACTION THEREOF; 140-POUND HAMMER, 30" DROP.
5. FREE GROUNDWATER ENCOUNTERED IN BORINGS UNLESS OTHERWISE NOTED.

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LOG OF BORING

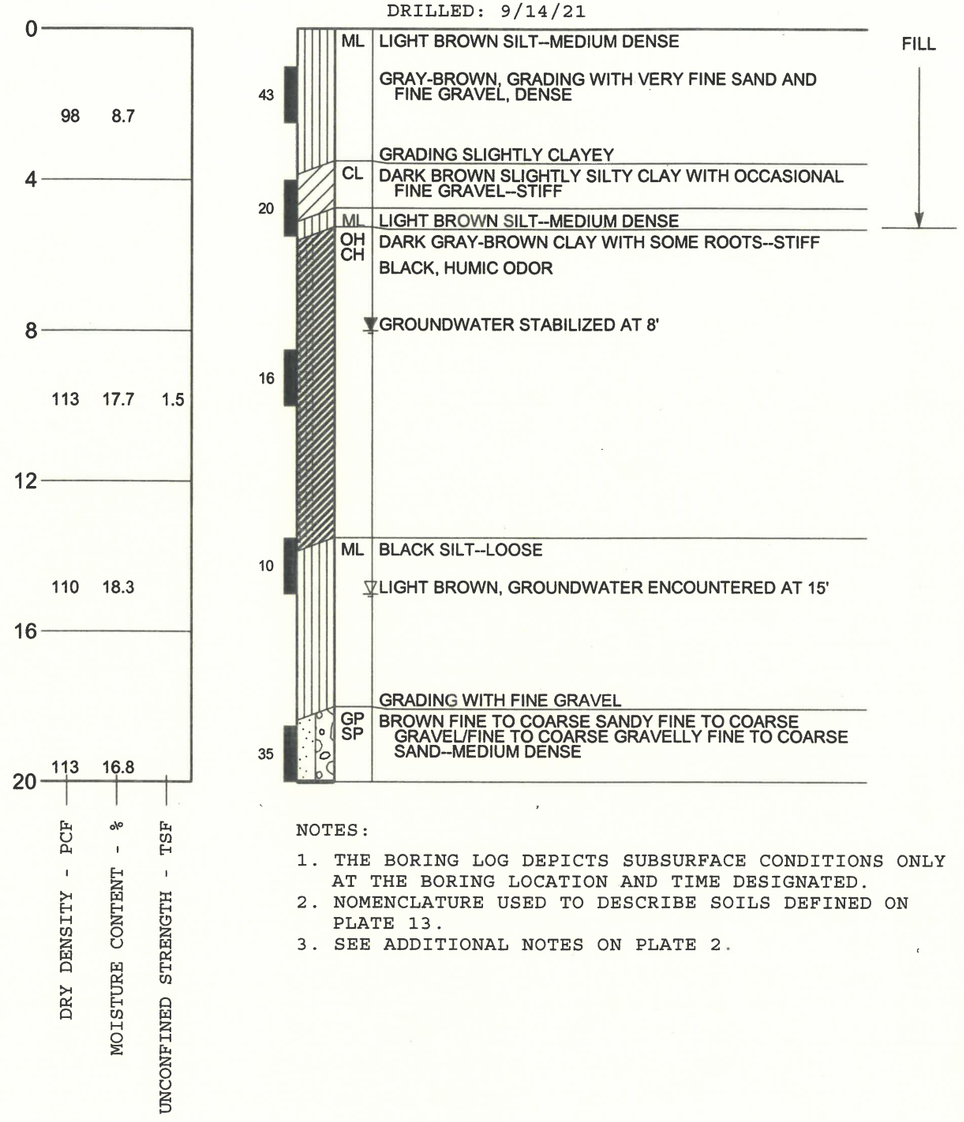
PLATE 2

PROJECT NUMBER: 192-352
PLATE NUMBER: 3

DRAWN BY: TL
DATE: 9/17/21

BORING B

DRILLED: 9/14/21



NOTES:

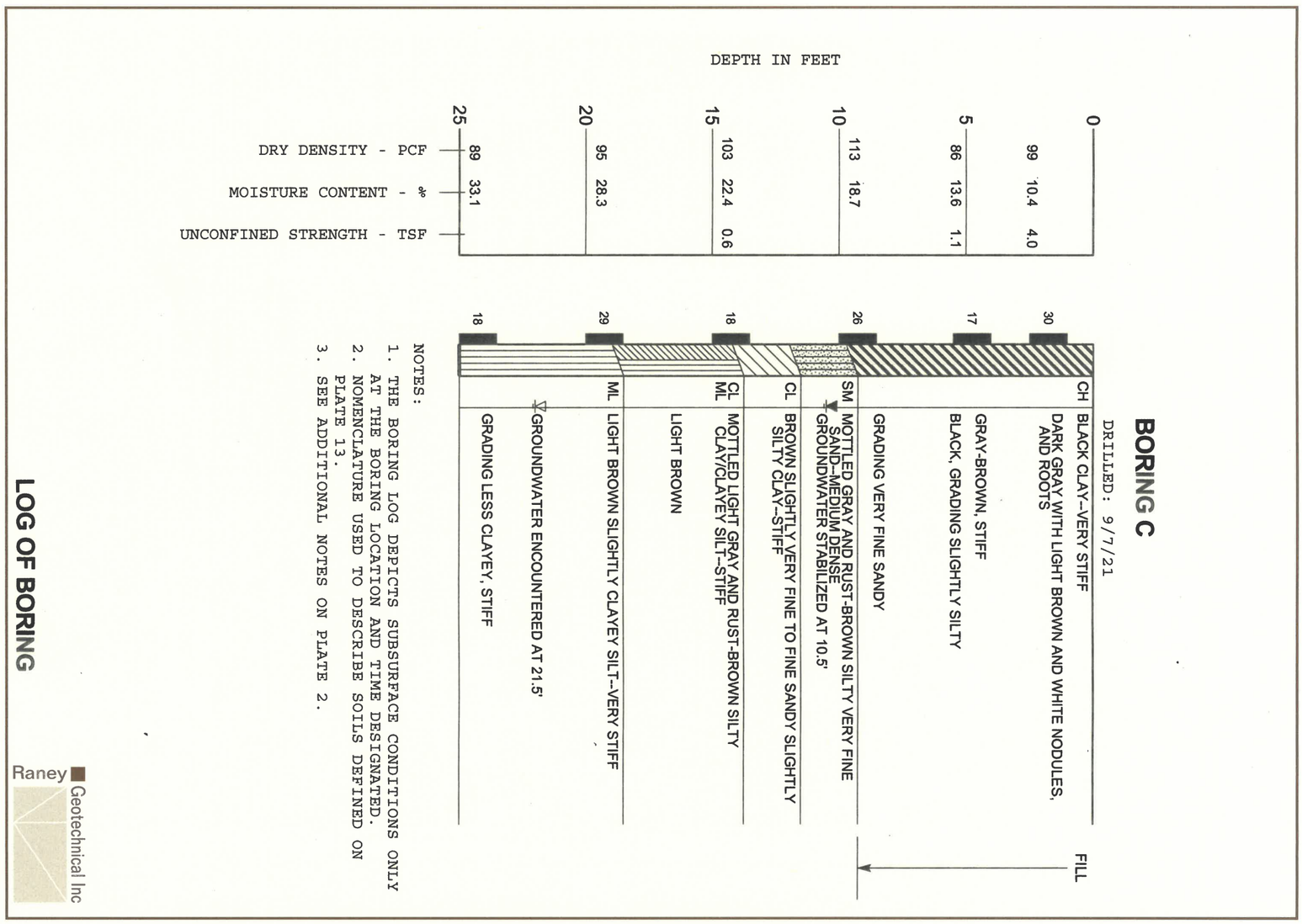
1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

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LOG OF BORING

PLATE 3

PROJECT NUMBER: 192-352 DRAWN BY: TL
PLATE NUMBER: 4 DATE: 9/9/21



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

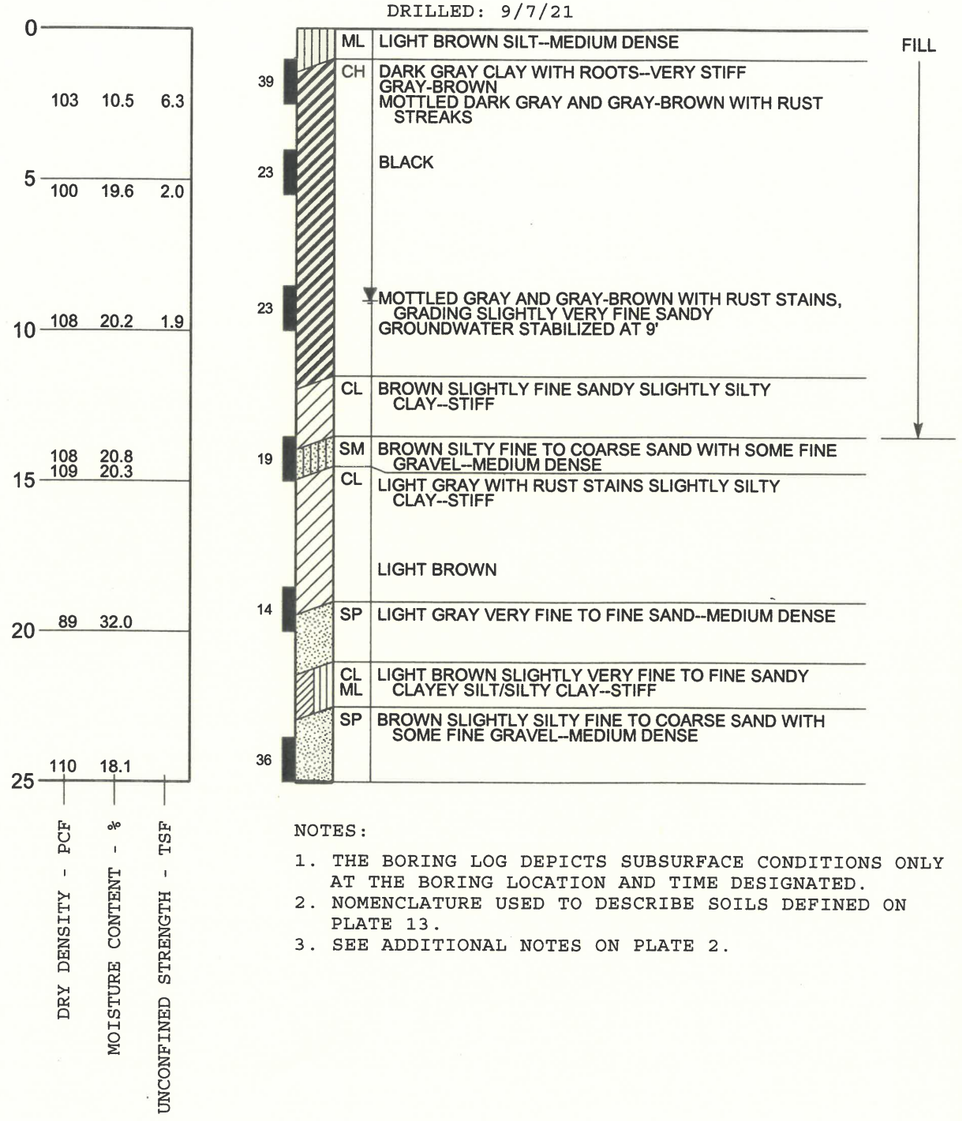
LOG OF BORING

Raney Geotechnical Inc

PLATE 4

BORING D

DRILLED: 9/7/21



	ML	LIGHT BROWN SILT--MEDIUM DENSE	FILL
39	CH	DARK GRAY CLAY WITH ROOTS--VERY STIFF GRAY-BROWN MOTTLED DARK GRAY AND GRAY-BROWN WITH RUST STREAKS	
23		BLACK	
23		MOTTLED GRAY AND GRAY-BROWN WITH RUST STAINS, GRADING SLIGHTLY VERY FINE SANDY GROUNDWATER STABILIZED AT 9'	
	CL	BROWN SLIGHTLY FINE SANDY SLIGHTLY SILTY CLAY--STIFF	
19	SM	BROWN SILTY FINE TO COARSE SAND WITH SOME FINE GRAVEL--MEDIUM DENSE	
	CL	LIGHT GRAY WITH RUST STAINS SLIGHTLY SILTY CLAY--STIFF	
		LIGHT BROWN	
14	SP	LIGHT GRAY VERY FINE TO FINE SAND--MEDIUM DENSE	
	CL ML	LIGHT BROWN SLIGHTLY VERY FINE TO FINE SANDY CLAYEY SILT/SILTY CLAY--STIFF	
36	SP	BROWN SLIGHTLY SILTY FINE TO COARSE SAND WITH SOME FINE GRAVEL--MEDIUM DENSE	

NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

DRAWN BY: TL
DATE: 9/9/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 5

Raney Geotechnical Inc

LOG OF BORING

PLATE 5

BORING E

DRILLED: 9/7/21

DEPTH IN FEET	DRY DENSITY - PCF	MOISTURE CONTENT - %	UNCONFINED STRENGTH - TSF		
0	105	9.0		38	ML / CH — LIGHT BROWN SILT--MEDIUM DENSE; GRAY-BROWN CLAY--VERY STIFF — FILL
	110	19.5	1.9	29	DARK GRAY LIGHT BROWN AND ORANGE-BROWN DARK GRAY
10	107	19.2	2.5	22	GRAY-BROWN FINE TO COARSE SAND LENSE GRAY-BROWN WITH RUST SPOTS GROUNDWATER STABILIZED AT 10'
	101	24.1	1.5	18	LIGHT BROWN MOTTLED GRAY AND RUST-BROWN WITH BLACK SPOTS FINE TO COARSE SAND LENSE GRAY WITH RUST STAINS, STIFF
20	111	19.3	1.0	21	BROWN, SLIGHTLY VERY FINE SANDY MOTTLED LIGHT GRAY AND RUST-BROWN GRADING WITH BLACK STAINS GROUNDWATER ENCOUNTERED AT 21.5'
	103 105	22.0 21.4	0.8	28	CL — BROWN SLIGHTLY SILTY CLAY--STIFF LIGHT BROWN
30	106	21.3	2.0	32	SM / CL — LT BRN AND BLK SILTY V F TO F SAND WITH SOME F GRAVEL--M DENSE LT BROWN SLIGHTLY SILTY CLAY--STIFF GRADING WITH F TO C SAND
	112	19.0		56	ML / CL / SC / ML / GP / SM — MOTTLED LT GRAY AND LT BRN SLIGHTLY CLAYEY SILT--V STIFF BRN WITH BLK SPOTS CLAYEY F SAND/F SANDY CLAY--V STIFF LT BROWN SLIGHTLY V F SANDY SILT--M DENSE GRAY F TO C GRAVEL--DENSE
40	110	19.9		51	CL / SM — BRN SLIGHTLY GRAVELLY SILTY F TO M SAND--DENSE GRADING WITH LESS GRAVEL, LT GRAY CLAY LENSE LT BRN SLIGHTLY V F TO F SANDY SLIGHTLY SILTY CLAY WITH OCCASIONAL F GRAVEL--STIFF BRN SILTY F TO C SAND WITH SOME F GRAVEL--DENSE
50	108	19.7	4.3	71 52	CL — GRADING WITH MORE GRAVEL (COARSE) LT BROWN SLIGHTLY SILTY CLAY--HARD LT BROWN WITH BLACK SPOTS
60					

NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

DRAWN BY: TL
DATE: 9/9/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 6

Raney Geotechnical Inc

LOG OF BORING

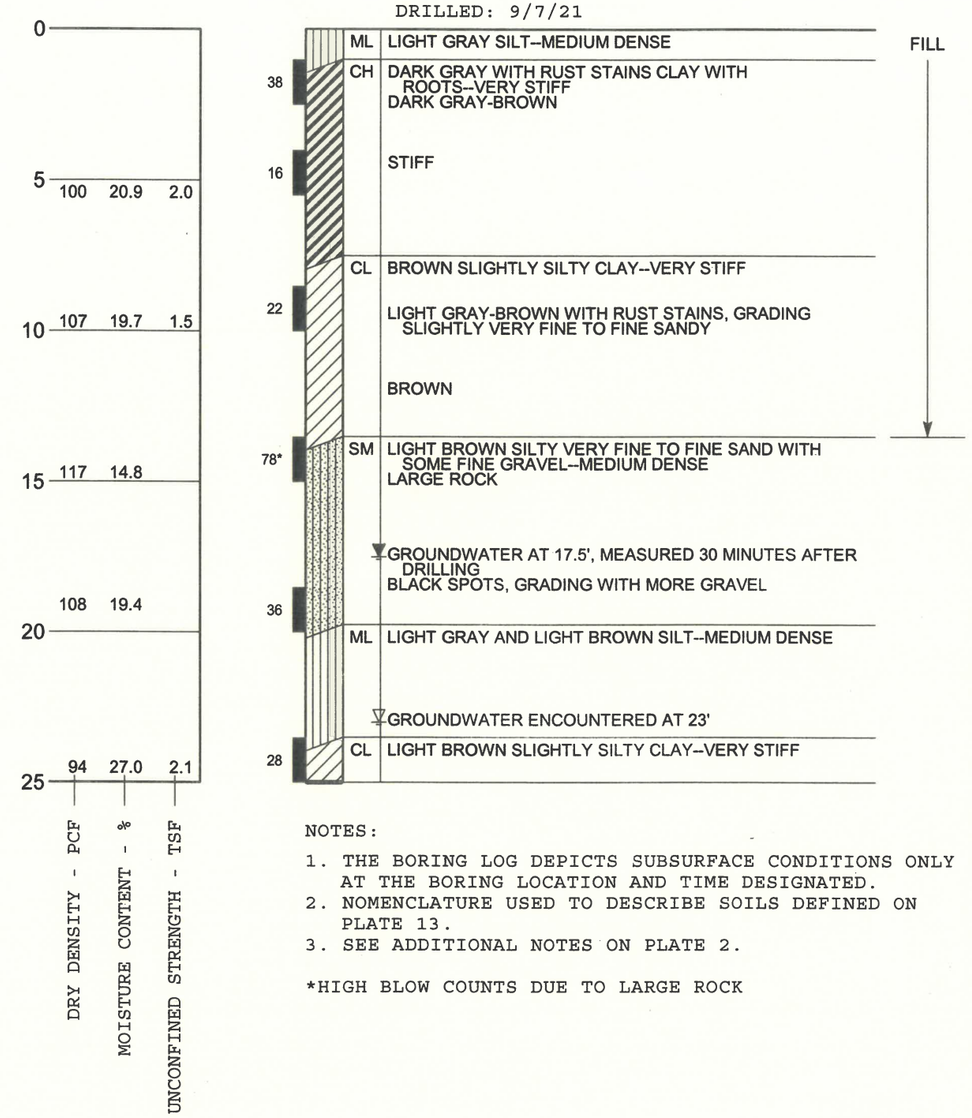
PLATE 6

DRAWN BY: TL
DATE: 9/9/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 7

BORING F

DRILLED: 9/7/21



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

*HIGH BLOW COUNTS DUE TO LARGE ROCK

Raney Geotechnical Inc

LOG OF BORING

PLATE 7

BORING G

DRILLED: 9/7/21

NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

DRAWN BY: TL
DATE: 9/9/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 8

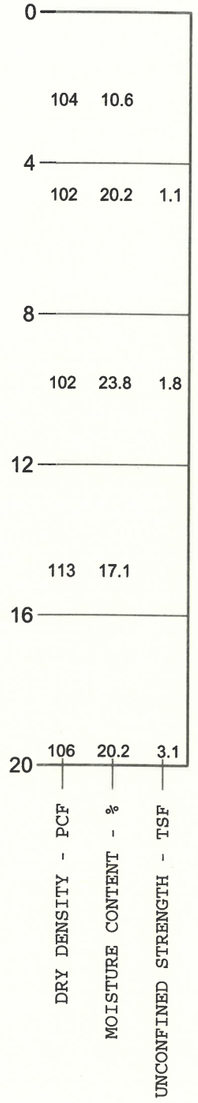
Raney Geotechnical Inc

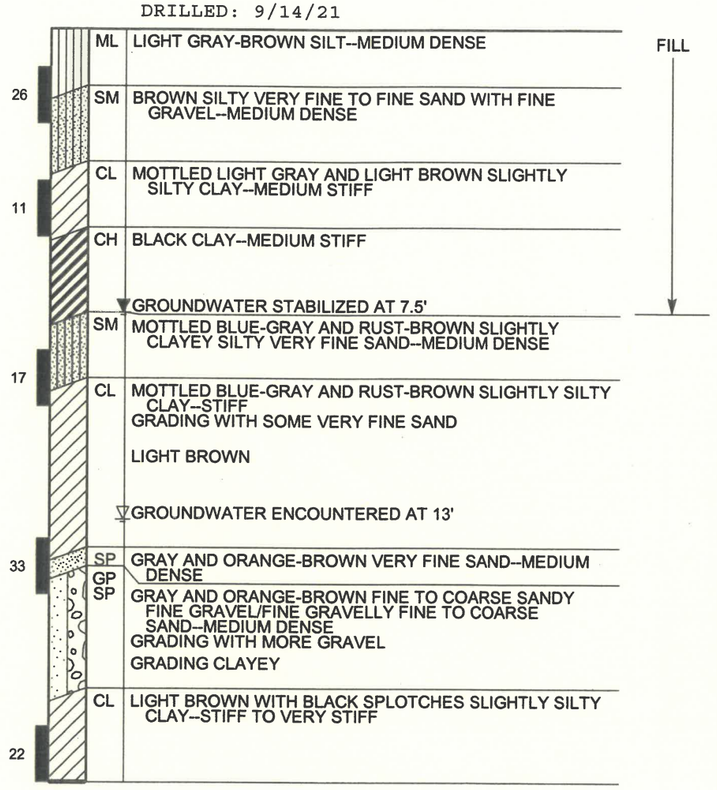
LOG OF BORING

PLATE 8

BORING 1

DRILLED: 9/14/21





NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.

DRAWN BY: TL
DATE: 9/17/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 9

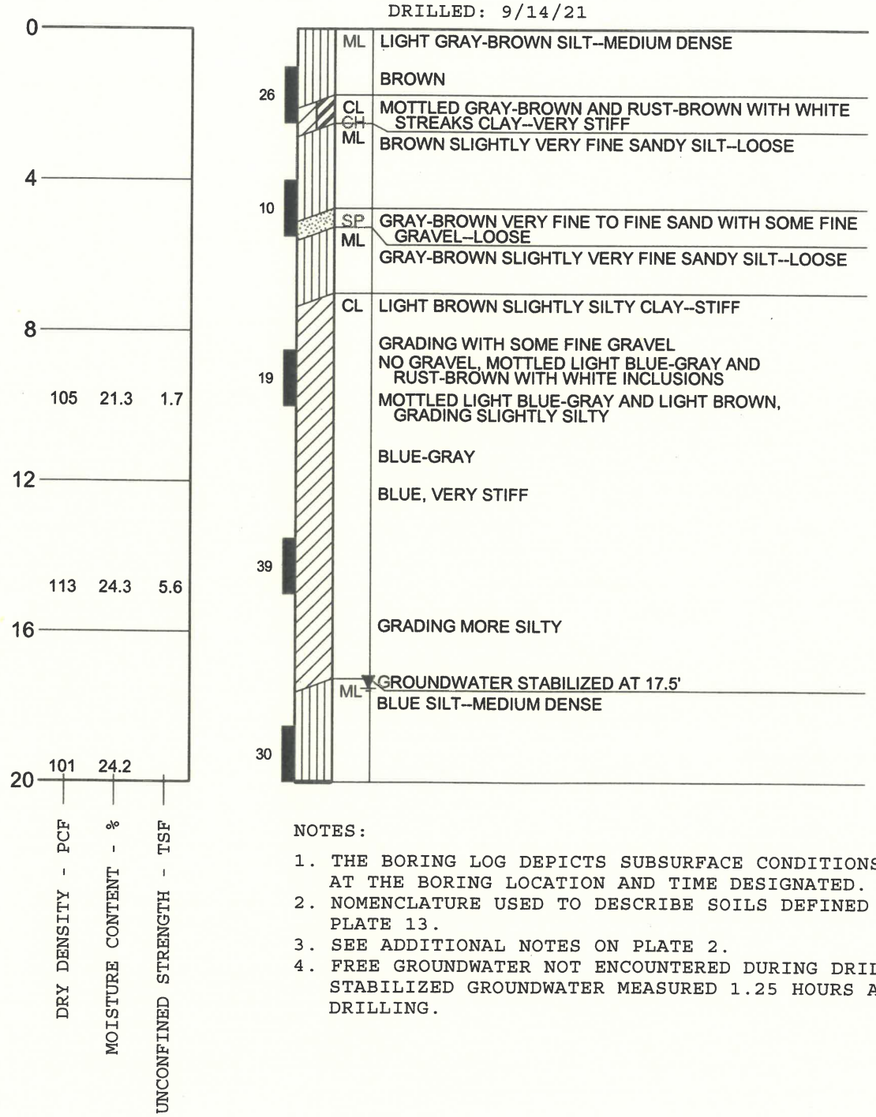
Raney Geotechnical Inc

LOG OF BORING

PLATE 9

BORING 2

DRILLED: 9/14/21



	ML	LIGHT GRAY-BROWN SILT--MEDIUM DENSE
		BROWN
26	CL	MOTTLED GRAY-BROWN AND RUST-BROWN WITH WHITE
	CH	STREAKS CLAY--VERY STIFF
	ML	BROWN SLIGHTLY VERY FINE SANDY SILT--LOOSE
10	SP	GRAY-BROWN VERY FINE TO FINE SAND WITH SOME FINE
	ML	GRAVEL--LOOSE
		GRAY-BROWN SLIGHTLY VERY FINE SANDY SILT--LOOSE
	CL	LIGHT BROWN SLIGHTLY SILTY CLAY--STIFF
		GRADING WITH SOME FINE GRAVEL
19		NO GRAVEL, MOTTLED LIGHT BLUE-GRAY AND RUST-BROWN WITH WHITE INCLUSIONS
		MOTTLED LIGHT BLUE-GRAY AND LIGHT BROWN, GRADING SLIGHTLY SILTY
		BLUE-GRAY
		BLUE, VERY STIFF
39		GRADING MORE SILTY
	ML	GROUNDWATER STABILIZED AT 17.5'
		BLUE SILT--MEDIUM DENSE
30		

NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.
4. FREE GROUNDWATER NOT ENCOUNTERED DURING DRILLING. STABILIZED GROUNDWATER MEASURED 1.25 HOURS AFTER DRILLING.

DRAWN BY: TL
DATE: 9/17/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 10

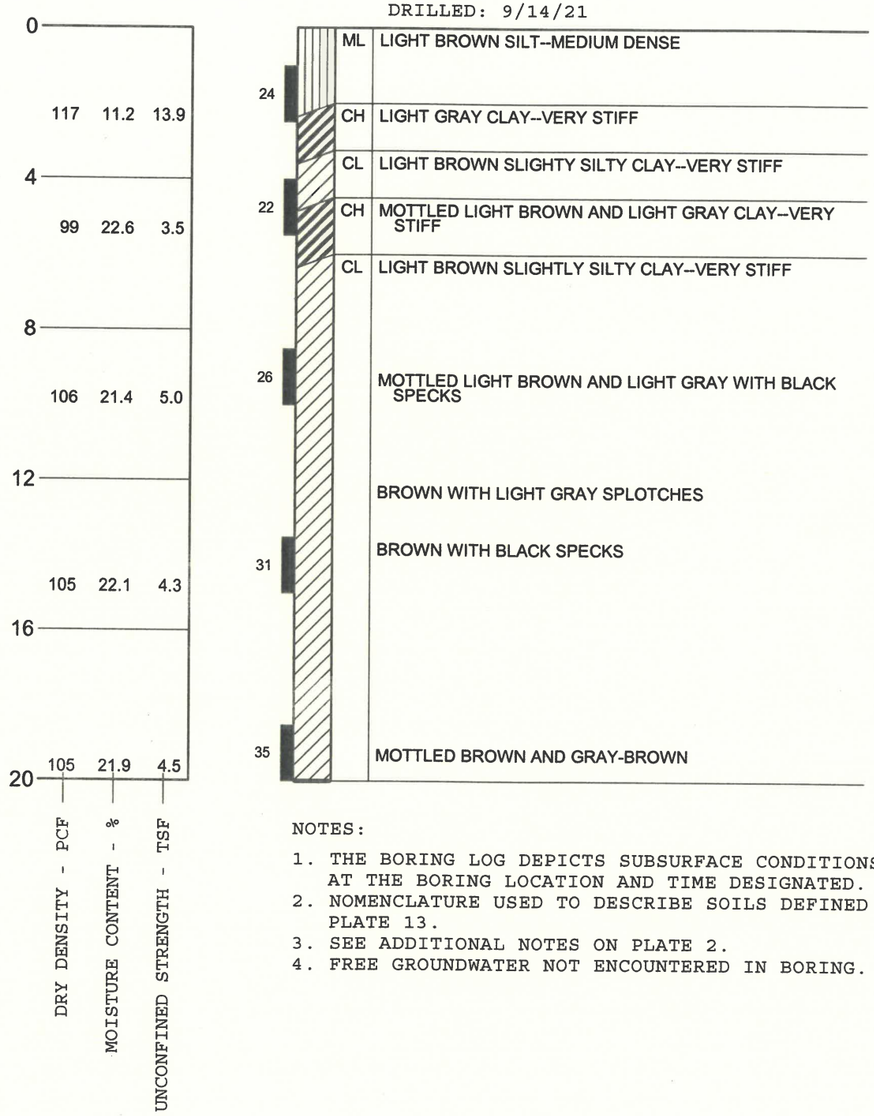
Raney Geotechnical Inc

LOG OF BORING

PLATE 10

BORING 3

DRILLED: 9/14/21



24	ML	LIGHT BROWN SILT--MEDIUM DENSE
	CH	LIGHT GRAY CLAY--VERY STIFF
	CL	LIGHT BROWN SLIGHTY SILTY CLAY--VERY STIFF
22	CH	MOTTLED LIGHT BROWN AND LIGHT GRAY CLAY--VERY STIFF
	CL	LIGHT BROWN SLIGHTLY SILTY CLAY--VERY STIFF
26		MOTTLED LIGHT BROWN AND LIGHT GRAY WITH BLACK SPECKS
		BROWN WITH LIGHT GRAY SPLOTCHES
31		BROWN WITH BLACK SPECKS
35		MOTTLED BROWN AND GRAY-BROWN

NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.
4. FREE GROUNDWATER NOT ENCOUNTERED IN BORING.

DRAWN BY: TL
DATE: 9/17/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 11

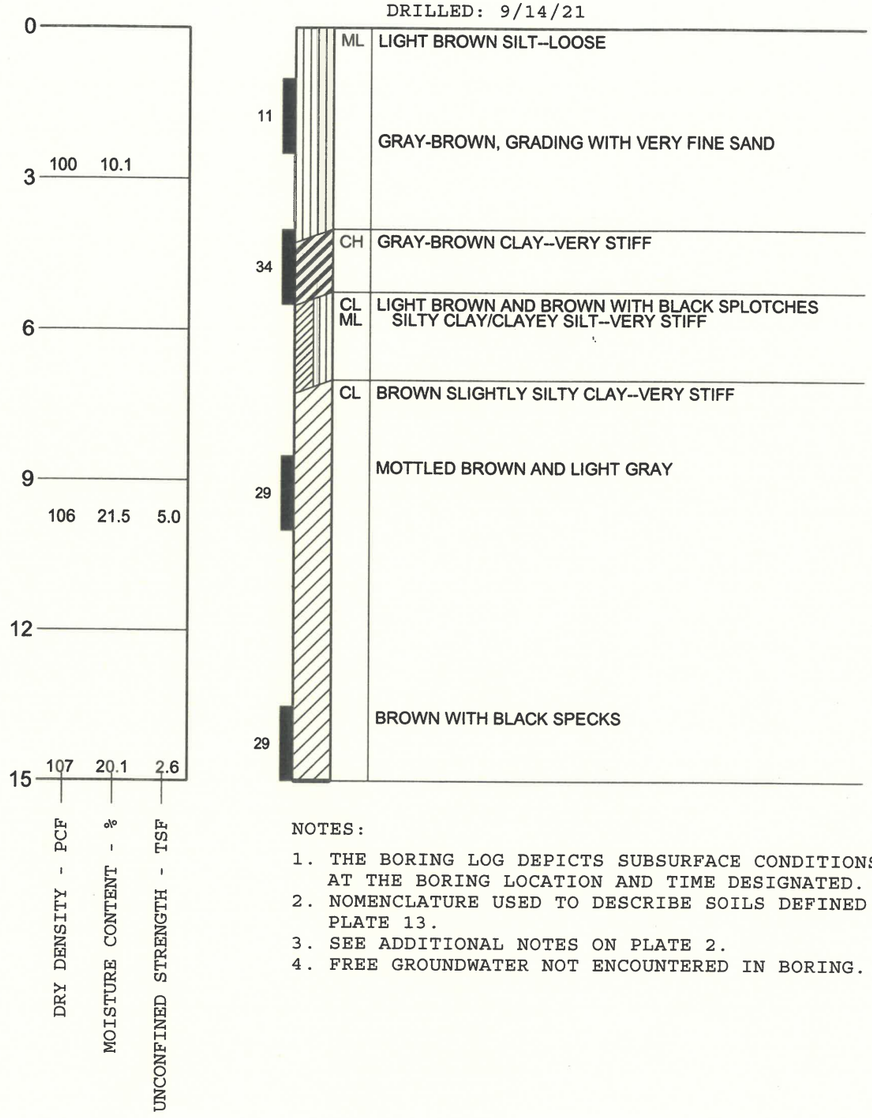
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LOG OF BORING

PLATE 11

BORING 4

DRILLED: 9/14/21



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 13.
3. SEE ADDITIONAL NOTES ON PLATE 2.
4. FREE GROUNDWATER NOT ENCOUNTERED IN BORING.

DRAWN BY: TL
DATE: 9/17/21

PROJECT NUMBER: 192-352
PLATE NUMBER: 12

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LOG OF BORING

PLATE 12

PROJECT NUMBER: 192-352
PLATE NUMBER: 13

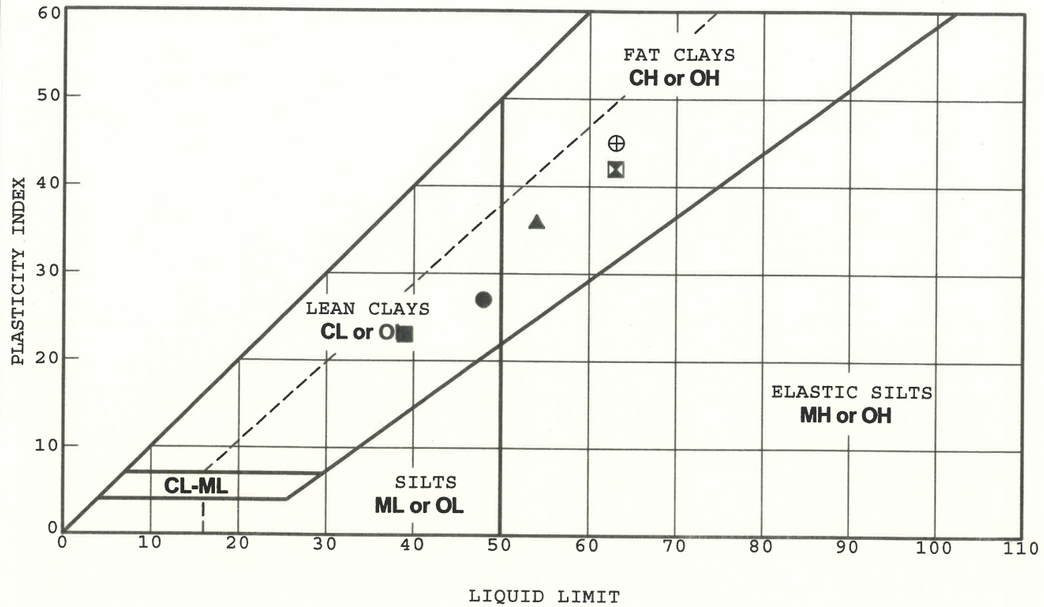
GRAPH	SYMBOL	DESCRIPTION	MAJOR DIVISIONS		
	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES	CLEAN GRAVELS WITH LESS THAN 5% FINES	GRAVEL AND GRAVELLY SOILS	COARSE GRAINED SOILS MORE THAN 50% LARGER THAN NO. 200 SIEVE
	GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES			
	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	GRAVELS WITH MORE THAN 12% FINES	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	
	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES			
	SW	WELL GRADED SANDS, GRAVELLY SANDS	CLEAN SANDS WITH LESS THAN 5% FINES	SANDS AND SANDY SOILS	
	SP	POORLY GRADED SANDS, GRAVELLY SANDS			
	SM	SILTY SANDS, SAND-SILT MIXTURES	SANDS WITH MORE THAN 12% FINES	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	
	SC	CLAYEY SANDS, SAND-CLAY MIXTURES			
	ML	INORGANIC SILTS, ROCK FLOUR, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	LIQUID LIMIT LESS THAN 50	SILTS AND CLAYS	FINE GRAINED SOILS MORE THAN 50% SMALLER THAN NO. 200 SIEVE
	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS			
	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTS, ELASTIC SILTS	LIQUID LIMIT GREATER THAN 50	SILTS AND CLAYS	
	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS			
	OH	ORGANIC CLAYS AND ORGANIC SILTS OF MEDIUM TO HIGH PLASTICITY			
	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT	HIGHLY ORGANIC SOILS		

UNIFIED SOIL CLASSIFICATION SYSTEM

Raney Geotechnical Inc

PLATE 13

PROJECT NUMBER: 192-352
PLATE NUMBER: 14



CLASSIFICATION TEST RESULTS						
SYMBOL	SAMPLE LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SOIL CLASSIFICATION
●	BORING 2	2.0	48	21	27	CL
⊠	BORING 3	4.5	63	21	42	CH
▲	BORING A	9.5	54	18	36	CH
⊕	BORING B	9.0	63	18	45	OH
■	BORING C	4.5	39	16	23	CL

ATTERBERG LIMIT DATA

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PLATE 14

Project Number: 192-352

ORGANIC CONTENT
ASTM D2974

Sample Location	Sample Depth (ft)	Moisture Content (%)	Ash Content (%)	Organic Content (%)
B-3II	9	21.8	96.4	3.6
D-2II	4.5	16.8	96.4	3.6

ORGANIC CONTENT DATA

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PLATE 15

Project Number: 192-352

Sieve Analysis
No. 200 Sieve Only

Sample Number	Sample Depth (ft)	% Passing No. 200 Sieve
E-8I	34.5	17
E-9I	39.5	17

GRAIN SIZE DATA

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PLATE 16

Project Number: 192-352

RESISTANCE VALUE TEST
CALIFORNIA TEST METHOD 301G

SAMPLE LOCATION: SAMPLE S2
DEPTH: 0.5-1.5'
MATERIAL DESCRIPTION: LIGHT GRAY CLAY

TEST NUMBER	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	EXUDATION PRESSURE (PSI)	EXPANSION PRESSURE (PSF)	RESISTANCE VALUE
1	99.8	22.8	264	0	4
2	109.1	18.5	480	0	8
3	112.8	16.3	674	39	22

Resistance value at 300 psi exudation pressure = 4

RESISTANCE VALUE DATA

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PLATE 17

“J”

Stormwater Control Plans

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

Stormwater Control Plan
For a Regulated Project
For Use Permit Application
E&P Properties Building A
Technology Way
Napa County, CA 94558

July, 29th 2022

E&P Properties
5400 Industrial Way,
Benecia, CA 94510

Prepared By:

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THERE ARE NO SIGNIFICANT NATURAL DRAINAGE FEATURES ON THE PROPERTY. STORMWATER DISCHARGING FROM THE PROPERTY WILL BE MADE TO MIMIC NATURAL DRAINAGE PATTERNS TO THE MAXIMUM EXTENT PRACTICABLE. ..... ERROR! BOOKMARK NOT DEFINED.
III.A.3. SETBACKS FROM CREEKS, WETLANDS, AND RIPARIAN HABITATS 2
CREEKS, WETLANDS, AND RIPARIAN HABITATS ARE NOT NEAR THE PROPERTY. SETBACKS FOR THESE ITEMS WERE NOT CONSIDERED. ..... ERROR! BOOKMARK NOT DEFINED.
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IMPERVIOUSNESS WAS MINIMIZED WITH RESPECT TO LAND USE OBJECTIVES AND TO ARCHITECTURAL AND CIVIL DESIGN CRITERIA AND CONSTRAINTS. 2
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THERE ARE NO SIGNIFICANT NATURAL DRAINAGE FEATURES ON THE PROPERTY. INFILTRATION OF RUNOFF WILL BE PROMOTED BY THE USE OF BIORETENTION FACILITIES. STORMWATER DISCHARGING FROM THE PROPERTY WILL BE MADE TO MIMIC NATURAL DRAINAGE PATTERNS TO THE MAXIMUM EXTENT PRACTICABLE. 3
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APPENDIX A CIVIL IMPROVEMENT PLANS

I. PROJECT DATA

Specific project information is summarized in the following **Table 1-Project Data Form**.

Table 1-Project Data Form	
Project Name/Number	E&P Properties Building A
Application Submittal Date	July 2022 (Application ENG22-000011)
Project Location	Technology Way and Morris Court, Napa, California APN: 057-250-030-000, -031-000
Project Phase No.	N/A
Project Type and Description	Industrial Warehouse and Office
Total Project Site Area	8.12-Acre Site
Total New and Replaced Impervious Surface Area	281,000 Square Feet (6.45 Acres)
Total Pre-Project Impervious Surface Area	0 Square Feet
Total Post-Project Impervious Surface Area	Approximately 80% of developed area (6.45 acres developed)

II. SETTING

II.A. PROJECT LOCATION AND DESCRIPTION:

The project location and Site Plan are shown on Sheet C-201 of **Appendix A, Civil Improvement Plans**. The project is located at Technology Way and Morris Court, in unincorporated Napa County, California (Assessor's Parcel Number: 057-250-030-000, 031-000) The property is a roughly 8.12 acres, with all 8.12 acres being undeveloped land. As shown on Sheet C-201 of **Appendix A, Civil Improvement Plans**, the proposed project includes a one-story warehouse building, totaling 143,311 SF with an asphalt parking lot.

II.B. EXISTING SITE FEATURES AND CONDITIONS:

The parcel is roughly trapezoidal and is approximately 1000 feet wide on the longest side by 375 feet deep. The ground elevation of the parcel ranges from approximately 18 to 34 feet (Napa County Datum). Soils at the site are loam (Hydrologic Soil Group D). Group D soils have low infiltration rates and high runoff rates. The Sheehy Creek runs west to east along the north side of the property with the natural ground flowing north into the creek. The property site is currently undeveloped.

II.C. OPPORTUNITIES AND CONSTRAINTS FOR STORMWATER CONTROL:

Opportunities for stormwater control at the site are afforded by landscaping requirements. The Sheehy Creek is currently used for onsite run off and can be utilities for an outfall after the site drainage filters through the bioretention.

The site also includes constraints. The industrial land use is high density/intensity and vehicular traffic space is limited by the land use objectives, and by architectural and design criteria and constraints. Also, clayey soils will limit infiltration potential.

III. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

III.A. OPTIMIZATION OF SITE LAYOUT:

III.A.1. Limitation Of Development Envelope

The Sheehy Creek flows through the north side of the property, the creek will not be altered or disturbed from the construction and included within a conservation easement.

III.A.2. Preservation Of Natural Drainage Features

The Sheehy Creek flows through the north side of the property, natural drainage surface flows to the creek. The proposed drainage pattern will remain the same.

III.A.3. Setbacks From Creeks, Wetlands, And Riparian Habitats

An existing bike trail borders the Sheehy Creek, creating a natural setback for proposed construction. Proposed construction will not encroach within 5 ft of the existing bike trail and the creek to the north.

III.A.4. Minimization Of Imperviousness

Imperviousness was minimized with respect to land use objectives and to architectural and civil design criteria and constraints.

III.A.5. USE OF DRAINAGE AS A DESIGN ELEMENT

There are no significant natural drainage features on the property. Infiltration of runoff will be promoted by the use of bioretention facilities. Stormwater discharging from the property will be made to mimic natural drainage patterns to the maximum extent practicable.

III.B. USE OF PERMEABLE PAVEMENTS:

Permeable pavements were not used for this project.

III.C. DISPERSAL OF RUNOFF TO PERVIOUS AREAS:

Runoff will be dispensed to pervious swales and/or bioretention facilities.

III.D. STORMWATER CONTROL MEASURES:

Source control measures are proposed for potential sources of pollution, such as storm drain inlets, truck docks, refuse areas, and parking lots, as described below.

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV.A. DESCRIPTIONS OF EACH DRAINAGE MANAGEMENT AREA:

The Drainage Management Areas (DMAs) for the site are shown on Sheet C-501 of **Appendix A, Civil Improvement Plans**, summarized in **Table 2-DMA Summary Information**, and described in more detail below.

IV.A.1. TABLE OF DRAINAGE MANAGEMENT AREAS

The following table is a summary of Drainage Management Areas (DMA) – **Table 2-DMA Summary Information**.

Table 2-DMA Summary Information

DMA Name	Surface Type	Area (Square Feet)	Area (Acres)
1A	71% Impervious	60,177	1.38
2A	81% Impervious	55,588	1.27
3A	75% Impervious	119,474	2.74
4A	90% Impervious	42,988	0.99
5A	78% Impervious	75,588	1.74

IV.A.2. DMA DESCRIPTIONS

DMAs 1A, 2A, 3A, 4A and 5A: Drain primarily impervious areas, the parking lot and proposed building. DMAs 1A, 2A, 3A, 4A and 5A drain to Bioretention Facilities 1A, 2A, 3A, 4A and 5A respectively. After being treated in the Bioretention Facilities, runoff that does not infiltrate into the natural soil underneath will be captured by underdrains. Stormwater culverts will overflow into the Sheehy Creek.

IV.B. TABULATION AND SIZING CALCULATIONS:

This Section describes sizing and design of Bioretention Facilities 1A through 5A, as shown on Sheet C-501 of **Appendix A, Select Improvement Plan Sheets**, and as specified in the 2019 BASMAA Design Manual[1].

IV.B.1. INFORMATION SUMMARY FOR BIORETENTION FACILITY DESIGN

Summary information for DMA's draining to bioretention facilities are shown in **Table 3-Areas Draining to Bioretention Facilities**.

Table 3-Areas Draining to Bioretention Facilities	
DMA Name	**Area (Square Feet)**
1A	60,177
2A	55,588
3A	119,474
4A	42,988
5A	75,588

IV.B.2. AREAS DRAINING TO BIORETENTION FACILITIES

Table 4A-Sizing Information for Bioretention Facility 1a, through **Table 4E-Sizing Information for Bioretention Facility 5A,** show the sizing information for BMP 1A, 2A, 3A, 4A and 5A . The bioretention facilities will treat runoff from the DMAs shown in the tables.

[1] BASMAA Post-Construction Manual, Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties. Bay Area Stormwater Management Agencies Association (BASMAA) Phase II Committee. January, 2019.

Table 4A-Sizing Information for Bioretention Facility 1A.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 1A		
1A	42,726	Impervious	1	42,726	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	17,451	Pervious/ landscaped	0.1	1,745			
Total				44,471	0.04	1,779 SF	3,351 SF

Table 4B-Sizing Information for Bioretention Facility 2A.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 2A		
2A	45,026	Impervious	1.0	45,026	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	10,562	Pervious/ landscaped	0.1	1,056			
Total				46,082	0.04	1,843 SF	2,497 SF

Table 4C-Sizing Information for Bioretention Facility 3A.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 3A		
3A	89,606	Impervious	1.0	89,606	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	29,869	Pervious/ landscaped	0.1	2,987			
Total				92,592	0.04	3,704 SF	3,751 SF

Table 4D-Sizing Information for Bioretention Facility 4A.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 4A		
4A	38,689	Impervious	1.0	38,689	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	4,299	Pervious/ landscaped	0.1	429			
Total				39,119	0.04	1,565 SF	1,725 SF

Table 4E-Sizing Information for Bioretention Facility 5A.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 5A		
5A	58,959	Impervious	1.0	58,959	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	16,629	Pervious/ landscaped	0.1	1,663			
Total				60,622	0.04	2,425 SF	4,317 SF

V. SOURCE CONTROL MEASURES

V.A. SITE ACTIVITIES AND POTENTIAL SOURCES OF POLLUTANTS:

Potential pollutant sources were identified for the project. The sources are listed in **Table 5-Sources and Source Control Measures**.

V.B. SOURCE CONTROL TABLE:

Source control measures were selected for the potential pollutant sources, as shown in the following **Table 5-Sources and Source Control Measures**. The most feasible measures were selected, considering site and design constraints.

Table 5-Sources and Source Control Measures

Potential Source Of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
On-site Storm Drain Inlets	Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	Maintain and periodically repaint or replace inlet markings. Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
Landscape/Outdoor Pesticide Use/Building and Grounds Maintenance	Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.	Maintain landscaping using minimum or no pesticides.
Sidewalks and Parking Lots		Sweep sidewalks and parking lots regularly to prevent accumulation of litter and debris.
Truck Dock	Loading portion of dock shall be covered and is graded to prevent run-on and runoff from the loading area. Floor drains within the covered portion of the dock will be plumbed to the sanitary sewer.	Move loaded and unloaded items indoors as soon as possible.
Refuse Area	Area is enclosed and covered, and graded to prevent run-on and to minimize runoff.	Inspect receptacles regularly, pick up litter, and clean up spills. Keep receptacles covered.

V.C. FEATURES, MATERIALS, AND METHODS OF CONSTRUCTION OF SOURCE CONTROL BMPS:

Features, materials, and methods of construction of source control BMPs will be as shown on selected sheets of the Improvement Plans provided in **Appendix A, Civil Improvement Plans**. Unless specified otherwise, all construction and materials shall be in accordance with the plans and with County Design Standards.

VI. STORMWATER FACILITY MAINTENANCE

VI.A. OWNERSHIP AND RESPONSIBILITY FOR MAINTENANCE IN PERPETUITY:

Maintenance of stormwater facilities will be the responsibility of the property owner and will be performed by the owner's contractors or employees as part of routine maintenance of buildings, grounds, and landscaping. The applicant will commit to execute any necessary written agreements prior to the County's approval of the building permit.
With this agreement, the applicant will accept responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner.

VI.B. SUMMARY OF MAINTENANCE REQUIREMENTS FOR EACH STORMWATER FACILITY:

The five (5) bioretention facilities will be inspected and maintenance activities will be completed at least annually. The frequency may be adjusted based on results of inspections. The maintenance activities will be specified in a Maintenance Plan to be approved by the County. The activities are summarized as follows:

Bioretention Facilities:

a. Clean Up: Remove any soil or debris blocking planter inlets or overflows. Remove trash that typically collects near inlets or gets caught in vegetation.
b. Prune Or Cut Back Plants: For health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary.
c. Control Weeds: By manual methods and soil amendment.
d. Add Mulch: Replace compost mulch to maintain 1-inch to 2-inch thickness.
e. Check Signage: Remove graffiti and replace, if necessary.

VII. CONSTRUCTION CHECKLIST

Table 6-Construction Plan C.3 Checklist shown below summarizes the source control and treatment control measures proposed in for this project. Referenced Improvement Plan sheets are included in **Appendix A, Select Improvement Plan Sheets**.

Table 6-Construction Plan C.3 Checklist

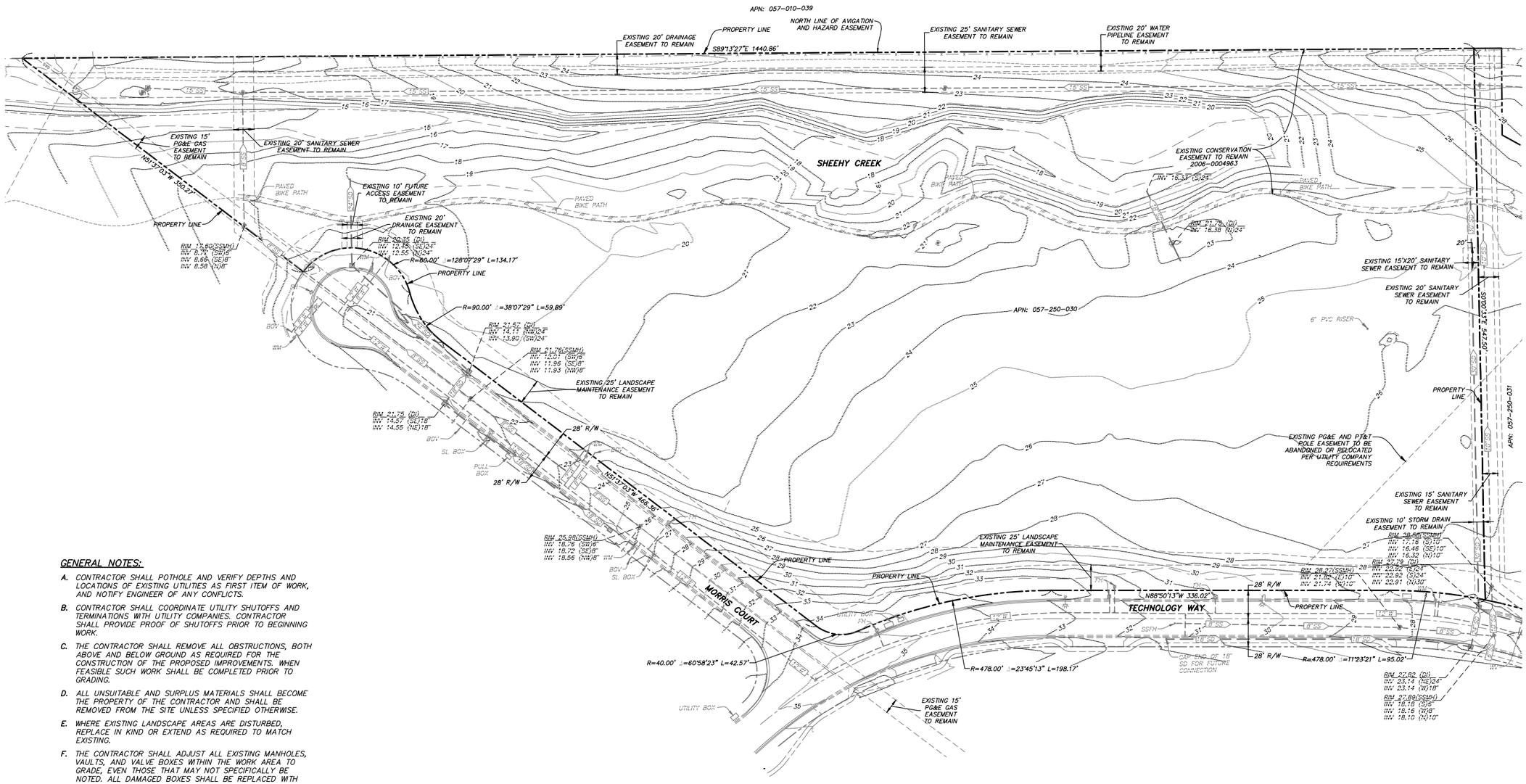
Stormwater Control Plan Section	Source Control or Treatment Control Measure	See Plan Sheet Nos.
V.B	Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	C-501
IV.C.4	Bioretention Facilities 1A through 5A	C-501

VIII. CERTIFICATIONS

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA Post-Construction Manual, to the maximum extent practicable.

APPENDIX A

CIVIL IMPROVEMENT PLANS



GENERAL NOTES:

A. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTHS AND LOCATIONS OF EXISTING UTILITIES AS FIRST ITEM OF WORK, AND NOTIFY ENGINEER OF ANY CONFLICTS.

B. CONTRACTOR SHALL COORDINATE UTILITY SHUTOFFS AND TERMINATIONS WITH UTILITY COMPANIES. CONTRACTOR SHALL PROVIDE PROOF OF SHUTOFFS PRIOR TO BEGINNING WORK.

C. THE CONTRACTOR SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. WHEN FEASIBLE SUCH WORK SHALL BE COMPLETED PRIOR TO GRADING.

D. ALL UNSUITABLE AND SURPLUS MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS SPECIFIED OTHERWISE.

E. WHERE EXISTING LANDSCAPE AREAS ARE DISTURBED, REPLACE IN KIND OR EXTEND AS REQUIRED TO MATCH EXISTING.

F. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VAULTS, AND VALVE BOXES WITHIN THE WORK AREA TO GRADE, EVEN THOSE THAT MAY NOT SPECIFICALLY BE NOTED. ALL DAMAGED BOXES SHALL BE REPLACED WITH NEW BOXES.

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OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022

GENERAL CONTRACTOR:

drawn by : PJ plot date : 07-27-2022

checked by : PF

stamp

REGISTERED PROFESSIONAL ENGINEER
BRYAN P. BONINO
No. 41804
CIVIL
STATE OF CALIFORNIA

scale : AS NOTED

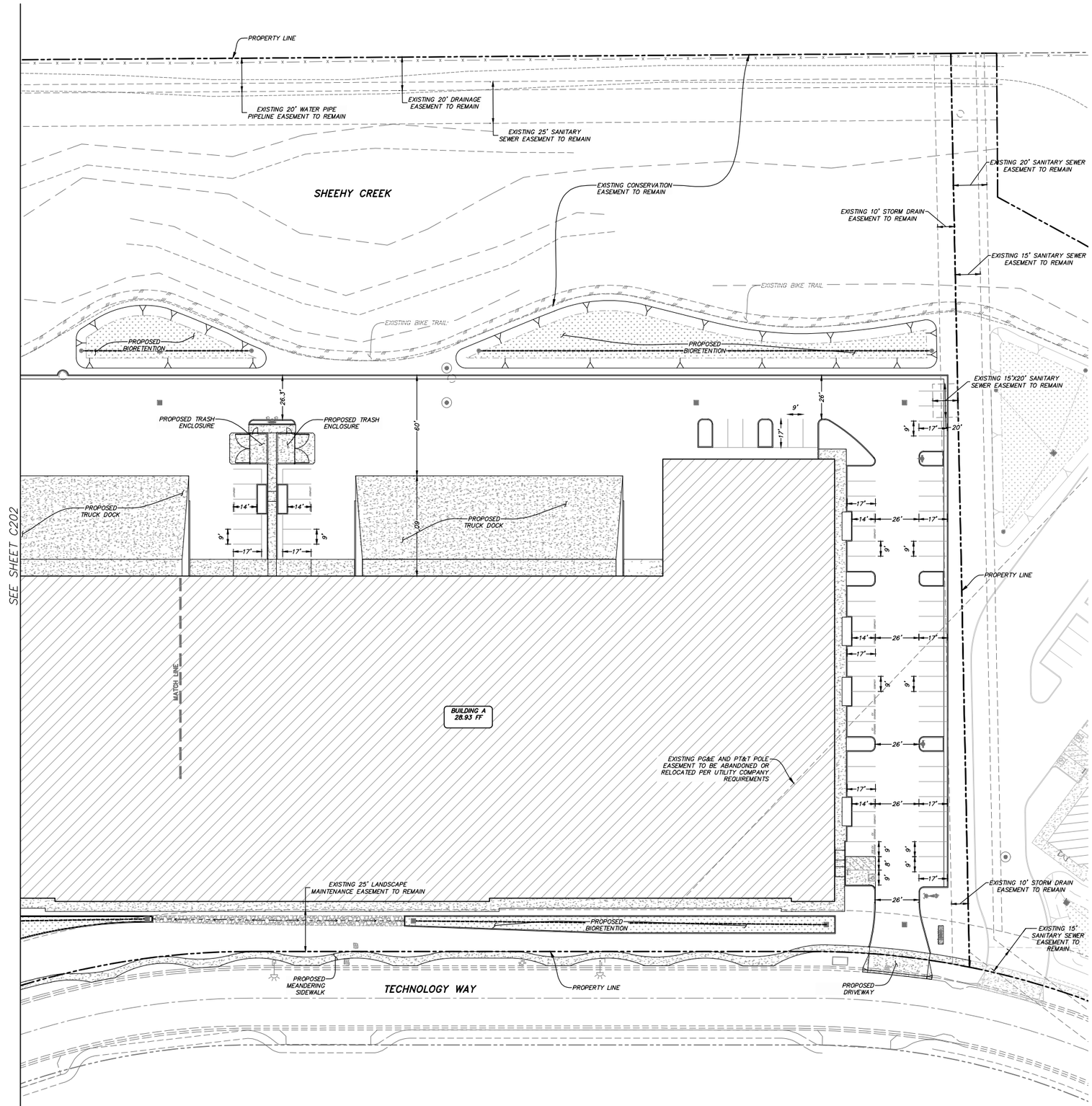
project number : 3687-13

TOPOGRAPHIC SURVEY & DEMOLITION PLAN

sheet no. :

C101

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C101.dwg Date Plotted: July 29, 2022 - 5:00pm



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PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE
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TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

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A	INITIAL PLANNING REVIEW	07-27-2022

GENERAL CONTRACTOR:

drawn by : PJ plot date : 07-27-2022

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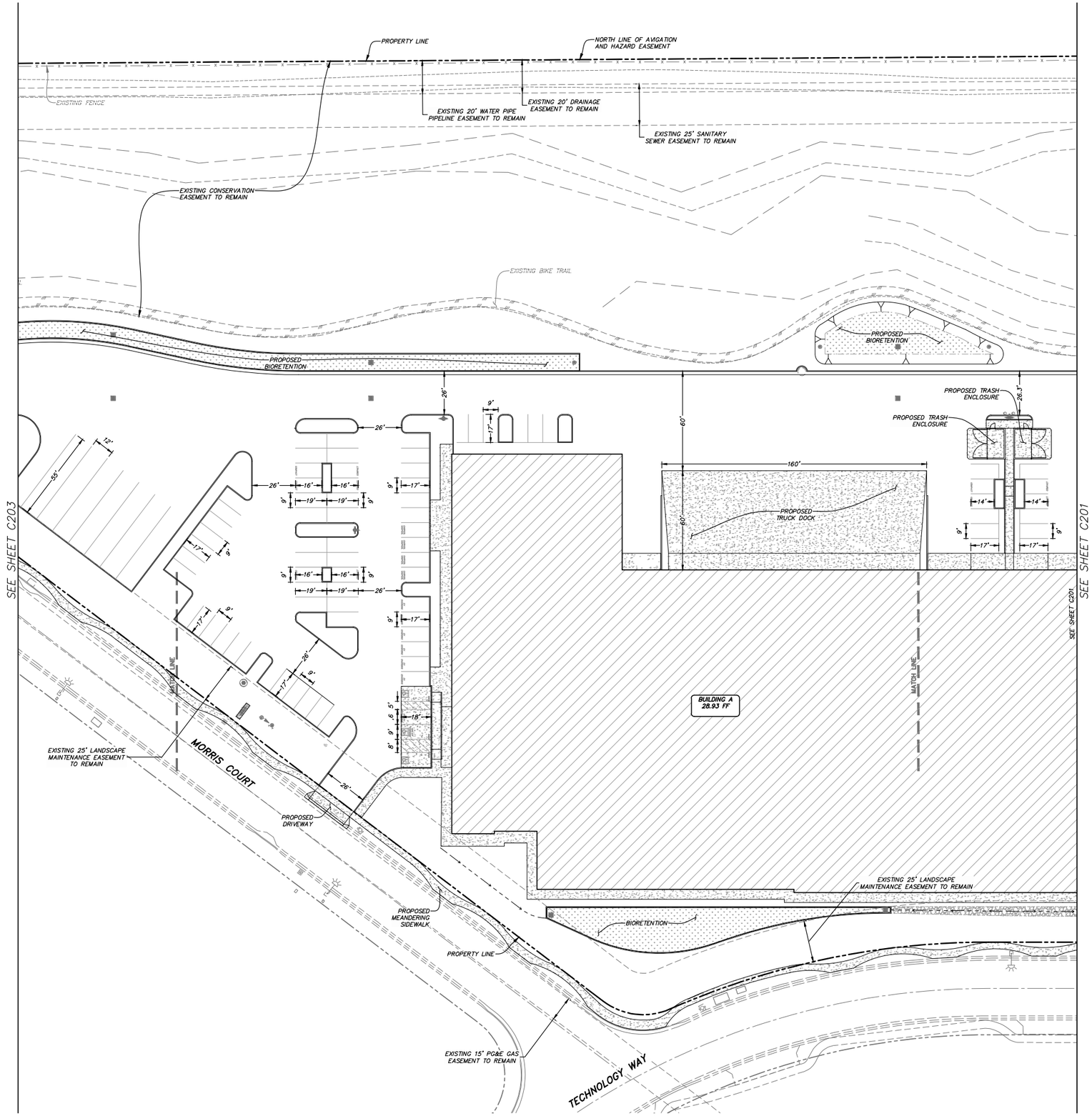
project number : 3687-13

CIVIL SITE PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C201

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C201.dwg Date Plotted: July 29, 2022 - 5:00pm



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scale : AS NOTED

project number : 3687-13

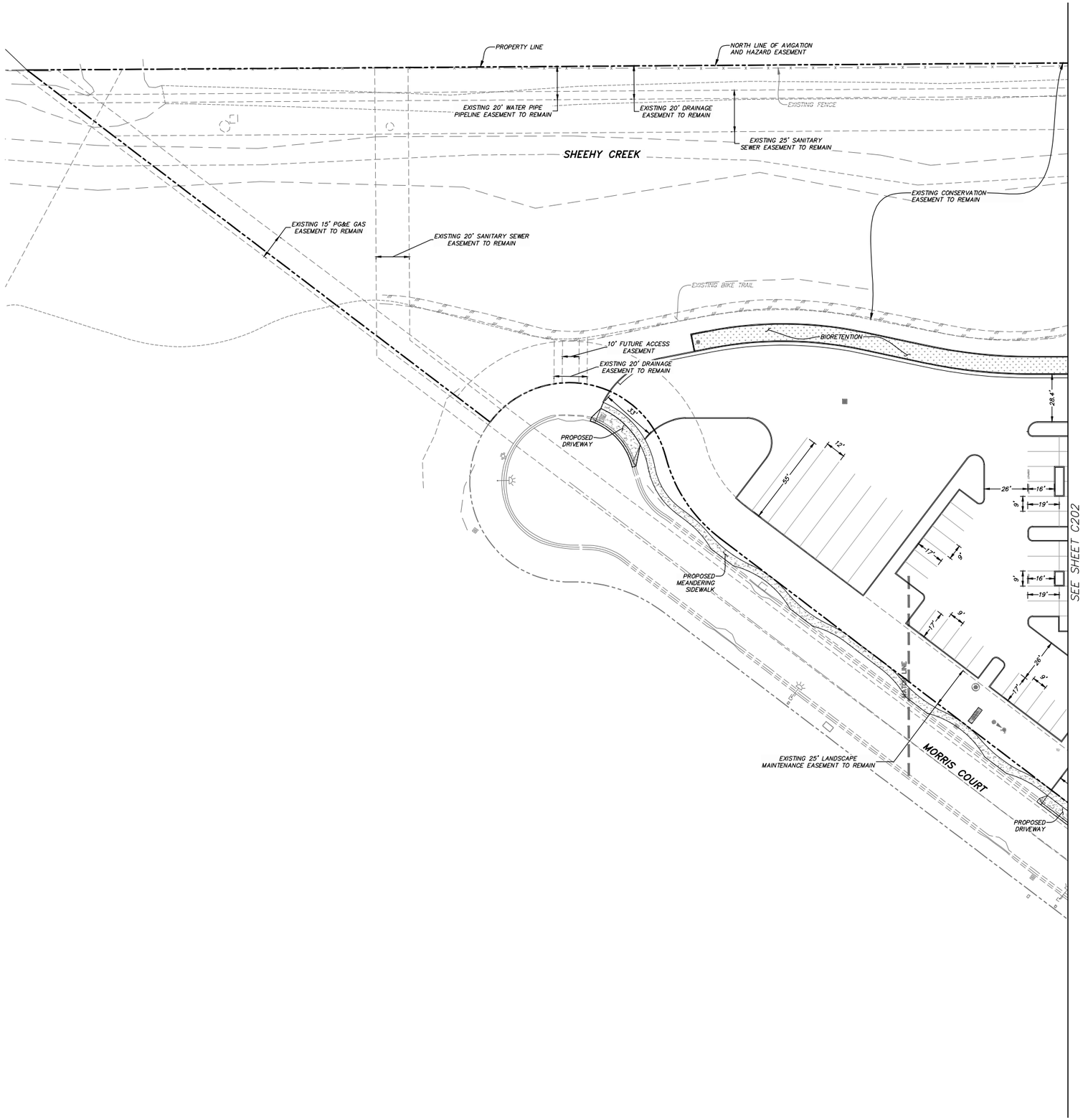
CIVIL SITE PLAN

0 15 30 60
SCALE: 1"=30'

sheet no. :

C202

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C202.dwg Date Plotted: July 29, 2022 - 5:00pm



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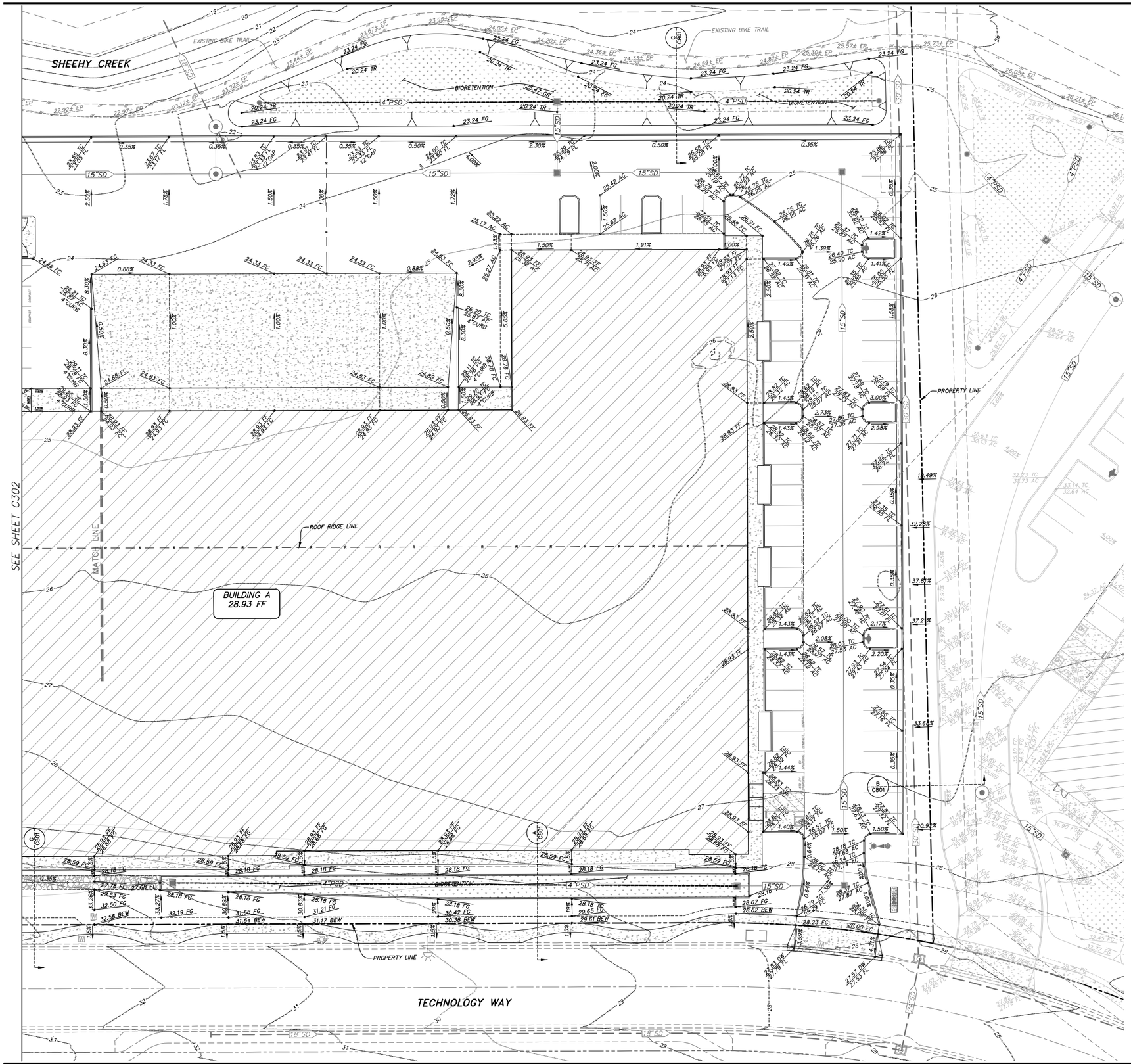
project number : 3687-13

CIVIL SITE PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C203

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C203.dwg Date Plotted: July 29, 2022 – 5:01pm



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project number : 3687-13

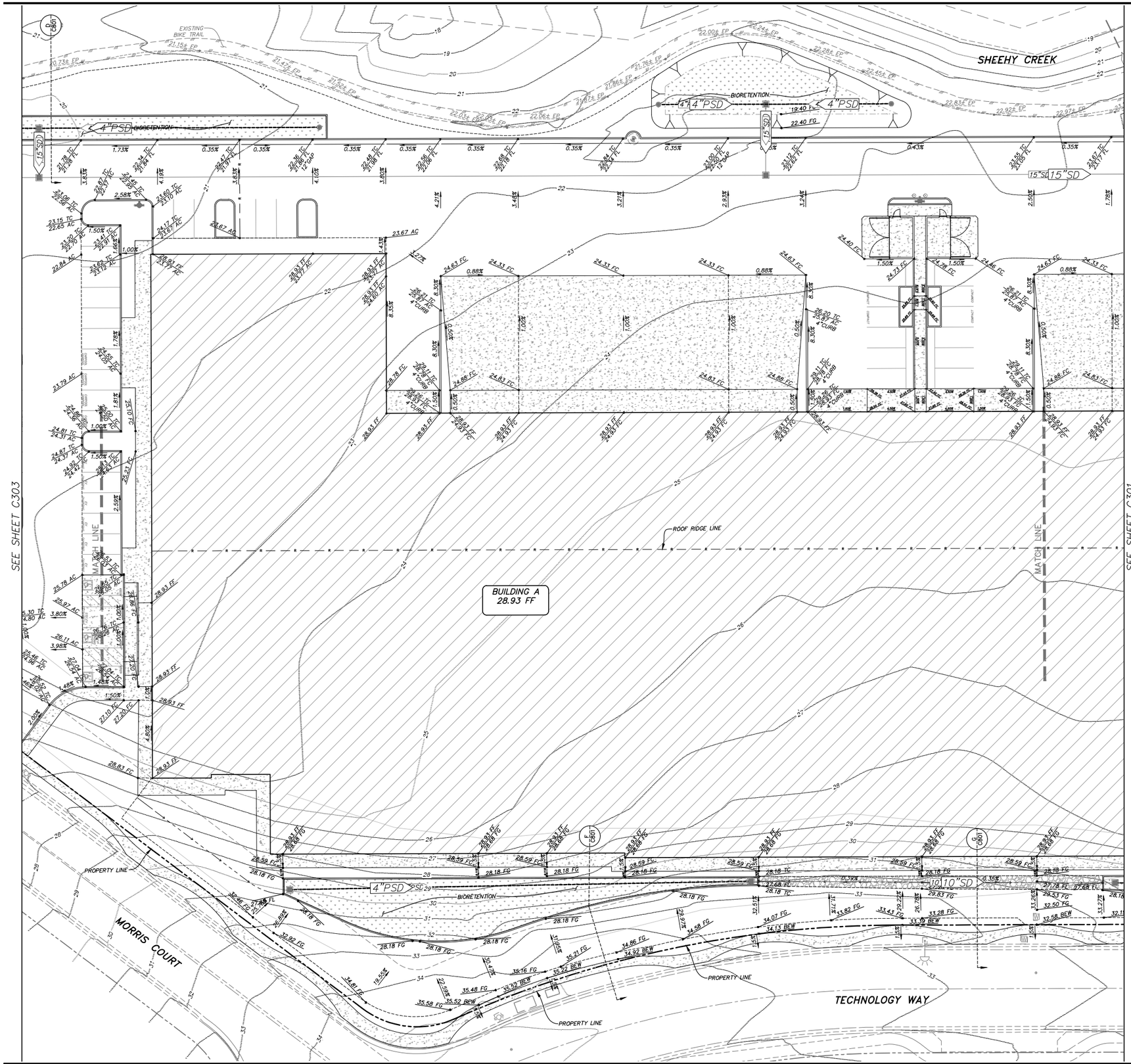
GRADING & DRAINAGE PLAN

SCALE: 1"=20'

sheet no. :

C301

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C301.dwg Date Plotted: July 29, 2022 – 5:01pm



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CIVIL
STATE OF CALIFORNIA

scale : AS NOTED

project number : 3687-13

GRADING & DRAINAGE PLAN

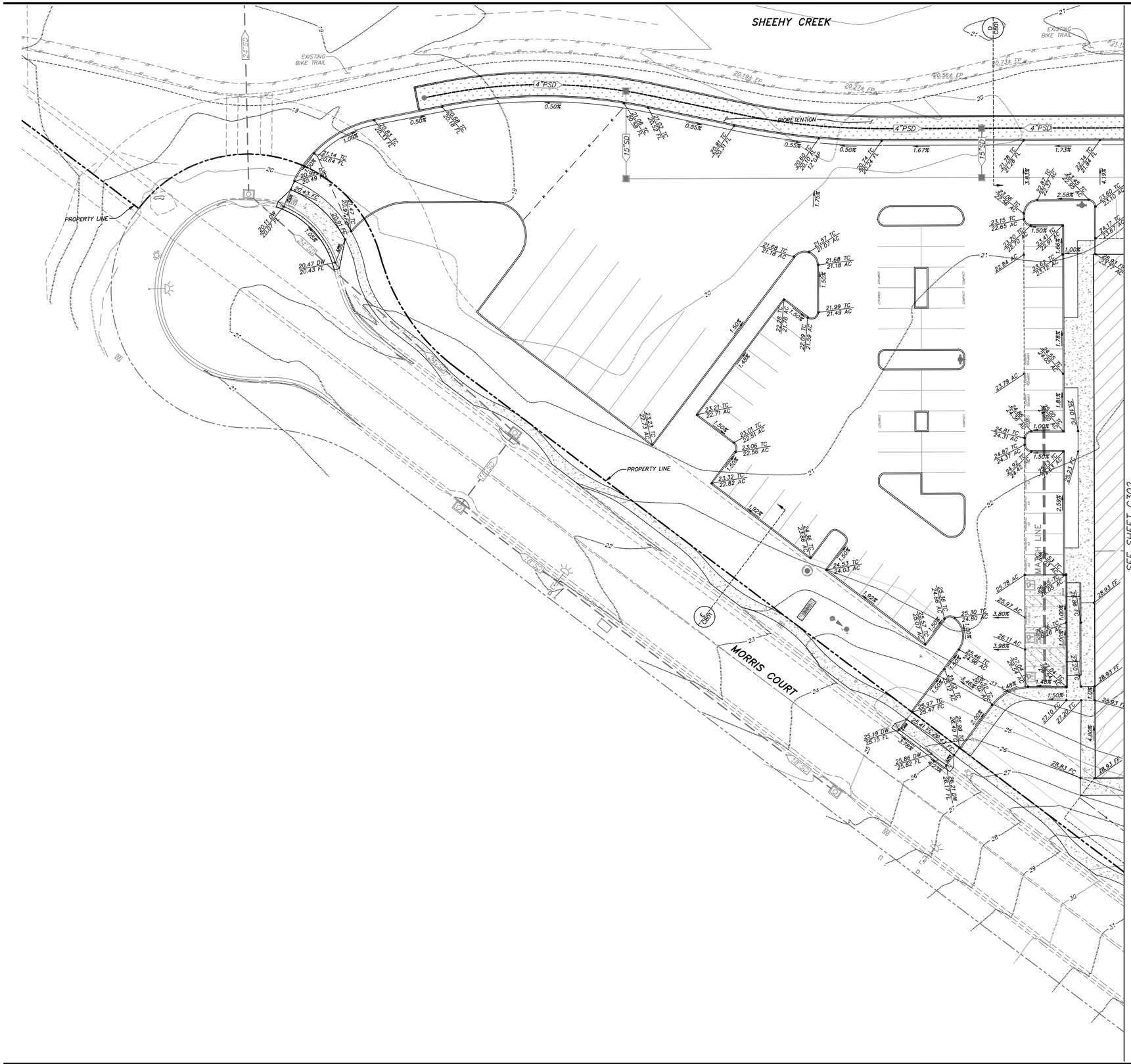
0 10 20 40
LM
SCALE: 1"=20'

sheet no. :

C302

601

File Name: X:\Land Projects\3687–13\dwg\3687–13_A_C302.dwg Date Plotted: July 29, 2022 – 5:02pm



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No. 41804
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STATE OF CALIFORNIA

scale : AS NOTED

project number : 3687-13

GRADING &
DRAINAGE PLAN

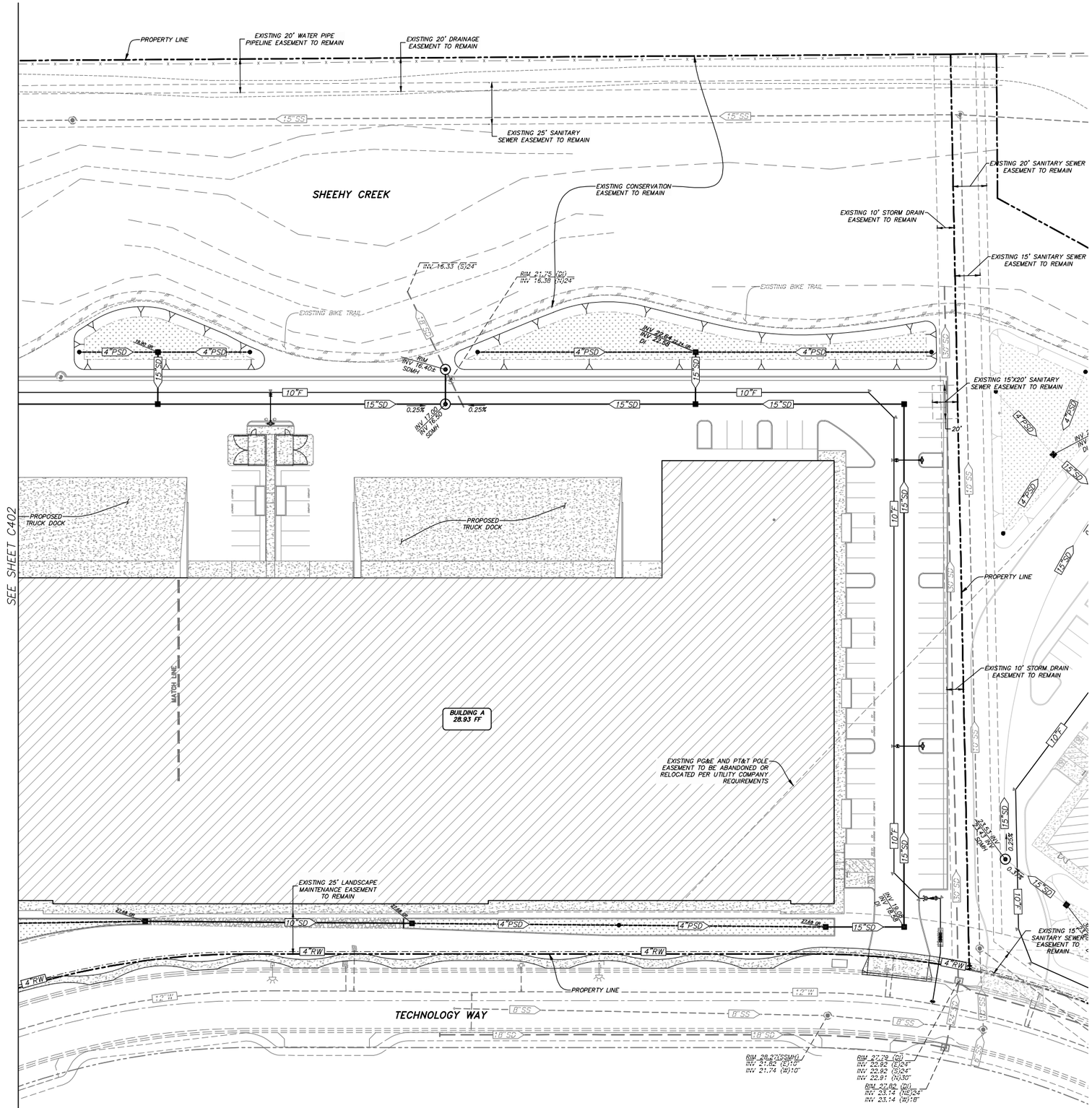
sheet no. :

C303

0 10 20 40
SCALE: 1"=20'

602

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C303.dwg Date Plotted: July 29, 2022 – 5:02pm



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project number : 3687-13

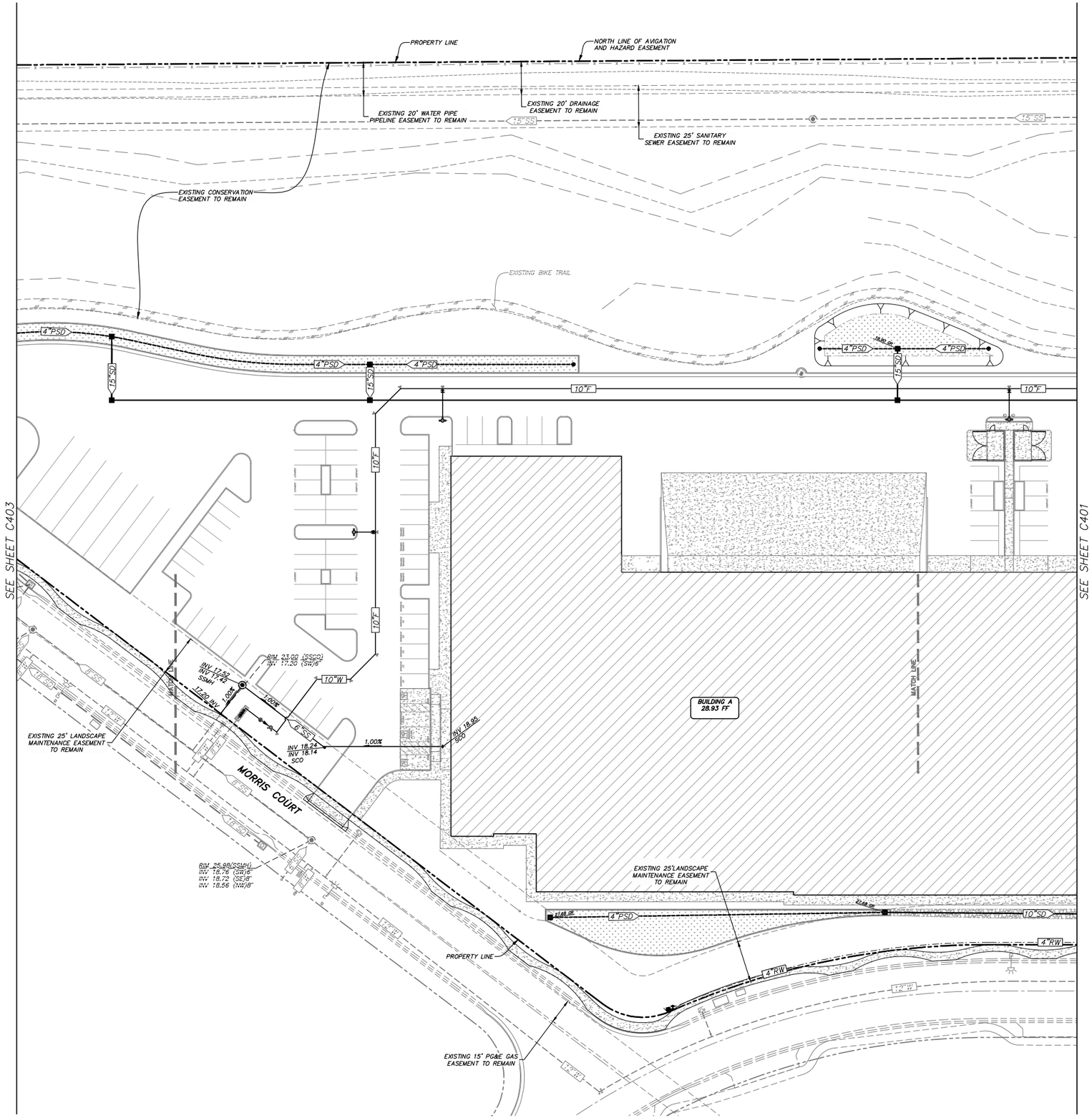
UTILITIES PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C401

603

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C401.dwg Date Plotted: July 29, 2022 - 5:02pm



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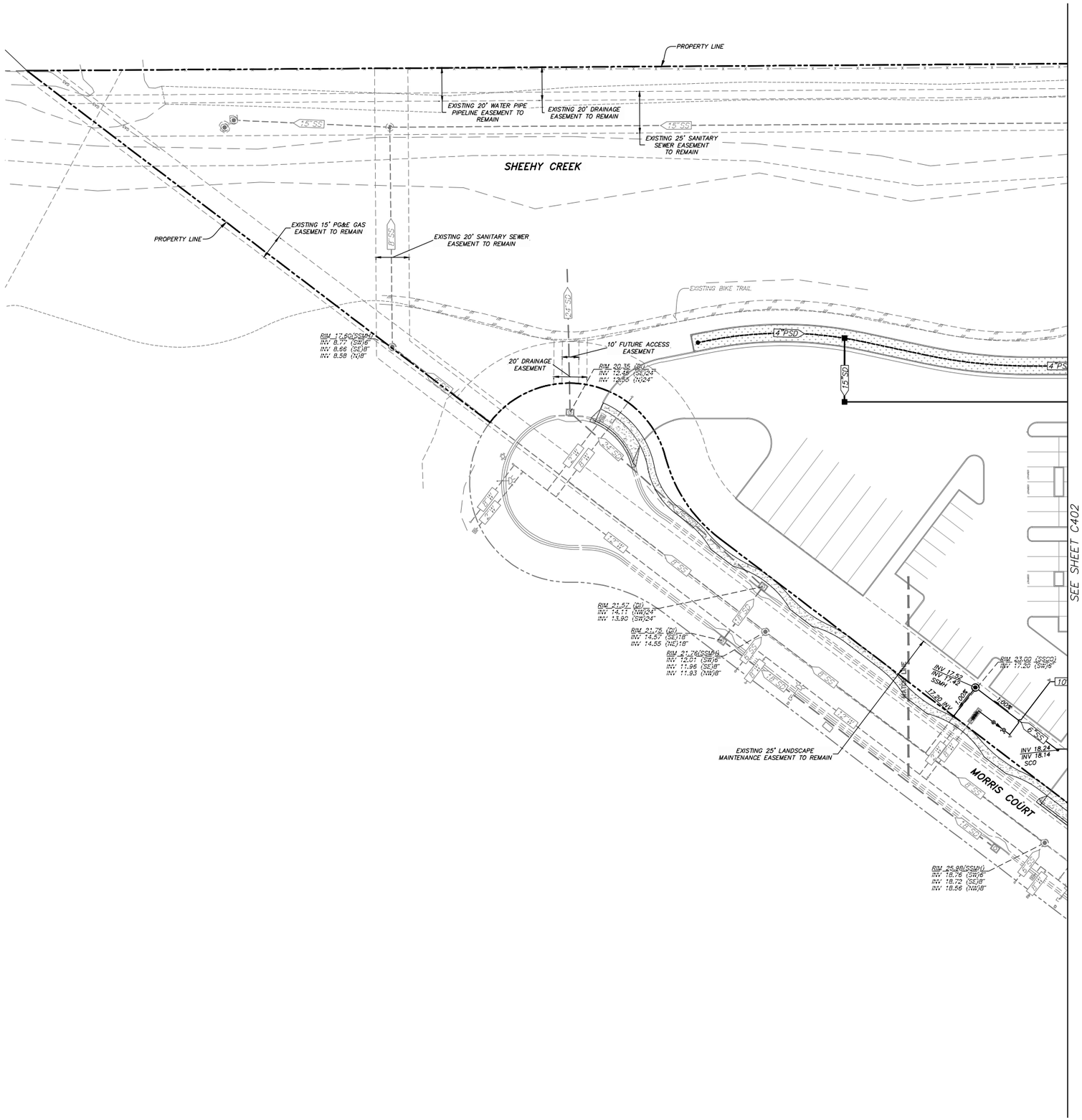
project number : 3687-13

UTILITIES PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C402

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C402.dwg Date Plotted: July 29, 2022 - 5:03pm



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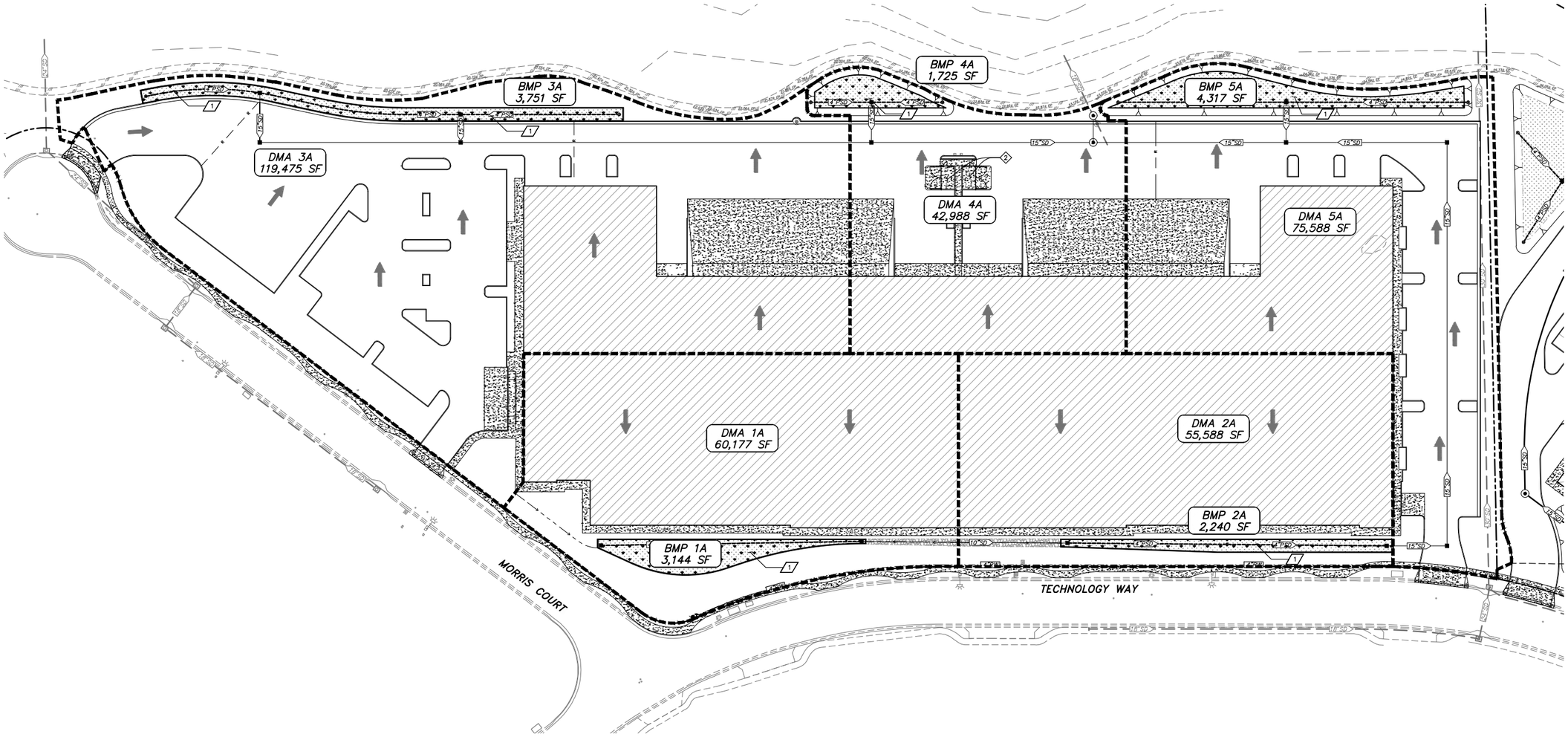
project number : 3687-13

UTILITIES PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C403

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C403.dwg Date Plotted: July 29, 2022 – 5:03pm



GENERAL NOTES:

A. TOTAL PROJECT AREA IS 353,800 SF (8.12 AC).
B. DMA – DRAINAGE MANAGEMENT AREA.
C. BF – BIORETENTION FACILITY, TREATMENT CONTROL MEASURE.
D. SOILS ARE GROUP D, PER USDA SOIL MAP VIEWER REPORT.
E. DEPTH TO GROUNDWATER IS YET TO BE DETERMINED.
F. RECEIVING WATER BODY IS SHEEHY CREEK.

SITE DESIGN MEASURES ⬡:

1. PRESERVE NATURAL DRAINAGE PATTERNS.
2. DIRECT RUNOFF FROM IMPERVIOUS AREAS TO LANDSCAPED AREAS. FLOW DIRECTION ( ).
3. PLANT TREES ADJACENT TO IMPERVIOUS AREAS. TREE LOCATIONS TO BE IDENTIFIED WITH FINAL CONSTRUCTION DOCUMENTS.
4. SELF-TREATING OR SELF-RETAINING AREA.
5. DMA DRAINING TO A SELF-RETAINING AREA.

POTENTIAL POLLUTION SOURCES AND CONTROL MEASURES ◇:

1. LOADING DOCK. COVERED FOR SIX FEET OUT BEYOND THE EDGE OF THE BUILDING ROOF. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL.
2. REFUSE AREA. COVERED AND ENCLOSED FOR DUMPSTERS. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL. GRADED TO MINIMIZE STORMWATER RUN-ON AND RUNOFF. SEE GRADING PLAN FOR FURTHER DETAIL.
3. STORM DRAIN INLET. MARK WITH WORDS "NO DUMPING! FLOWS TO BAY". SEE UTILITY PLAN FOR FURTHER DETAIL.

TREATMENT CONTROL MEASURES ▱:

1. INSTALL BIORETENTION FACILITY PER DETAILS ON SHEET C502. SEE GRADING PLAN, SITE PLAN, UTILITY PLAN, AND LANDSCAPING PLAN FOR MORE DETAIL.

O&M SUMMARY:

1. O&M ACTIVITIES AND RESPONSIBLE PARTIES WILL BE SPECIFIED WITH THE FINAL CONSTRUCTION DOCUMENTS.

LEGEND

DMA	DRAINAGE MANAGEMENT AREA
BMP	BEST MANAGEMENT PRACTICE
DMA 1 1,000 SF	WATER QUALITY AREA NAME AND SQUARE FOOTAGE
▬▬▬	WATER QUALITY AREA BOUNDARY
BMP 1 1,000 SF	BIORETENTION MANAGEMENT AREA NAME AND SQUARE FOOTAGE
▱	BIORETENTION MANAGEMENT AREA
→	DIRECTION OF FLOW

0 20 40 80
SCALE: 1"=40'

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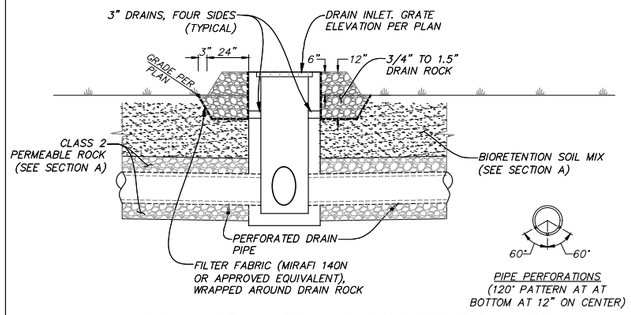
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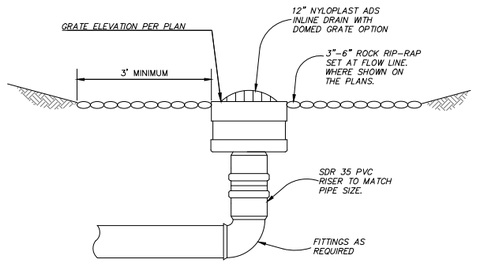
STORMWATER CONTROL PLAN

sheet no. : C501

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C501.dwg Date Plotted: July 29, 2022 - 5:04pm



1 DRAINAGE INLET AND BIORETENTION DETAIL
NTS

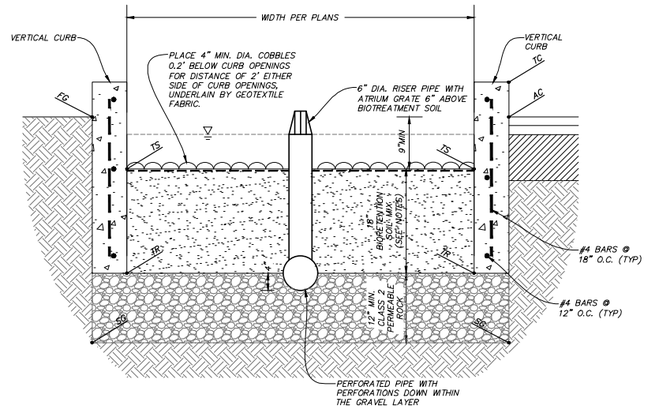


2 LANDSCAPE AREA DRAIN
NTS

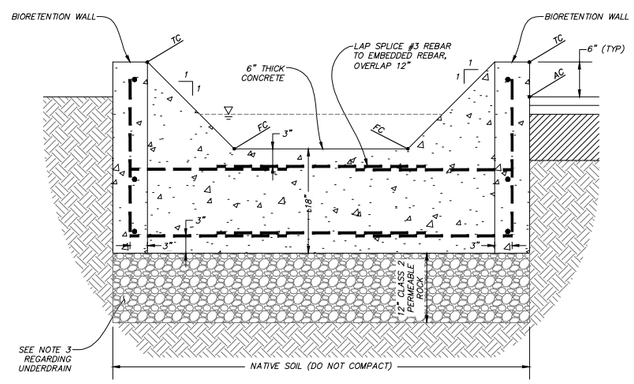
3 BIORETENTION FACILITY 12" OVERFLOW DRAIN
NTS

BIORETENTION NOTES:

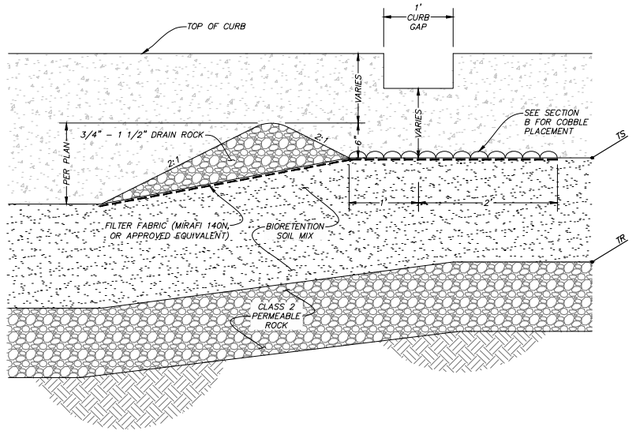
1. FOR LOCATION, SIZE, AND IDENTIFICATION OF PROPOSED LANDSCAPING/PLANT MATERIAL SEE LANDSCAPE PLANS.
2. BIOTREATMENT SOIL MIX SHALL CONSIST OF 60%–70% SAND AND 30%–40% COMPOST PER BASMAA SPECIFICATIONS. SPECIFICATIONS AVAILABLE FROM CONTRA COSTA CLEAN WATER PROGRAM. (CCCWP) SOIL MIX MUST BE OBTAINED FROM LOCAL SUPPLIER APPROVED BY THE CCCWP.
3. INSTALLATION OF PERMEABLE SOIL SHALL BE PER BASMAA REQUIREMENTS.



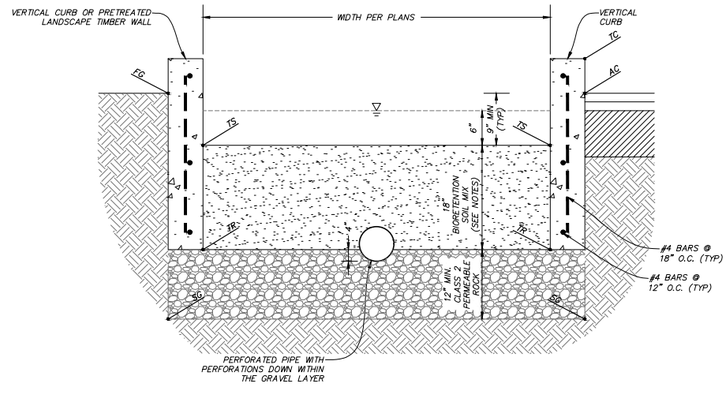
4 BIORETENTION FACILITY 6" OVERFLOW DRAIN
NTS



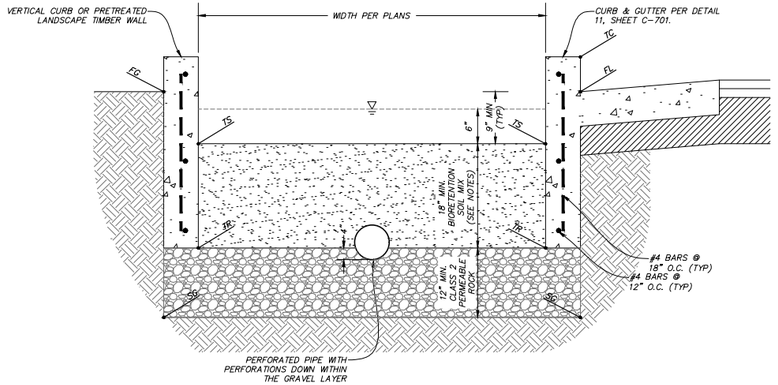
5 FULL WIDTH CONCRETE CROSS BRACE
NTS



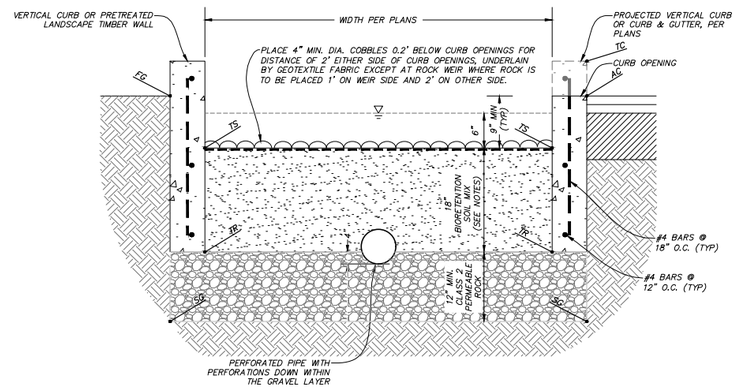
6 PERVIOUS ROCK WEIR
NTS



7 TYPICAL BIORETENTION FACILITY SECTION @ VERTICAL CURB
NTS



8 TYPICAL BIORETENTION FACILITY SECTION @ CURB & GUTTER
NTS



9 TYPICAL BIORETENTION FACILITY SECTION @ CURB OPENING
NTS

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project number : 3687-13

STORMWATER CONTROL PLAN DETAILS

sheet no. :

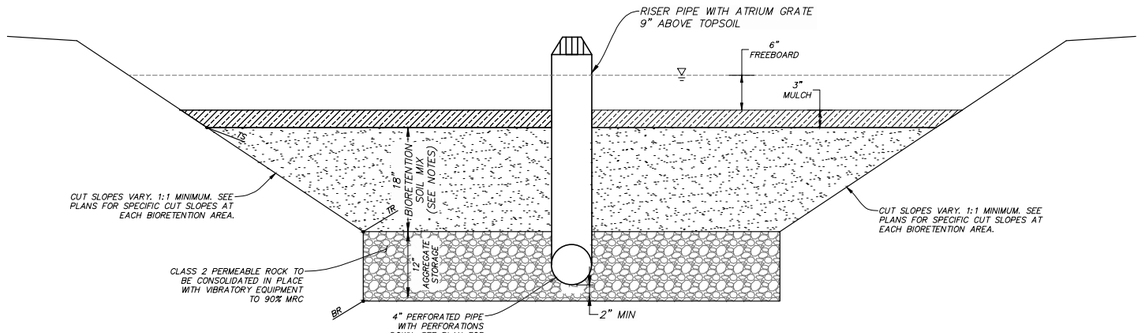
C502

607

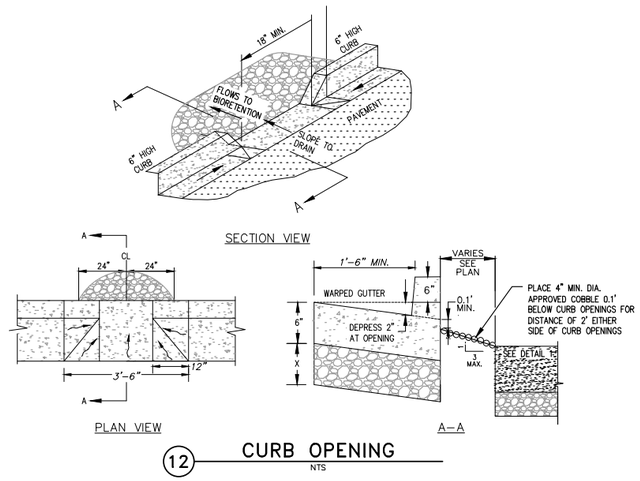
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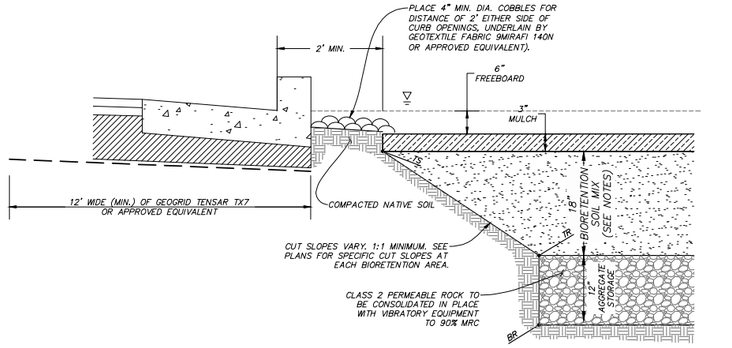
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3. INSTALLATION OF PERMEABLE SOIL SHALL BE PER BASMAA REQUIREMENTS.



10 BIORETENTION FACILITY WITH SLOPED GROUND
NTS



12 CURB OPENING
NTS



11 BIORETENTION FACILITY WITH SLOPED GROUND ADJACENT TO CURB AND GUTTER
NTS

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5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022

GENERAL CONTRACTOR:

drawn by : PJ plot date : 07-27-2022

checked by : PF

stamp

REGISTERED PROFESSIONAL ENGINEER
BRYAN P. BONINO
No. 41804
CIVIL
STATE OF CALIFORNIA

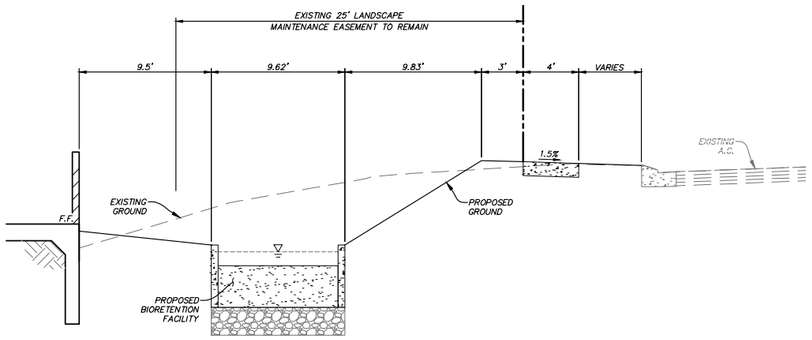
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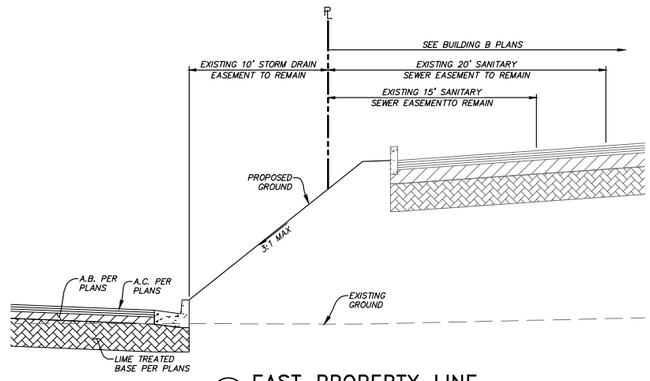
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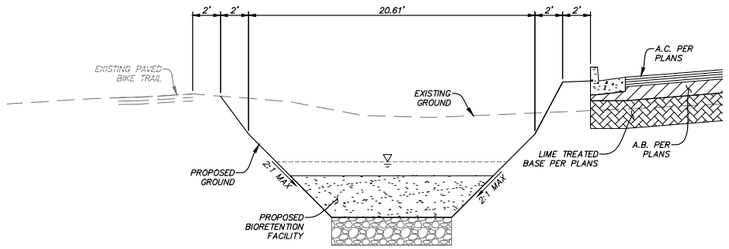
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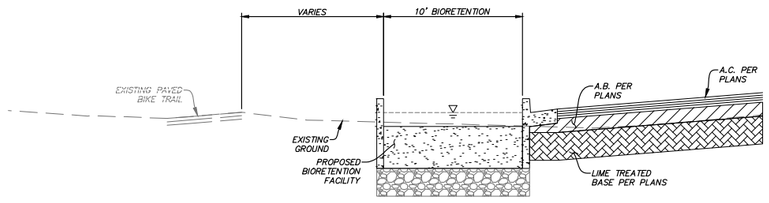
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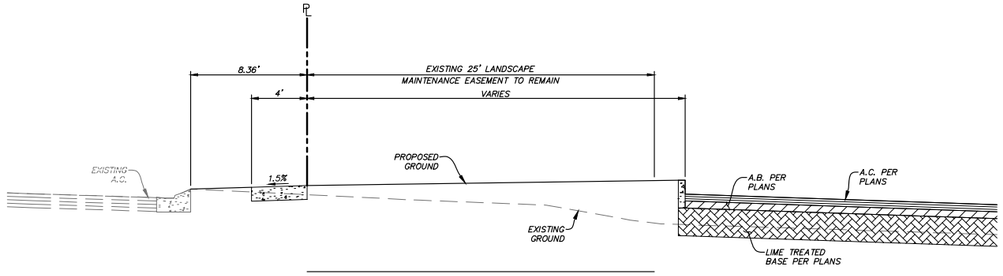
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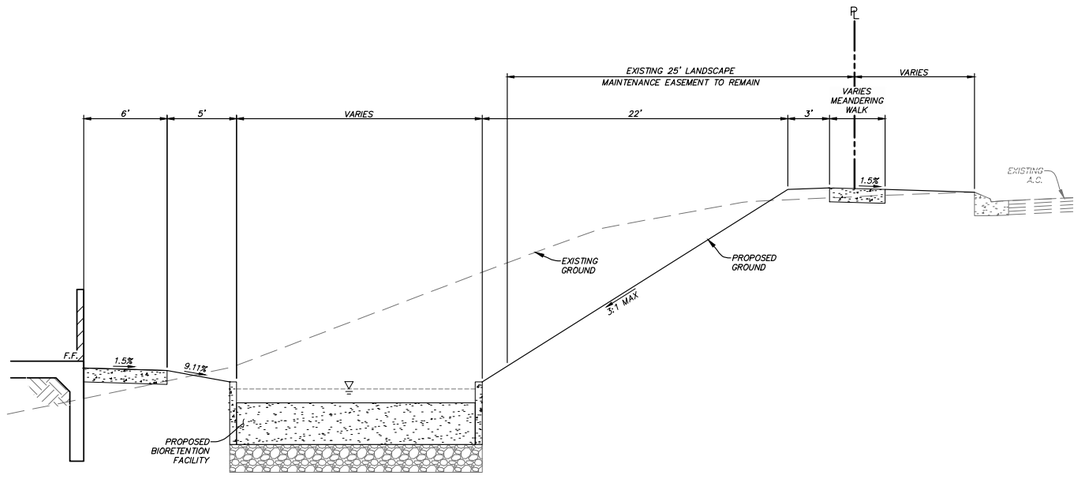
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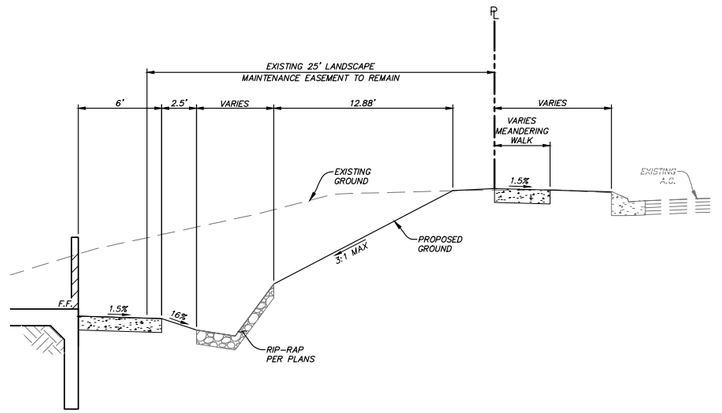
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F SOUTHWEST BIORETENTION
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G SOUTH CROSS SECTION ADJACENT TO TECHNOLOGY WAY
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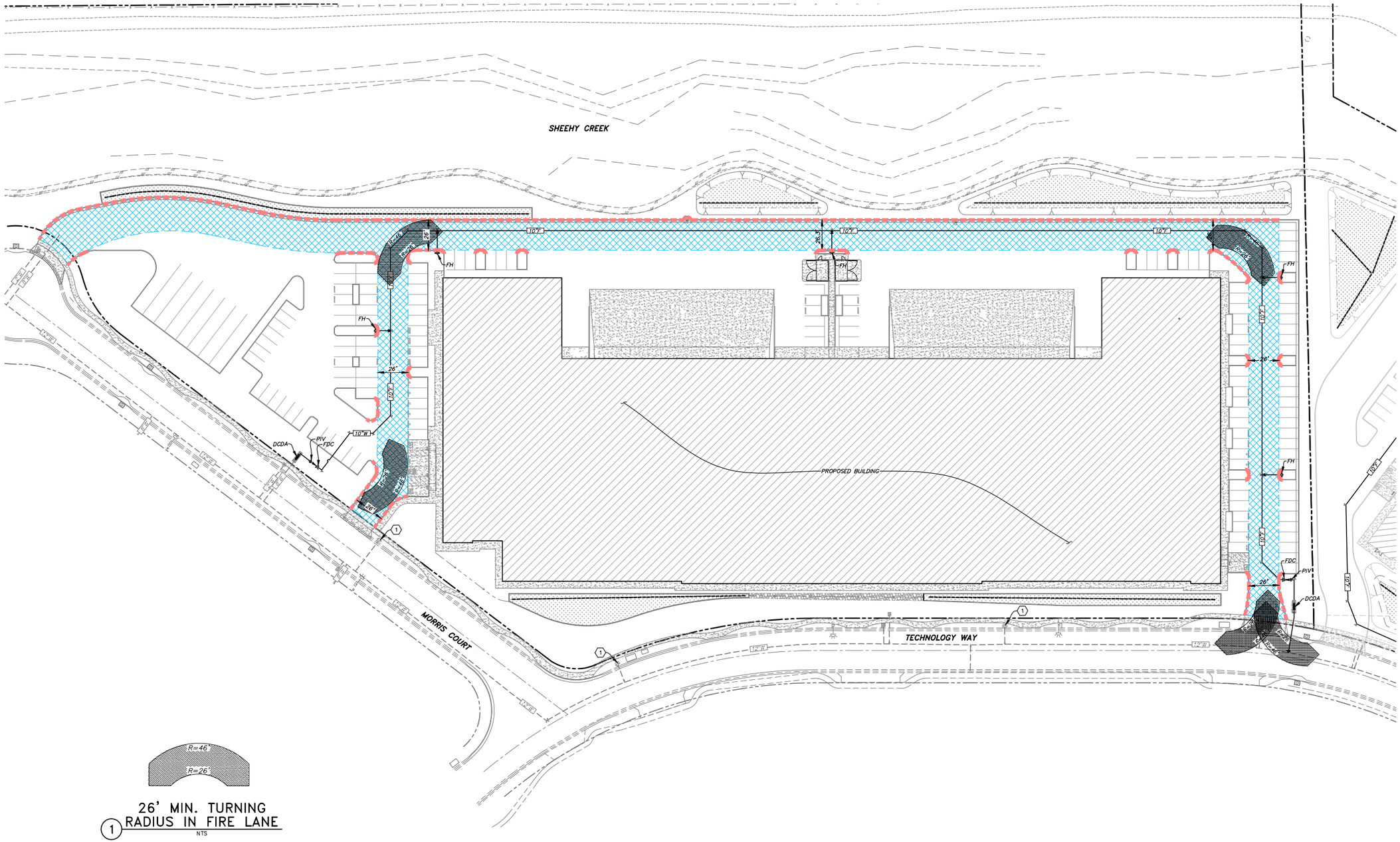
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26' MIN. TURNING RADIUS IN FIRE LANE (1)
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GENERAL NOTES:

A. FIRE LANES SHALL BE A MINIMUM OF 20 FEET CLEAR WIDTH AND 13 ½ FEET CLEAR HEIGHT.

B. SEE SHEETS C401 AND C402 FOR WATER MAIN, FIRE MAIN, APPURTENANCES, WATER CONNECTIONS, AND CONSTRUCTION SPECIFICATIONS.

C. FINAL FIRE ACCESS LANE AFTER CONSTRUCTION.

D. NO GATES SHALL BE INSTALLED ACROSS THE PROPOSED FIRE ACCESS LANES WITHIN THE LIMITS OF PROJECT IMPROVEMENTS.

E. CURBS ALONG FIRE LANE SHALL BE PAINTED RED, TYPICAL. (- - - - - - -)

CONSTRUCTION NOTES ⬡:

1. EXISTING FIRE HYDRANTS SHALL PROVIDE FIRE FIGHTING WATER DURING CONSTRUCTION.

FIRE PROTECTION NOTES:

A. ALL UNDERGROUND FIRE PROTECTION SHALL BE INSTALLED, TESTED, AND MAINTAINED PER NFPA 24, 2019 EDITION.

B. ALL FIRE HYDRANTS, PIV/FDC'S SHALL BE INSTALLED SO AS NOT TO BE BLOCKED BY PARKING STALLS, LOADING ZONES, LANDSCAPING, ETC.

C. ALL FIRE HYDRANTS SHALL HAVE AN 18-INCH CLEARANCE FROM THE CENTER OF THE 4-1/2" DISCHARGE TO FINISHED GRADE LEVEL.

D. ALL FIRE HYDRANTS SHALL HAVE A BLUE DOT REFLECTOR INSTALLED 12-INCHES OFF CENTERLINE IN FRONT OF ALL FIRE HYDRANTS ON THE HYDRANT SIDE.

E. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH BREAK-OFF BOLTS AND/OR BREAK-OFF SPOOLS.

F. ALL FIRE HYDRANTS SHALL BE EQUIPPED WITH A 3'X3' MINIMUM CONCRETE PAD AROUND THEM PER NFPA 24, 2010 EDITION. EXTEND PAD AS SHOWN ON PLANS TO BACK OF CURB.

G. INSTALL THRUST BLOCK AT ALL WATER FITTINGS PER CITY OF AMERICAN CANYON STANDARD DWG. #7.12 (▼- TYPICAL).

H. INSTALL WATER VALVES PER CITY OF AMERICAN CANYON STANDARD PLANS AND SPECIFICATIONS.

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SCALE: 1"=40'

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STATE OF CALIFORNIA

scale : AS NOTED

project number : 3687-13

FIRE PLAN

sheet no. :
C901

610

Stormwater Control Plan
For a Regulated Project
For Use Permit Application
E&P Properties Building B
Technology Way
Napa County, CA 94558

July, 29th 2022

E&P Properties
5400 Industrial Way,
Benecia, CA 94510

Prepared By:

LM LAUGENOUR AND MEIKLE
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APPENDIX A CIVIL IMPROVEMENT PLANS

I. PROJECT DATA

Specific project information is summarized in the following **Table 1-Project Data Form**.

Table 1-Project Data Form	
Project Name/Number	E&P Properties Building B
Application Submittal Date	July 2022 (Application ENG22-000011)
Project Location	Technology Way and Morris Court, Napa, California APN: 057-250-030-000, -031-000
Project Phase No.	N/A
Project Type and Description	Industrial Warehouse and Office
Total Project Site Area	5.30-Acre Site
Total New and Replaced Impervious Surface Area	193,500 Square Feet (4.44 Acres)
Total Pre-Project Impervious Surface Area	0 Square Feet
Total Post-Project Impervious Surface Area	Approximately 83% of developed area (4.44 acres developed)

II. SETTING

II.A. PROJECT LOCATION AND DESCRIPTION:

The project location and Site Plan are shown on Sheet C-201 of **Appendix A, Civil Improvement Plans**. The project is located at Technology Way, in unincorporated Napa County, California (Assessor's Parcel Number: 057-250-030-000, 031-000) The property is a roughly 5.30 acres, with all 5.30 acres being undeveloped land. As shown on Sheet C-201 of **Appendix A, Civil Improvement Plans**, the proposed project includes a one-story warehouse building, totaling 66,832 SF with an asphalt parking lot.

II.B. EXISTING SITE FEATURES AND CONDITIONS:

The parcel is roughly trapezoidal and is approximately 850 feet wide on the longest side by 325 feet deep. The ground elevation of the parcel ranges from approximately 25 to 36 feet (Napa County Datum). Soils at the site are loam (Hydrologic Soil Group D). Group D soils have low infiltration rates and high runoff rates. The Sheehy Creek runs west to east along the north side of the property with the natural ground flowing north into the creek. The property site is currently undeveloped.

II.C. OPPORTUNITIES AND CONSTRAINTS FOR STORMWATER CONTROL:

Opportunities for stormwater control at the site are afforded by landscaping requirements. The Sheehy Creek is currently used for onsite run off and can be utilities for an outfall after the site drainage filters through the bioretention.

The site also includes constraints. The industrial land use is high density/intensity and vehicular traffic space is limited by the land use objectives, and by architectural and design criteria and constraints. Also, clayey soils will limit infiltration potential.

III. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

III.A. OPTIMIZATION OF SITE LAYOUT:

III.A.1. Limitation Of Development Envelope

The Sheehy Creek flows through the north side of the property, the creek will not be altered or disturbed from the construction and included within a conservation easement.

III.A.2. Preservation Of Natural Drainage Features

The Sheehy Creek flows through the north side of the property, natural drainage surface flows to the creek. The proposed drainage pattern will remain the same.

III.A.3. Setbacks From Creeks, Wetlands, And Riparian Habitats

An existing bike trail borders the Sheehy Creek, creating a natural setback for proposed construction. Proposed construction will not encroach within 5 ft of the existing bike trail and the creek to the north.

III.A.4. Minimization Of Imperviousness

Imperviousness was minimized with respect to land use objectives and to architectural and civil design criteria and constraints.

III.A.5. USE OF DRAINAGE AS A DESIGN ELEMENT

There are no significant natural drainage features on the property. Infiltration of runoff will be promoted by the use of bioretention facilities. Stormwater discharging from the property will be made to mimic natural drainage patterns to the maximum extent practicable.

III.B. USE OF PERMEABLE PAVEMENTS:

Permeable pavements were not used for this project.

III.C. DISPERSAL OF RUNOFF TO PERVIOUS AREAS:

Runoff will be dispensed to pervious swales and/or bioretention facilities.

III.D. STORMWATER CONTROL MEASURES:

Source control measures are proposed for potential sources of pollution, such as storm drain inlets, truck docks, refuse areas, and parking lots, as described below.

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV.A. DESCRIPTIONS OF EACH DRAINAGE MANAGEMENT AREA:

The Drainage Management Areas (DMAs) for the site are shown on Sheet C-501 of **Appendix A, Civil Improvement Plans**, summarized in **Table 2-DMA Summary Information**, and described in more detail below.

IV.A.1. TABLE OF DRAINAGE MANAGEMENT AREAS

The following table is a summary of Drainage Management Areas (DMA) – **Table 2-DMA Summary Information**.

Table 2-DMA Summary Information

DMA Name	Surface Type	Area (Square Feet)	Area (Acres)
1B	81% Impervious	91,819	1.38
2B	82% Impervious	50,674	1.27
3B	86% Impervious	88,351	

IV.A.2. DMA DESCRIPTIONS

DMAs 1B, 2B, and 3B: Drain primarily impervious areas, the parking lot and proposed building. DMAs 1B, 2B, and 3B drain to Bioretention Facilities 1B, 2B, and 3B respectively. After being treated in the Bioretention Facilities, runoff that does not infiltrate into the natural soil underneath will be captured by underdrains. Stormwater culverts will overflow into the Sheehy Creek.

IV.B. TABULATION AND SIZING CALCULATIONS:

This Section describes sizing and design of Bioretention Facilities 1B through 3B, as shown on Sheet C-501 of **Appendix A, Select Improvement Plan Sheets**, and as specified in the 2019 BASMAA Design Manual[1].

IV.B.1. INFORMATION SUMMARY FOR BIORETENTION FACILITY DESIGN

Summary information for DMA's draining to bioretention facilities are shown in **Table 3-Areas Draining to Bioretention Facilities**.

Table 3-Areas Draining to Bioretention Facilities	
DMA Name	**Area (Square Feet)**
1B	60,177
2B	55,588
3B	119,474

IV.B.2. AREAS DRAINING TO BIORETENTION FACILITIES

Table 4A-Sizing Information for Bioretention Facility 1B, through **Table 4C-Sizing Information for Bioretention Facility 3B,** show the sizing information for BMP 1B, 2B, and 3B. The bioretention facilities will treat runoff from the DMAs shown in the tables.

Table 4A-Sizing Information for Bioretention Facility 1B.							
DMA Name	**DMA Area (Square Feet)**	**Post-Project Surface Type**	**DMA Runoff Factor**	**DMA Area X Runoff Factor**	**Facility Name: Bioretention Facility 1B**		
					Sizing Factor	**Minimum Facility Size**	**Proposed Facility Size**
1B	74,373	Impervious	1	74,373			
	17,446	Pervious/ landscaped	0.1	1,745			
Total				76,118	0.04	3,045 SF	3,824 SF

[1] BASMAA Post-Construction Manual, Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties. Bay Area Stormwater Management Agencies Association (BASMAA) Phase II Committee. January, 2019.

Table 4B-Sizing Information for Bioretention Facility 2B.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 2B		
2B	41,553	Impervious	1.0	41,553	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	9,121	Pervious/ landscaped	0.1	912			
Total				42,465	0.04	1,699 SF	2,313 SF

Table 4C-Sizing Information for Bioretention Facility 3B.							
DMA Name	DMA Area (Square Feet)	Post-Project Surface Type	DMA Runoff Factor	DMA Area X Runoff Factor	Facility Name: Bioretention Facility 3B		
3B	77,749	Impervious	1.0	77,749	Sizing Factor	Minimum Facility Size	Proposed Facility Size
	10,602	Pervious/ landscaped	0.1	1,060			
Total				78,809	0.04	3,152 SF	4,391 SF

V. SOURCE CONTROL MEASURES

V.A. SITE ACTIVITIES AND POTENTIAL SOURCES OF POLLUTANTS:

Potential pollutant sources were identified for the project. The sources are listed in **Table 5-Sources and Source Control Measures**.

V.B. SOURCE CONTROL TABLE:

Source control measures were selected for the potential pollutant sources, as shown in the following **Table 5-Sources and Source Control Measures**. The most feasible measures were selected, considering site and design constraints.

Table 5-Sources and Source Control Measures

Potential Source Of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
On-site Storm Drain Inlets	Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	Maintain and periodically repaint or replace inlet markings. Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
Landscape/Outdoor Pesticide Use/Building and Grounds Maintenance	Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.	Maintain landscaping using minimum or no pesticides.
Sidewalks and Parking Lots		Sweep sidewalks and parking lots regularly to prevent accumulation of litter and debris.
Truck Dock	Loading portion of dock shall be covered and is graded to prevent run-on and runoff from the loading area. Floor drains within the covered portion of the dock will be plumbed to the sanitary sewer.	Move loaded and unloaded items indoors as soon as possible.
Refuse Area	Area is enclosed and covered, and graded to prevent run-on and to minimize runoff.	Inspect receptacles regularly, pick up litter, and clean up spills. Keep receptacles covered.

V.C. FEATURES, MATERIALS, AND METHODS OF CONSTRUCTION OF SOURCE CONTROL BMPS:

Features, materials, and methods of construction of source control BMPs will be as shown on selected sheets of the Improvement Plans provided in **Appendix A, Civil Improvement Plans**. Unless specified otherwise, all construction and materials shall be in accordance with the plans and with County Design Standards.

VI. STORMWATER FACILITY MAINTENANCE

VI.A. OWNERSHIP AND RESPONSIBILITY FOR MAINTENANCE IN PERPETUITY:

Maintenance of stormwater facilities will be the responsibility of the property owner and will be performed by the owner's contractors or employees as part of routine maintenance of buildings, grounds, and landscaping. The applicant will commit to execute any necessary written agreements prior to the County's approval of the building permit.
With this agreement, the applicant will accept responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner.

VI.B. SUMMARY OF MAINTENANCE REQUIREMENTS FOR EACH STORMWATER FACILITY:

The three (3) bioretention facilities will be inspected and maintenance activities will be completed at least annually. The frequency may be adjusted based on results of inspections. The maintenance activities will be specified in a Maintenance Plan to be approved by the County. The activities are summarized as follows:

Bioretention Facilities:

a. Clean Up: Remove any soil or debris blocking planter inlets or overflows. Remove trash that typically collects near inlets or gets caught in vegetation.
b. Prune Or Cut Back Plants: For health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary.
c. Control Weeds: By manual methods and soil amendment.
d. Add Mulch: Replace compost mulch to maintain 1-inch to 2-inch thickness.
e. Check Signage: Remove graffiti and replace, if necessary.

VII. CONSTRUCTION CHECKLIST

Table 6-Construction Plan C.3 Checklist shown below summarizes the source control and treatment control measures proposed in for this project. Referenced Improvement Plan sheets are included in **Appendix A, Select Improvement Plan Sheets**.

Table 6-Construction Plan C.3 Checklist

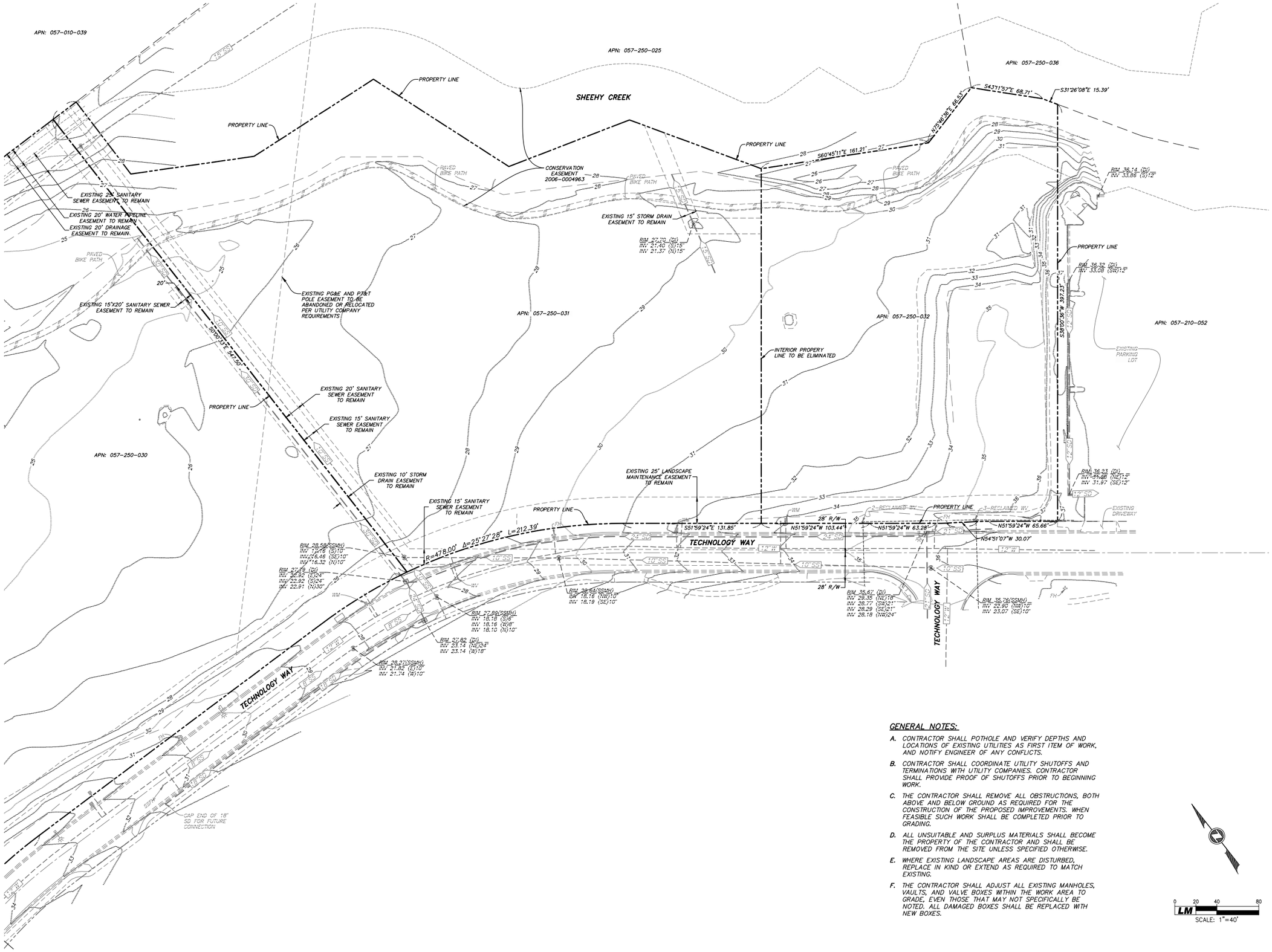
Stormwater Control Plan Section	Source Control or Treatment Control Measure	See Plan Sheet Nos.
V.B	Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	C-501
IV.C.4	Bioretention Facilities 1A through 5A	C-501

VIII. CERTIFICATIONS

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA Post-Construction Manual, to the maximum extent practicable.

APPENDIX A

CIVIL IMPROVEMENT PLANS



GENERAL NOTES:

A. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTHS AND LOCATIONS OF EXISTING UTILITIES AS FIRST ITEM OF WORK, AND NOTIFY ENGINEER OF ANY CONFLICTS.

B. CONTRACTOR SHALL COORDINATE UTILITY SHUTOFFS AND TERMINATIONS WITH UTILITY COMPANIES. CONTRACTOR SHALL PROVIDE PROOF OF SHUTOFFS PRIOR TO BEGINNING WORK.

C. THE CONTRACTOR SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. WHEN FEASIBLE SUCH WORK SHALL BE COMPLETED PRIOR TO GRADING.

D. ALL UNSUITABLE AND SURPLUS MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS SPECIFIED OTHERWISE.

E. WHERE EXISTING LANDSCAPE AREAS ARE DISTURBED, REPLACE IN KIND OR EXTEND AS REQUIRED TO MATCH EXISTING.

F. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VAULTS, AND VALVE BOXES WITHIN THE WORK AREA TO GRADE, EVEN THOSE THAT MAY NOT SPECIFICALLY BE NOTED. ALL DAMAGED BOXES SHALL BE REPLACED WITH NEW BOXES.

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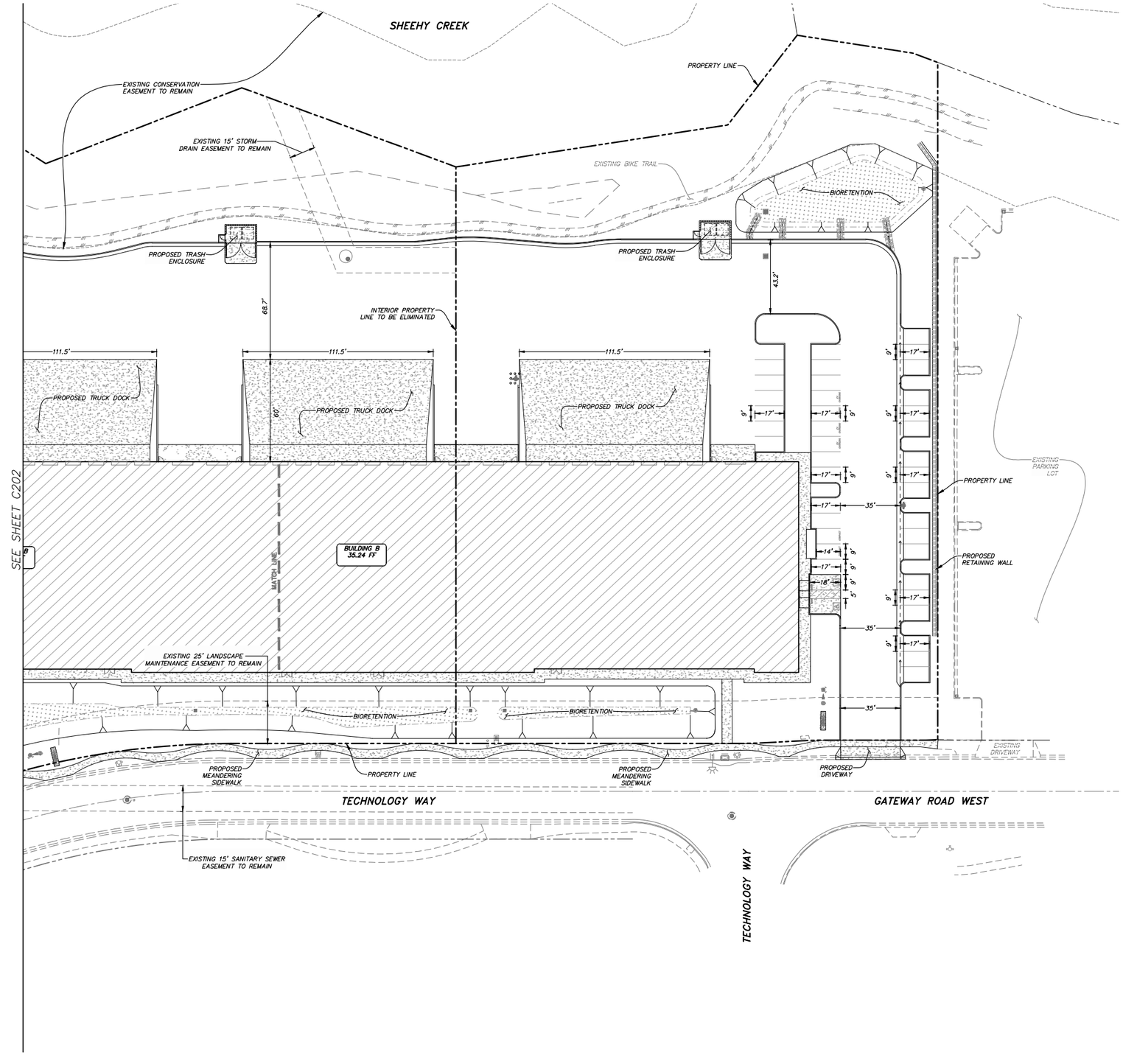
project number : 3687-13

TOPOGRAPHIC SURVEY & DEMOLITION PLAN

sheet no. :

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PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE
BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022

GENERAL CONTRACTOR:

drawn by : PJ plot date : 07-27-2022

checked by : PF

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REGISTERED PROFESSIONAL ENGINEER
BRYAN P. BONINO
No. 41804
CIVIL
STATE OF CALIFORNIA

scale : AS NOTED

project number : 3687-13

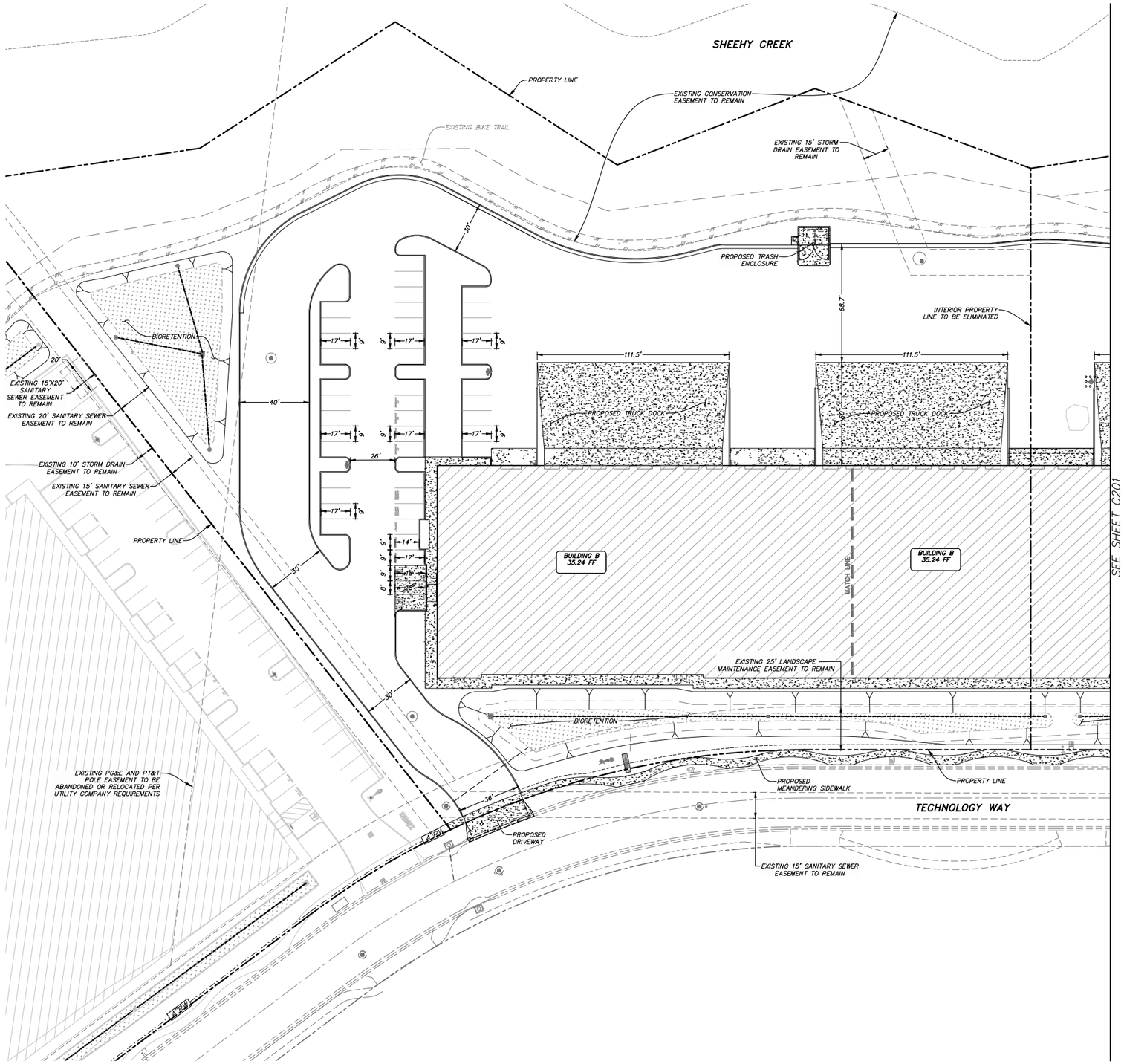
CIVIL SITE PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C201

626

File Name: X:\Land Projects\3687-13\dwg\3687-13_B_C201.dwg Date Plotted: July 29, 2022 - 4:51pm



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CIVIL SITE PLAN

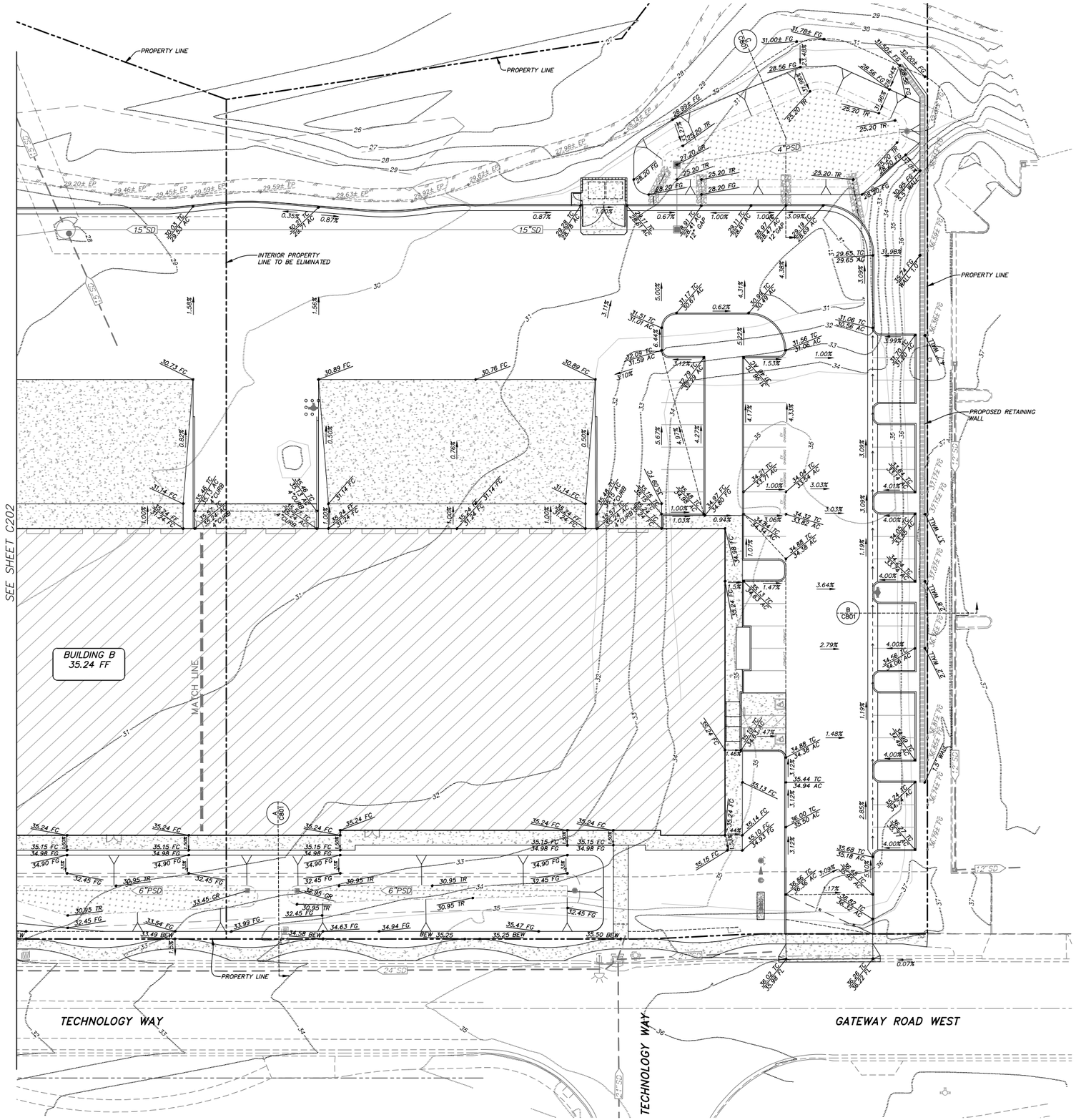
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sheet no. :

C202

627

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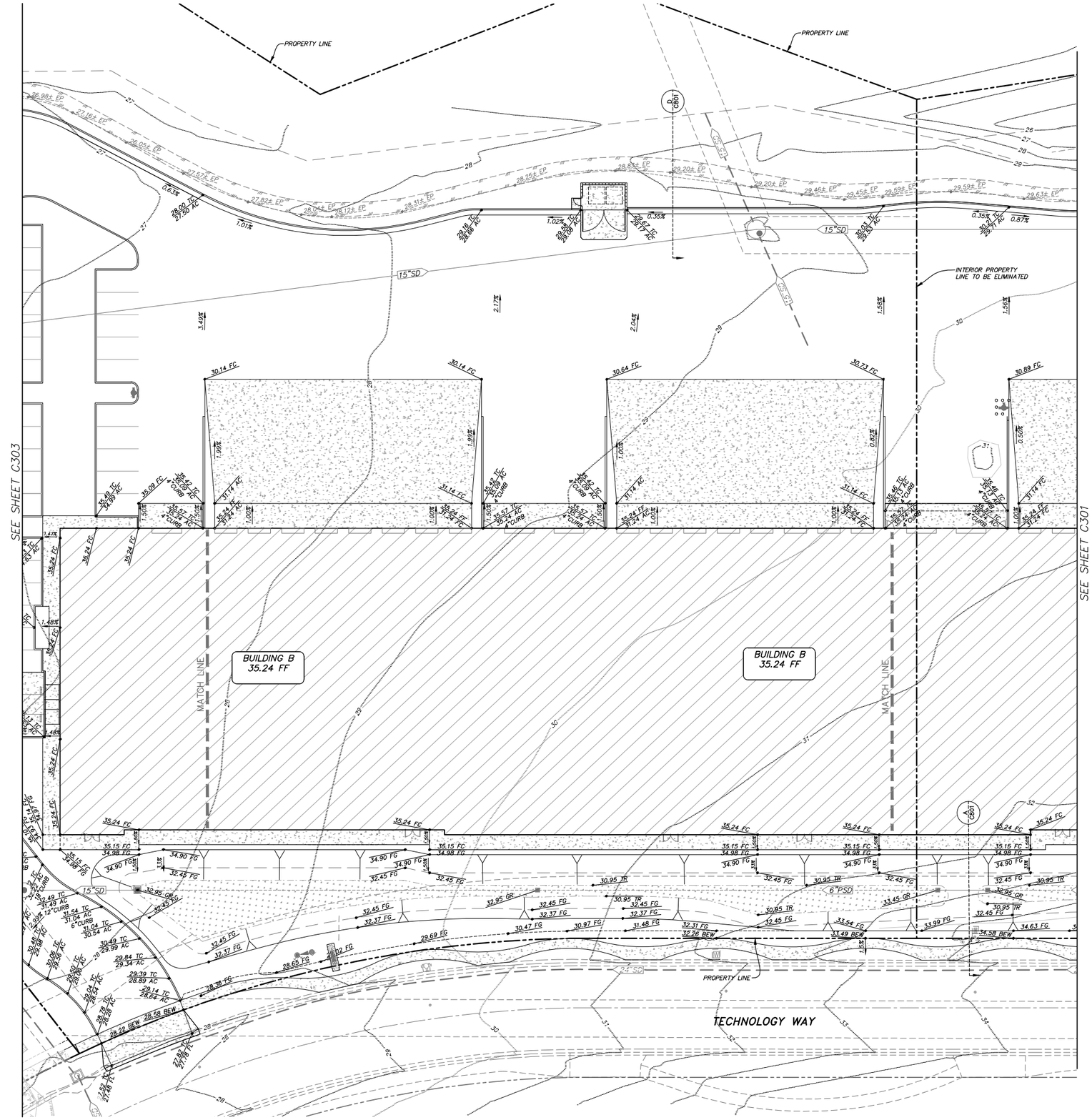
GRADING &
DRAINAGE PLAN

sheet no. :

C301

0 10 20 40
LM
SCALE: 1"=20'

628



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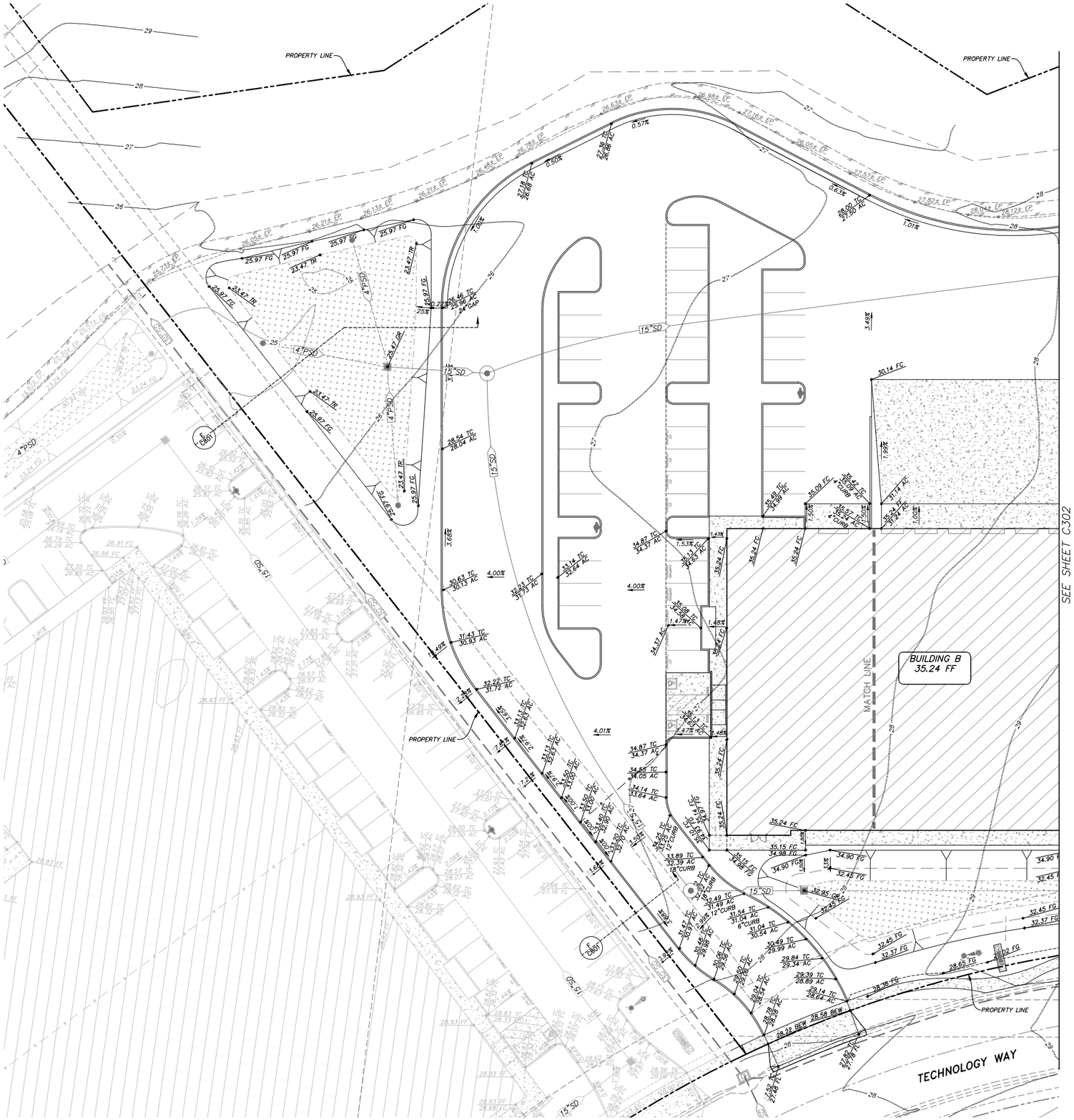
GRADING & DRAINAGE PLAN

sheet no. :

C302

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SCALE: 1"=20'

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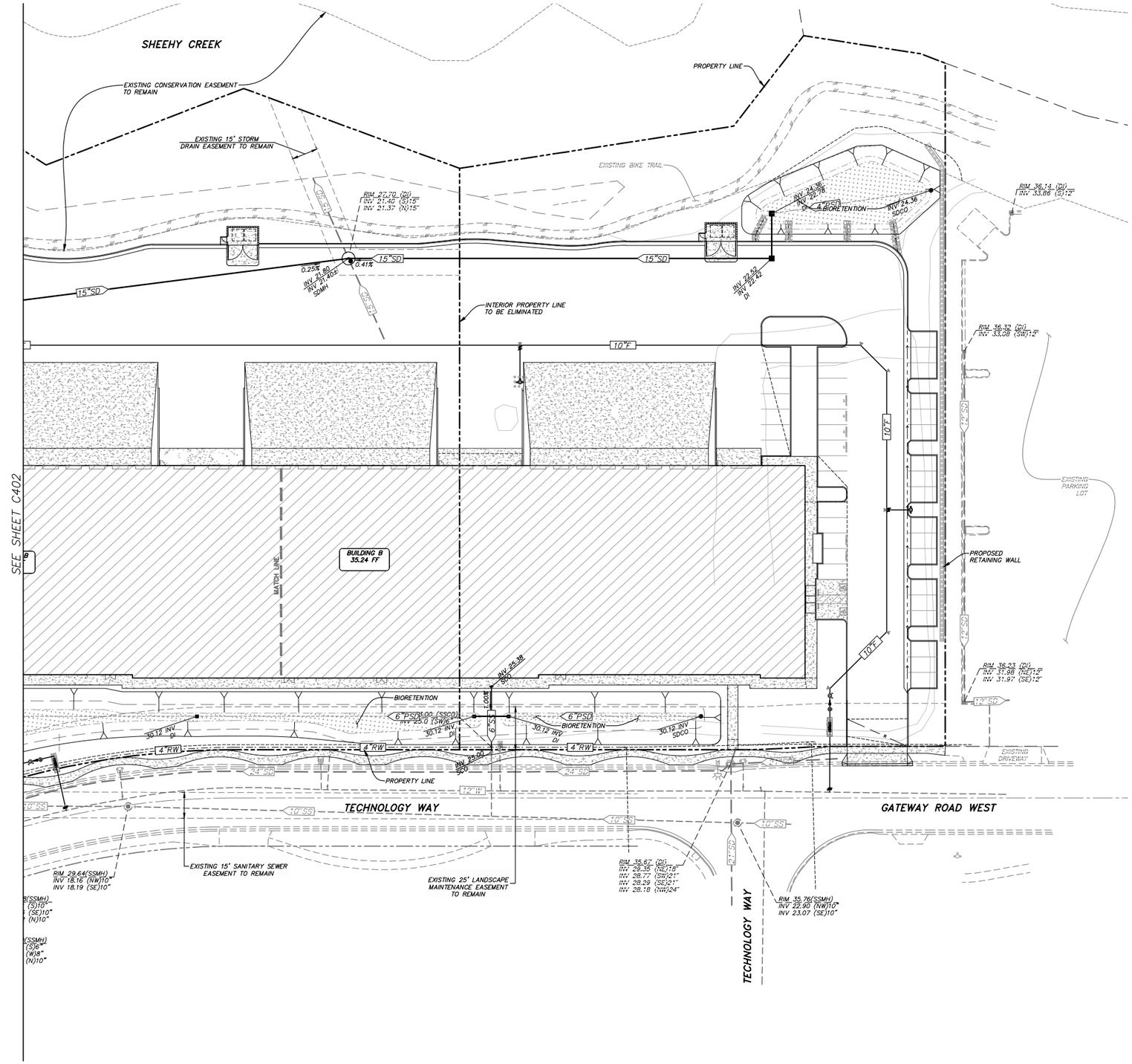
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SCALE: 1"=20'

sheet no. :
C303

630

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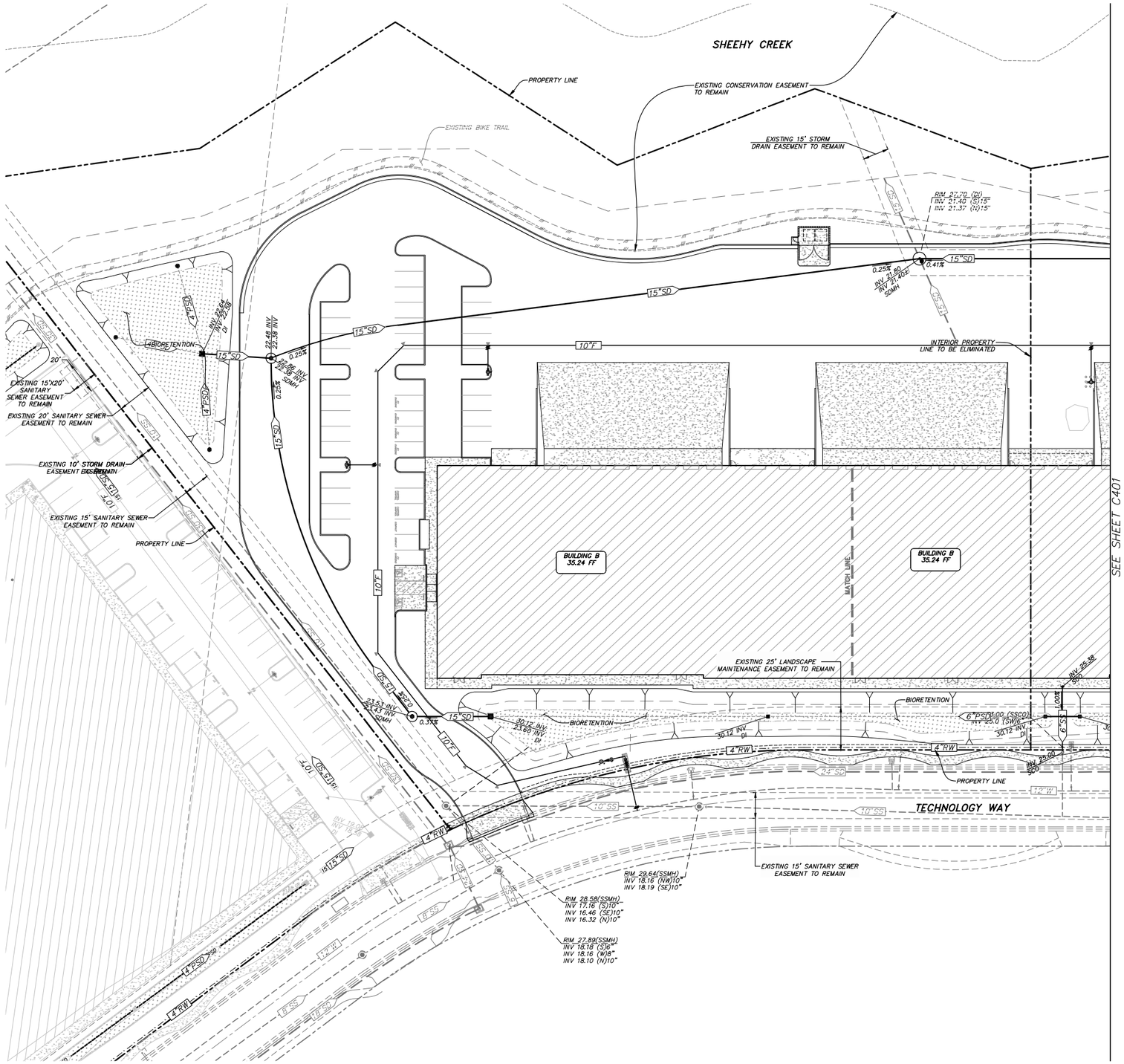
UTILITIES PLAN

0 15 30 60
LM
SCALE: 1"=30'

sheet no. :
C401

631

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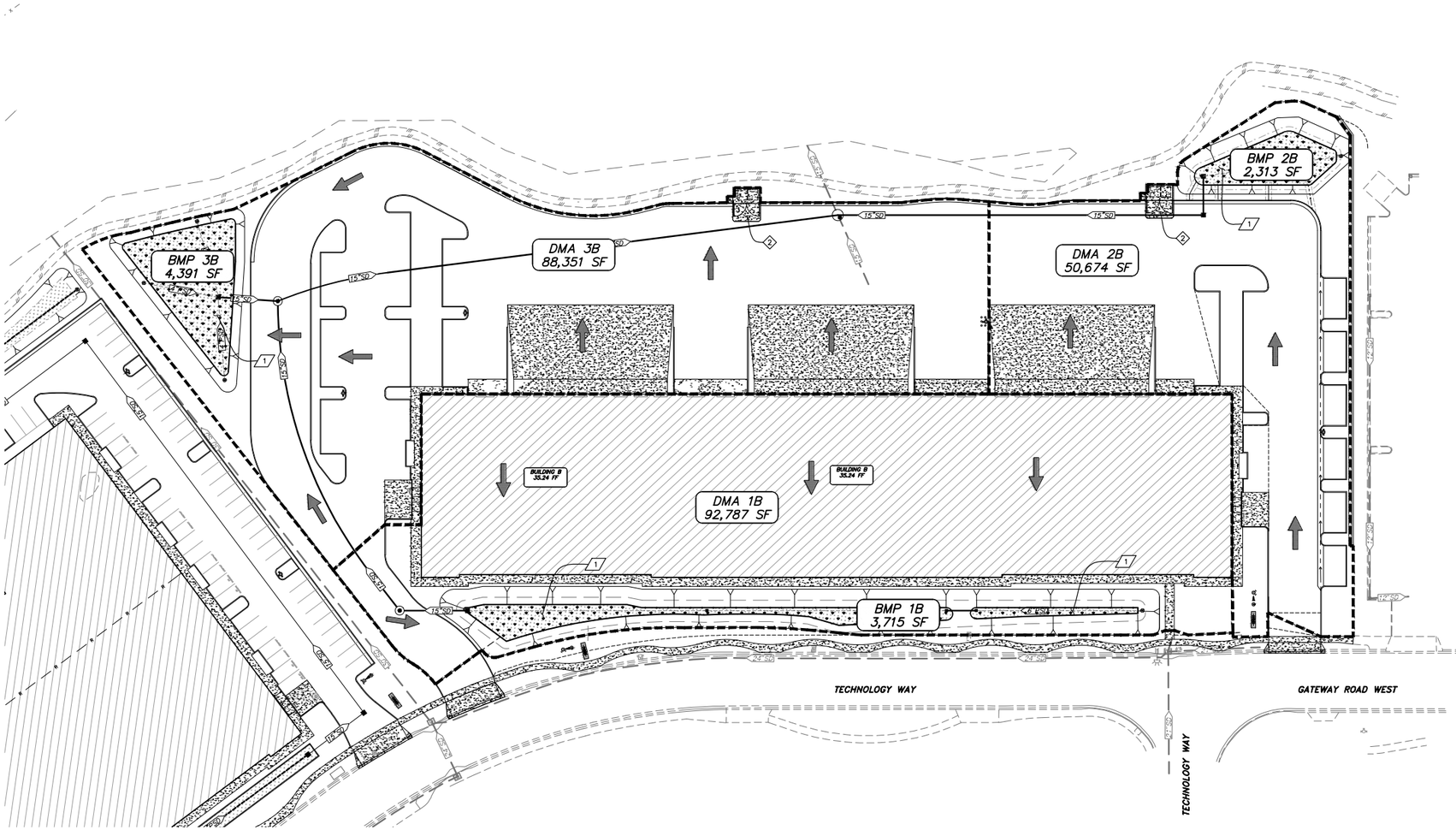
project number : 3687-13

UTILITIES PLAN

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LM
SCALE: 1"=30'

sheet no. :
C402

File Name: X:\Land Projects\3687-13\dwg\3687-13_B_C402.dwg Date Plotted: July 29, 2022 – 4:32pm



GENERAL NOTES:

A. TOTAL PROJECT AREA IS 231,800 SF (5.32 AC).
B. DMA – DRAINAGE MANAGEMENT AREA.
C. BF – BIORETENTION FACILITY, TREATMENT CONTROL MEASURE.
D. SOILS ARE GROUP D, PER USDA SOIL MAP VIEWER REPORT.
E. DEPTH TO GROUNDWATER IS YET TO BE DETERMINED.
F. RECEIVING WATER BODY IS SHEEHY CREEK.

SITE DESIGN MEASURES ⬡:

1. PRESERVE NATURAL DRAINAGE PATTERNS.
2. DIRECT RUNOFF FROM IMPERVIOUS AREAS TO LANDSCAPED AREAS. FLOW DIRECTION ( ).
3. PLANT TREES ADJACENT TO IMPERVIOUS AREAS. TREE LOCATIONS TO BE IDENTIFIED WITH FINAL CONSTRUCTION DOCUMENTS.
4. SELF–TREATING OR SELF–RETAINING AREA.
5. DMA DRAINING TO A SELF–RETAINING AREA.

POTENTIAL POLLUTION SOURCES AND CONTROL MEASURES ◇:

1. LOADING DOCK. COVERED FOR SIX FEET OUT BEYOND THE EDGE OF THE BUILDING ROOF. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL.
2. REFUSE AREA. COVERED AND ENCLOSED FOR DUMPSTERS. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL. GRADED TO MINIMIZE STORMWATER RUN–ON AND RUNOFF. SEE GRADING PLAN FOR FURTHER DETAIL.
3. STORM DRAIN INLET. MARK WITH WORDS "NO DUMPING! FLOWS TO BAY". SEE UTILITY PLAN FOR FURTHER DETAIL.

TREATMENT CONTROL MEASURES ▱:

1. INSTALL BIORETENTION FACILITY PER DETAILS ON SHEET C502. SEE GRADING PLAN, SITE PLAN, UTILITY PLAN, AND LANDSCAPING PLAN FOR MORE DETAIL.

O&M SUMMARY:

1. O&M ACTIVITIES AND RESPONSIBLE PARTIES WILL BE SPECIFIED WITH THE FINAL CONSTRUCTION DOCUMENTS.

LEGEND

DMA	DRAINAGE MANAGEMENT AREA
BMP	BEST MANAGEMENT PRACTICE
DMA 1 1,000 SF	WATER QUALITY AREA NAME AND SQUARE FOOTAGE
-----	WATER QUALITY AREA BOUNDARY
BMP 1 1,000 SF	BIORETENTION MANAGEMENT AREA NAME AND SQUARE FOOTAGE
	BIORETENTION MANAGEMENT AREA
	DIRECTION OF FLOW

0 20 40 80
SCALE: 1"=40'

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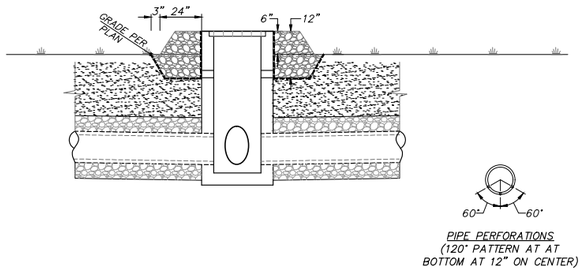
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project number : 3687-13

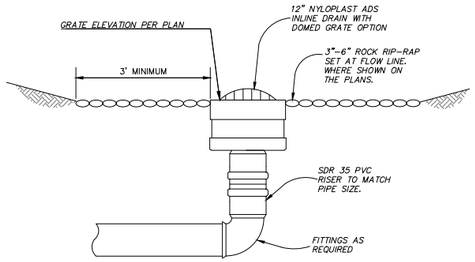
STORMWATER CONTROL PLAN

sheet no. :
C501

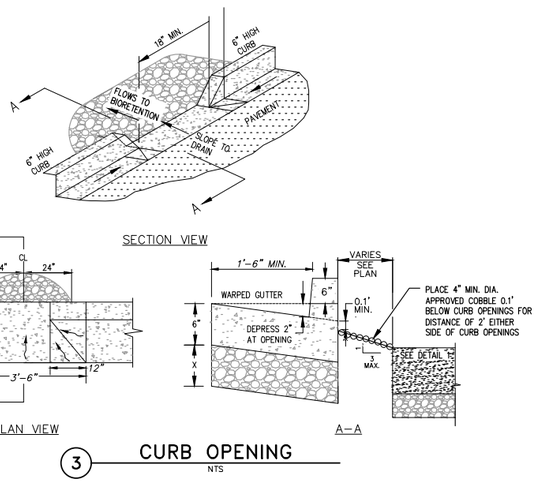
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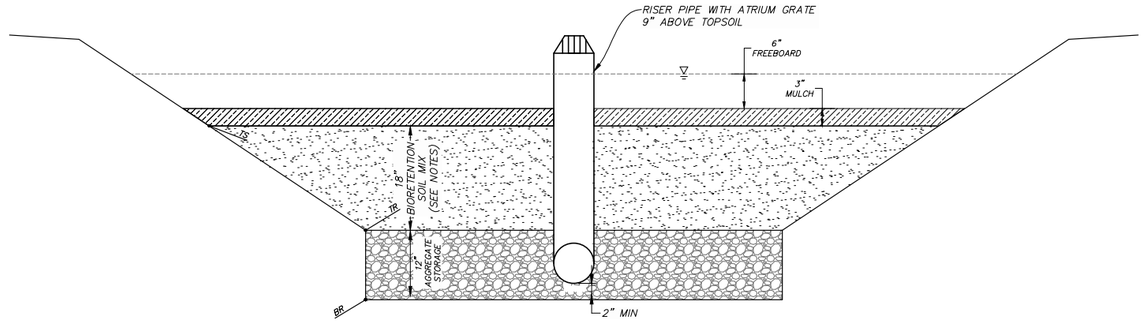
1 DRAINAGE INLET AND BIORETENTION DETAIL
NTS



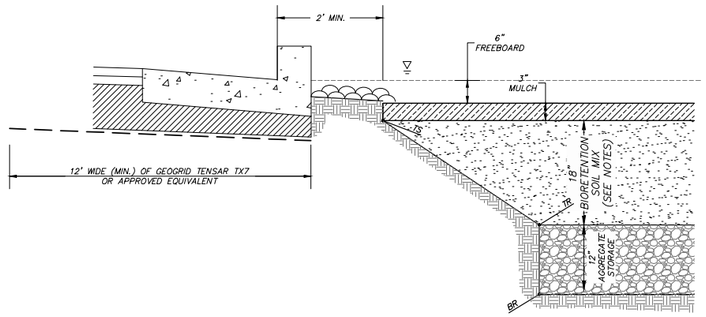
2 LANDSCAPE AREA DRAIN
NTS



3 CURB OPENING
NTS



4 BIORETENTION FACILITY WITH SLOPED GROUND
NTS



5 BIORETENTION FACILITY WITH SLOPED GROUND ADJACENT TO CURB AND GUTTER
NTS

BIORETENTION NOTES:

1. *FOR LOCATION, SIZE, AND IDENTIFICATION OF PROPOSED LANDSCAPING/PLANT MATERIAL SEE LANDSCAPE PLANS.*
2. *BIOTREATMENT SOIL MIX SHALL CONSIST OF 60%-70% SAND AND 30%-40% COMPOST PER BASMAA SPECIFICATIONS. SPECIFICATIONS AVAILABLE FROM CONTRA COSTA CLEAN WATER PROGRAM. (CCCWP) SOIL MIX MUST BE OBTAINED FROM LOCAL SUPPLIER APPROVED BY THE CCCWP.*
3. *INSTALLATION OF PERMEABLE SOIL SHALL BE PER BASMAA REQUIREMENTS.*

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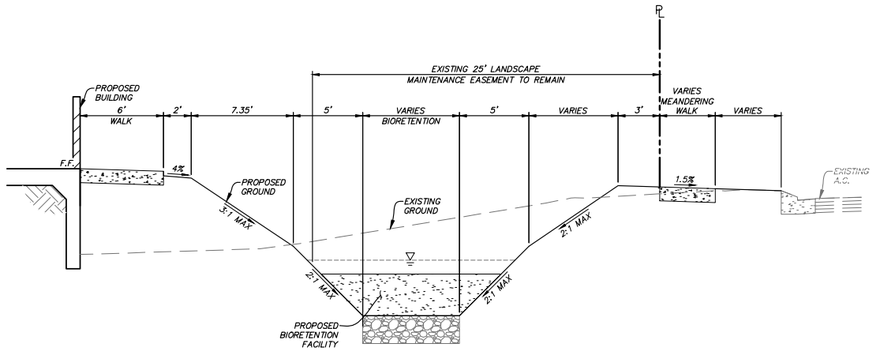
project number : 3687-13

STORMWATER
CONTROL PLAN
DETAILS

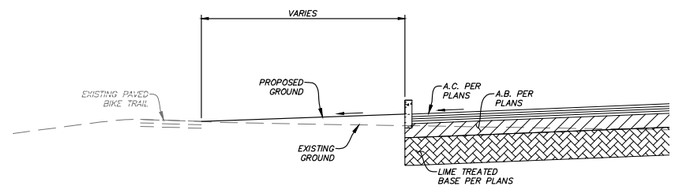
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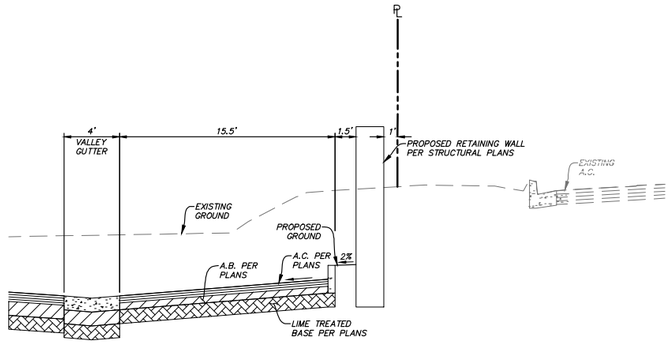
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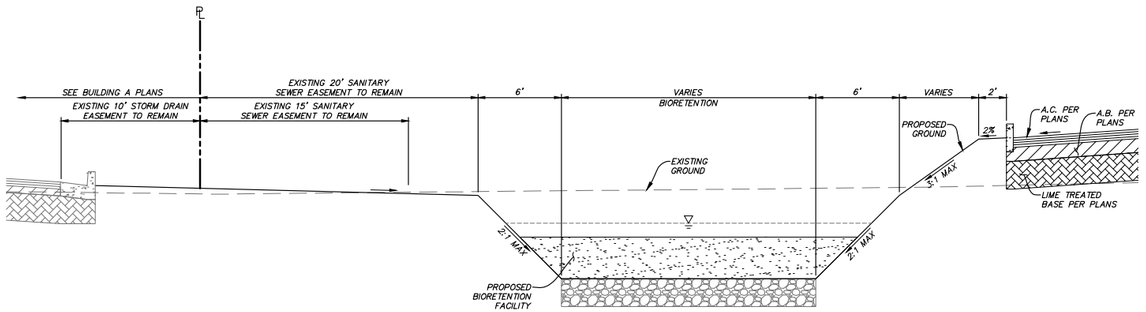
A BIORETENTION ADJACENT TO TECHNOLOGY WAY
NTS



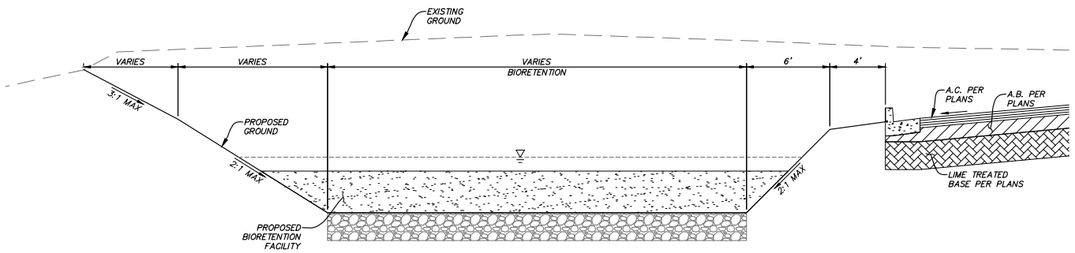
D NORTHEAST PROPERTY LINE
NTS



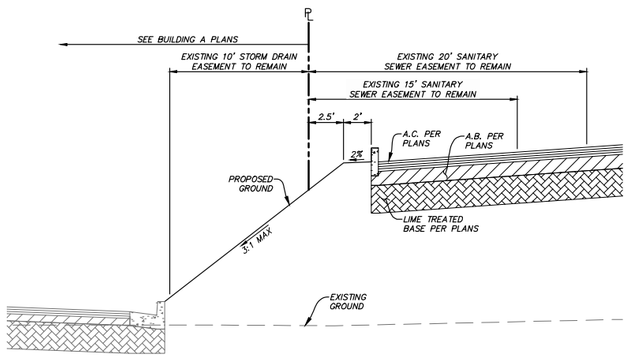
B SOUTHEAST PROPERTY LINE
NTS



E NORTHWEST BIORETENTION
NTS



C NORTHEAST BIORETENTION
NTS



F WEST END PROPERTY LINE
NTS

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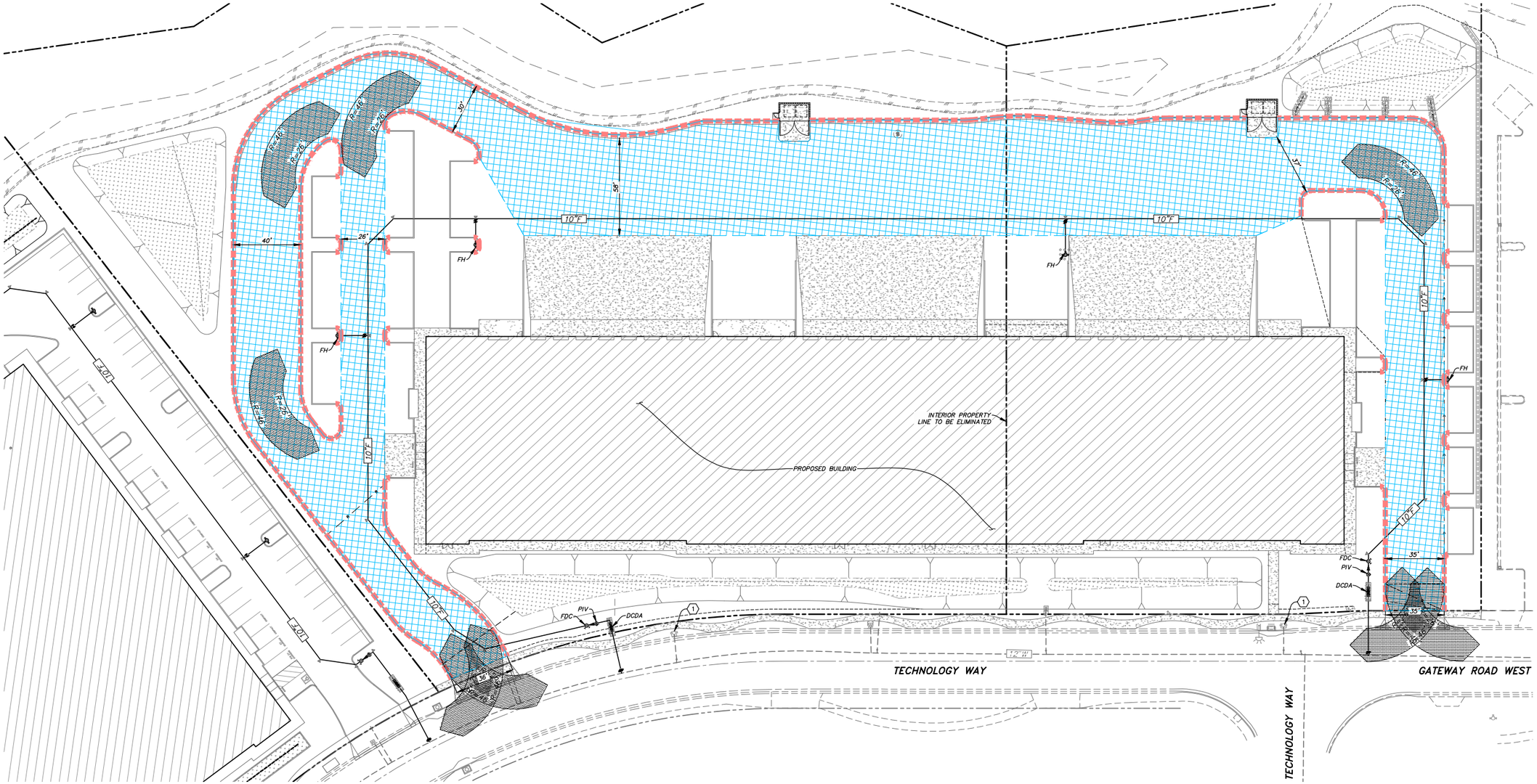
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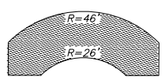
CROSS SECTIONS

sheet no. :

C801

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26' MIN. TURNING RADIUS IN FIRE LANE

1 NTS

GENERAL NOTES:

A. FIRE LANES SHALL BE A MINIMUM OF 20 FEET CLEAR WIDTH AND 13 ½ FEET CLEAR HEIGHT.

B. SEE SHEETS C401 AND C402 FOR WATER MAIN, FIRE MAIN, APPURTENANCES, WATER CONNECTIONS, AND CONSTRUCTION SPECIFICATIONS.

C. FINAL FIRE ACCESS LANE AFTER CONSTRUCTION.

D. NO GATES SHALL BE INSTALLED ACROSS THE PROPOSED FIRE ACCESS LANES WITHIN THE LIMITS OF PROJECT IMPROVEMENTS.

E. CURBS ALONG FIRE LANE SHALL BE PAINTED RED, TYPICAL. (▬▬▬▬▬)

CONSTRUCTION NOTES ⬡:

1. EXISTING FIRE HYDRANTS SHALL PROVIDE FIRE FIGHTING WATER DURING CONSTRUCTION.

FIRE PROTECTION NOTES:

A. ALL UNDERGROUND FIRE PROTECTION SHALL BE INSTALLED, TESTED, AND MAINTAINED PER NFPA 24, 2019 EDITION.

B. ALL FIRE HYDRANTS, PIV/FDC'S SHALL BE INSTALLED SO AS NOT TO BE BLOCKED BY PARKING STALLS, LOADING ZONES, LANDSCAPING, ETC.

C. ALL FIRE HYDRANTS SHALL HAVE AN 18-INCH CLEARANCE FROM THE CENTER OF THE 4-1/2" DISCHARGE TO FINISHED GRADE LEVEL.

D. ALL FIRE HYDRANTS SHALL HAVE A BLUE DOT REFLECTOR INSTALLED 12-INCHES OFF CENTERLINE IN FRONT OF ALL FIRE HYDRANTS ON THE HYDRANT SIDE.

E. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH BREAK-OFF BOLTS AND/OR BREAK-OFF SPOOLS.

F. ALL FIRE HYDRANTS SHALL BE EQUIPPED WITH A 3'X3' MINIMUM CONCRETE PAD AROUND THEM PER NFPA 24, 2010 EDITION. EXTEND PAD AS SHOWN ON PLANS TO BACK OF CURB.

G. INSTALL THRUST BLOCK AT ALL WATER FITTINGS PER CITY OF AMERICAN CANYON STANDARD DWG. #7.12 (▼ - TYPICAL).

H. INSTALL WATER VALVES PER CITY OF AMERICAN CANYON STANDARD PLANS AND SPECIFICATIONS.

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FIRE PLAN

0 15 30 60
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SCALE: 1"=30'

sheet no. :

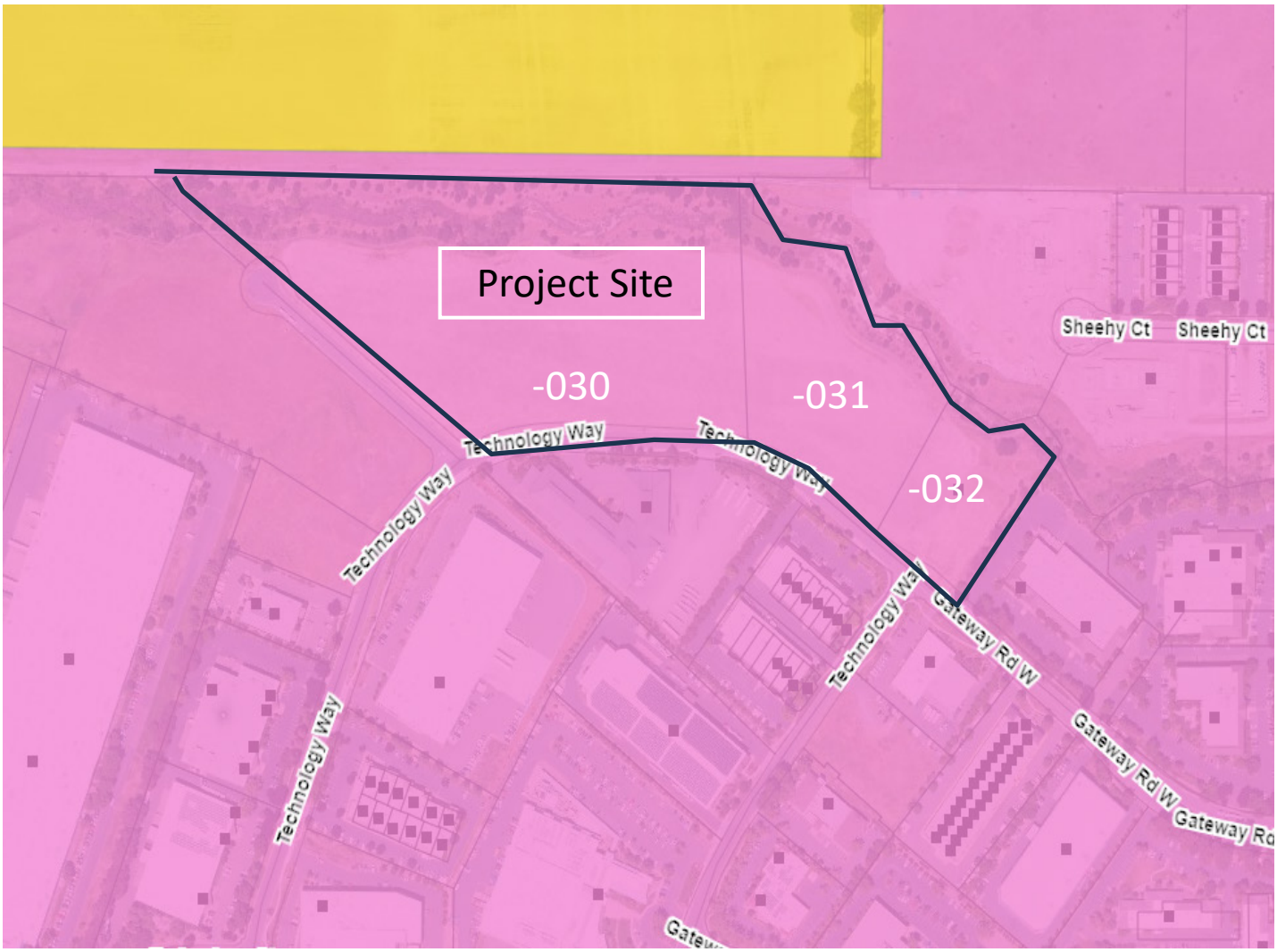
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Graphics

NAPA COUNTY LAND USE PLAN 2008 – 2030



LEGEND

URBANIZED OR NON-AGRICULTURAL

- Study Area
- Cities
- Urban Residential*
- Rural Residential*
- Industrial
- Public-Institutional

OPEN SPACE

- Agriculture, Watershed & Open Space
- Agricultural Resource

TRANSPORTATION

- Mineral Resource
- Limited Access Highway
- American Canyon ULL
- City of Napa RUL
- Landfill - General Plan
- Road
- Airport
- Railroad
- Airport Clear Zone

* See Action Item AG/LU-114.1 regarding agriculturally zoned areas within these land use designations

E&P Technology Way – Buildings A & B (P22-00307/308)
APN's 057-250-030, -031, -032



LEGEND

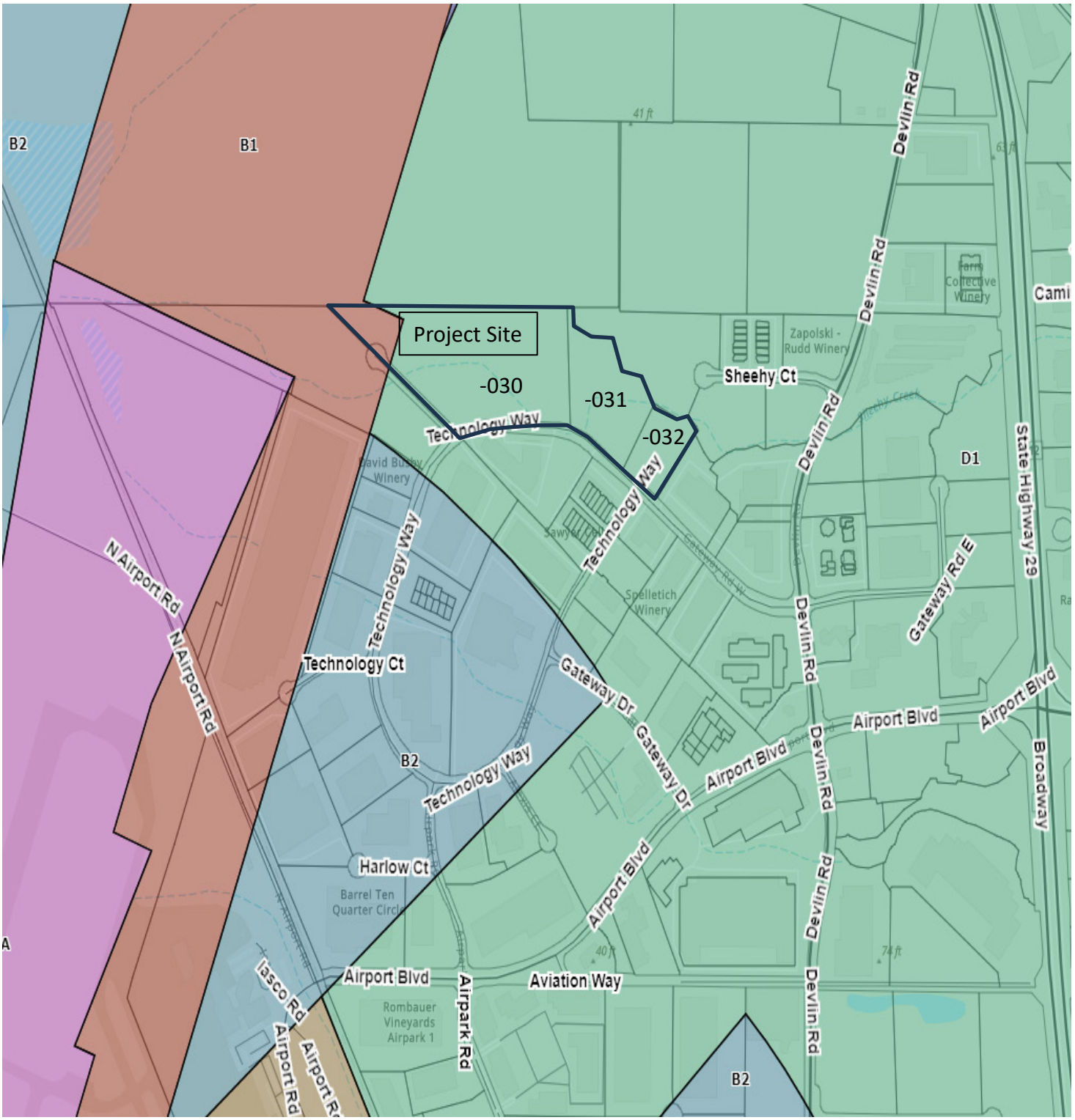
Zoning

Parcels

N

ZONING MAP

E&P Technology Way – Buildings A & B (P22-00307/308)
APN'S: 057-250-030, -031, -032



Airport Compatibility Zones

A	Runway Protection Zone	C	Sideline Zone
B1	Inner Approach/Departure Zone	D1	Inner Traffic Pattern Zone
B2	Inner Turning Zone	D2	Outer Traffic Pattern Zone
B3	Outer Approach Zone	E	Other Airport Environs

N

ALUCP ZONES

E&P Technology Way - Buildings A & B (P22-00307/P22-00308)
APN's 057-250-030, -031, -032



N

EXISTING CONDITIONS

E&P Technology Way - Buildings A & B (P22-00307/P22-00308)
APN's 057-250-030, -031, -032

PLANNING SUBMITTAL DRAWINGS FOR:

E&P PROPERTIES

NEW WINERY AND WINE STORAGE - BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CA



PERSPECTIVE IMAGE OF PROPOSED BUILDING A

PROJECT NARRATIVE:

Site: The project site is located on the north side of Technology Way and Morris Court, in the County of Napa, California. The 13.20 acre site is currently undeveloped.
APN: 057-250-030

Building: The project plan proposes one industrial building totaling 143,312 square feet. The industrial buildings will be of Type VB construction, site cast, tilted concrete panels with a variety of architectural enhancements. The typical wall panels are to be enhanced with reveals and a textured elastomeric, multicolored coating system. The areas around the building entries are also enhanced with significant sloped roof elements and tinted glazing in aluminum frames with overhead steel-framed painted canopies. The placement of these enhancements is focused at those locations most visible from the public roadways.

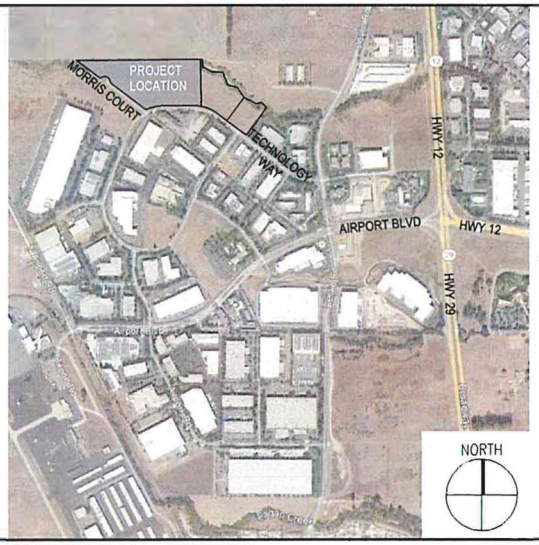
Site Access and Parking: Two site entrance drives are proposed along Morris Court. And one drive is provided along Technology Way. The site plan proposes a total of 129 vehicle parking stalls for employees and/or customers and 8 Trailer parking stalls.

Proposed signage is limited to required building address signage only. No other signage is anticipated nor proposed in this submittal. Any future owner / tenant signage will be provided at a later date, under a separate permit submittal.

Site landscaping will consist of plants appropriate for and indigenous to Napa County and will adhere to County of Napa Zoning Code. Low water use plants will be used extensively, while moderate water use plants will be concentrated at accent points, such as driveways and building entries.

Sustainable Materials & Construction Practices: The project will incorporate a variety of sustainable materials and construction practices to include the following: 1) A storm water pollution prevention plan to minimize contamination, erosion, and dust pollution during construction. All storm water runoff from impervious surfaces (roofs and paving) will be routed through specially designed water quality detention and treatment basins. Additionally, on-site detention will be provided to meet the local jurisdictional standards. 2) Storage and collection of recyclable materials. 3) Construction waste management. 4) Environmental tobacco smoke control. 5) Heat reflecting roof membranes. 6) Light pollution reduction. 7) Water efficient landscaping. 8) Water use reduction methods. 9) Low VOC emitting sealants, adhesives, coatings, floorings, and wood materials. 10) Roof structures designed to accommodate additional weight for roof-top photovoltaic electricity generation panel arrays. 11) California Green Building Code compliant electric vehicle charging stations. 12) The project architect is a LEED accredited professional and will apply his knowledge of LEED techniques and practices to the project design and construction.

VICINITY MAP:



PROJECT TEAM:

OWNER
E&P PROPERTIES
2250 S. WATERWAY,
FAIRFIELD, CA 94533

OWNER'S REPRESENTATIVE
KELLEY COMMERCIAL, LLC — MICHAEL KELLEY
5150 FAIROAKS BLVD, STE 101-219 — mkelley@kelley-commercial.com
CARMICHAEL, CA 95608
P: 916-956-0524 F: 916-956-1197

ARCHITECT
RMW ARCHITECTURE & INTERIORS — JEFF LEONHARDT,
1718 3RD STREET, STE 101 — PROJECT ARCHITECT & PROJECT DESIGNER
SACRAMENTO, CA 95811 — jleonhardt@rmw.com
P: 916-449-1400 x405

CIVIL ENGINEER
LAUGENOUR and MEIKLE — BRYAN BONINO
P.O. BOX 828 — bpb@lmce.net
WOODLAND, CA 95776
P: 530-662-1755 F: 530-662-4002

LANDSCAPE DESIGNER
YAMASAKI LANDSCAPE ARCHITECTURE — JEFF AMBROSIA
1223 HIGH ST — ASLA | CLA | LEED A P
AUBURN, CA 95603 — Jeff@yamasaki-la.com
P: 530-886-0040

SHEET INDEX:

A00.1	COVERSHEET
A00.2	PROJECT RENDERINGS
A01.0	PRELIMINARY MASTER SITE PLAN
A01.1	ENLARGED SITE PLAN - BUILDING A
A01.2	SITE DETAILS
A01.3	SITE DETAILS
A02.1	FLOOR PLAN - BUILDING A
A02.2	ROOF PLAN - BUILDING A
A03.1	EXTERIOR ELEVATIONS - BUILDING A
C101	TOPOGRAPHIC SURVEY & DEMOLITION PLAN
C201	CIVIL SITE PLAN
C202	CIVIL SITE PLAN
C203	CIVIL SITE PLAN
C301	GRADING & DRAINAGE PLAN
C302	GRADING & DRAINAGE PLAN
C303	GRADING & DRAINAGE PLAN
C401	UTILITIES PLAN
C402	UTILITIES PLAN
C403	UTILITIES PLAN
C501	STORMWATER CONTROL PLAN
C502	STORMWATER CONTROL PLAN DETAILS
C503	STORMWATER CONTROL PLAN DETAILS
C801	CROSS-SECTIONS
C901	FIRE PLAN
L1.1	PRELIMINARY LANDSCAPE PLAN
L1.2	PRELIMINARY LANDSCAPE PLAN
L1.3	PLANT SCHEDULE AND NOTES

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rmw.com

OWNER / DEVELOPER

E & P
PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE STORAGE FACILITY BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by

approved for the architect by

issue	description	date
A	INITIAL PLANNING REVIEW	07-27-2022
B	REVISED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by: TLG plot date: 01-31-2023
checked by: JDL

stamp

LICENSED ARCHITECT
JEFFREY T. LEONHARDT
NO. C33644
REN. 12-31-23
STATE OF CALIFORNIA

scale: AS NOTED
project number 2204066.00

COVER SHEET

sheet no.

A00.1



D: BUILDING B AT SOUTHWEST CORNER



A: VIEW OF TYPICAL BUILDING B MAIN CORNER ENTRY



E: BUILDING A



B: VIEW OF TYPICAL BUILDING A MAIN CORNER ENTRY



F: BUILDINGS A & B



C: VIEW EAST OF BUILDING A MAIN ENTRY AND BUILDING B

PROJECT RENDERINGS
SCALE: NO SCALE

1

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LICENSED ARCHITECT
JEFFREY D LEONHARDT
NO C13644
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STATE OF CALIFORNIA

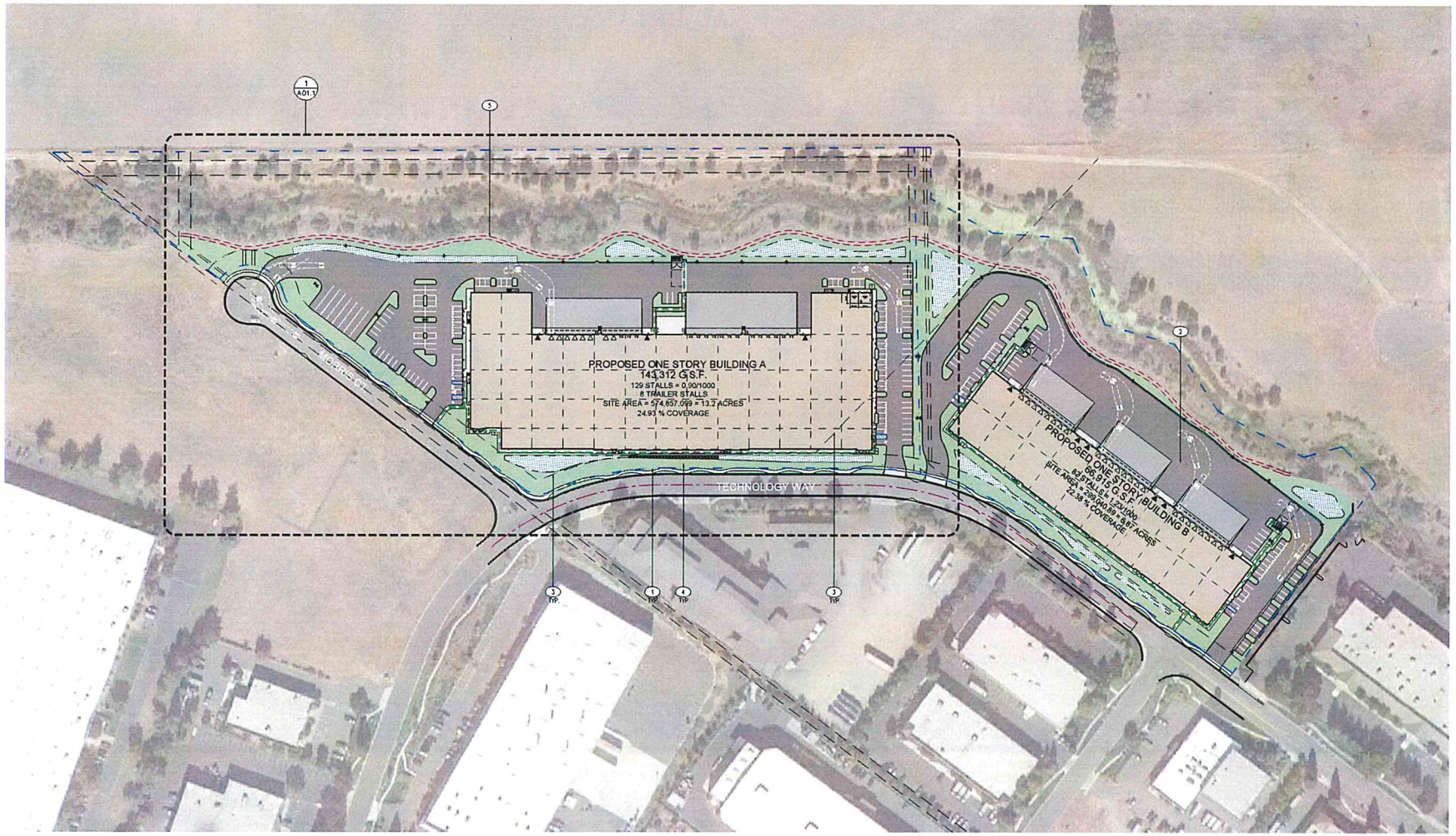
scale : AS NOTED

project number : 2204066.00

TYPICAL BUILDING
RENDERINGS

sheet no. :

A00.2



RMW

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Interiors

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PROPERTIES

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PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE
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checked by : JDL
stamp

0' 40' 80' 160'

PLAN NORTH

SCHEMATIC SITE PLAN
SCALE: 1" = 80'-0"

1

SITE LEGEND:

- BUILDING AREA
- SITE CONCRETE
- DOCK AREA
- STORM WATER RETENTION AREA
- ASPHALT AREA
- LANDSCAPE AREA
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE REMOVED
- 9' X 10' OVERHEAD DOCK LEVEL DOOR
- 12' X 14' OVERHEAD GRADE LEVEL DOOR
- FIRE DEPARTMENT TURN RADIUS: 150' 52'

KEYNOTES:

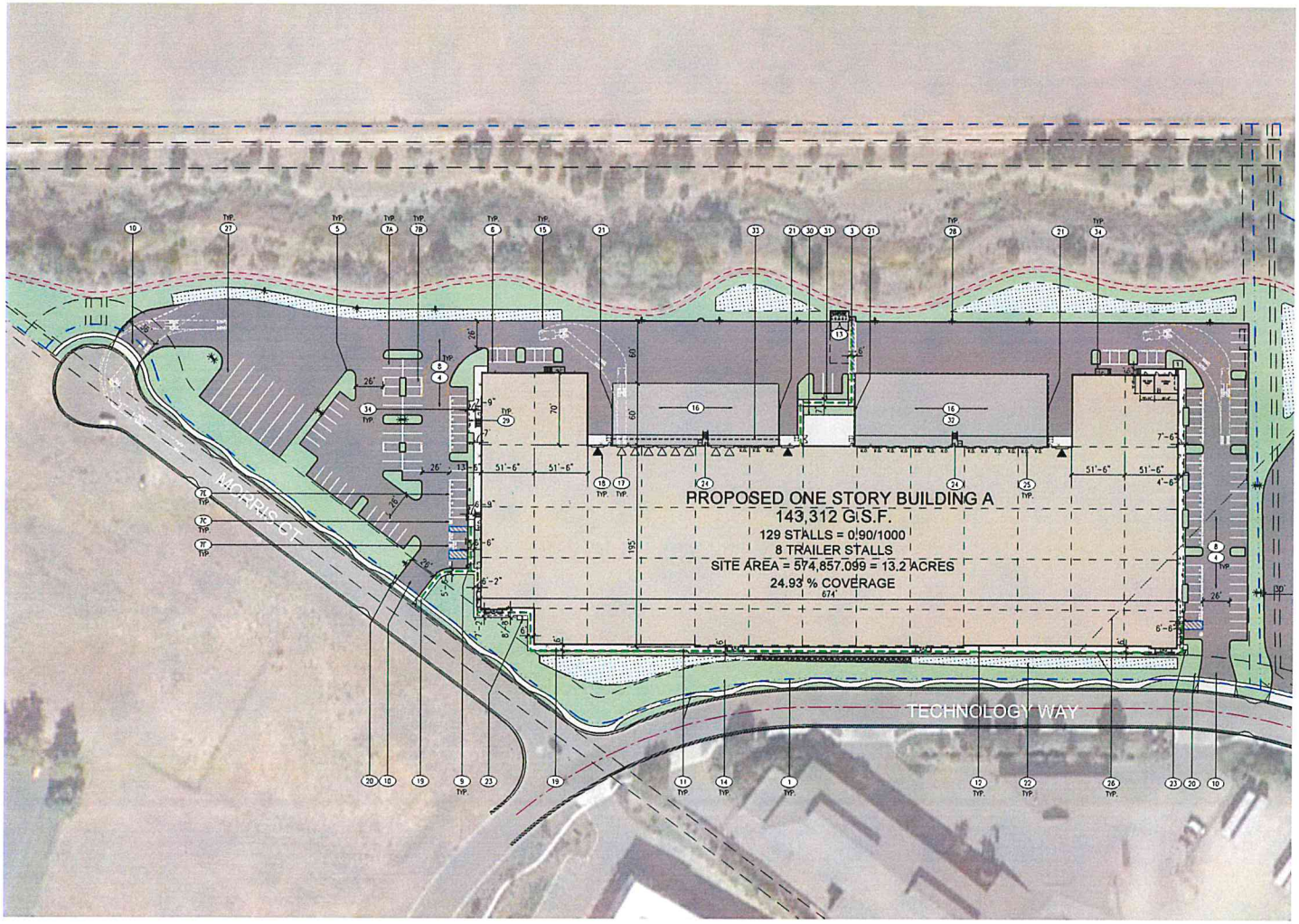
1. EXISTING PROPERTY LINES.
2. PROPERTY LINES TO BE REMOVED. SEE CIVIL DRAWINGS.
3. SEE CIVIL DRAWINGS FOR SITE EASEMENTS.
4. TYPICAL LANDSCAPE PLANTER AREAS. SEE LANDSCAPE DRAWINGS.
5. EXISTING PAVED BIKE TRAIL

scale : AS NOTED
project number : 2204066.00

PRELIMINARY
MASTER
SITE PLAN

sheet no. :

A01.0



0' 25' 50' 100'

PLAN NORTH

ENLARGED SITE PLAN - BUILDING A
SCALE: 1" = 50'-0"

1

SITE LEGEND:

- BUILDING AREA
- SITE CONCRETE
- DOCK AREA
- STORM WATER RETENTION AREA
- ASPHALT AREA
- LANDSCAPE AREA
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE REMOVED
- 9' X 10' OVERHEAD DOCK LEVEL DOOR
- 12' X 14' OVERHEAD GRADE LEVEL DOOR
- FIRE DEPARTMENT TURN RADIUS: 50' R, 874'

BUILDING A

APN:	057-250-030
ZONING:	IP AC - INDUSTRIAL PARK: AIRPORT COMPATIBILITY
TOTAL GROSS SITE AREA:	574,851.10 G.S.F. = 13.20 ACRES
NET SITE AREA:	361,197.43 N.S.F. = 8.29 ACRES
BUILDING AREA:	143,312 S.F.
SITE COVERAGE:	24.93%
CONSTRUCTION TYPE:	V-B
BUILDING HEIGHT:	31'-4"
CLEAR HEIGHT:	28'-0"
NUMBER OF STORIES:	1
PARKING:	129 STALLS TOTAL

PARKING STANDARDS - (NAPA COUNTY ZONING CODE TABLE 18.110.030)

- WAREHOUSING @84.4% OF BUILDING AREA= 121,007 S.F. — 171,000 S.F. FOR THE FIRST 20,000 S.F. 1/2,000 S.F. FOR ALL WAREHOUSE EXCEEDING 20,000 S.F. (20,000 S.F. @ 1/1,000 S.F. = 20 STALLS + (101,007 S.F. @ 1/2,000 S.F. = 51 STALLS)) = 71 TOTAL STALLS
- PRODUCTION AREA @ 10.5% OF BUILDING AREA = 15,426 S.F. — 2/1,000 S.F. (15,426 S.F. @ 2/1,000 S.F. = 31 TOTAL STALLS)
- OFFICE SPACE @ 2.5% OF BUILDING AREA = 6,867 S.F. — 4/1,000 S.F. (6,867 S.F. @ 4/1,000) = 27 TOTAL STALLS)
- ** REQUIRED: 129 STALLS
- ** PROVIDED: 129 STALLS

- STANDARD STALLS: 103 — 9' X 19' (17' WITH A 2'-0" OVERHANG)
- COMPACT STALLS: 26 — 8' X 16' (14' WITH A 2'-0" OVERHANG) 20.2% OF TOTAL STALLS

ACCESSIBLE & DESIGNATED PARKING STALLS (REQUIRED AND PROVIDED):

PER 2022 CBC TABLE 11B-208.2 101 TO 150 STALLS, 5 ACCESSIBLE STALLS REQUIRED
1 VAN ACCESSIBLE STALLS EVERY 6 OR FRACTION OF SIX, AT LEAST ONE SHALL BE VAN PARKING (= 1 VAN ACCESSIBLE)
* ADA STALLS (INCLUDING 1 VAN ACCESSIBLE STALLS) PROVIDED.

PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE 5.106.5.3.1 101 TO 150 STALLS, 25 REQ. EV CAPABLE STALLS, OF THESE 6 SHALL BE EVCS PROVIDED WITH EVSE.

PER CBC TABLE 11B-228.3.2.1 BETWEEN 5 TO 25 EVCS STALLS: 1 VAN ACCESSIBLE EVCS, 1 STANDARD ACCESSIBLE EVCS AND NO AMBULATORY EVCS ARE REQUIRED. SHALL COMPLY WITH CBC SECTION 11B-812.

BICYCLE PARKING PER 2022 CALIFORNIA GREEN BUILDING CODE 5.106.4.1

- 5.106.4.1.1 SHORT TERM - 5% OF NEW VISITOR VEHICLE PARKING SPACES, MIN (1) TWO-BIKE RACK WITHIN 200 FEET OF THE VISITORS ENTRANCE.
- ** 129 * 5% = 7 VISITOR PARKING * 5% = 0.35 = 1 SHORT TERM BIKE PARKING REQUIRED
- 5.106.4.1.2 LONG TERM (NEW SHELL BUILDINGS) - 5% OF ANTICIPATED TENANT-OCCUPANT VEHICLE SPACES, MIN (1) BIKE PARKING FACILITY.
- ** 129 * 5% = 6.4 = 7 LONG TERM BIKE PARKING SPACES REQUIRED*

*LONG TERM BICYCLE PARKING TO BE PROVIDED INSIDE THE BUILDING AT TIME OF FUTURE TENANT IMPROVEMENTS

KEYNOTES:

1. EXISTING PROPERTY LINES.
2. PROPERTY LINES TO BE REMOVED. SEE CIVIL DRAWINGS.
3. GREEN DASHED LINE REPRESENTS THE PATH OF TRAVEL TO TRASH ENCLOSURE.
4. PARKING AND DRIVE AISLES TO BE ASPHALTIC CONCRETE.
5. TYPICAL 6" TALL X 8" WIDE CONCRETE CURBS. SEE CIVIL DRAWINGS.
6. TYPICAL 4" WIDE TRAFFIC STRIPING.
7. TYPICAL PARKING:
   - A. STANDARD STALLS: 9' X 19' OR 8' X 17' WITH 2' PARKING OVERHANG.
   - B. COMPACT STALLS: 8' X 16' OR 8' X 14' WITH 2' PARKING OVERHANG (2YR WAY).
   - C. ACCESSIBLE PARKING STALLS: 9' X 18' MIN. WITH 2' PARKING OVERHANG WITH 5' OR 8' WIDE LOADING ZONE AS SHOWN SEE DETAIL 5/A01.3.
   - D. DESIGNATED PARKING PER CAL-GREEN REQUIREMENTS FOR CARPOOL FUEL EFFICIENT, EV & LOW-EMITTING VEHICLES.
   - E. ELECTRIC VEHICLE CHARGING SPACES (STALLS LABELED "ELECTRIC VEHICLE CHARGING"). PER CGBC 5.106.5.2, TO FACILITATE FUTURE INSTALLATION CONDUIT, PING AND STRING SHALL BE INSTALLED AT THIS TIME AS PART OF THE SHELL CONSTRUCTION.
   - F. ACCESSIBLE ELECTRIC VEHICLE CHARGING STALL: 1 VAN, 1 STANDARD. (PING AND STRING ONLY)
8. TYPICAL DRIVE ISLE: 26'-0" WIDE MINIMUM.
9. CURB RAMP, SEE DETAIL 8/A01.2
10. PROPOSED LOCATION OF NEW SITE ACCESS DRIVE CURB CUT. SEE CIVIL DRAWINGS.
11. NEW CONCRETE PEDESTRIAN WALKS. ASSURE ALL SIDEWALKS TO BE ACCESSIBLE PATH OF TRAVEL SLOPE NOT TO EXCEED 1:20 (5%) IN DIRECTION OF TRAVEL. CROSS SLOPE NOT TO EXCEED 1:50 (2%) WHERE PARKING OVERHANG OCCURS. INCREASE WIDTH OF SIDEWALK TO 8'-0" MIN.
12. PROPOSED BUILDING EXTERIOR WALLS TO BE SITE CAST TILTED CONCRETE WALLS WITH REVEALS, A TEXTURED ELASTOMERIC COATING AND A MULTI-COLOR PAINT PALLET. SEE EXTERIOR ELEVATIONS, SHEET A03.1.
13. TRASH ENCLOSURE W/ 6X8'L APPROACH, SEE DETAILS 1 & 3/A01.2
14. TYPICAL LANDSCAPE PLANTER AREA, SEE LANDSCAPE DRAWINGS.
15. SEMI TRACTOR TRAILER TEMPLATE SHOWN FOR REFERENCE ONLY.
16. 60' DEPRESSED CONCRETE TRUCK DOCK.
17. LOADING DOCK ROLL UP DOOR, TYPICAL.
18. GRADE LEVEL ROLL UP DOOR, TYPICAL.
19. GREEN DASHED LINE INDICATES ACCESSIBLE PATH OF TRAVEL AT PUBLIC SIDEWALK.
20. LOCATION OF SITE ENTRY SIGN REGARDING PARKING IN ACCESSIBLE PARKING STALLS SEE DETAIL 5/A01.2.
21. CURB WITH GUARDRAIL AT EACH SIDE OF DEPRESSED LOADING DOCKS, TYP. SEE DETAIL 9&10/A01.3.
22. BIO-RETENTION BASIN, SEE CIVIL DRAWINGS.
23. BICYCLE RACKS, SEE DETAIL 3/A01.3
24. PREFABRICATED PAINTED STEEL DOCK STAIR & BOLLARDS.
25. FUTURE KNOCKOUT PANELS, SEE STRUCTURAL DRAWINGS.
26. SITE EASEMENT. SEE CIVIL DRAWINGS FOR MORE INFORMATION.
27. TRAILER PARKING STALLS WITH CONCRETE DOLLY PADS.
28. SITE LIGHTING, SEE PHOTOMETRIC PLANS.
29. DASHED LINE INDICATED 2'-0" PARKING OVERHANG
30. MECHANICAL EQUIPMENT PAD W/ CYCLONE LINK FENCE AND GATE ENCLOSURE
31. ACCESSIBLE CONCRETE RAMP, MAX 1:12 SLOPE RATIO, GUARDRAIL AND HANDRAIL ON BOTH SIDES AS NEEDED.
32. CANOPY W/ GUTTERS AND DOWNSPOUTS OVER DEPRESSED CONCRETE DOCK RAMP.
33. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.
34. DELEGATED DESIGN ITEM: PRE-FABRICATED STEEL STAIRS AND GUARDRAILS. CONTRACTOR TO COORD. FINAL SIZE AND LOCATION WITH STAIR DESIGNER MANUFACTURER PRIOR TO FABRICATION. AREA OF ASSISTED RESCUE SHOWN AS NEEDED.

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OWNER / DEVELOPER

E & P PROPERTIES

5400 INDUSTRIAL WAY, BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE STORAGE FACILITY BUILDING A

TECHNOLOGY WAY & MORRIS COURT NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
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GENERAL CONTRACTOR:

drawn by : TLG plot date : 01-31-2023

checked by : JDL

stamp

LICENSED ARCHITECT JEFFREY D. LEONHARDT RENEWAL 12-31-24 STATE OF CALIFORNIA

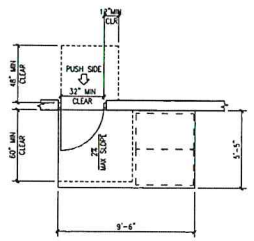
scale : AS NOTED

project number : 2204066.00

ENLARGED SITE PLAN - BUILDING A

sheet no. :

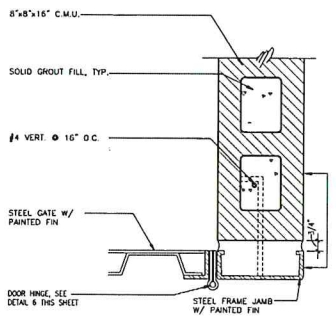
A01.1



AREA OF ASSISTED RESCUE

SCALE: 1/4" = 1'-0"

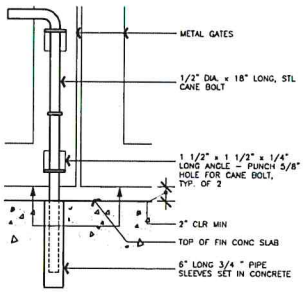
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GATE JAMB

SCALE: 3"= 1'-0"

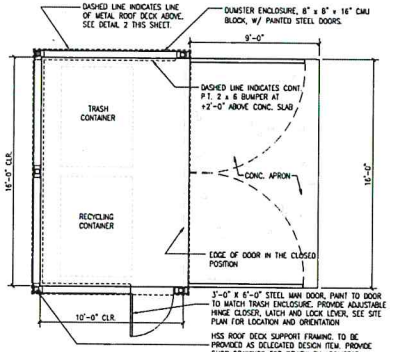
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CANE BOLT SECTION

SCALE: 3"= 1'-0"

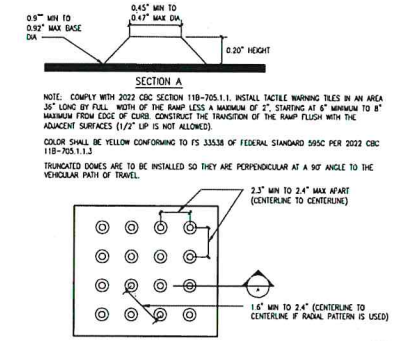
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DUMPSTER ENCLOSURE PLAN

SCALE: 1/4"= 1'-0"

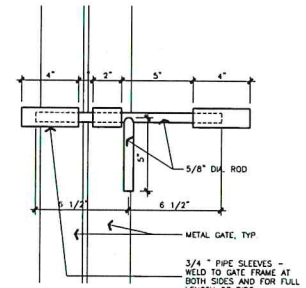
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WARNING DOMES AT SITE RAMPS

SCALE: N.T.S.

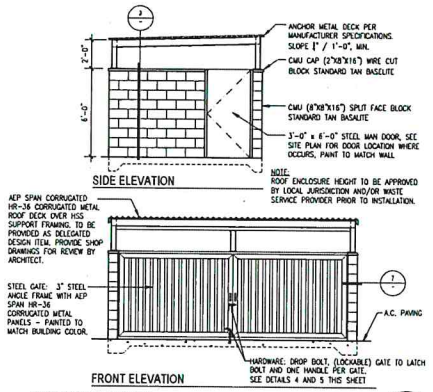
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SIDE BOLT ELEVATION AT HEAD

SCALE: 3"= 1'-0"

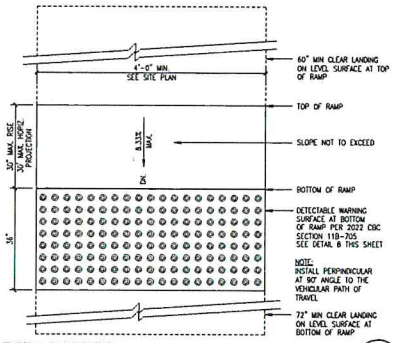
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DUMPSTER ELEVATIONS

SCALE: 1/4"= 1'-0"

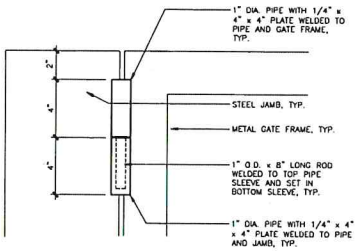
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TYPICAL RAMP DETAIL

SCALE: 1" = 1'-0"

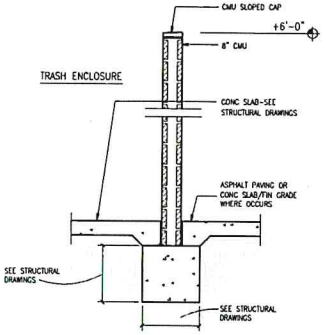
9



HINGE ELEVATION, TYP.

SCALE: 3"= 1'-0"

6



TRASH ENCLOSURE WALL SECTION

SCALE: 1/2"= 1'-0"

3

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approved for the owner by:

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A	INITIAL PLANNING PERMIT	07-27-2022

GENERAL CONTRACTOR:

drawn by : TLG plot date : 01-31-2023

checked by : JDL

stamp

LICENSED ARCHITECT
JEFFREY D LEONHARDT
No. C33844
REN 12-31-23
STATE OF CALIFORNIA

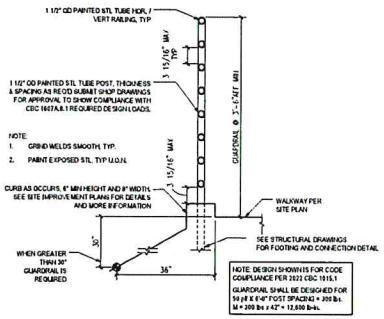
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project number : 2204068.00

SITE DETAILS (FOR REFERENCE)

sheet no. :

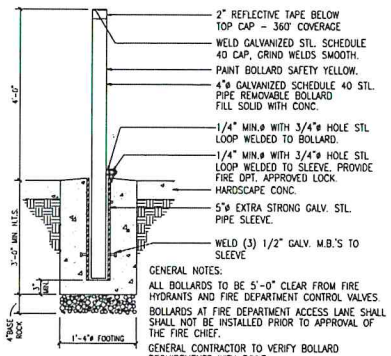
A01.2



TYPICAL GUARD RAIL

SCALE: 1" = 1'-0"

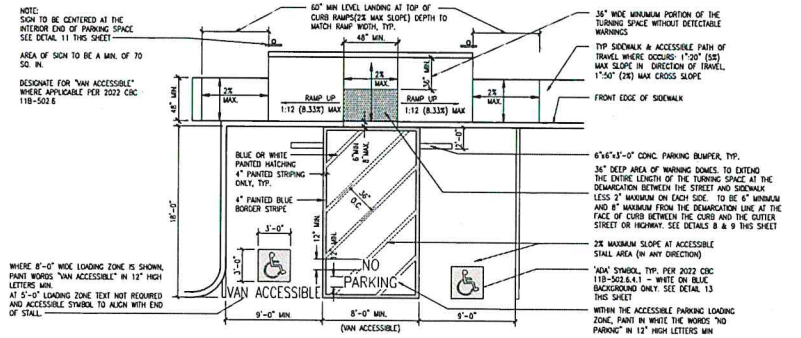
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REMOVABLE BOLLARD

1" = 1'-0"

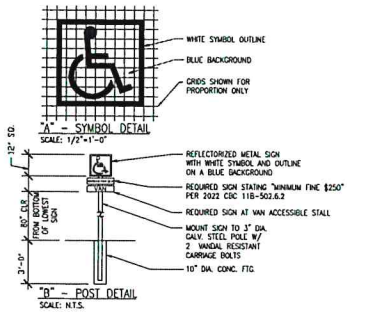
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DOUBLE ACCESSIBLE STALLS

SCALE: 3/16" = 1'-0"

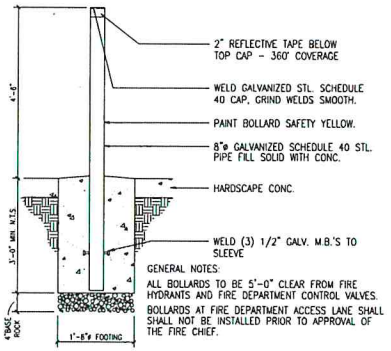
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SIGN AT ACCESSIBLE PARKING STALLS

SCALE: NO SCALE

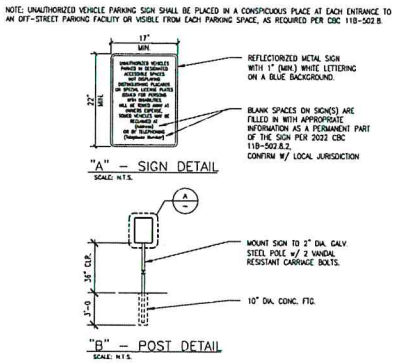
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FIXED NON-REMOVABLE BOLLARD

1" = 1'-0"

8



SITE ENTRY ACCESSIBLE SIGN

SCALE: 3/16" = 1'-0"

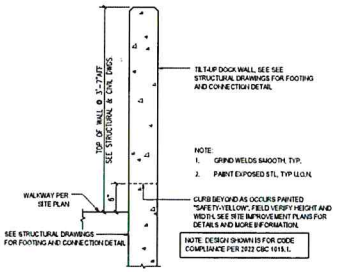
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ACCESSIBLE SYMBOL AT ACCESSIBLE PARKING STALLS

SCALE: 1" = 1'-0"

2



LOADING DOCK : RETAINING WALL

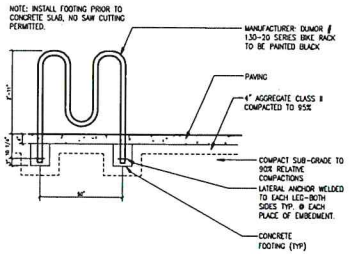
SCALE: 1" = 1'-0"

9

NOT USED

SCALE: N.T.S.

6



BIKE RACK

SCALE: 1/2" = 1'-0"

3

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drawn by : TLG plot date : 01-31-2023

checked by : JDL

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LICENSED ARCHITECT
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scale : AS NOTED

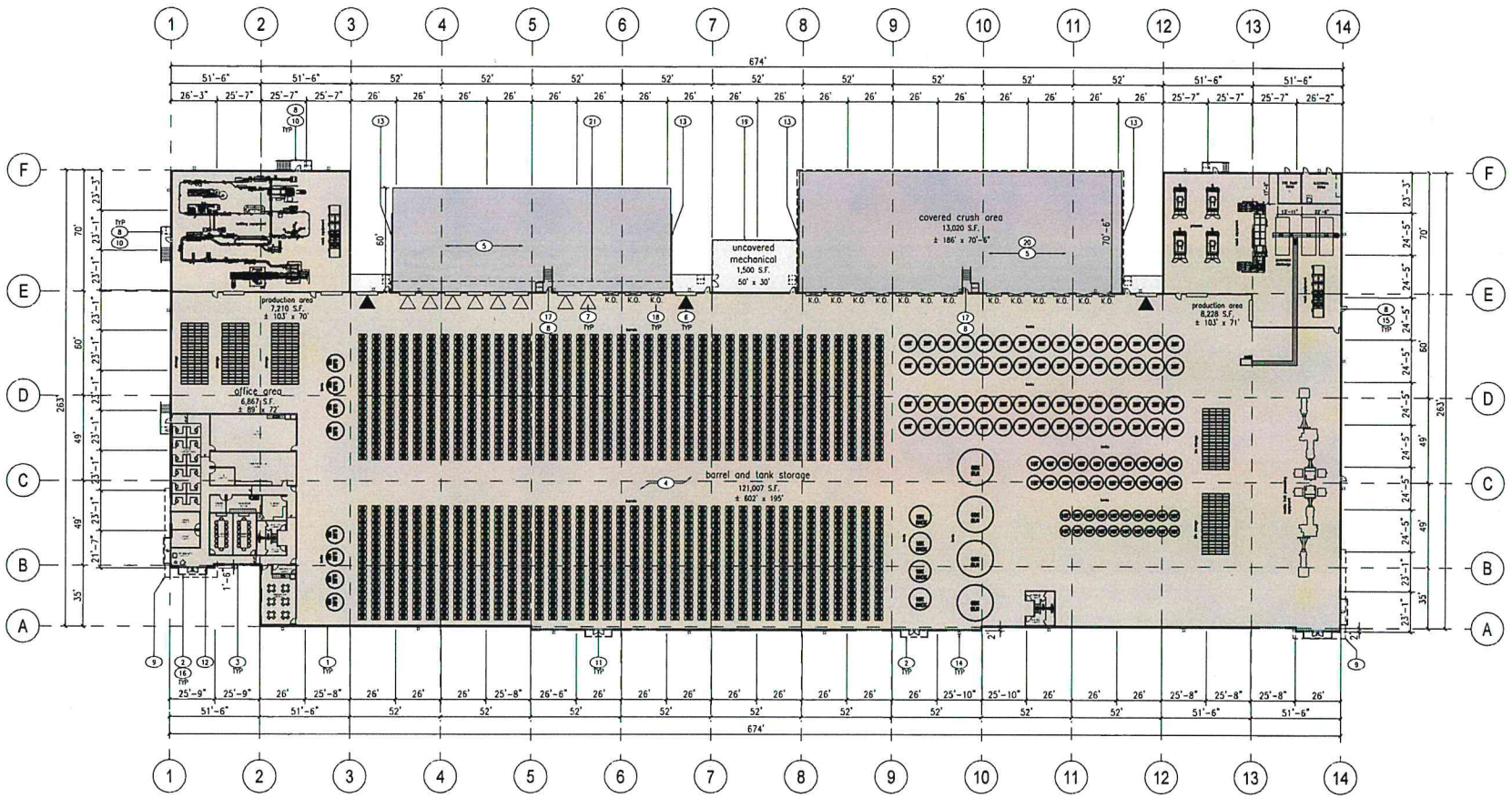
project number : 2204068.00

SITE DETAILS (FOR REFERENCE)

sheet no. :

A01.3

* INTERIOR LAYOUTS ARE FOR REFERENCE ONLY, DESIGN TO BE DRTERMINED AT TIME OF FUTURE T.I.



PRELIMINARY FLOOR PLAN
SCALE: 1" = 30'-0"

KEYNOTES:

1. EXTERIOR WALLS TO BE TILT-UP CONCRETE WITH REVEALS AND A MULTICOLORED TEXTURED ELASTOMERIC FINISH SYSTEM. SEE EXTERIOR ELEVATIONS, SHEETS A03.1
2. STEEL C-CHANNEL CANOPY ABOVE ENTRY. SEE EXTERIOR ELEVATIONS SHEET A03.1
3. TINTED GLAZING IN ALUMINUM FRAMES, SEE EXTERIOR ELEVATIONS SHEET A03.1
4. CONCRETE SLAB, SEE STRUCTURAL DRAWINGS
5. DEPRESSED TRUCK DOCK, SEE SHEET A01 1
6. GRADE LEVEL ROLL UP DOOR
7. DOCK LEVEL ROLL UP DOOR
8. 3' X 7' STEEL DOOR WITH SURFACE MOUNTED EMERGENCY LIGHT FIXTURE CENTERED ABOVE DOOR. TYPICAL AT ALL EXTERIOR DOORS, SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR FIXTURE TYPE.
9. DASHED LINE INDICATES DECORATIVE UPPER SLOPED ROOF ELEMENT. SEE EXTERIOR ELEVATIONS SHEET A03.1
10. DELEGATED DESIGN ITEM: PRE-FABRICATED STEEL STAIRS AND GUARDRAILS. CONTRACTOR TO COORD. FINAL SIZE AND LOCATION WITH STAIR DESIGNER MANUFACTURER PRIOR TO FABRICATION. AREA OF ASSISTED RESCUE SHOWN AS NEEDED.
11. ALUMINUM STORE FRONT SYSTEM WITH DOOR. SEE ELEVATION SHEETS A03.1
12. LOCATION OF FIRE DEPARTMENT APPROVED "KNOX BOX" AT BUILDING ENTRIES, MOUNT AT +6'-0" AFF. CONFIRM LOCATION, MOUNTING HEIGHT AND ALL OTHER CRITERIA WITH THE AGENCY HAVING JURISDICTION.
13. CURB WITH GUARDRAIL AT EACH SIDE OF DEPRESSED LOADING DOCKS, TYP. SEE DETAIL 10/A01.3.
14. SURFACE MOUNTED EXTERIOR LIGHT FIXTURE ABOVE, SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR FIXTURE TYPE.
15. SURFACE MOUNTED EMERGENCY LIGHT FIXTURE CENTERED ABOVE DOOR. TYPICAL AT ALL EXTERIOR DOORS. SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR MORE INFORMATION.
16. EMERGENCY EGRESS LIGHTING MOUNTED TO UNDERSIDE OF CANOPY
17. PREFABRICATED PAINTED STEEL DOCK STAIR & BOLLARDS.
18. FUTURE KNOCKOUT PANELS, SEE STRUCTURAL DRAWINGS.
19. MECHANICAL EQUIPMENT PAD W/ CHAIN LINK FENCE AND GATE ENCLOSURE.
20. CANOPY W/ GUTTERS AND DOWNSPOUTS OVER DEPRESSED CONCRETE DOCK RAMP.
21. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.

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checked by : JDL

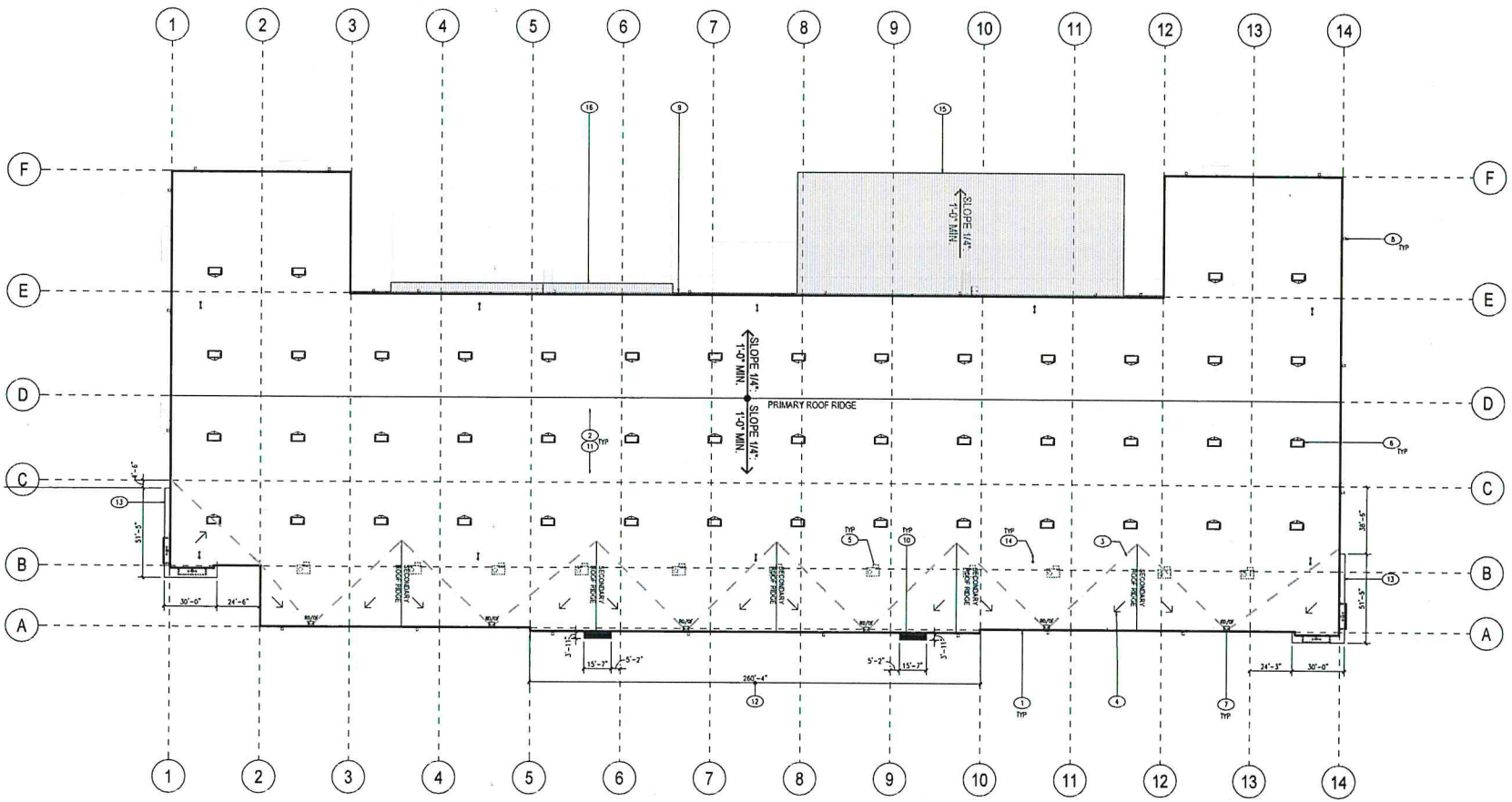
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LICENSED ARCHITECT
JEFFREY D. LEONHARDT
NO. C33644
REN. 12-31-23
STATE OF CALIFORNIA

scale : AS NOTED
project number : 2204066.00

FLOOR PLAN - BUILDING A

sheet no. :
A02.1



PRELIMINARY ROOF PLAN
SCALE: 1" = 30'-0"

KEYNOTES:

1. LINE OF TYPICAL PARAPET WALL
2. TYPICAL LOW SLOPE ROOF 1/4" PER 12" MIN SLOPE. ROOF ASSEMBLY CONSISTS OF A TPO SINGLE PLY SYSTEM OVER STRUCTURAL SHEATHING OVER SLOPED STRUCTURAL FRAMING. SEE STRUCTURAL DRAWINGS.
3. THICK DASHED GRAY LINE INDICATES WARPED ROOF AREA
4. INDICATES DIRECTION OF ROOF SLOPE
5. POTENTIAL LOCATION OF FUTURE ROOF MOUNTED HVAC EQUIPMENT. ALL ROOF MOUNTED EQUIPMENT SHALL BE DETERMINED AT TIME OF TENANT IMPROVEMENTS AND SHALL BE SCREENED FROM VIEW BY NATURE OF IT'S PLACEMENT.
6. INDICATES LOCATION OF 4' X 8' SELF-CURBING DUAL DOME SKYLIGHT. PROVIDE SHAPED FOAM CRICKET AT HIGH SIDE(S) OF SKYLIGHT CURB TO PROVIDE SLOPE FOR DRAINAGE.
7. INTERNAL ROOF DRAIN AND OVERFLOW
8. EXTERIOR MOUNTED WALL PACK LIGHTING, SEE EXTERIOR ELEVATIONS AND PHOTOMETRIC DRAWINGS FOR MORE INFORMATION.
9. CONTINUOUS METAL GUTTER AND DOWNSPOUTS BELOW. PAINT TO MATCH ADJACENT BUILDING. SEE EXTERIOR ELEVATIONS FOR LOCATIONS AND FINISH.
10. STEEL C CHANNEL CANOPY W METAL ROOFING OVER MAIN ENTRIES.
11. FLASH ALL ROOF PENETRATIONS PER ROOFING MANUFACTURE'S SPECIFICATIONS.
12. TOP OF PARAPET CHANGES HEIGHT AT THIS AREA. SEE EXTERIOR ELEVATIONS SHEET A03.1 FOR MORE INFORMATION.
13. SLOPED ROOF ELEMENT, SEE EXTERIOR ELEVATIONS, SHEET A03.1 FOR COLOR AND FINISH
14. PROPOSED LOCATION OF HOSE BIBS, SEE PLUMBING DRAWINGS.
15. CANOPY W/ GUTTERS AND DOWNSPOUTS OVER DEPRESSED CONCRETE DOCK RAMP.
16. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.

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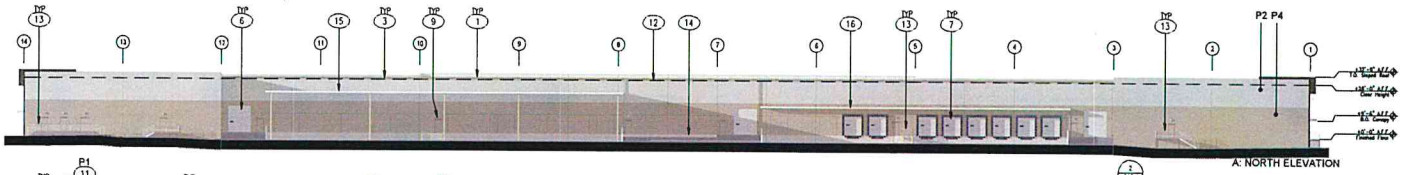
LICENSED ARCHITECT
JEFFREY D LEONHARDT
NO. C32843
REN 12-31-23
STATE OF CALIFORNIA

scale : AS NOTED
project number : 2204066.00

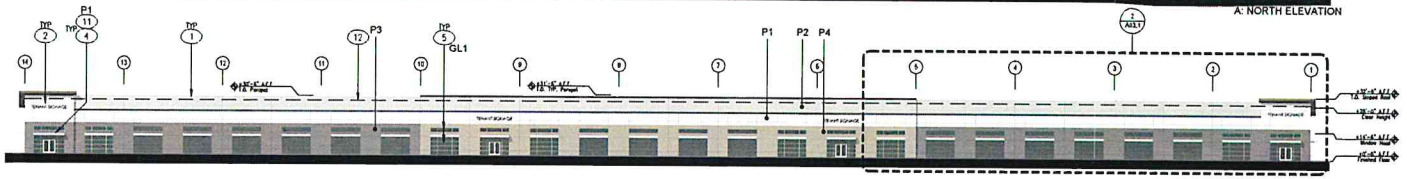
ROOF PLAN - BUILDING A

sheet no. :

A02.2



A: NORTH ELEVATION



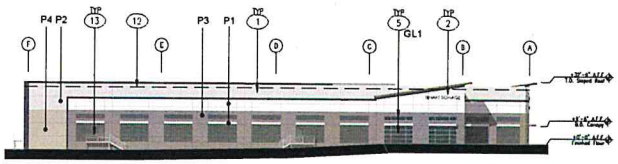
B: SOUTH ELEVATION

KEYNOTES:

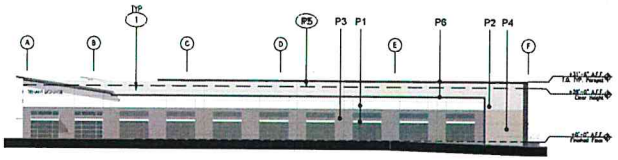
1. TYPICAL SITE CAST, CONCRETE TILT-UP PANELS WITH 3/4" REVEALS AND A MULTI COLOR TEXTURED COATING SYSTEM.
2. TENANT SIGNAGE UNDER SEPARATE PERMIT.
3. CONTINUOUS GUTTER AND SURFACE MOUNTED DOWNSPOUTS.
4. PAINTED STEEL CHANNEL CANOPIES. PAINT AS SPECIFIED. TYPICAL AT MAIN ENTRANCE STOREFRONT OPENINGS.
5. TYPICAL WINDOW SYSTEM. DUAL PANE GLAZING IN 2" x 4" (NOMINAL) THERMALLY BROKEN, CLEAR ANODIZED ALUMINUM FRAMES. OUTER GLAZING PANE TO BE TINTED WITH LOW-E COATING ON INTERIOR SURFACE. INNER PANE CLEAR FLOAT. STOREFRONT DOORS WHERE SHOWN. 4 STOREFRONT LOCATIONS TOTAL.
6. 12' X 14' GRADE LEVEL ROLL UP DOOR, PAINT TO MATCH ADJACENT COLOR.
7. 9' X 10' DOCK LEVEL ROLL UP DOOR, PAINT TO MATCH ADJACENT COLOR.
8. EXTERIOR WALL PACK LIGHTING. SEE PHOTOMETRIC DRAWINGS.
9. 3' X 7' STEEL MAN DOOR WITH EMERGENCY LIGHT FIXTURE CENTERED OVER DOOR. SEE PHOTOMETRIC PLAN FOR FIXTURE TYPE. PAINT DOOR TO MATCH ADJACENT WALL COLOR.
10. ADDRESS SIGNAGE UNDER SEPARATE PERMIT AND SHALL MEET BUILDING, FIRE AND SHERIFF DEPT REQUIREMENTS.
11. CANOPY LIGHTING, SEE PHOTOMETRIC DRAWINGS.
12. DASHED LINE INDICATES INTERNAL CLEAR HEIGHT. SEE ELEVATIONS FOR HEIGHT.
13. DELEGATED DESIGN ITEM: PRE-FABRICATED STEEL STAIRS AND GUARDRAILS. CONTRACTOR TO COORD. FINAL SIZE AND LOCATION WITH STAIR DESIGNER MANUFACTURER PRIOR TO FABRICATION. AREA OF ASSISTED RESCUE SHOWN AS NEEDED.
14. MECHANICAL EQUIPMENT PAD W/ CHAIN LINK FENCE AND GATE ENCLOSURE. SEE DETAIL -/A01.2
15. CANOPY W/ GUTTERS AND DOWNSPOUTS OVER DEPRESSED CONCRETE DOCK RAMP.
16. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.

FINISH LEGEND:

- P1: PAINT 1 — KELLY MOORE KMW43 WHITEST WHITE
- P2: PAINT 2 — SHERWIN WILLIAMS SW7063 NEBULOUS WHITE
- P3: PAINT 3 — SHERWIN WILLIAMS SW7047 PORPOISE
- P4: PAINT 4 — SHERWIN WILLIAMS SW6150 UNIVERSAL KHAKI
- P5: PAINT 5 — SHERWIN WILLIAMS SW6153 PROTEGE BRONZE
- P6: PAINT 6 — SHERWIN WILLIAMS SW6991 BLACK MAGIC
- P7: PAINT 7 — SHERWIN WILLIAMS SW6188 SHADE GROWN
- GL1: VITRO ARCHITECTURAL GLASS "ATLANTICA" EMERALD GREEN GLASS IN THERMALLY BROKEN CLEAR ANODIZED ALUMINUM FRAMES



C: WEST ELEVATION

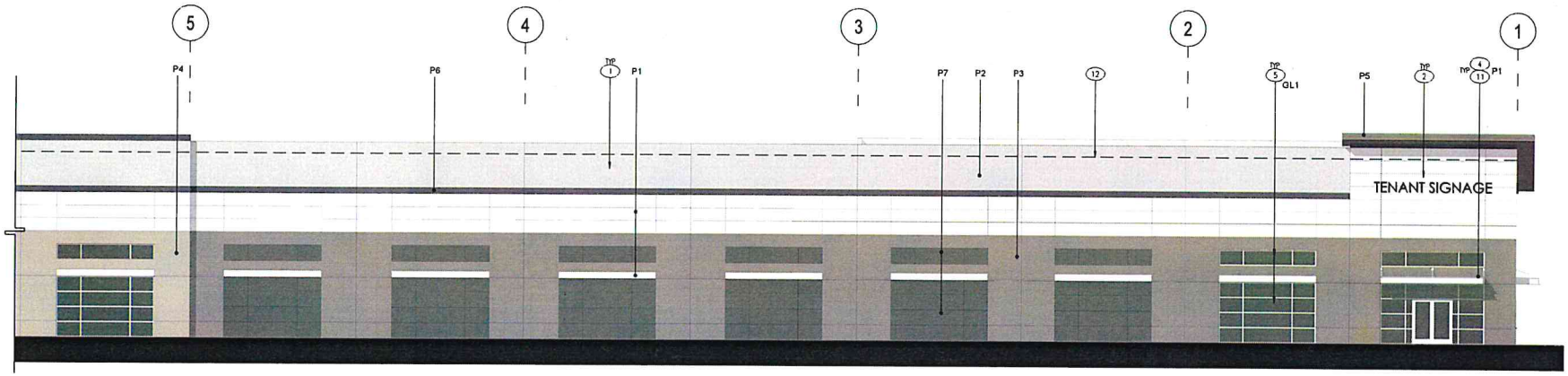


D: EAST ELEVATION

0 15' 30' 60'

EXTERIOR ELEVATIONS — 1

SCALE: 1" = 30'-0"



0 4' 8' 16'

PARTIAL ENLARGED SOUTH ELEVATION — 2

SCALE: 1/8" = 1'-0"

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NO. C33644
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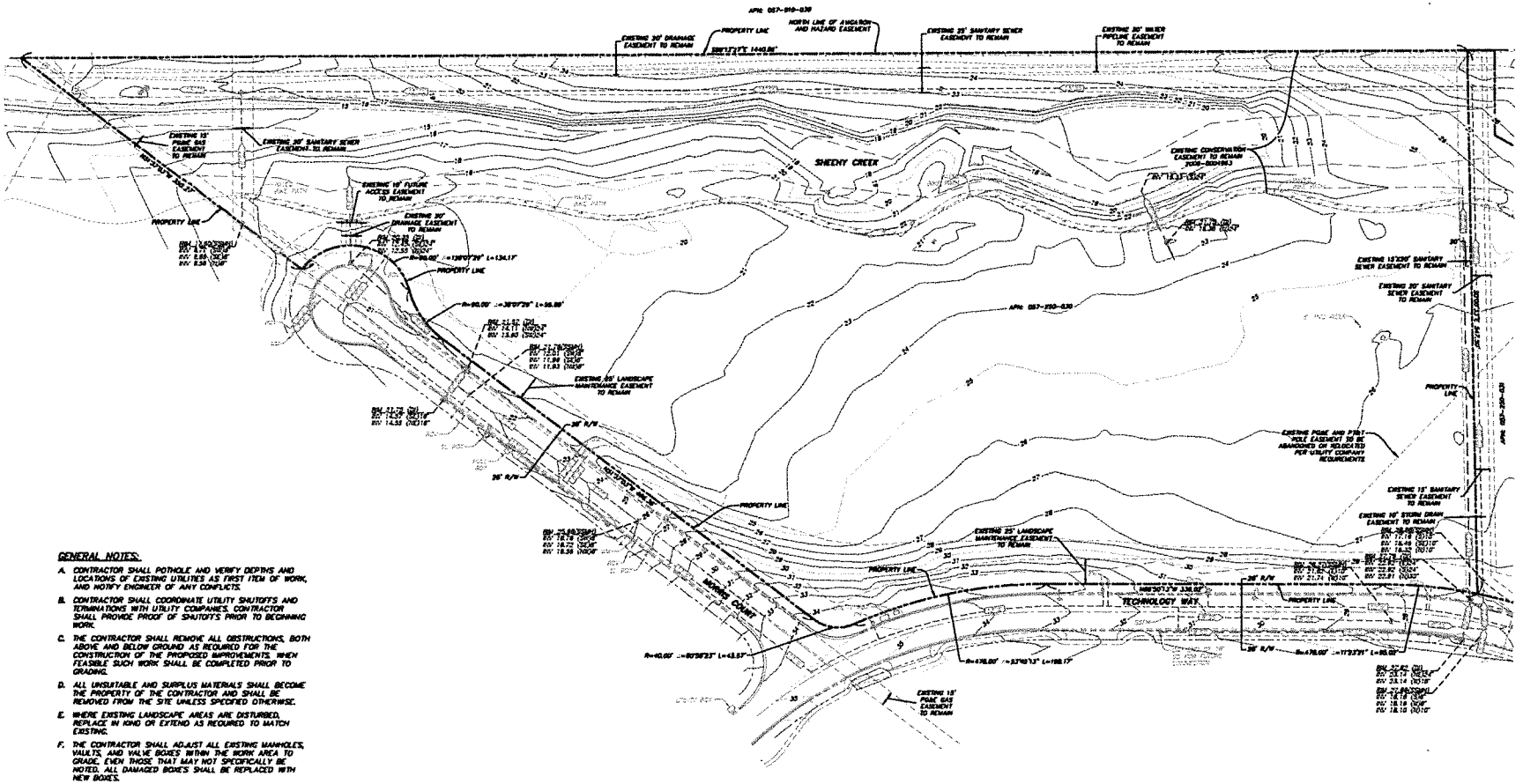
scale : AS NOTED

project number : 2204068.00

EXTERIOR ELEVATIONS - BUILDING A

sheet no. :

A03.1



GENERAL NOTES:

A. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTHS AND LOCATIONS OF EXISTING UTILITIES AS FIRST ITEM OF WORK, AND NOTIFY ENGINEER OF ANY CONFLICTS.

B. CONTRACTOR SHALL COORDINATE UTILITY SHUTOFFS AND TERMINATIONS WITH UTILITY COMPANIES. CONTRACTOR SHALL PROVIDE PROOF OF SHUTOFFS PRIOR TO BEGINNING WORK.

C. THE CONTRACTOR SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. WHEN FEASIBLE SUCH WORK SHALL BE COMPLETED PRIOR TO GRADING.

D. ALL UNSUITABLE AND SURPLUS MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS SPECIFIED OTHERWISE.

E. WHERE EXISTING LANDSCAPE AREAS ARE DISTURBED, REPLACE IN KIND OR EXTEND AS REQUIRED TO MATCH EXISTING.

F. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VAULTS, AND VALVE BOXES WITHIN THE WORK AREA TO GRADE, EVEN THOSE THAT MAY NOT SPECIFICALLY BE NOTED. ALL DAMAGED BOXES SHALL BE REPLACED WITH NEW BOXES.

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scale : AS NOTED

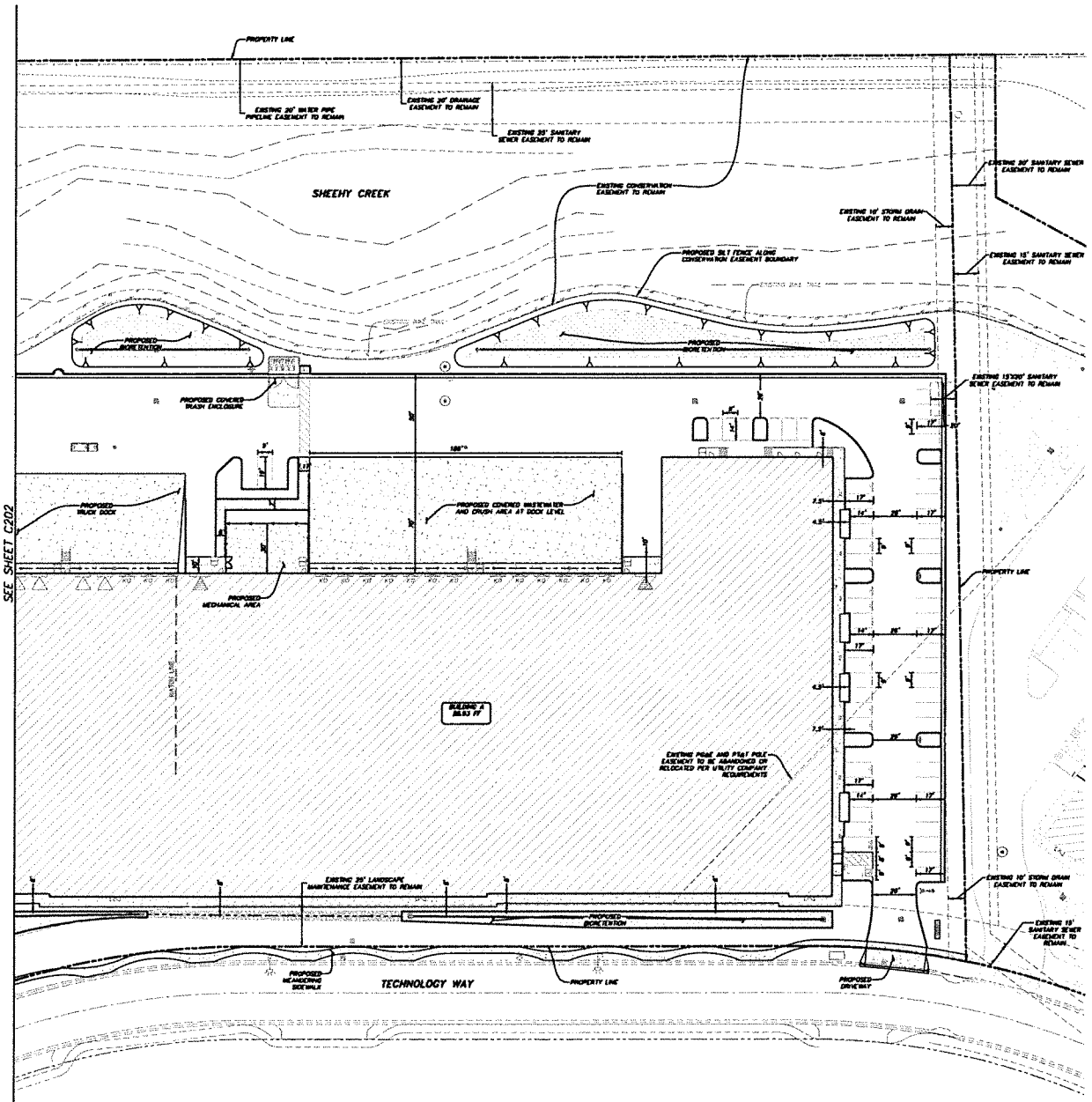
project number : 3687-13

TOPOGRAPHIC SURVEY
& DEMOLITION PLAN

sheet no. :

C101

File Name: X:\Land Projects\3687-13\dwg\3687-13_A_C101.dwg Date Plotted: February 02, 2023 - 8:55am



BIOLOGICAL ASSESSMENT RECOMMENDATION

4.1 Biological Communities

4.1.1 Terrestrial

No Recommendation

4.1.2 Aquatics

Recommendation 1
A Conservation Easement along Sheehy Creek was recorded in 2008 and extends approximately 1 mile of both banks of the Sheehy Creek riparian corridor, which provides high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County. The Conservation Easement, held by the County, is located within APNs 057-200-009; 057-210-038 and 039; and 057-250-008, 021, 024, and 025.

The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to the watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and those locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

4.2 Special-status Plant Species

Recommendation 2
Protocol-level special-status plant surveys should be performed during the flowering time of the target species (see Appendix B), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species should be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated.

4.3 Special-status Wildlife Species

4.3.1 Migratory Birds and Nesting Raptors

Recommendation 3
A survey for active bird nests shall be conducted by a qualified Biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities. If ground-disturbing activities commence during the nesting season (February 1 through August 31), the survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Recommendation 4
If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist indicating that work activities are not significantly impacting the nest.

4.3.2 Amphibians

Recommendation 5
Exclusion fence shall be installed during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Recommendation 6
Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided by a qualified Biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The Biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The Biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified Biologist.

4.4 County-designated Sensitive Habitats and Tree Removal

Recommendation 7
A qualified Biologist shall determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio to be determined in consultation with the County of Napa. Trees should be replaced at not less than a 3:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

NOTE: RECOMMENDATIONS WERE MADE ABOVE ARE FROM THE E&P PROPERTIES – BIOLOGICAL RESOURCES ASSESSMENT OF TECHNOLOGY WAY BUILDINGS A AND B LOCATED IN NAPA COUNTY, CA PREPARED BY FIRSTCARBON SOLUTIONS (DATED FEBRUARY 1, 2023)

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PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE STORAGE FACILITY BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022
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GENERAL CONTRACTOR:

drawn by : PJ plot date : 01-31-2023

checked by : PF

stamp



scale : AS NOTED

project number : 3687-13

CIVIL SITE PLAN

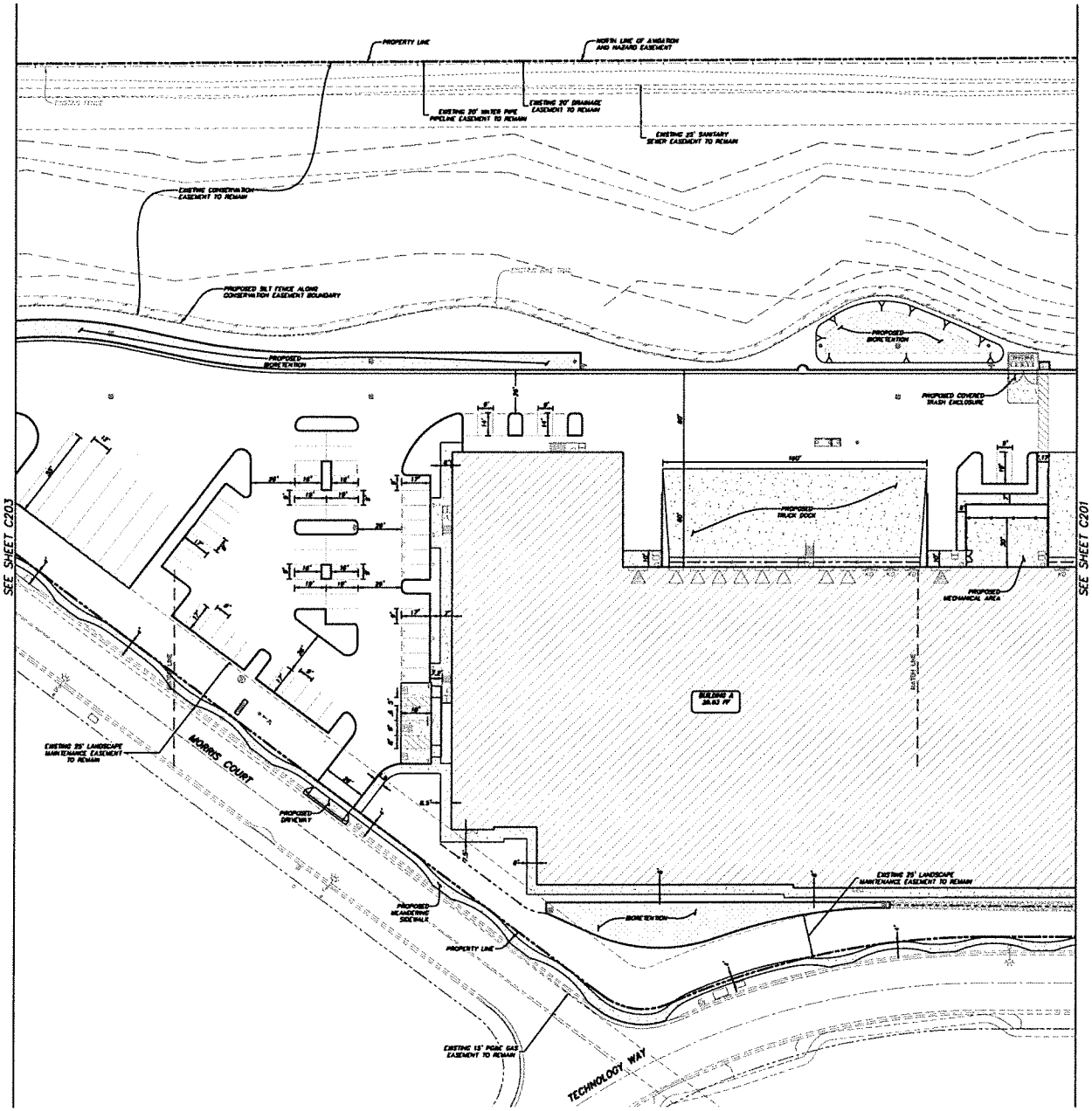


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C201

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CULTURAL RESOURCES ASSESSMENT

SUMMARY AND RECOMMENDATIONS

4.1 – Summary

In accordance with CEQA Guidelines, FCS assessed the potential for the proposed project to have an adverse impact on known and potential cultural resources at the project site. Results from the NWIC indicate that three historic resources are recorded within a 0.5-mile search radius of the project site, none of which are located within the project boundaries. Thirty survey reports are on file within the 0.5-mile radius of the project area, three of which address the project site, indicating that it has been previously surveyed for unrecorded cultural resources.

The pedestrian survey and NAHC Sacred Lands File search reported negative results for archaeological resources and TCRs in the immediate project area. FCS contacted Native American representatives and to date, no responses have been received.

4.2 – Recommendations

Based on the results of the records searches, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on historic or prehistoric cultural resources to be moderate. While there are no previously recorded resources within the project site, its geomorphology and close proximity to Sheehy Creek and other resources just outside the search radius increase the potential that subsurface construction may encounter and adversely impact cultural resources.

For this reason, FCS therefore recommends that all construction personnel directly involved with project-related ground disturbance attend a "tailgate" WEAP training for archaeological resources. The training should include visual aids, a discussion of applicable laws and statutes relating to archaeological resources, types of resources that may found within the project site, and procedures to be followed in the event such resources are encountered. The training should be conducted by an Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology. Additionally, FCS therefore recommends an archaeological monitor reporting to the qualified archaeologist, should be present to during the clearing, grading and trenching phases of the project to check for the inadvertent discovery of archaeological resources or human remains. Over the course of the project, should the archaeologist determine that the probability of inadvertent discovery is low, they may make a recommendation to the lead agency that monitoring be reduced to regular periodic or "spot-check" monitoring, or that monitoring may cease altogether. Additional procedures for the inadvertent discoveries of human remains and cultural resources are provided below. Cultural Resources Regulations and Evaluation Criteria can be found in Appendix E.

4.3 – Inadvertent Discovery Procedures

4.3.1 – Inadvertent Discovery of Human Remains

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resources Code Section 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. *There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the 'most likely descendant' of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98, or*
2. *Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project area in a location not subject to further subsurface disturbance:*
   - *The NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 48 hours after being notified by the Commission;*
   - *The descendant identified fails to make a recommendation; or*
   - *The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.*

4.3.2 – Inadvertent Discovery of Cultural Resources

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. In the event that buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified Archaeologist shall be consulted to determine whether the resource requires further study. The qualified Archaeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA Guidelines.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

ABOVE RECOMMENDATIONS NOTED ABOVE ARE FROM THE E&P PROPERTIES – PHASE I CULTURAL RESOURCES ASSESSMENT OF TECHNOLOGY WAY BUILDINGS A AND B LOCATED IN NAPA COUNTY, CA PREPARED BY FREDERICKS SOLUTIONS DATED JANUARY 26, 2023

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PRELIMINARY DESIGN DOCUMENTS FOR:

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NAPA COUNTY, CALIFORNIA

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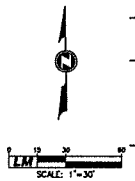


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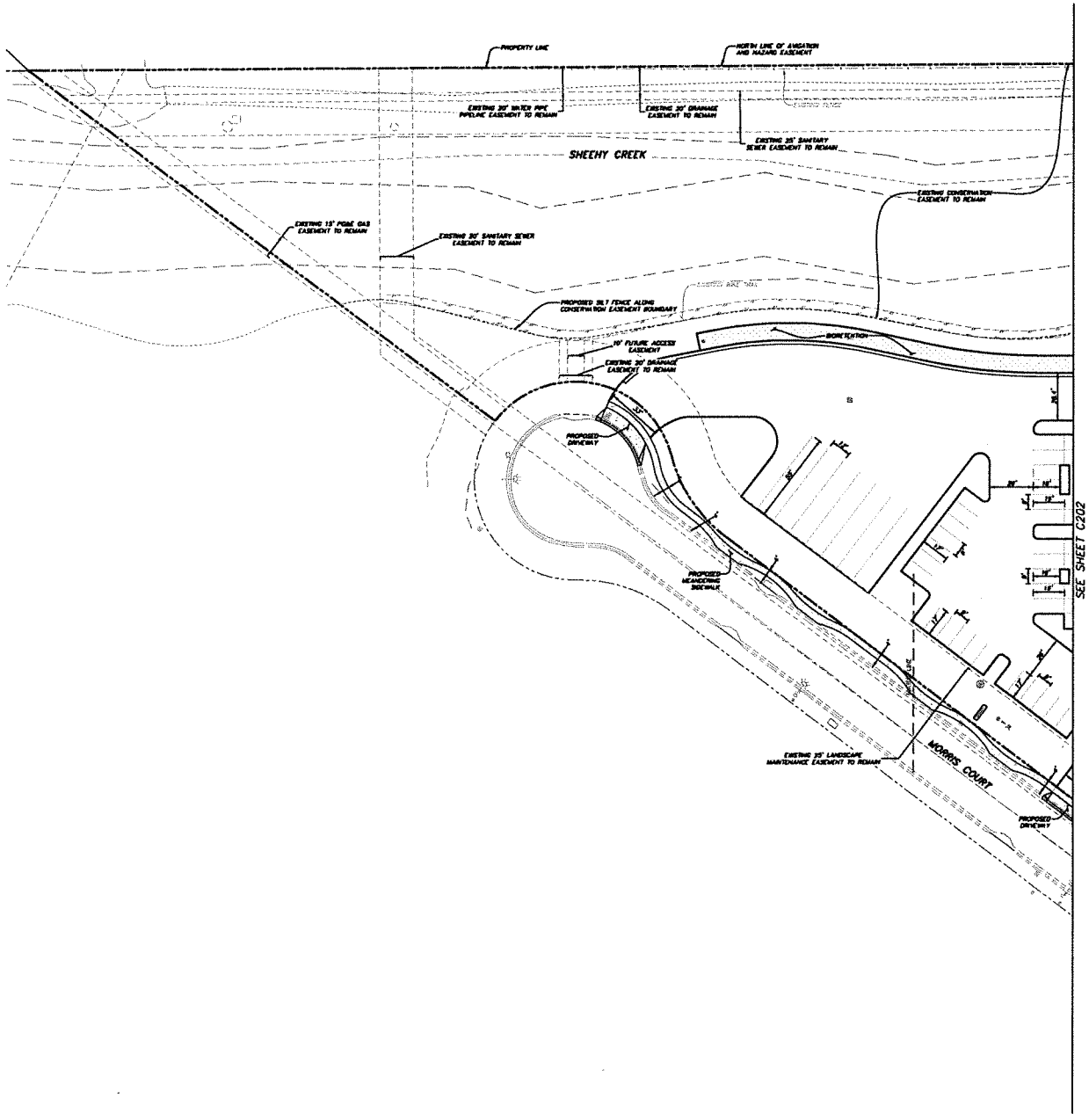
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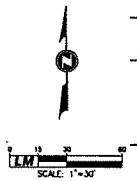
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sheet no. : C202



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PRELIMINARY DESIGN DOCUMENTS FOR

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BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

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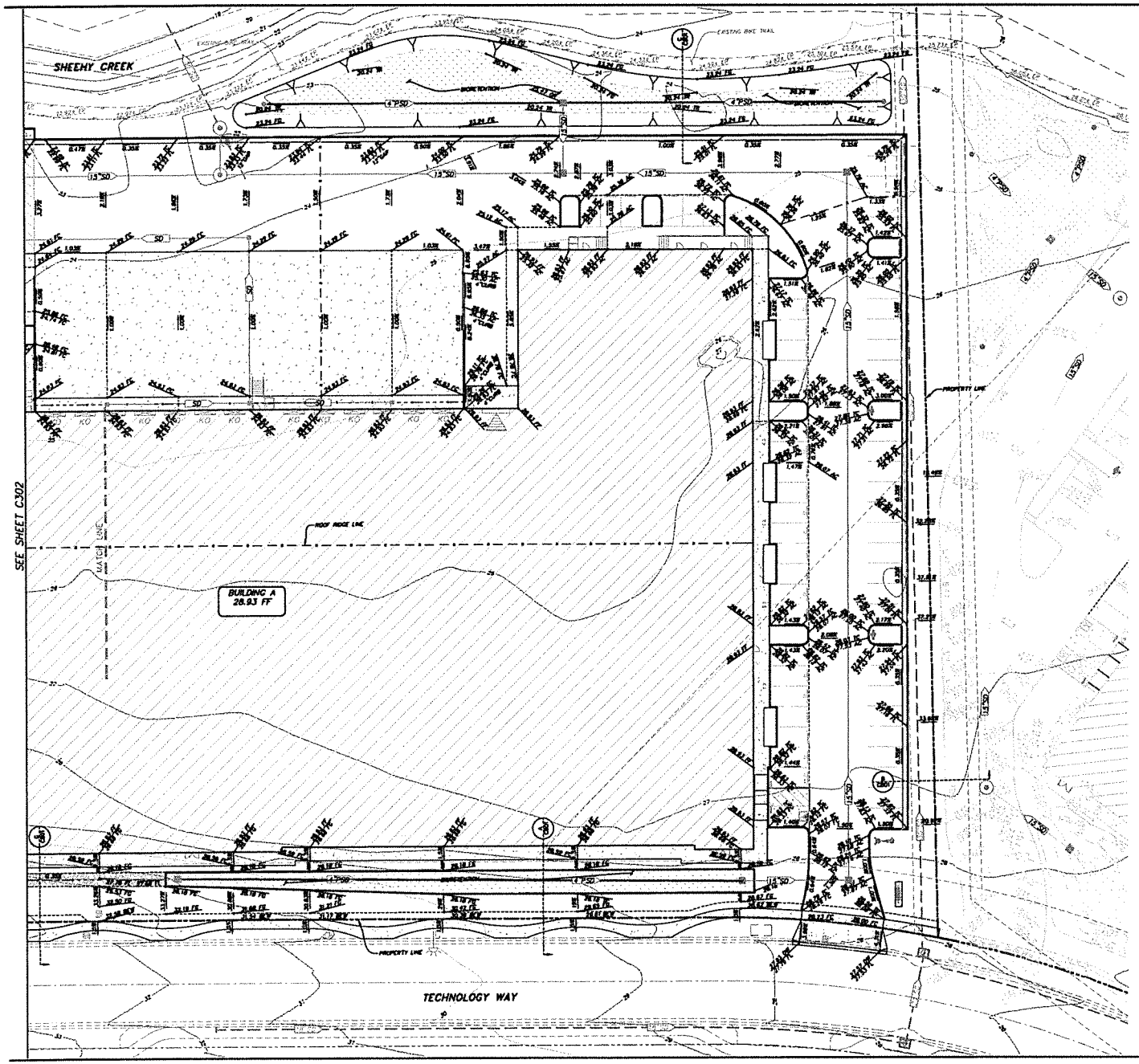
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CIVIL SITE PLAN

sheet no.

C203



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REGISTERED PROFESSIONAL ENGINEER
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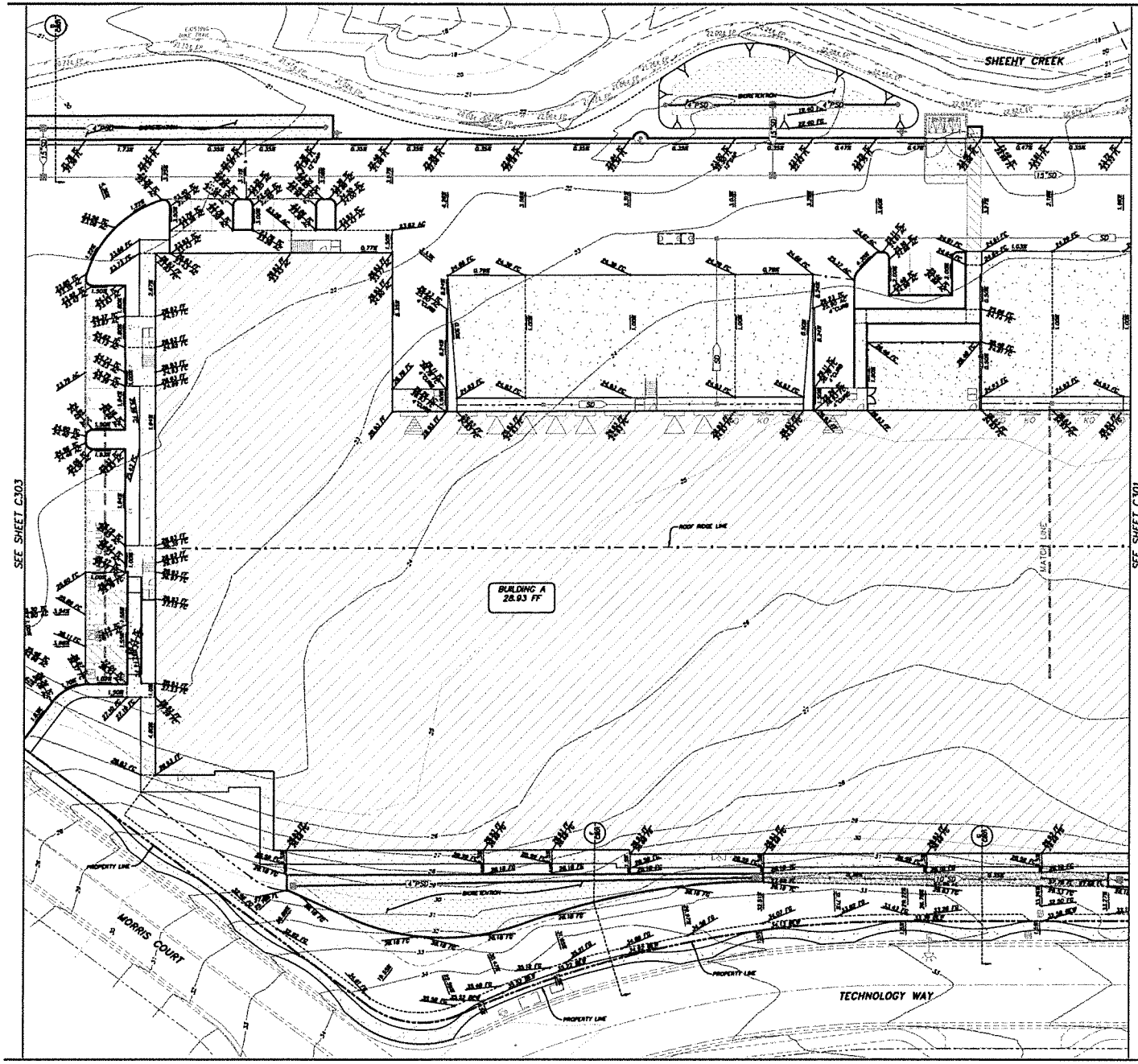
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GRADING & DRAINAGE PLAN

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scale : AS NOTED

project number : 3687-13

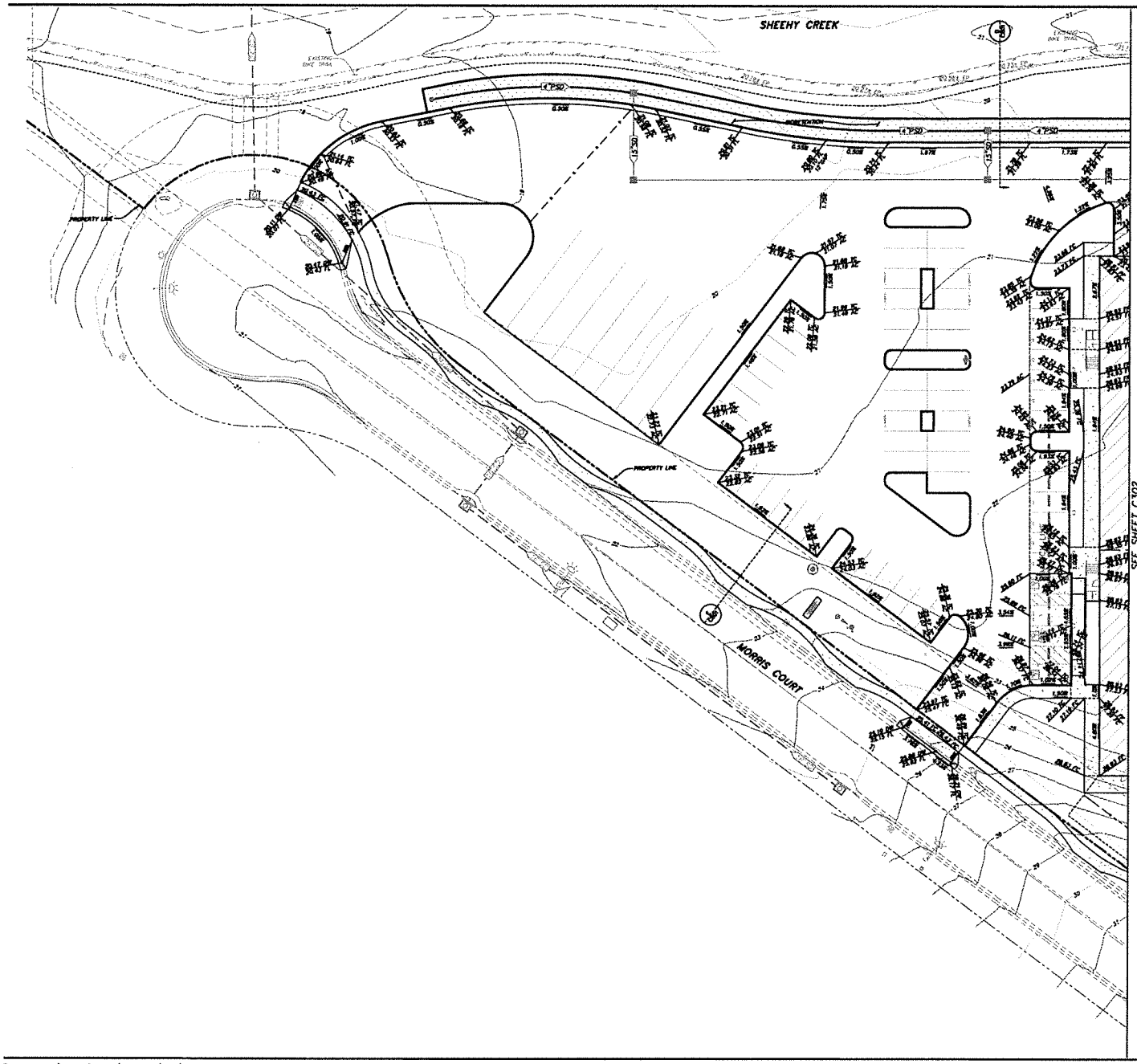
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C302

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REGISTERED PROFESSIONAL ENGINEER
WILLIAM P. MARSH
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scale : AS NOTED

project number : 3687-13

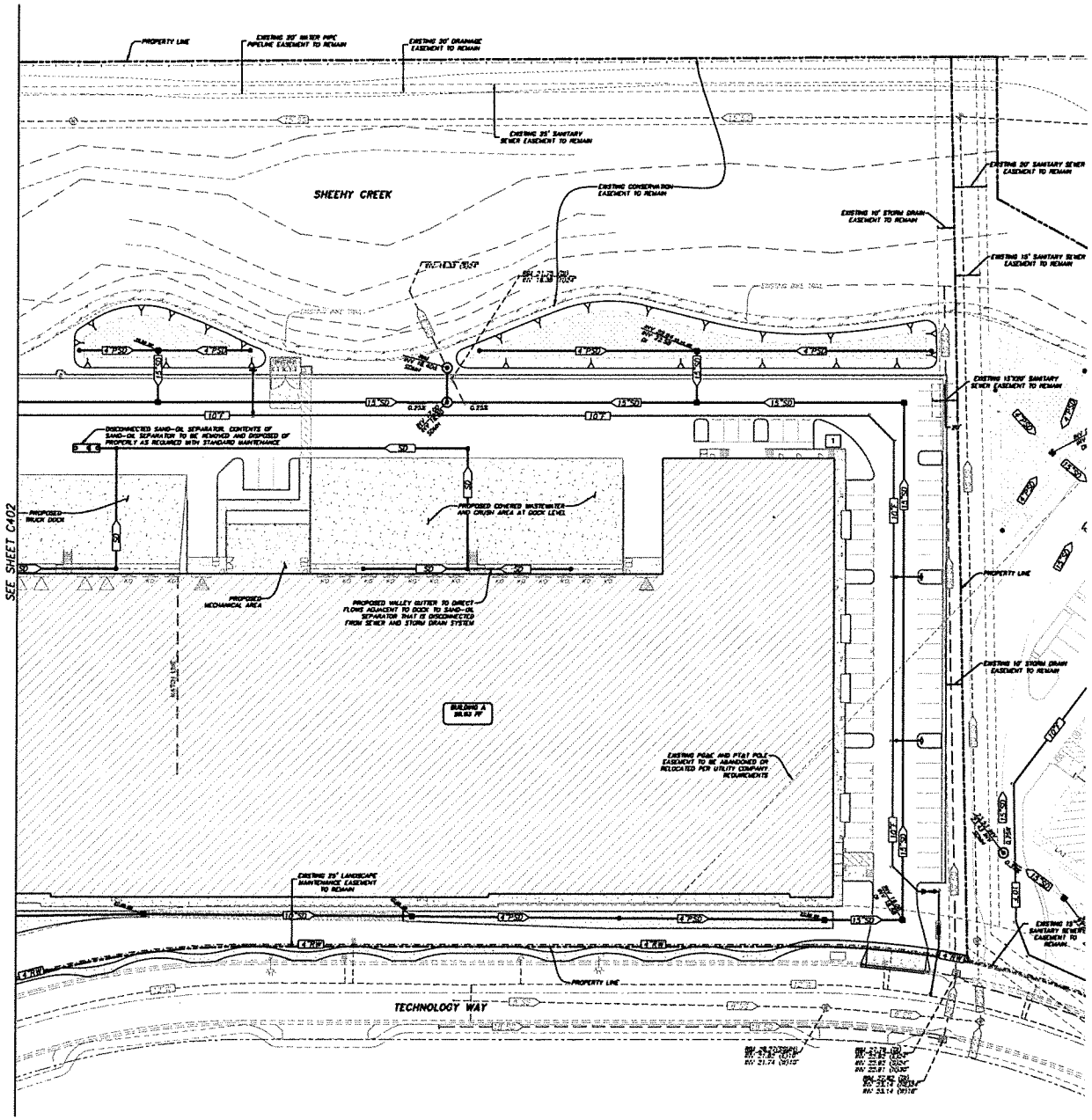
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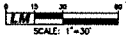


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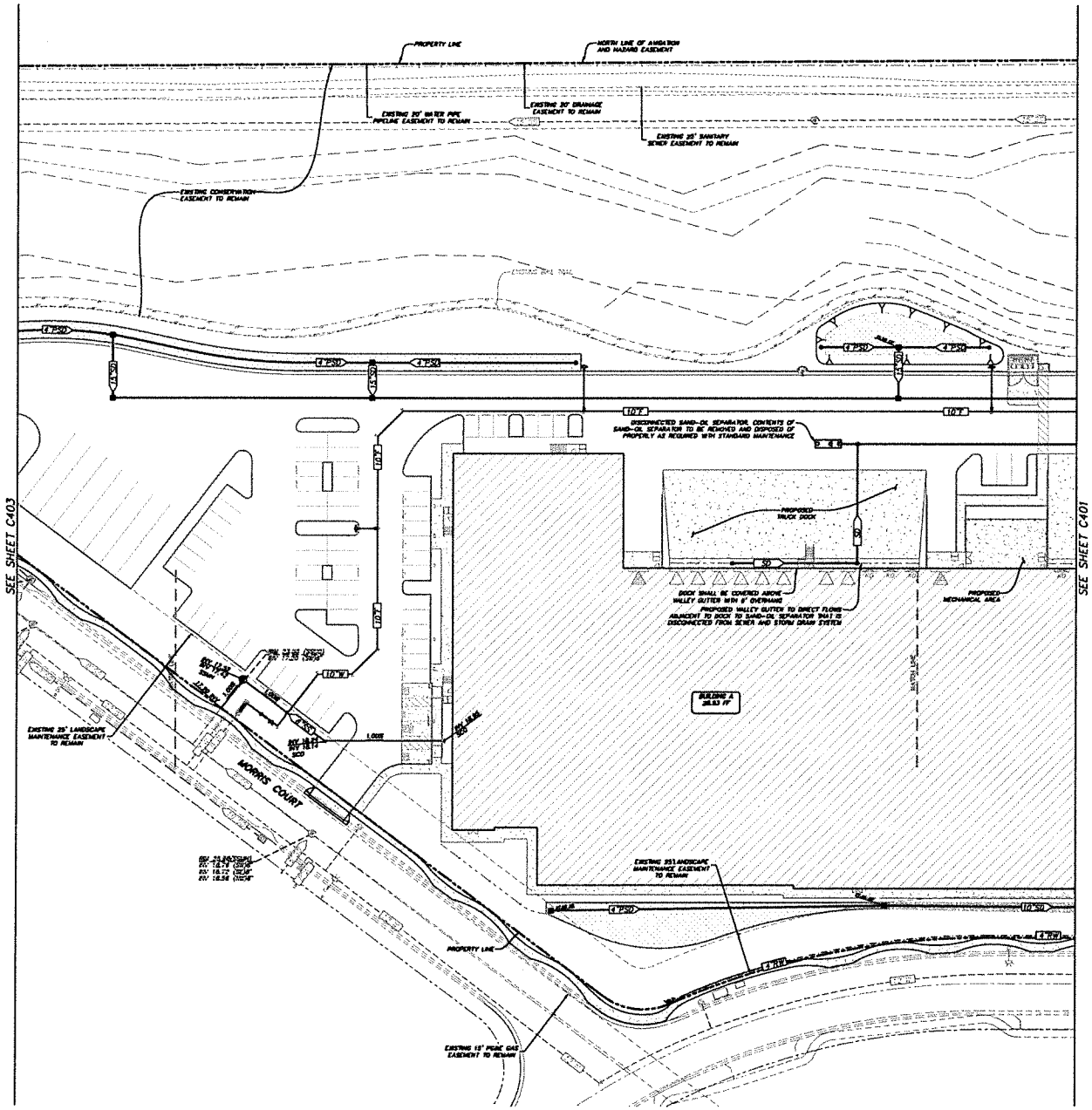
UTILITIES PLAN





sheet no. :

C401



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REGISTERED PROFESSIONAL ENGINEER JOHN P. MORRIS No. 41804 CIVIL STATE OF CALIFORNIA

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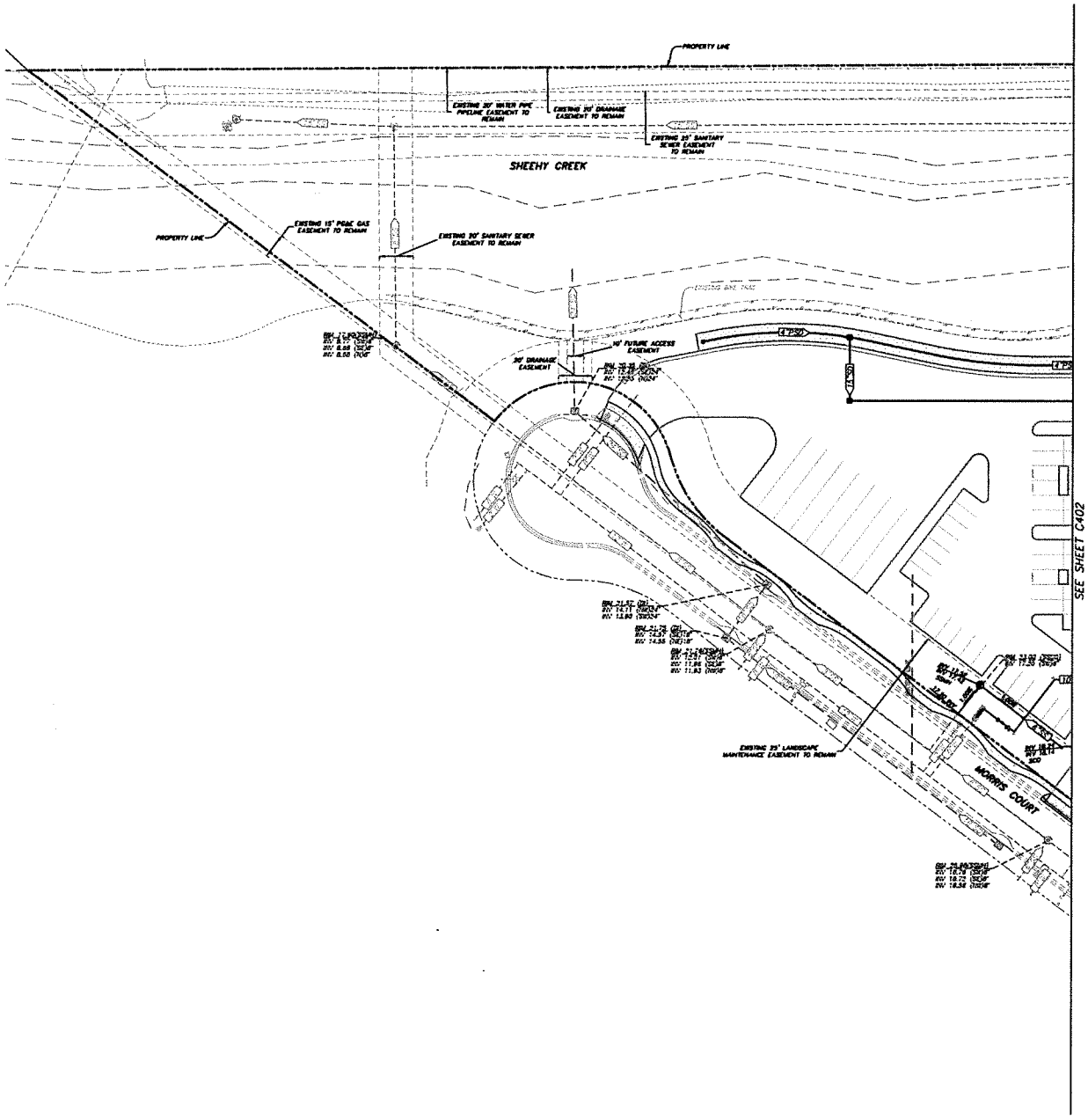
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SCALE: 1"=30'

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C402

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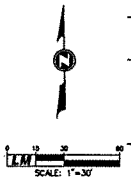
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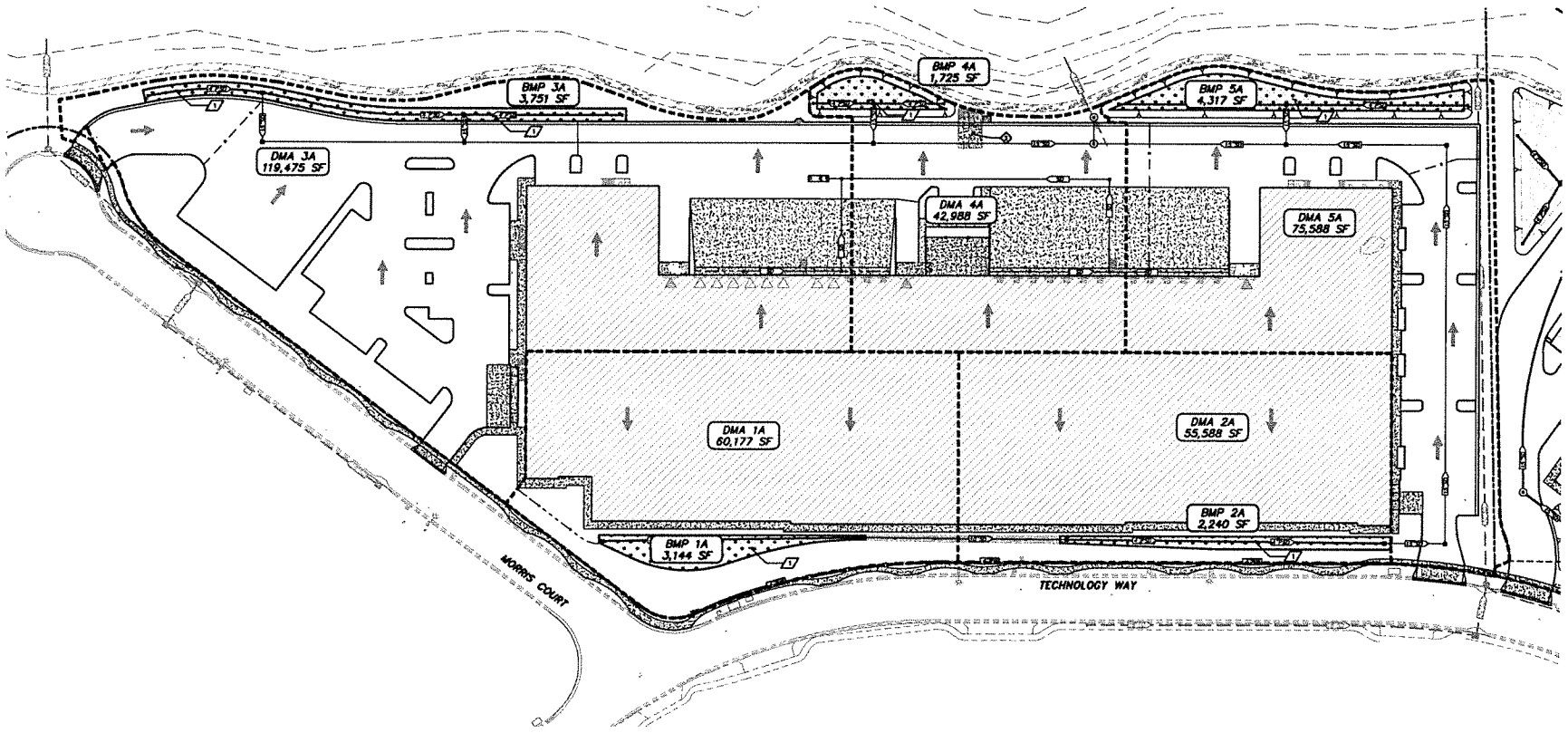
project number : 3687-13

UTILITIES PLAN



sheet no. :

C403



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GENERAL CONTRACTOR:

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scale : AS NOTED

project number : 3687-13

STORMWATER CONTROL PLAN

sheet no. :

C501

GENERAL NOTES:

A. TOTAL PROJECT AREA IS 353,800 SF (8.12 AC).
B. DMA = DRAINAGE MANAGEMENT AREA.
C. BF = BIORETENTION FACILITY, TREATMENT CONTROL MEASURE.
D. SOILS ARE GROUP D, PER USDA SOIL MAP VIEWER REPORT.
E. DEPTH TO GROUNDWATER IS YET TO BE DETERMINED.
F. RECEIVING WATER BODY IS SHEEHY CREEK.

SITE DESIGN MEASURES ○:

1. PRESERVE NATURAL DRAINAGE PATTERNS.
2. DIRECT RUNOFF FROM IMPERVIOUS AREAS TO LANDSCAPED AREAS. FLOW DIRECTION (⟹).
3. PLANT TREES ADJACENT TO IMPERVIOUS AREAS. TREE LOCATIONS TO BE IDENTIFIED WITH FINAL CONSTRUCTION DOCUMENTS.
4. SELF-TREATING OR SELF-RETAINING AREA.
5. DMA DRAINING TO A SELF-RETAINING AREA.

POTENTIAL POLLUTION SOURCES AND CONTROL MEASURES ◇:

1. LOADING DOCK, COVERED FOR SIX FEET OUT BEYOND THE EDGE OF THE BUILDING ROOF. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL.
2. REFUSE AREA, COVERED AND ENCLOSED FOR DUMPSTERS. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL. GRADED TO MINIMIZE STORMWATER RUN-ON AND RUNOFF. SEE GRADING PLAN FOR FURTHER DETAIL.
3. STORM DRAIN INLET, MARK WITH WORDS "NO DUMPING! FLOWS TO BAY". SEE UTILITY PLAN FOR FURTHER DETAIL.

TREATMENT CONTROL MEASURES ▱:

1. INSTALL BIORETENTION FACILITY PER DETAILS ON SHEET C502. SEE GRADING PLAN, SITE PLAN, UTILITY PLAN, AND LANDSCAPING PLAN FOR MORE DETAIL.

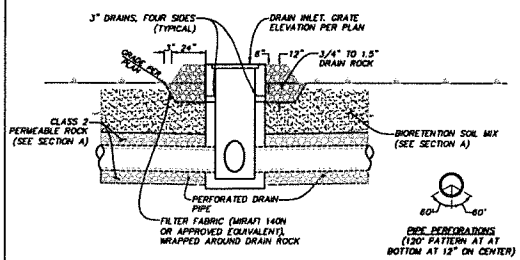
O&M SUMMARY:

1. O&M ACTIVITIES AND RESPONSIBLE PARTIES WILL BE SPECIFIED WITH THE FINAL CONSTRUCTION DOCUMENTS.

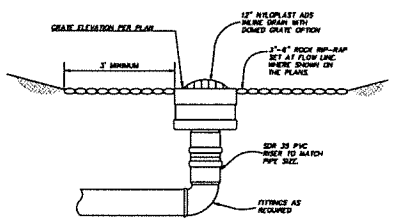
LEGEND

DMA	DRAINAGE MANAGEMENT AREA
BMP	BEST MANAGEMENT PRACTICE
DMA 1 1,000 SF	WATER QUALITY AREA NAME AND SQUARE FOOTAGE
	WATER QUALITY AREA BOUNDARY
BMP 1 1,000 SF	BIORETENTION MANAGEMENT AREA NAME AND SQUARE FOOTAGE
	BIORETENTION MANAGEMENT AREA
	DIRECTION OF FLOW

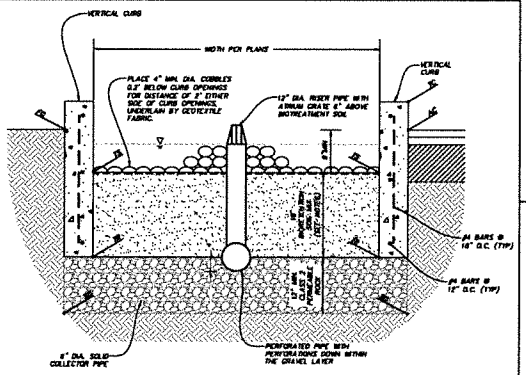
SCALE: 1"=40'



1 DRAINAGE INLET AND BIORETENTION DETAIL
NTS



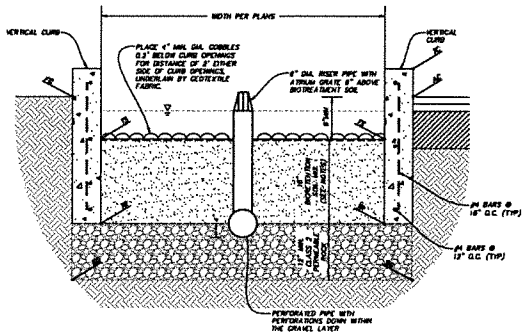
2 LANDSCAPE AREA DRAIN
NTS



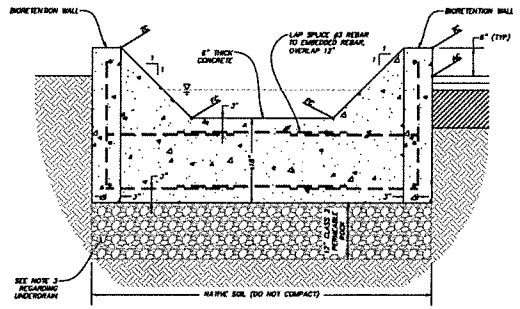
3 BIORETENTION FACILITY 12" OVERFLOW DRAIN
NTS

BIORETENTION NOTES:

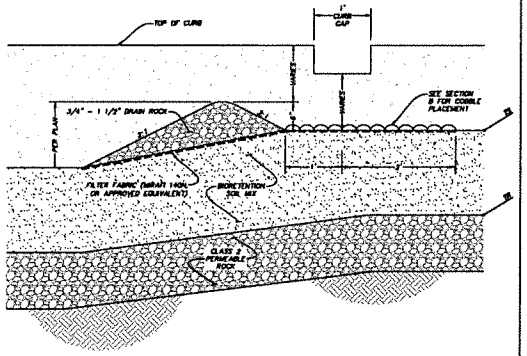
1. FOR LOCATION, SIZE, AND IDENTIFICATION OF PROPOSED LANDSCAPING/PLANT MATERIAL SEE LANDSCAPE PLANS.
2. BIOTREATMENT SOIL MIX SHALL CONSIST OF 60%-70% SAND AND 30%-40% COMPOST PER BASMAA SPECIFICATIONS. SPECIFICATIONS AVAILABLE FROM CONTRA COSTA CLEAN WATER PROGRAM, (CCCWP). SOIL MIX MUST BE OBTAINED FROM LOCAL SUPPLIER APPROVED BY THE CCCWP.
3. INSTALLATION OF PERMEABLE SOIL SHALL BE PER BASMAA REQUIREMENTS.



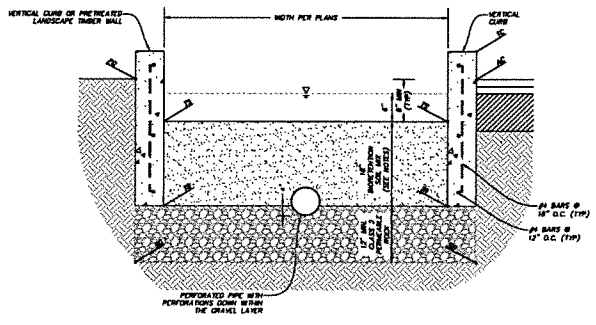
4 BIORETENTION FACILITY 6" OVERFLOW DRAIN
NTS



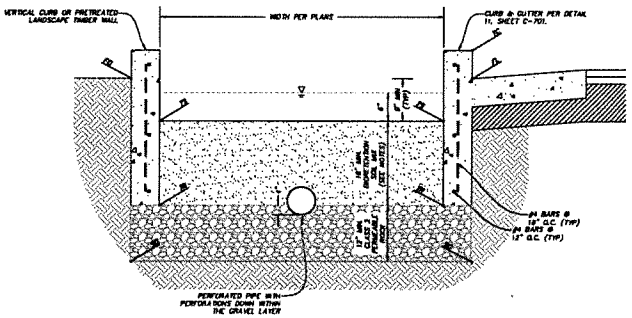
5 FULL WIDTH CONCRETE CROSS BRACE
NTS



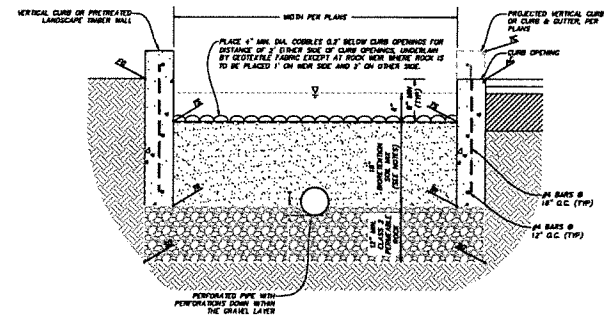
6 PERVIOUS ROCK WEIR
NTS



7 TYPICAL BIORETENTION FACILITY SECTION @ VERTICAL CURB
NTS



8 TYPICAL BIORETENTION FACILITY SECTION @ CURB & GUTTER
NTS



9 TYPICAL BIORETENTION FACILITY SECTION @ CURB OPENING
NTS

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OWNER / DEVELOPER

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WINERY AND WINE STORAGE FACILITY BUILDING A

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022
B	RE-ISSUED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR

drawn by : PJ plot date : 01-31-2023

checked by : PF

stamp



scale : AS NOTED

project number : 3687-13

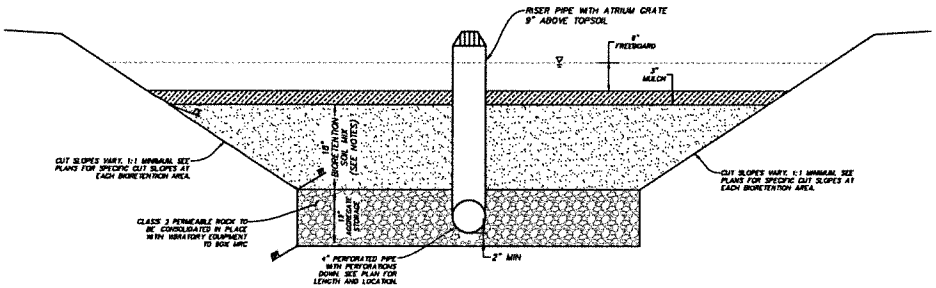
STORMWATER CONTROL PLAN DETAILS

sheet no. :

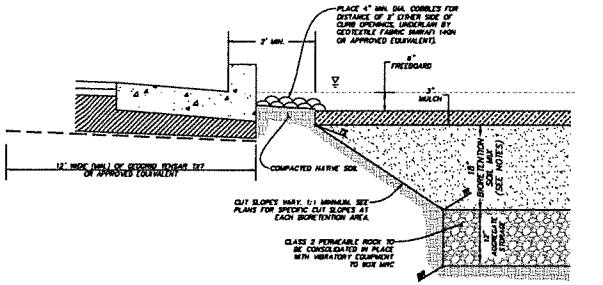
C502

BIORETENTION NOTES:

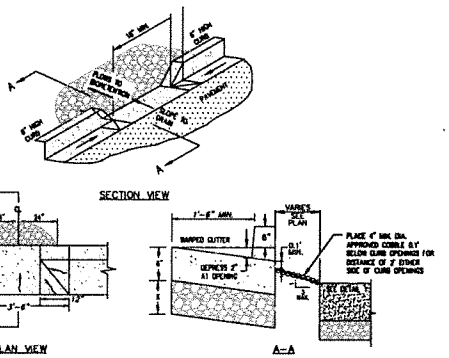
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10 BIORETENTION FACILITY WITH SLOPED GROUND
NTS



11 BIORETENTION FACILITY WITH SLOPED GROUND ADJACENT TO CURB AND GUTTER
NTS



12 CURB OPENING
NTS

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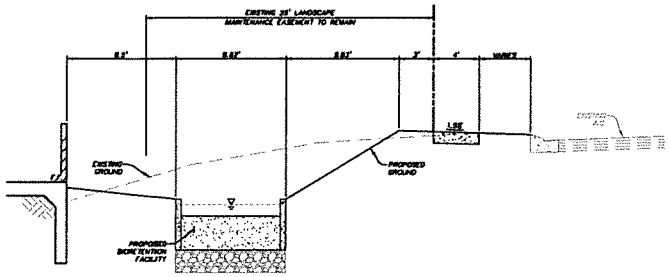
scale : AS NOTED

project number : 3687-13

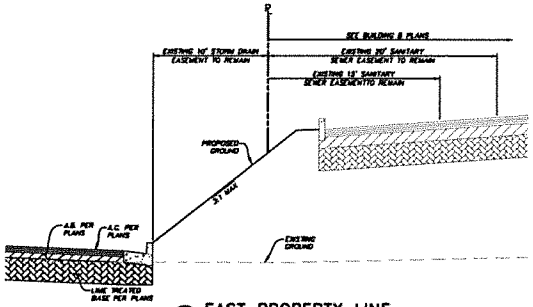
STORMWATER CONTROL PLAN DETAILS

sheet no. :

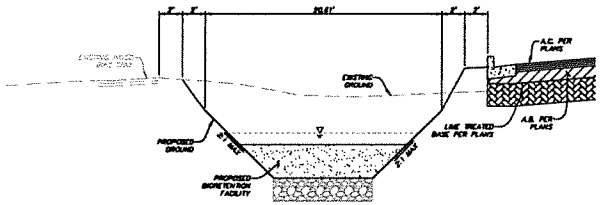
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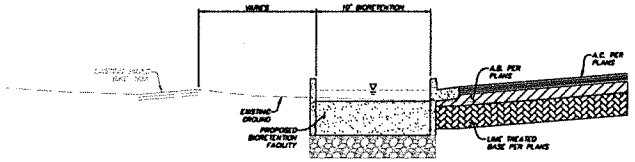
A SOUTHEAST CROSS SECTION ADJACENT TO TECHNOLOGY WAY
NTS



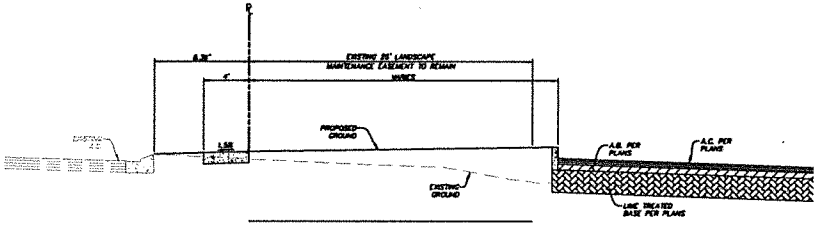
B EAST PROPERTY LINE
NTS



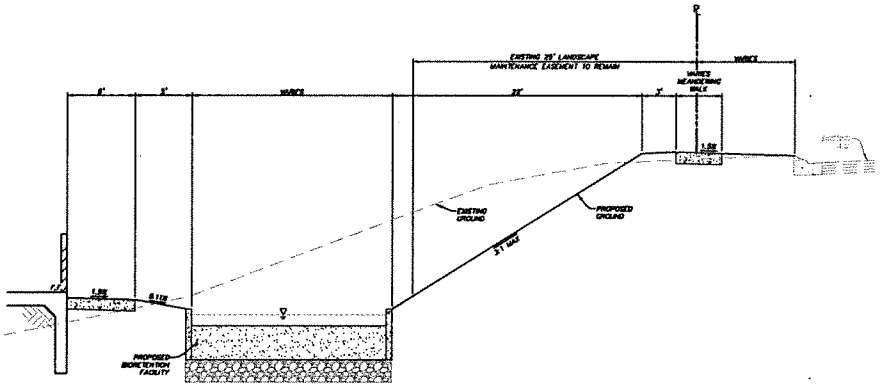
C NORTHEAST BIORETENTION
NTS



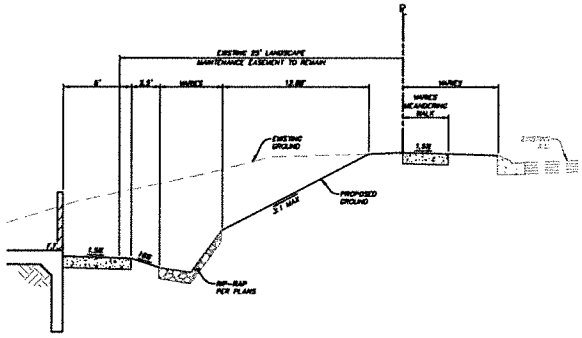
D NORTH CROSS SECTION
NTS



E WEST PROPERTY LINE
NTS



F SOUTHWEST BIORETENTION
NTS



G SOUTH CROSS SECTION ADJACENT TO TECHNOLOGY WAY
NTS

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rmw.com

OWNER / DEVELOPER

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

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TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

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GENERAL CONTRACTOR:

drawn by : PJ plot date : 01-31-2023

checked by : PF

stamp



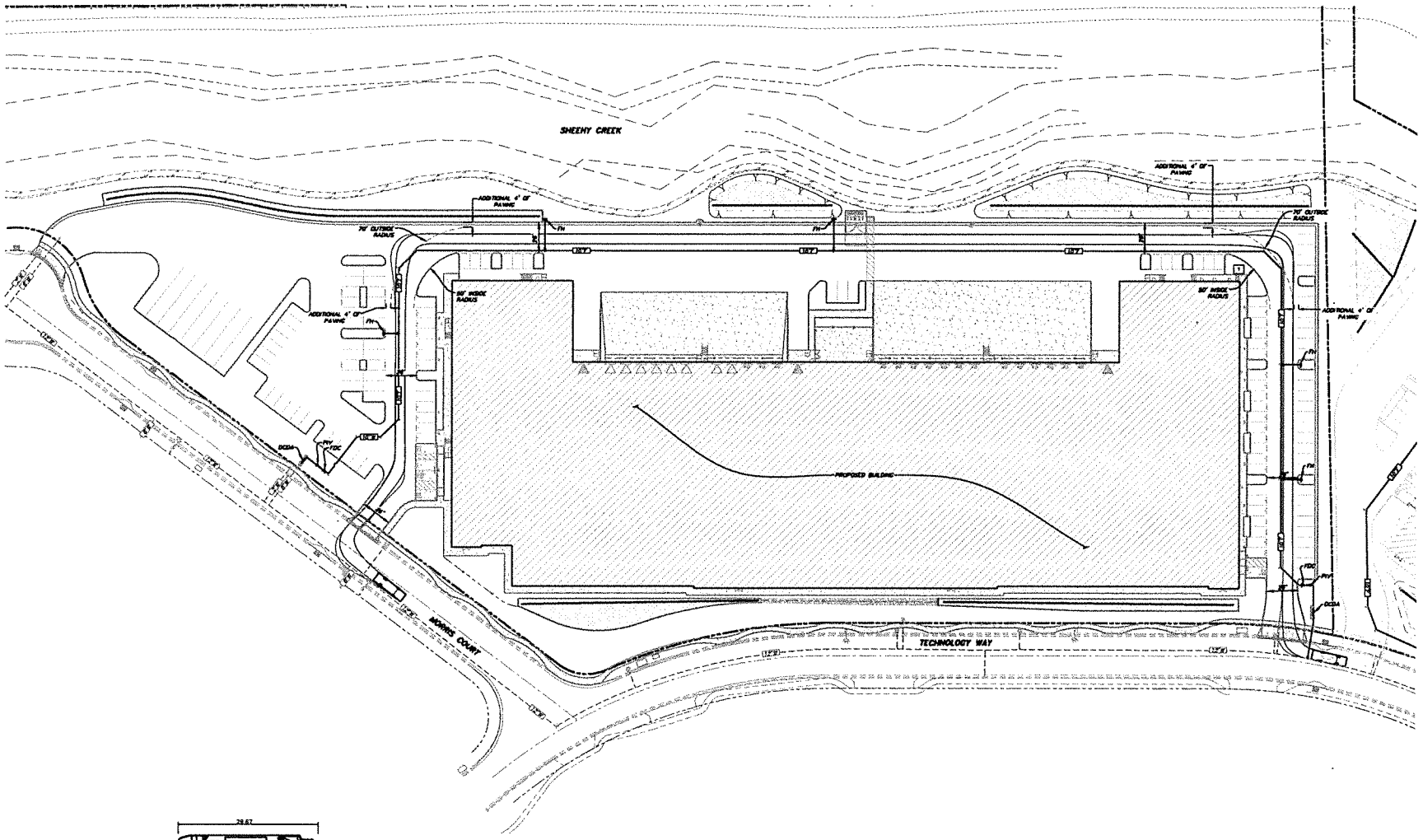
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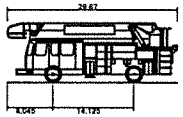
project number : 3687-13

CROSS-SECTIONS

sheet no. :

C801





LEGEND

BODY ENVELOPE

OUTER WHEEL WALLS

PIERCE - VEL7000

Overall Length	29.670ft
Overall Width	8.000ft
Overall Body Height	10.514ft
Min Body Ground Clearance	0.944ft
Track Width	8.470ft
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	30.000ft

1 NAPA COUNTY FIRE ENGINE

SCALE: 1" = 40'

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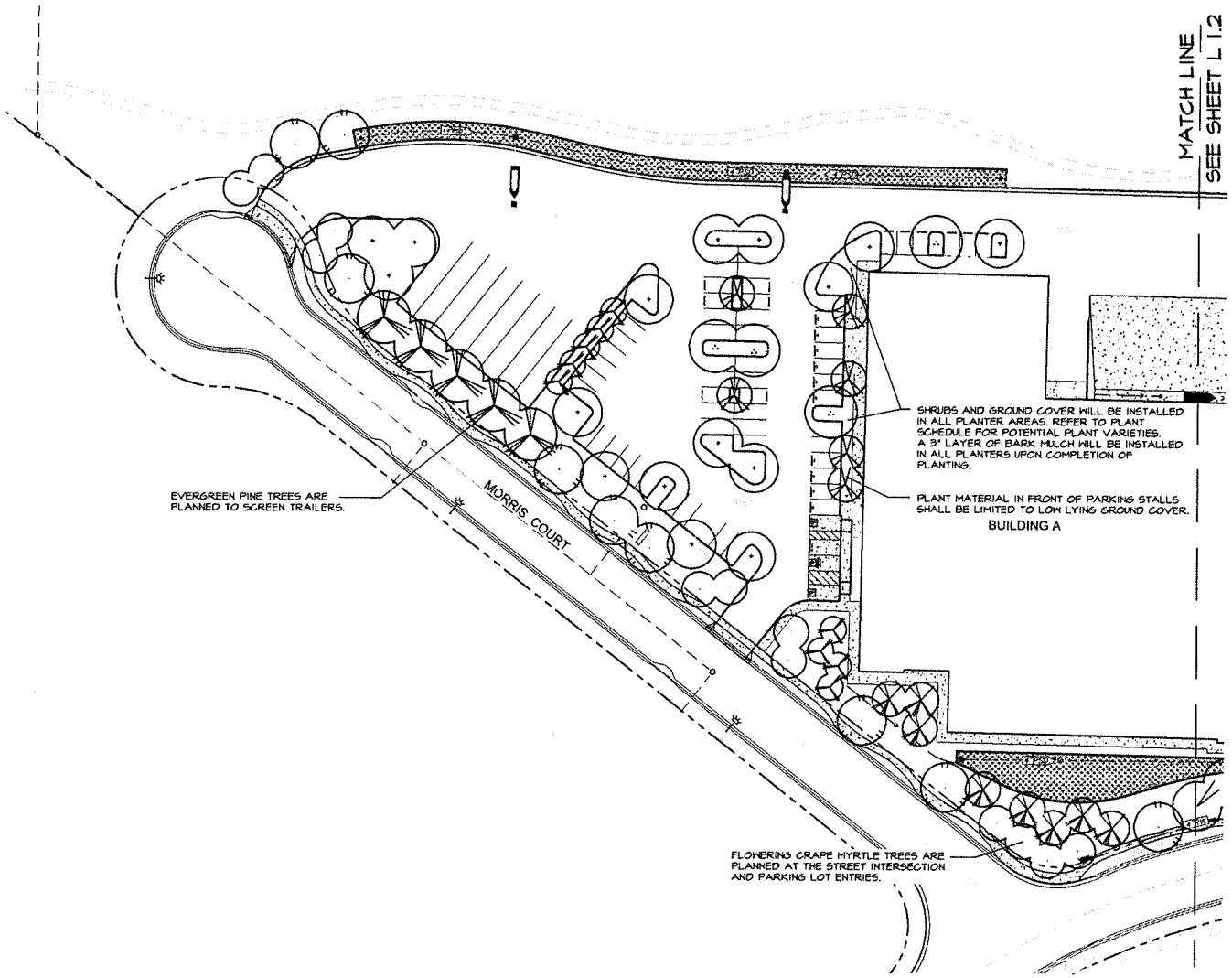
scale : AS NOTED

project number : 3687-13

FIRE PLAN

sheet no. :

C901



PLANT SCHEDULE

TREES	CODE	QTY
	CER FOR	9
	ERI DEF	10
	LAG NAT	18
	PIN ELD	14
	PIN HAL	5
	PIS KEI	22
	PLA COL	16
	QUE SUB	7
	ZEL VIL	10

BIOFILTRATION BASIN	CODE	QTY
	TUR BIO	17,778 sf

SEE SHEET L1.3 FOR COMPLETE PLANT SCHEDULE

0' 60' 120'
30'
SCALE: 1"=30'-0"

NORTH

YAMASAKI
LANDSCAPE ARCHITECTURE
1223 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042

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BENICIA, CA 94510

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NAPA COUNTY, CALIFORNIA

approved for the owner by:

approved for the architect by:

issue	description	date
A	INITIAL PLANNING REVIEW	09-27-2022
B	RESUBMITTED FOR PLANNING REVIEW	01-24-2023

GENERAL CONTRACTOR:

drawn by : JMA plot date : 07-27-2022

checked by : JMA

stamp

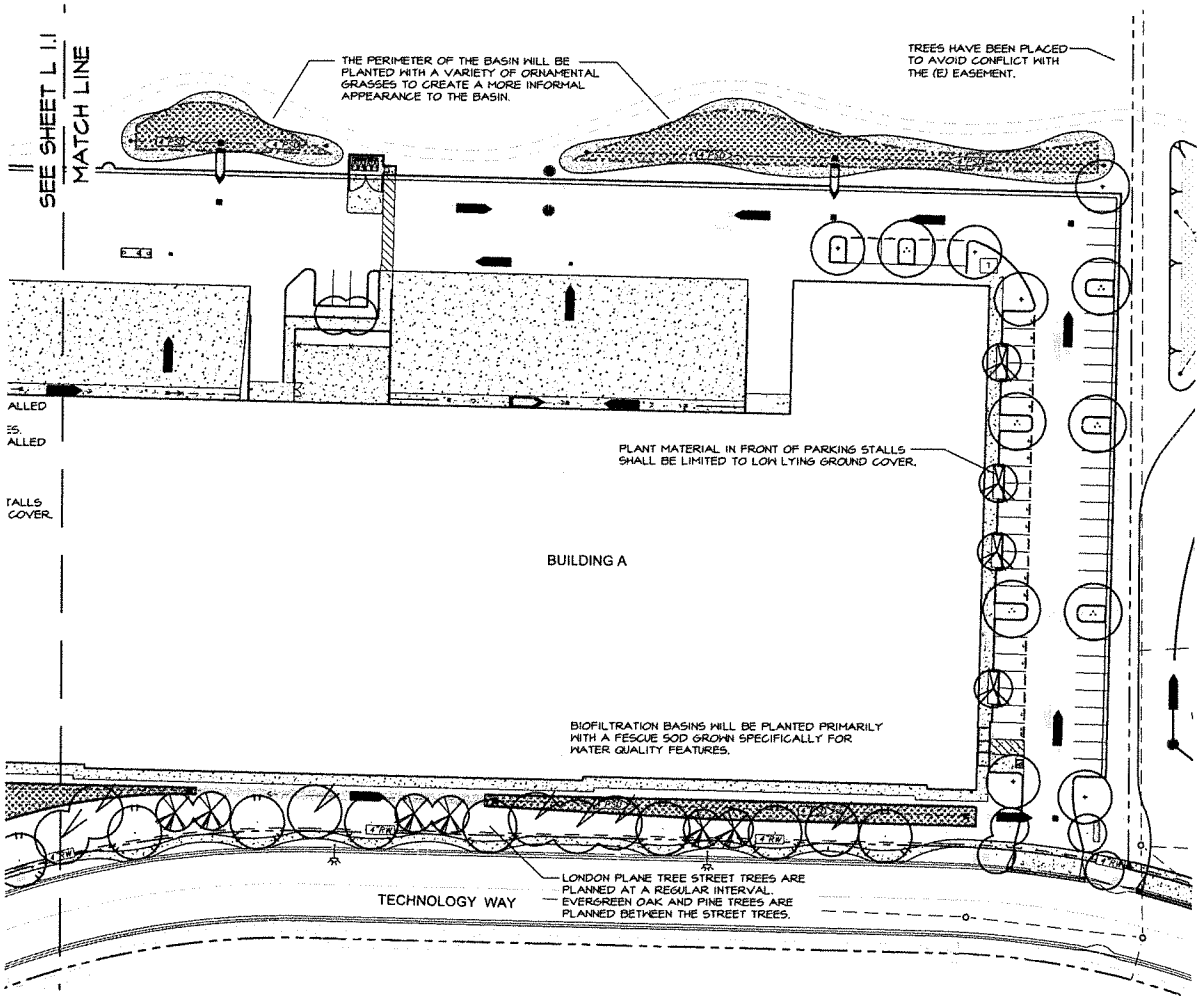
scale : AS NOTED

project number : 220068.00

PRELIMINARY LANDSCAPE PLAN

sheet no. :

L1.1



PLANT SCHEDULE

TREES	CODE	QTY
	CER FOR	9
	ERI DEF	10
	LAG NAT	18
	PIN ELD	14
	PIN HAL	5
	PIS KEI	22
	PLA COL	16
	QUE SUB	7
	ZEL VIL	10
BIOFILTRATION BASIN	CODE	QTY
	TUR BIO	17,773 sf

SEE SHEET L1.3 FOR COMPLETE PLANT SCHEDULE

0' 60' 120'
30'
SCALE: 1"=30'-0"

NORTH

YAMASAKI
LANDSCAPE ARCHITECTURE
1273 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042

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OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

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TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by

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A	INITIAL PLANNING REVIEW	07-27-2022
B	REVISIONS FOR PLANNING REVIEW	01-24-2023

GENERAL CONTRACTOR:

drawn by : JMA plot date : 07-27-2022

checked by : JMA

stamp

scale : AS NOTED

project number : 2204098.00

PRELIMINARY LANDSCAPE PLAN

sheet no. :

L1.2

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE
	CER FOR	Cercis canadensis 'Forest Pansy' / Forest Pansy Eastern Redbud	24" box
	ERI DEF	Eriobotrya deflexa (standard) / Bronze Loquat	24" box
	LAG NAT	Lagerstroemia indica x fauriei 'Natchez' / Natchez Crape Myrtle	24" box
	PIN ELD	Pinus eldarica / Afghan Pine	15 gal
	PIN HAL	Pinus halepensis / Allepo Pine	15 gal
	PIS KEI	Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache	24" box
	PLA COL	Platanus x acerifolia 'Columbia' / Columbia London Plane Tree	15 gal
	QUE SUB	Quercus suber / Cork Oak	15 gal
	ZEL VIL	Zelkova serrata 'Green Vase' / Green Vase Zelkova	15 gal

POTENTIAL SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE
	CAL DWA	Callistemon viminalis 'Little John' / Dwarf Weeping Bottlebrush	5 gal
	CIS PRO	Cistus salvifolius 'Prostratus' / Sageleaf Rockrose	5 gal
	DIE VEG	Dietes vegeta / African Iris	1 gal
	ELA MAC	Elaeagnus pungens 'Maculata' / Eleagnus	5 gal
	GRE NOE	Grevillea x 'Noellii' / Grevillea	5 gal
	MAH SOF	Mahonia eurybracteata 'Soft Caress' / Soft Caress Mahonia	5 gal
	NAN GUL	Nandina domestica 'Gulf Stream' TM / Heavenly Bamboo	5 gal
	RHA EVE	Rhamnus californica 'Eve Case' / California Coffeeberry	5 gal
	RHA DWA	Rhaphiolepis umbellata 'Minor' / Dwarf Yedda Hawthorn Standard	5 gal
	ROS COL	Rosmarinus o. 'Collingwood Ingram' / Collingwood Ingram Rosemary	5 gal
	VIB DAV	Viburnum davidii / David Viburnum	5 gal
	XYL CON	Xylosma congestum 'Compacta' / Compact Xylosma	5 gal

POTENTIAL GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE
	CAL KAR	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	1 gal
	MUH RIG	Muhlenbergia rigens / Deer Grass	1 gal

POTENTIAL VINES	CODE	BOTANICAL / COMMON NAME	SIZE
	MAC UNG	Macfadyena unguis-cati / Cat's Claw Creeper	5 gal

POTENTIAL GROUND COVERS	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING
	ARC ECP	Arctostaphylos x 'Emerald Carpet' / Emerald Carpet Manzanita	1 gal	36" o.c.
	COT LOW	Cotoneaster dammeri 'Lowfast' / Lowfast Bearberry Cotoneaster	1 gal	48" o.c.

BIOFILTRATION BASIN	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING
	TUR BIO	Biofiltration Sod / Avail. from: Delta Bluegrass	sod	

PLANTING STATEMENT

The proposed landscape plant palette consists of low water use shrubs, groundcover, trees, and ornamental grasses that are considered low maintenance and hardy. Choice of plants is guided by considerations of solar exposure and climate conditions of the site. Plant selection aims for longevity by selecting plants that are long lived varieties of trees, shrubs, groundcover, and grasses.

Shrubs and groundcover are minimum #1 size. Trees are minimum #15 size. Plant materials shall be spaced to provide substantial cover, but also to allow adequate room to mature into their natural form and ultimate size without required pruning.

IRRIGATION STATEMENT

The irrigation system will be serviced by a new point of connection. The irrigation design will consist of low volume point source drip irrigation. Proposed trees shall utilize bubbler irrigation to encourage deep root watering. The overall irrigation system will be designed with a smart irrigation controller. A weather sensor will be used to automatically adjust duration of application in accordance with recent weather conditions based on evapotranspiration. Maximum water allowance will be determined by State code. To also be consistent with the planting design, the irrigation design will create separate irrigation stations by hydrozone, locating plants of different water and solar needs into groups.

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GENERAL CONTRACTOR:

drawn by: JMA plot date: 07-27-2022

checked by: JMA

stamp:

scale: AS NOTED

project number: 2204068.00

PLANT SCHEDULE AND NOTES

sheet no.:

L1.3

YAMASAKI
LANDSCAPE ARCHITECTURE
1273 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042

PLANNING SUBMITTAL DRAWINGS FOR:

E&P PROPERTIES

NEW WAREHOUSE - BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CA



PERSPECTIVE IMAGE OF PROPOSED BUILDING B

PROJECT NARRATIVE:

Site: The project site is located on the north side of Technology Way and Morris Court, in the County of Napa, California. The 6.87 acre site is currently undeveloped.
APN: 057-250-031, 057-250-032

Building: The project plan proposes one industrial building totaling 66,815 square feet. The industrial buildings will be of Type VB construction, site cast, tilted concrete panels with a variety of architectural enhancements. The typical wall panels are to be enhanced with reveals and a textured elastomeric, multicolored coating system. The areas around the building entries are also enhanced with significant sloped roof elements and tinted glazing in aluminum frames with overhead steel-framed painted canopies. The placement of these enhancements is focused at those locations most visible from the public roadways.

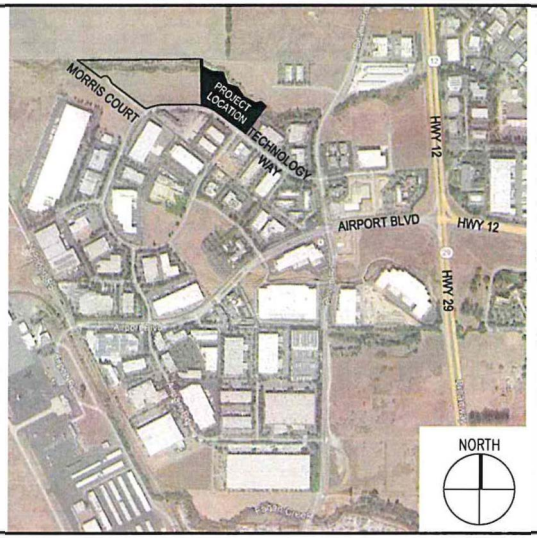
Site Access and Parking: Two site entrance drives are proposed along Technology Way. The site plan proposes a total of 82 vehicle parking stalls for employees and or customers.

Proposed signage is limited to required building address signage only. No other signage is anticipated nor proposed in this submittal. Any future owner / tenant signage will be provided at a later date, under a separate permit submittal.

Site landscaping will consist of plants appropriate for and indigenous to Napa County and will adhere to County of Napa Zoning Code. Low water use plants will be used extensively, while moderate water use plants will be concentrated at accent points, such as driveways and building entries.

Sustainable Materials & Construction Practices: The project will incorporate a variety of sustainable materials and construction practices to include the following: 1) A storm water pollution prevention plan to minimize contamination, erosion, and dust pollution during construction. All storm water runoff from impervious surfaces (roofs and paving) will be routed through specially designed water quality detention and treatment basins. Additionally, on-site detention will be provided to meet the local jurisdictional standards. 2) Storage and collection of recyclable materials. 3) Construction waste management. 4) Environmental tobacco smoke control. 5) Heat reflecting roof membranes. 6) Light pollution reduction. 7) Water efficient landscaping. 8) Water use reduction methods. 9) Low VOC emitting sealants, adhesives, coatings, floorings, and wood materials. 10) Roof structures designed to accommodate additional weight for roof-top photovoltaic electricity generation panel arrays. 11) California Green Building Code compliant electric vehicle charging stations at one location. 12) The project architect is a LEED accredited professional and will apply his knowledge of LEED techniques and practices to the project design and construction.

VICINITY MAP:



PROJECT TEAM:

OWNER
E&P PROPERTIES
2250 S. WATNEY WAY,
FAIRFIELD, CA 94533

OWNER'S REPRESENTATIVE:
KELLEY COMMERCIAL, LLC — MICHAEL KELLEY
5150 FAIR OAKS BLVD, STE 101-219
CARMICHAEL, CA 95608
P: 916 956 0524 F: 916-956-1197

ARCHITECT:
RMW ARCHITECTURE & INTERIORS — JEFF LEONHARDT,
1718 3RD STREET, SUITE 101 — PROJECT ARCHITECT & PROJECT DESIGNER
SACRAMENTO, CA 95811
P.916-449-1400 x405 — jleonhardt@rmwa.com

CIVIL ENGINEER
LAUGENOUR and MEIKLE — BRYAN BONINO
P.O. BOX 828 — bpb@lmce.net
WOODLAND, CA 95776
P 530-662-1755 F 530-662-4602

LANDSCAPE DESIGNER
YAMASAKI LANDSCAPE ARCHITECTURE — JEFF AMBROSIA
1223 HIGH ST — ASLA | CUA | LEED AP
AUBURN, CA 95603 — Jeff@yamasaki-la.com
P: 530-885-0040

SHEET INDEX:

A00.1	COVER SHEET
A00.2	PROJECT RENDERINGS
A01.0	PRELIMINARY MASTER SITE PLAN
A01.1	ENLARGED SITE PLAN - BUILDING B
A01.2	SITE DETAILS
A01.3	SITE DETAILS
A02.1	FLOOR PLAN - BUILDING B
A02.2	ROOF PLAN - BUILDING B
A03.1	EXTERIOR ELEVATIONS - BUILDING B
C101	TOPOGRAPHIC SURVEY & DEMOLITION PLAN
C201	CIVIL SITE PLAN
C202	CIVIL SITE PLAN
C301	GRADING & DRAINAGE PLAN
C302	GRADING & DRAINAGE PLAN
C303	GRADING & DRAINAGE PLAN
C401	UTILITIES PLAN
C402	UTILITIES PLAN
C501	STORMWATER CONTROL PLAN
C502	STORMWATER CONTROL PLAN DETAILS
C801	CROSS-SECTIONS
C901	FIRE PLAN
L1.1	PRELIMINARY LANDSCAPE PLAN
L1.2	PRELIMINARY LANDSCAPE PLAN
L1.3	PLANT SCHEDULE AND NOTES

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OWNER / DEVELOPER:

E & P
PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE
BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	03-23-2022
B	RESUBMITTED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by : TLG plot date : 01-31-2023

checked by : JDL

stamp



scale : AS NOTED

project number : 2204066.00

COVER SHEET

sheet no. :

A00.1



D: BUILDING B AT SOUTHWEST CORNER



A: VIEW OF TYPICAL BUILDING B MAIN CORNER ENTRY



E: BUILDING B



B: VIEW OF TYPICAL BUILDING A MAIN CORNER ENTRY



F: BUILDINGS A & B



C: VIEW EAST OF BUILDING A MAIN ENTRY AND BUILDING B

PROJECT RENDERINGS
SCALE: NO SCALE

1

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approved for the architect by :

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B	REISSUED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by : TLG plot date : 01-31-2023

checked by : JDL

stamp

LICENSED ARCHITECT
JEFFREY D. LEONHARDT
NO. C32644
REN. 12-31-23
STATE OF CALIFORNIA

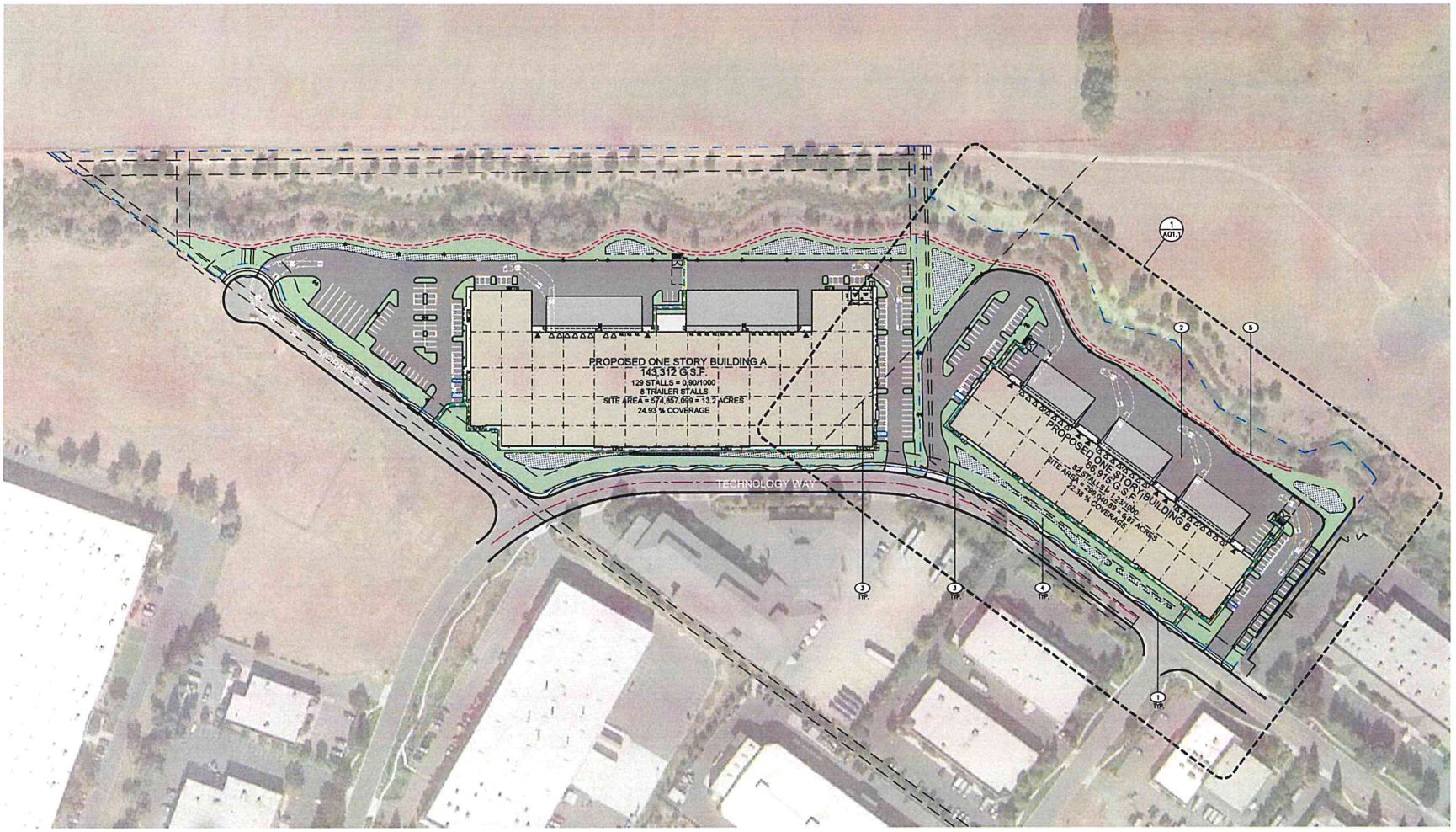
scale : AS NOTED

project number : 2204066.00

TYPICAL BUILDING
RENDERINGS

sheet no. :

A00.2



0' 40' 80' 160'

PLAN NORTH

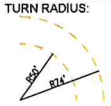
SCHEMATIC SITE PLAN
SCALE: 1" = 80'-0"

1

SITE LEGEND:

- BUILDING AREA
- SITE CONCRETE
- DOCK AREA
- STORM WATER RETENTION AREA
- ASPHALT AREA
- LANDSCAPE AREA
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE REMOVED
- 9' X 10' OVERHEAD DOCK LEVEL DOOR
- 12' X 14' OVERHEAD GRADE LEVEL DOOR

FIRE DEPARTMENT TURN RADIUS:



KEYNOTES:

1. EXISTING PROPERTY LINES.
2. PROPERTY LINES TO BE REMOVED, SEE CIVIL DRAWINGS.
3. SEE CIVIL DRAWINGS FOR SITE EASEMENTS.
4. TYPICAL LANDSCAPE PLANTER AREAS, SEE LANDSCAPE DRAWINGS.
5. EXISTING PAVED BIKE TRAIL.

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drawn by : TLG plot date : 01-31-2023

checked by : JDL

stamp

LICENSED ARCHITECT
JEFFREY D LEONHARDT
No. C23544
EXP. 12-31-24
STATE OF CALIFORNIA

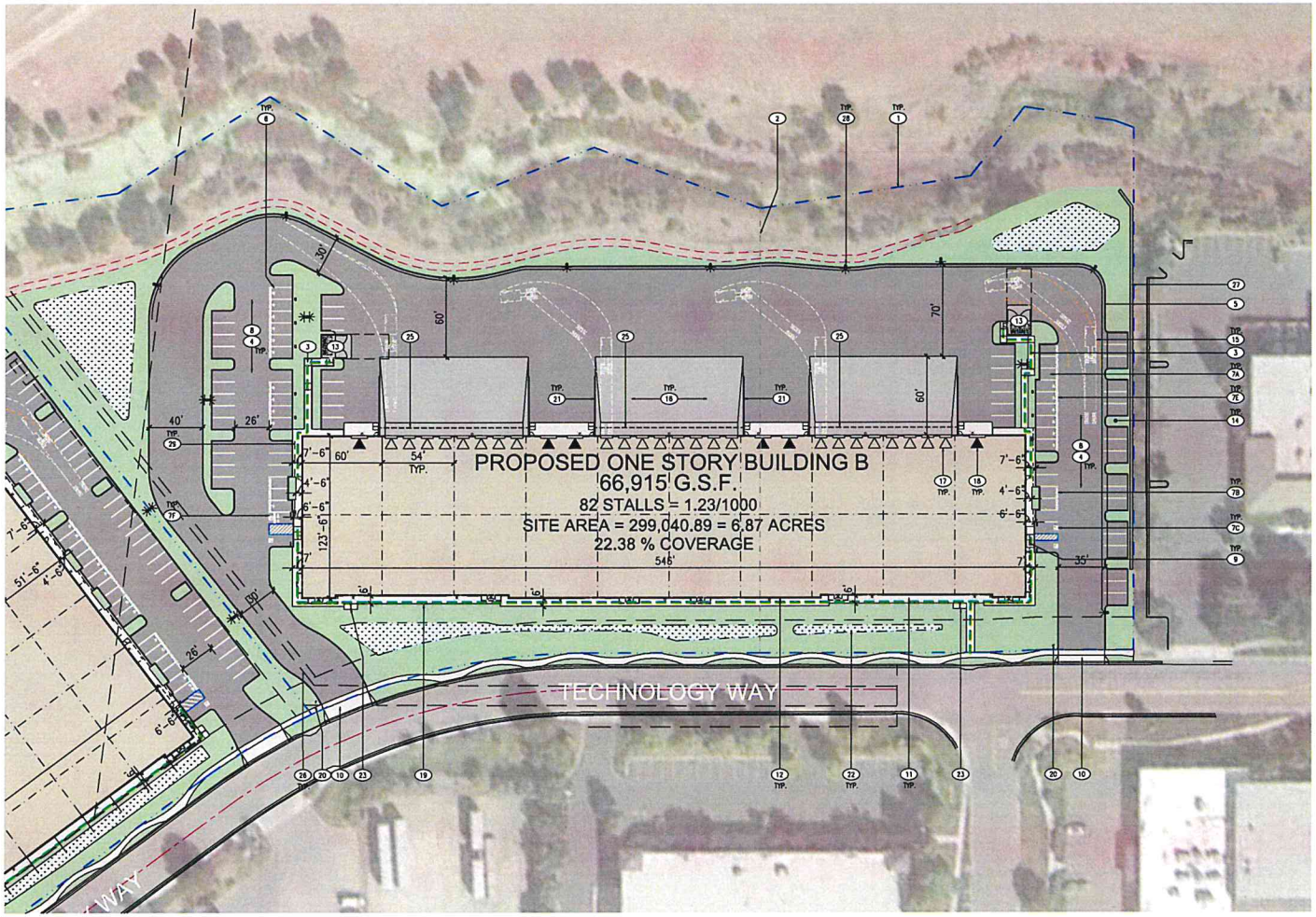
scale : AS NOTED

project number : 2204066.00

PRELIMINARY MASTER SITE PLAN

sheet no. :

A01.0



0' 20' 40' 80'

PLAN NORTH

ENLARGED SITE PLAN: BUILDING B

SCALE: 1" = 40'-0"

1

SITE LEGEND:

- BUILDING AREA
- SITE CONCRETE
- DOCK AREA
- STORM WATER RETENTION AREA
- ASPHALT AREA
- LANDSCAPE AREA
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE REMOVED
- ▽ 9' X 10' OVERHEAD DOCK LEVEL DOOR
- ▼ 12' X 14' OVERHEAD GRADE LEVEL DOOR
- FIRE DEPARTMENT TURN RADIUS: 45' 97'

BUILDING B

APN: 057-250-031, 057-250-032
ZONING: INDUSTRIAL
TOTAL GROSS SITE AREA: 299,040.89 G.S.F. = 6.87 ACRES
NET SITE AREA: 242,814.41 N.S.F. = 29.81 ACRES
BUILDING AREA: 66,915 S.F.
SITE COVERAGE: 22.38%
CONSTRUCTION TYPE: V-B
BUILDING HEIGHT: 31'-4"
CLEAR HEIGHT: 30'-0"
NUMBER OF STORIES: 1
PARKING: 82 STALLS TOTAL

PARKING STANDARDS: (NAPA COUNTY ZONING CODE TABLE 18.110.030)

- WAREHOUSING @ 83.6% OF BUILDING AREA = 1/1,000 S.F. FOR THE FIRST 20,000 S.F. 1/2,000 S.F. FOR ALL WAREHOUSE EXCEEDING 20,000 S.F. (20,000 S.F. @ 1/1,000 S.F. = 20 STALLS + (35,915 S.F @ 1/2,000 S.F. = 18 STALLS)) = 38 TOTAL STALLS
- OFFICE SPACE @ 16.4% OF BUILDING AREA = 4/1,000 S.F. (11,000 S.F. @ 4/1,000) = 44 TOTAL STALLS)
  - ** REQUIRED: 82 STALLS
  - ** PROVIDED: 82 STALLS
- STANDARD STALLS: 78 9' X 18' (17' WITH A 2'-0" OVERHANG)
- COMPACT STALLS: 4 8' X 16' (14' WITH A 2'-0" OVERHANG) 4.9% OF TOTAL STALLS

ACCESSIBLE & DESIGNATED PARKING STALLS (REQUIRED AND PROVIDED):

PER 2022 CBC TABLE 11B-208.2: 76 TO 100 STALLS, 4 ACCESSIBLE STALLS REQUIRED
VAN ACCESSIBLE STALLS EVERY 8 OR FRACTION OF SIX, AT LEAST ONE SHALL BE VAN PARKING (= 1 VAN ACCESSIBLE)
4 ADA STALLS (INCLUDING 1 VAN ACCESSIBLE STALLS) PROVIDED.

PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE 5.106.5.3.1: 76 TO 100 STALLS. 17 REQ. EV CAPABLE STALLS, OF THESE 4 SHALL BE EVCS PROVIDED WITH EVSE.

PER CBC TABLE 11B-228.3.2.1: BETWEEN 17-25 EVCS STALLS. 1 VAN ACCESSIBLE EVCS. NO STANDARD ACCESSIBLE EVCS AND NO AMBULATORY EVCS ARE REQUIRED. ACCESSIBLE EVCS SHALL COMPLY WITH CBC SECTION 11B-812.

BICYCLE PARKING PER 2022 CALIFORNIA GREEN BUILDING CODE 5.106.4.1

- 5.106.4.1.1 SHORT TERM - 5% OF NEW VISITOR VEHICLE PARKING SPACES, MIN (1) TWO-BIKE RACK WITHIN 200 FEET OF THE VISITORS' ENTRANCE.
  - ** 82 * 5% = 5 VISITOR PARKING * 5% = 0.25 = 1 SHORT TERM BIKE PARKING REQUIRED
- 5.106.4.1.4 LONG TERM (NEW SHELL BUILDINGS) - 5% OF ANTICIPATED TENANT-OCCUPANT VEHICLE SPACES, MIN (1) BIKE PARKING FACILITY.
  - ** 82 * 5% = 4.1 = 5 LONG TERM BIKE PARKING SPACES REQUIRED*

*LONG TERM BICYCLE PARKING TO BE PROVIDED INSIDE THE BUILDING AT TIME OF FUTURE TENANT IMPROVEMENTS

KEYNOTES:

1. EXISTING PROPERTY LINES.
2. PROPERTY LINES TO BE REMOVED, SEE CIVIL DRAWINGS.
3. GREEN DASHED LINE REPRESENTS THE PATH OF TRAVEL TO TRASH ENCLOSURE.
4. PARKING AND DRIVE AISLES TO BE ASPHALTIC CONCRETE.
5. TYPICAL 6" TALL X 6" WIDE CONCRETE CURBS, SEE CIVIL DRAWINGS.
6. TYPICAL 4" WIDE TRAFFIC STRIPING.
7. TYPICAL PARKING:
   - A. STANDARD STALLS: 9' X 18' OR 8' X 17' WITH 2' PARKING OVERHANG.
   - B. COMPACT STALLS: 8' X 16' OR 8' X 14' WITH 2' PARKING OVERHANG (35% MAX).
   - C. ACCESSIBLE PARKING STALLS: 9' X 18' MIN. WITH 2' PARKING OVERHANG WITH 5' OR 8' WIDE LOADING ZONE AS SHOWN SEE DETAIL 1/A01.3.
   - D. DESIGNATED PARKING PER CAL-GREEN REQUIREMENTS FOR CAR/VAN POOL, FUEL EFFICIENT, EV & LOW-LIMITING VEHICLES.
   - E. ELECTRIC VEHICLE CHARGING SPACES (STALLS LABELED "ELECTRIC VEHICLE CHARGING"), PER CGBC 5.106.5.3, TO FACILITATE FUTURE INSTALLATION CONDUIT, RING AND STRING SHALL BE INSTALLED AT THIS TIME AS PART OF THE SHELL CONSTRUCTION.
   - F. ACCESSIBLE ELECTRIC VEHICLE CHARGING STALL, 1 VAN, 1 STANDARD. (RING AND STRING ONLY)
8. TYPICAL DRIVE AISLE, 24'-0" WIDE MINIMUM.
9. CURB RAMP, SEE DETAIL 8/A01.2.
10. PROPOSED LOCATION OF NEW SITE ACCESS DRIVE CURB CUT, SEE CIVIL DRAWINGS.
11. NEW CONCRETE PEDESTRIAN WALKS. ASSURE ALL SIDEWALKS TO BE ACCESSIBLE PATH OF TRAVEL. SLOPE NOT TO EXCEED 1:20 (5%) IN DIRECTION OF TRAVEL. CROSS SLOPE NOT TO EXCEED 1:50 (2%) WHERE PARKING OVERHANG OCCURS, INCREASE WIDTH OF SIDEWALK TO 9'-0" MIN.
12. PROPOSED BUILDING EXTERIOR WALLS TO BE SITE CAST TILT-UP CONCRETE WALLS WITH REVEALS, A TEXTURED ELASTOMERIC COATING AND A MULTI-COLOR PAINT PALLET. SEE EXTERIOR ELEVATIONS, SHEET A01.1.
13. TRASH ENCLOSURE W/ 40'-0" APPROACH. SEE DETAILS 1 & 2/A01.2.
14. TYPICAL LANDSCAPE PLANTER AREA, SEE LANDSCAPE DRAWINGS.
15. SEMI TRACTOR TRAILER TEMPLATE SHOWN FOR REFERENCE ONLY.
16. 80' DEPRESSED CONCRETE TRUCK DOCK.
17. LOADING DOCK ROLL UP DOOR, TYPICAL.
18. GRADE LEVEL ROLL UP DOOR, TYPICAL.
19. GREEN DASHED LINE INDICATES ACCESSIBLE PATH OF TRAVEL AT PUBLIC SIDEWALK.
20. LOCATION OF SITE ENTRY SIGN REVERSING PARKING IN ACCESSIBLE PARKING STALLS, SEE DETAIL 5/A01.3.
21. CURB WITH CLEARZONE AT EACH SIDE OF DEPRESSED LOADING DOCKS, TYP. SEE DETAIL 9a10/A01.3.
22. BIO-RETENTION BASIN, SEE CIVIL DRAWINGS.
23. BICYCLE RACKS, SEE DETAIL 3/A01.3.
24. PREFABRICATED PAINTED STEEL DOCK STAIR & BOLLARDS.
25. 8'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.
26. SITE EASEMENT. SEE CIVIL DRAWINGS FOR MORE INFORMATION.
27. RETAINING WALL SEE CIVIL DRAWINGS FOR MORE INFORMATION.
28. SITE LIGHTING, SEE PHOTOMETRIC PLANS.
29. DASHED LINE INDICATES 2'-0" PARKING OVERHANG.

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OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

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NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

issue :	description :	date :
A	INITIAL PLANNING REVIEW	07-27-2022
B	REISSUED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by : TLG plot date : 01-31-2023
checked by : JDL

stamp

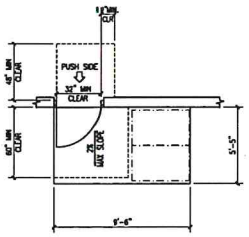
LICENSED ARCHITECT
JEFFREY D. LEONHARDT
No. C33944
REN 12-31-23
STATE OF CALIFORNIA

scale : AS NOTED
project number : 2204066.00

ENLARGED SITE PLAN: BUILDING B

sheet no. :

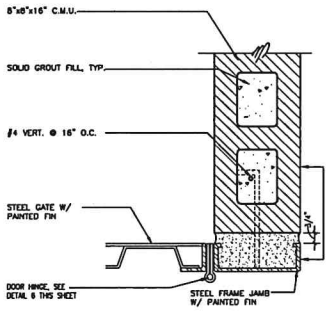
A01.1



AREA OF ASSISTED RESCUE

SCALE: 1/4" = 1'-0"

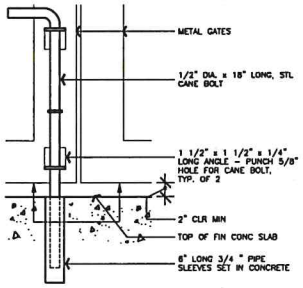
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GATE JAMB

SCALE: 3"= 1'-0"

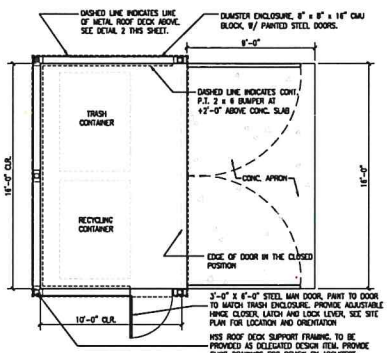
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CANE BOLT SECTION

SCALE: 3"= 1'-0"

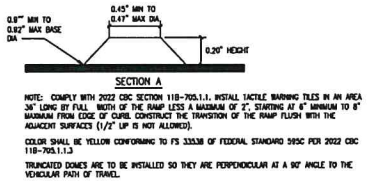
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DUMPSTER ENCLOSURE PLAN

SCALE: 1/4"= 1'-0"

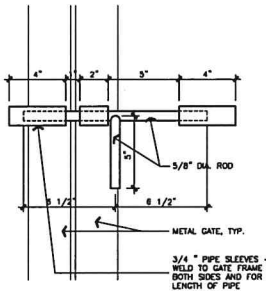
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WARNING DOMES AT SITE RAMPS

SCALE: N.T.S.

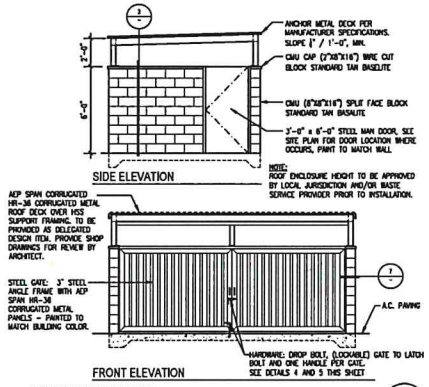
8



SIDE BOLT ELEVATION AT HEAD

SCALE: 3"= 1'-0"

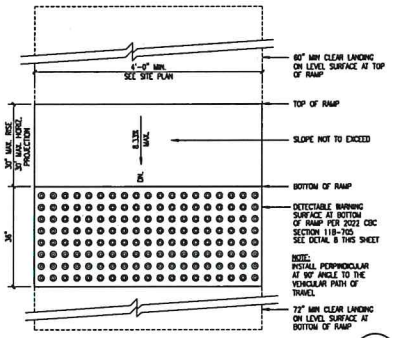
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DUMPSTER ELEVATIONS

SCALE: 1/4"= 1'-0"

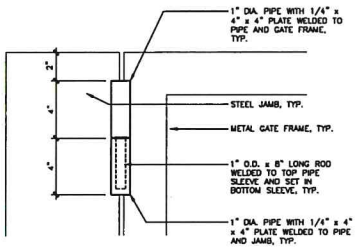
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TYPICAL RAMP DETAIL

SCALE: 1" = 1'-0"

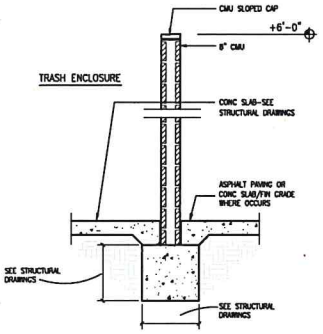
9



HINGE ELEVATION, TYP.

SCALE: 3"= 1'-0"

6



TRASH ENCLOSURE WALL SECTION

SCALE: 1/2"= 1'-0"

3

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LICENSED ARCHITECT
JEFFREY D. LEONHARDT
No. C33844
REN 12-31-23
STATE OF CALIFORNIA

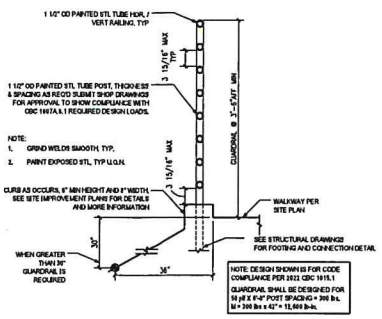
scale : AS NOTED

project number : 2204066.00

SITE DETAILS (FOR REFERENCE)

sheet no. :

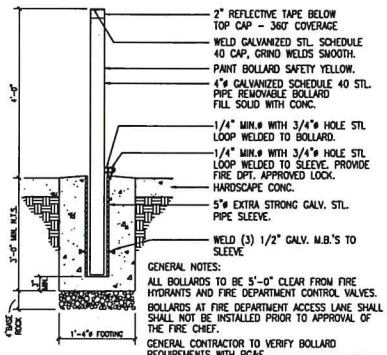
A01.3



TYPICAL GUARD RAIL

SCALE: 1" = 1'-0"

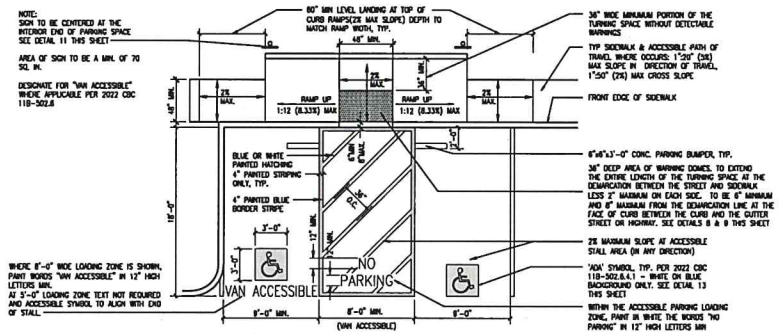
10



REMOVABLE BOLLARD

1" = 1'-0"

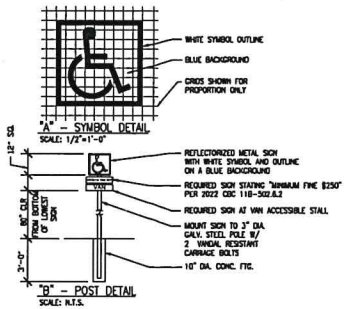
7



DOUBLE ACCESSIBLE STALLS

SCALE: 3/16" = 1'-0"

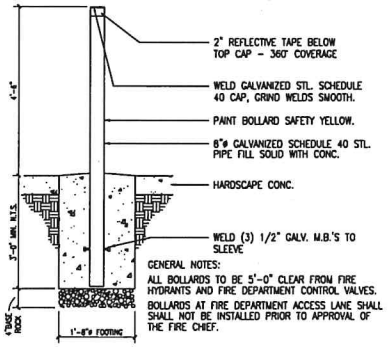
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SIGN AT ACCESSIBLE PARKING STALLS

SCALE: NO SCALE

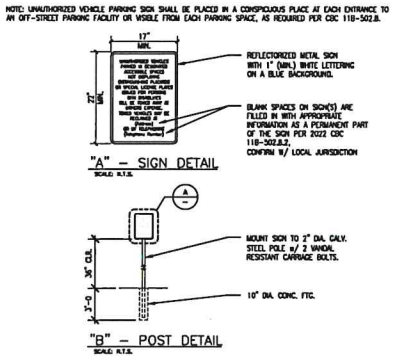
11



FIXED NON-REMOVABLE BOLLARD

1" = 1'-0"

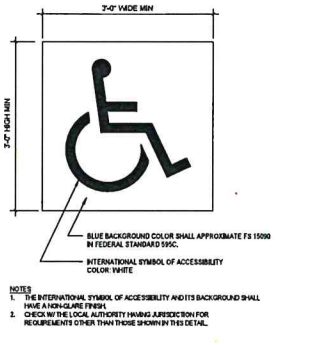
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SITE ENTRY ACCESSIBLE SIGN

SCALE: 3/16" = 1'-0"

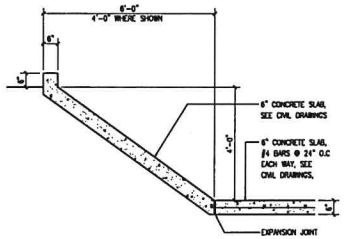
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ACCESSIBLE SYMBOL AT ACCESSIBLE PARKING STALLS

SCALE: 1" = 1'-0"

2



LOADING DOCK : RETAINING WALL CROSS SECTION

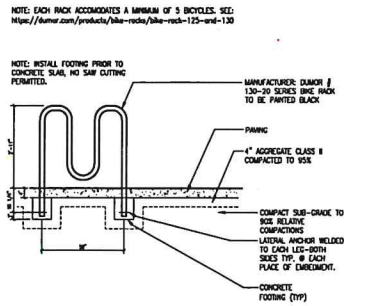
SCALE: 1/2" = 1'-0"

9

NOT USED

SCALE: N.T.S.

6



BIKE RACK

SCALE: 1/2" = 1'-0"

3

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PRELIMINARY DESIGN DOCUMENTS FOR:

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TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by :

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drawn by : TLG plot date : 01-31-2023

checked by : JDL

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LICENSED ARCHITECT JEFFREY D. CONNETT No. C33944 REN. 12-31-23 STATE OF CALIFORNIA

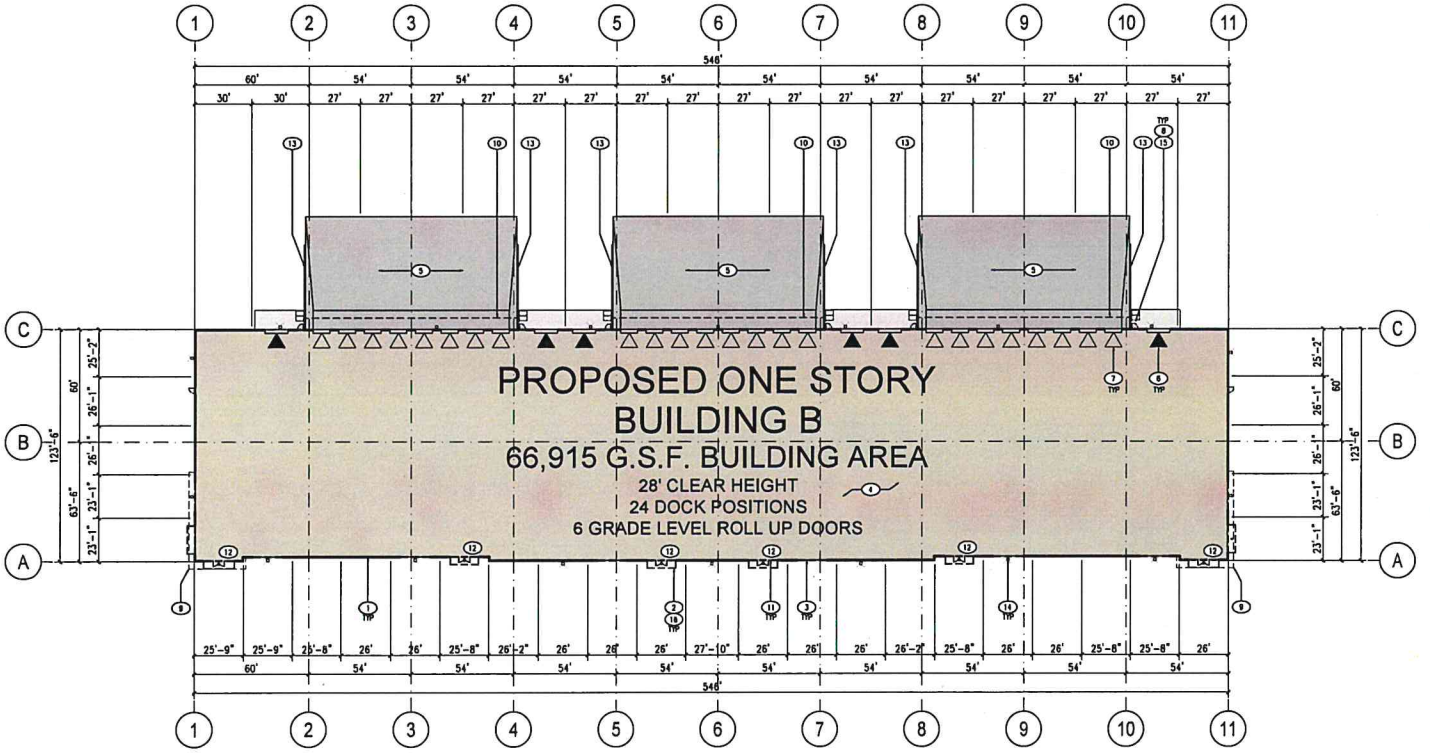
scale : AS NOTED

project number : 2204066.00

SITE DETAILS (FOR REFERENCE)

sheet no. :

A01.4



PRELIMINARY FLOOR PLAN
SCALE: 1" = 30'-0"

KEYNOTES:

1. EXTERIOR WALLS TO BE TILT-UP CONCRETE WITH REVEALS AND A MULTICOLORED TEXTURED ELASTOMERIC FINISH SYSTEM. SEE EXTERIOR ELEVATIONS, SHEETS A03.1
2. STEEL C-CHANNEL CANOPY ABOVE ENTRY. SEE EXTERIOR ELEVATIONS SHEET A03.1
3. TINTED GLAZING IN ALUMINUM FRAMES, SEE EXTERIOR ELEVATIONS SHEET A03.1
4. CONCRETE SLAB, SEE STRUCTURAL DRAWINGS
5. DEPRESSED TRUCK DOCK, SEE SHEET A01.1
6. GRADE LEVEL ROLL UP DOOR
7. DOCK LEVEL ROLL UP DOOR
8. 3' X 7' STEEL DOOR WITH SURFACE MOUNTED EMERGENCY LIGHT FIXTURE CENTERED ABOVE DOOR. TYPICAL AT ALL EXTERIOR DOORS, SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR FIXTURE TYPE.
9. DASHED LINE INDICATES DECORATIVE UPPER SLOPED ROOF ELEMENT. SEE EXTERIOR ELEVATIONS SHEET A03.1
10. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.
11. ALUMINUM STORE FRONT SYSTEM WITH DOOR. SEE ELEVATION SHEETS A03.1
12. LOCATION OF FIRE DEPARTMENT APPROVED "KNOX BOX" AT BUILDING ENTRIES, MOUNT AT +6'-0" AFF. CONFIRM LOCATION, MOUNTING HEIGHT AND ALL OTHER CRITERIA WITH THE AGENCY HAVING JURISDICTION.
13. CURB WITH GUARDRAIL AT EACH SIDE OF DEPRESSED LOADING DOCKS, TYP. SEE DETAIL 10/A01.3.
14. SURFACE MOUNTED EXTERIOR LIGHT FIXTURE ABOVE, SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR FIXTURE TYPE.
15. SURFACE MOUNTED EMERGENCY LIGHT FIXTURE CENTERED ABOVE DOOR, TYPICAL AT ALL EXTERIOR DOORS. SEE EXTERIOR ELEVATIONS, SHEET A03.1. SEE PHOTOMETRIC DRAWINGS FOR MORE INFORMATION.
16. EMERGENCY EGRESS LIGHTING MOUNTED TO UNDERSIDE OF CANOPY.

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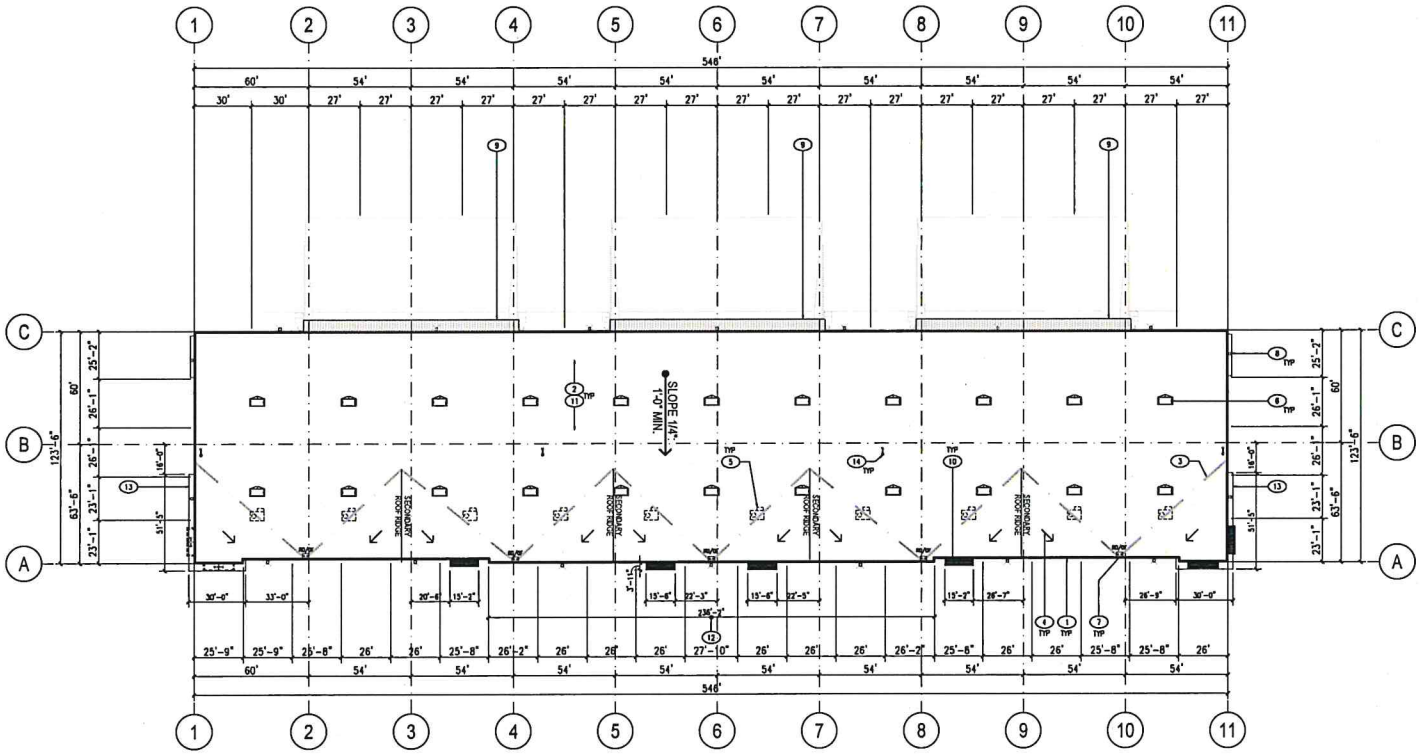
scale : AS NOTED

project number : 2204066.00

FLOOR PLAN - B

sheet no. :

A02.1



PRELIMINARY FLOOR PLAN

SCALE: 1" = 30'-0"

1

KEYNOTES:

1. LINE OF TYPICAL PARAPET WALL
2. TYPICAL LOW SLOPE ROOF 1/4" PER 12" MIN SLOPE. ROOF ASSEMBLY CONSISTS OF A TPO SINGLE PLY SYSTEM OVER STRUCTURAL SHEATHING OVER SLOPED STRUCTURAL FRAMING. SEE STRUCTURAL DRAWINGS.
3. THICK DASHED GRAY LINE INDICATES WARPED ROOF AREA
4. INDICATES DIRECTION OF ROOF SLOPE
5. POTENTIAL LOCATION OF FUTURE ROOF MOUNTED HVAC EQUIPMENT. ALL ROOF MOUNTED EQUIPMENT SHALL BE DETERMINED AT TIME OF TENANT IMPROVEMENTS AND SHALL BE SCREENED FROM VIEW BY NATURE OF IT'S PLACEMENT.
6. INDICATES LOCATION OF 4' X 8' SELF-CURBING DUAL DOME SKYLIGHT. PROVIDE SHAPED FOAM CRICKET AT HIGH SIDE(S) OF SKYLIGHT CURB TO PROVIDE SLOPE FOR DRAINAGE.
7. INTERNAL ROOF DRAIN AND OVERFLOW.
8. EXTERIOR MOUNTED WALL PACK LIGHTING, SEE EXTERIOR ELEVATIONS AND PHOTOMETRIC DRAWINGS FOR MORE INFORMATION.
9. 6'-0" CANOPY W/ GUTTERS AND DOWNSPOUTS @ DEPRESSED CONCRETE DOCK RAMP.
10. STEEL C CHANNEL CANOPY W METAL ROOFING OVER MAIN ENTRIES.
11. FLASH ALL ROOF PENETRATIONS PER ROOFING MANUFACTURE'S SPECIFICATIONS.
12. TOP OF PARAPET CHANGES HEIGHT AT THIS AREA. SEE EXTERIOR ELEVATIONS SHEET A03.1 FOR MORE INFORMATION.
13. SLOPED ROOF ELEMENT, SEE EXTERIOR ELEVATIONS, SHEET A03.1 FOR COLOR AND FINISH.
14. PROPOSED LOCATION OF HOSE BIBS, SEE PLUMBING DRAWINGS.

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LICENSED ARCHITECT
JEFFREY D LEONHARDT
No. C33644
REN 12-31-23
STATE OF CALIFORNIA

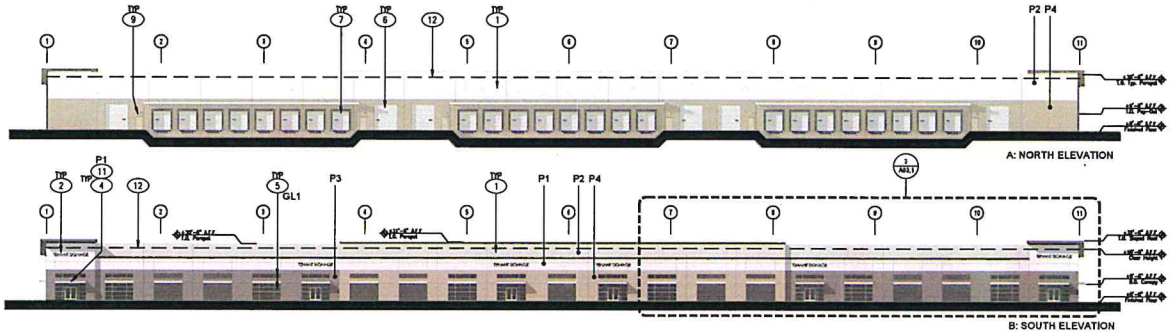
scale : AS NOTED

project number : 2204066.00

ROOF PLAN B

sheet no. :

A02.2



KEYNOTES:

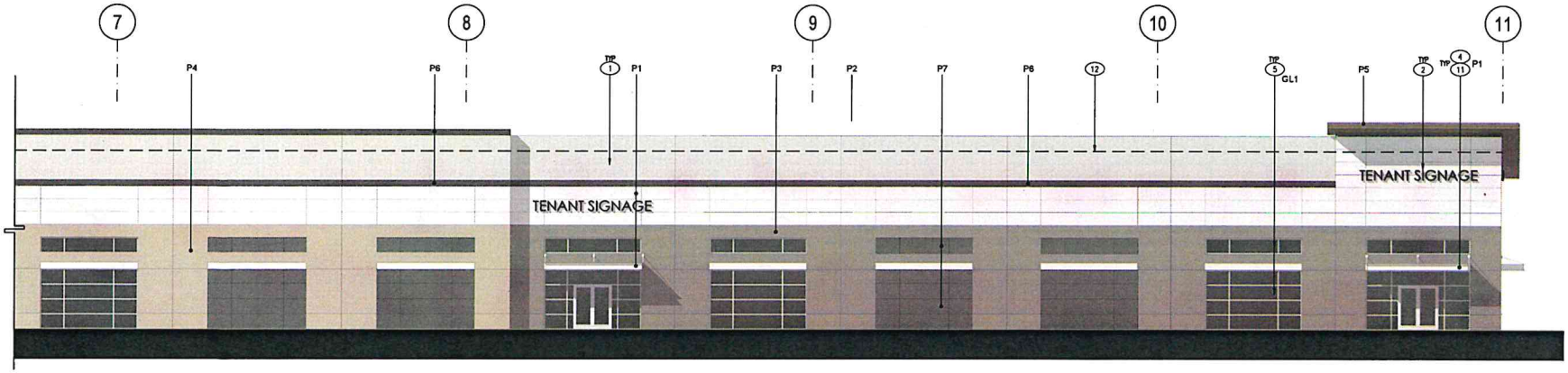
1. TYPICAL SITE CAST, CONCRETE TILT-UP PANELS WITH 3/4" REVEALS AND A MULTI COLOR TEXTURED COATING SYSTEM.
2. TENANT SIGNAGE UNDER SEPARATE PERMIT.
3. CONTINUOUS GUTTER AND SURFACE MOUNTED DOWNSPOUTS.
4. PAINTED STEEL CHANNEL CANOPIES. PAINT AS SPECIFIED. TYPICAL AT MAIN ENTRANCE STOREFRONT OPENINGS.
5. TYPICAL WINDOW SYSTEM: DUAL PANE GLAZING IN 2" x 4" (NOMINAL) THERMALLY BROKEN, CLEAR ANODIZED ALUMINUM FRAMES. OUTER GLAZING PANE TO BE TINTED WITH LOW-E COATING ON INTERIOR SURFACE. INNER PANE CLEAR FLOAT. STOREFRONT DOORS WHERE SHOWN. 4 STOREFRONT LOCATIONS TOTAL.
6. 12' X 14' GRADE LEVEL ROLL UP DOOR, PAINT TO MATCH ADJACENT COLOR.
7. 9' X 10' DOCK LEVEL ROLL UP DOOR, PAINT TO MATCH ADJACENT COLOR.
8. EXTERIOR WALL PACK LIGHTING. SEE PHOTOMETRIC DRAWINGS.
9. 3' X 7' STEEL MAN DOOR WITH EMERGENCY LIGHT FIXTURE CENTERED OVER DOOR. SEE PHOTOMETRIC PLAN FOR FIXTURE TYPE. PAINT DOOR TO MATCH ADJACENT WALL COLOR.
10. ADDRESS SIGNAGE UNDER SEPARATE PERMIT AND SHALL MEET BUILDING, FIRE AND SHERIFF DEPT REQUIREMENTS.
11. CANOPY LIGHTING, SEE PHOTOMETRIC DRAWINGS.
12. DASHED LINE INDICATES INTERNAL CLEAR HEIGHT. SEE ELEVATIONS FOR HEIGHT.

FINISH LEGEND:

- P1: PAINT 1 — KELLY MOORE KMW43 WHITEST WHITE
- P2: PAINT 2 — SHERWIN WILLIAMS SW7063 NEBULOUS WHITE
- P3: PAINT 3 — SHERWIN WILLIAMS SW7047 PORPOISE
- P4: PAINT 4 — SHERWIN WILLIAMS SW6150 UNIVERSAL KHAKI
- P5: PAINT 5 — SHERWIN WILLIAMS SW6153 PROTEGE BRONZE
- P6: PAINT 6 — SHERWIN WILLIAMS SW6991 BLACK MAGIC
- P7: PAINT 7 — SHERWIN WILLIAMS SW6188 SHADE GROWN
- GL1: VITRO ARCHITECTURAL GLASS "ATLANTICA" EMERALD GREEN GLASS IN THERMALLY BROKEN CLEAR ANODIZED ALUMINUM FRAMES

0 15' 30' 60'

EXTERIOR ELEVATIONS — 1
SCALE: 1" = 30'-0"



0 4' 8' 16'

PARTIAL ENLARGED SOUTH ELEVATION — 2
SCALE: 1/8" = 1'-0"

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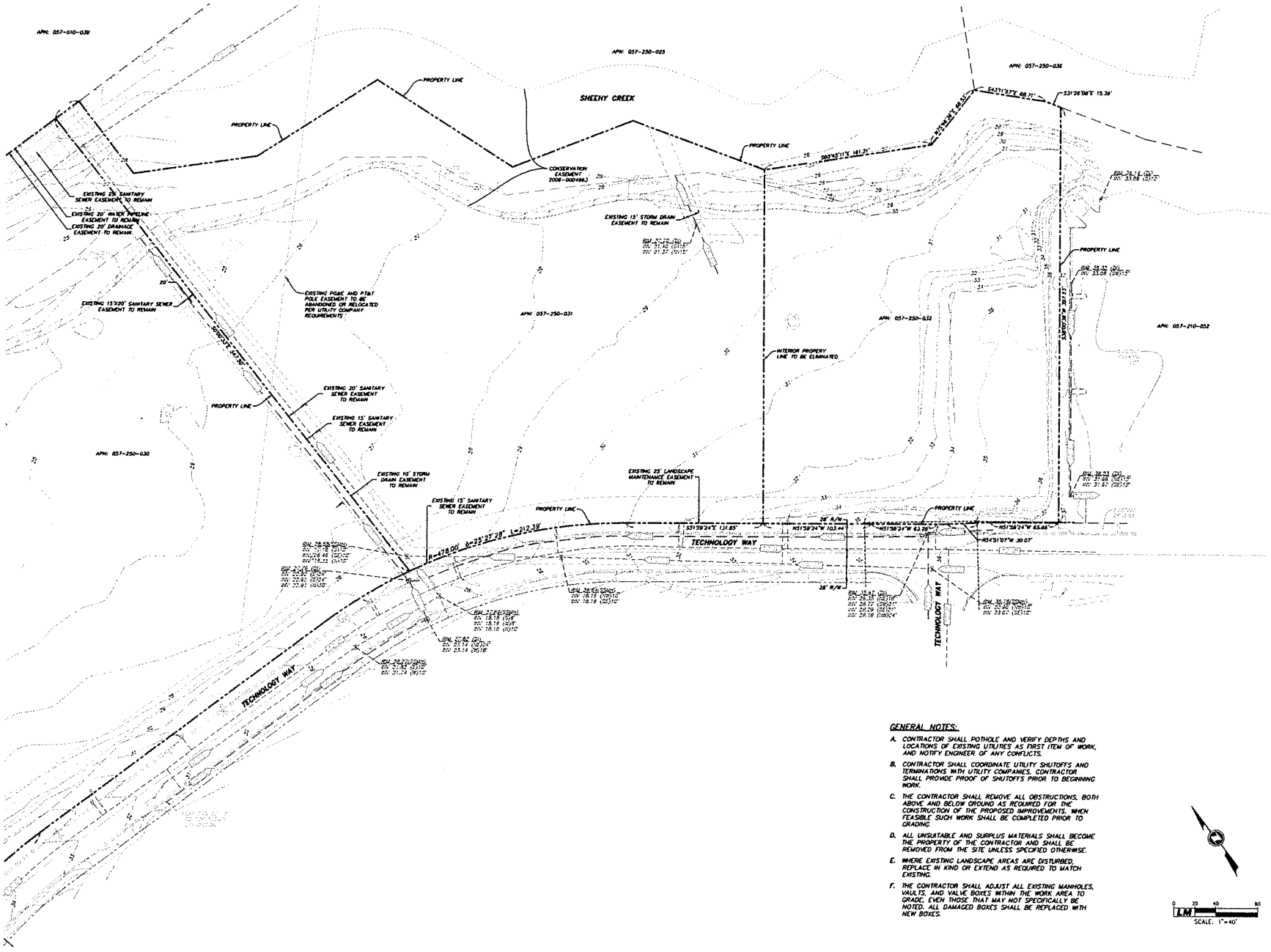
scale : AS NOTED

project number : 2204066.00

EXTERIOR ELEVATIONS BUILDING B

sheet no. :

A03.1



GENERAL NOTES:

A. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTHS AND LOCATIONS OF EXISTING UTILITIES AS FIRST ITEM OF WORK, AND NOTIFY ENGINEER OF ANY CONFLICTS.

B. CONTRACTOR SHALL COORDINATE UTILITY SHUTOFFS AND TERMINATIONS WITH UTILITY COMPANIES. CONTRACTOR SHALL PROVIDE PROOF OF SHUTOFFS PRIOR TO BEGINNING WORK.

C. THE CONTRACTOR SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. WHEN FEASIBLE SUCH WORK SHALL BE COMPLETED PRIOR TO GRADING.

D. ALL UNSUITABLE AND SURPLUS MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS SPECIFIED OTHERWISE.

E. WHERE EXISTING LANDSCAPE AREAS ARE DISTURBED, REPLACE IN KIND OR EXTEND AS REQUIRED TO MATCH EXISTING.

F. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VAULTS, AND VALVE BOXES WITHIN THE WORK AREA TO GRADE, EVEN THOSE THAT MAY NOT SPECIFICALLY BE NOTED. ALL DAMAGED BOXES SHALL BE REPLACED WITH NEW BOXES.

0 20 40 80
SCALE: 1"=40'

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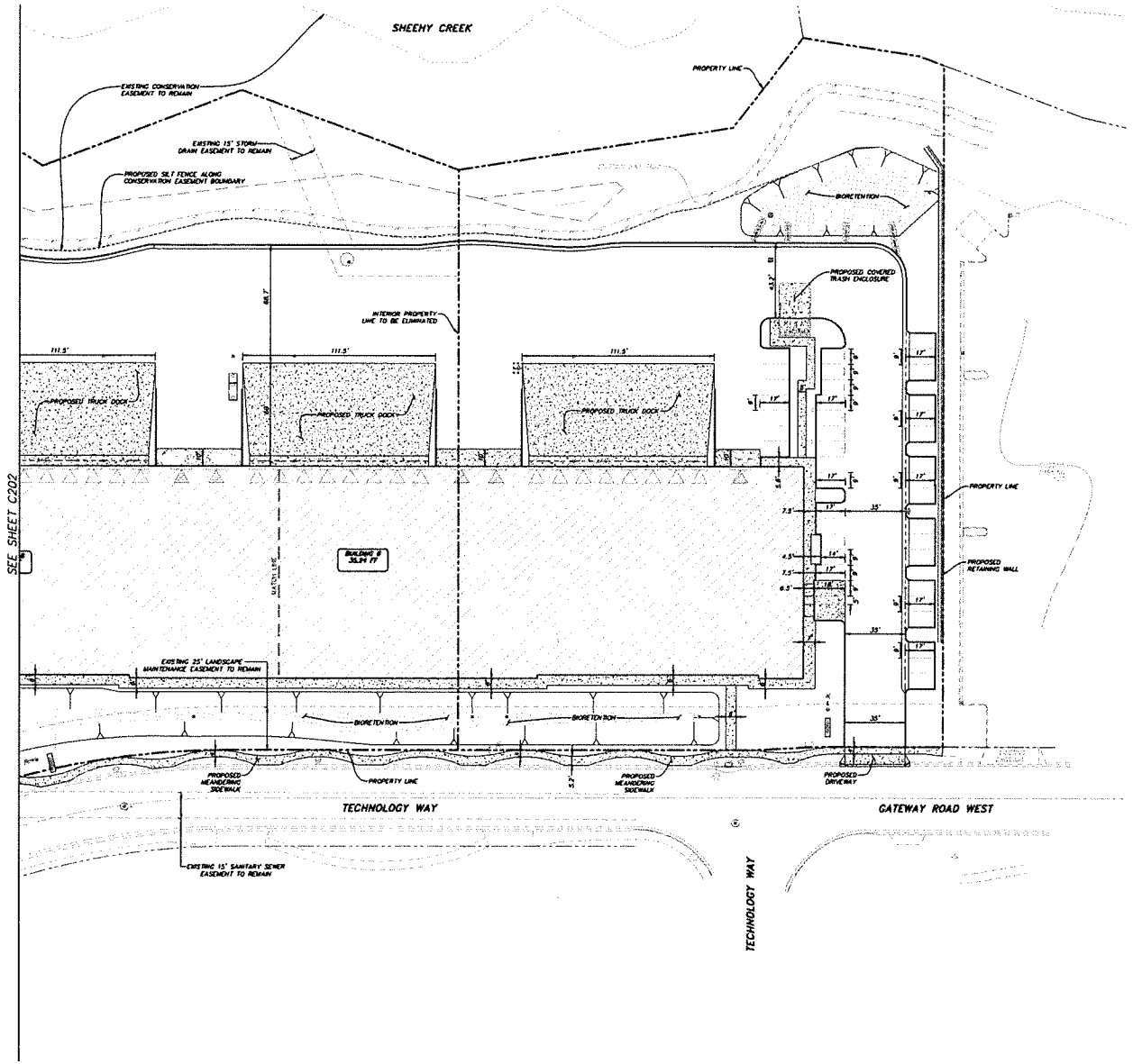


scale: AS NOTED
project number: 3687-13

TOPOGRAPHIC SURVEY & DEMOLITION PLAN

sheet no.

C101



BIOLOGICAL ASSESSMENT RECOMMENDATION

4.1 Biological Communities

4.1.1 Terrestrial

No Recommendation

4.1.2 Aquatics

Recommendation 1
A Conservation Easement along Sheehy Creek was recorded in 2006 and extends approximately 1 mile of both banks of the Sheehy Creek riparian corridor, which provide high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County. The Conservation Easement, held by the County, is located within APNs 057-200-009; 057-210-038 and 039; and 057-250-008, 021, 024, and 025.

The boundary of this Conservation Easement will serve as the setback for the proposed project. Silt fencing should be installed along the entire length of the riparian corridor (the Conservation Easement boundary) in order to avoid any impacts to this watercourse. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Grading shall occur during the dry season and should be suspended during rainfalls of greater than one-half inch over a 24-hour period. If rainfall is in the forecast, standard erosion control measures, such as straw waddles, bales, or additional silt fencing, should be deployed in any areas where silt fencing does not appear to be adequate. Construction personnel should be informed of the location of the site's aquatic resources and these locations should be demarcated with high-visibility flagging or staking prior to construction. No materials or equipment shall be stored in or near aquatic resources, and spill prevention materials shall be kept on-site at all times.

4.2 Special-status Plant Species

Recommendation 2
Protocol-level special-status plant surveys should be performed during the flowering time of the target species (see Appendix B), following protocols as specified in Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities dated March 20, 2018 (CDFW 2018). Two follow-up visits during the early and late flowering times of these species should be performed to determine whether any special-status plants exist in the project area. If this spring survey does not result in positive occurrences of special-status plants, no impacts to special-status plant species or their habitats are anticipated.

4.3 Special-status Wildlife Species

4.3.1 Migratory Birds and Nesting Raptors

Recommendation 3
A survey for active bird nests shall be conducted by a qualified Biologist no more than 14 days prior to the start of project activities, including vegetation removal, grading, or other ground-disturbing activities. If ground-disturbing activities commence during the nesting season (February 1 through August 31), the survey shall be conducted in a sufficient area around the project site to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal or grading activities, including in the disked area of the project site.

Recommendation 4
If active nests of protected species are found within the project area or close enough to the area to affect nesting success, a work exclusion zone shall be established around each nest. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive. Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing buffers, ambient sound levels, and other factors. An exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified Biologist indicating that work activities are not significantly impacting the nest.

4.3.2 Amphibians

Recommendation 5
Exclusion fence shall be installed during the wet season (prior to April 1) along the entire length of the Sheehy Creek riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. The fencing shall be constructed of standard silt fencing with a minimum height above ground of 24 inches, with the bottom of the fence buried to a minimum depth of 6 inches. Areas to be fenced shall be inspected for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle by a qualified Biologist prior to installation, and the installed fencing shall again be inspected by the Biologist to ensure that it is installed properly. The fencing shall remain installed until on-site mechanized ground disturbance is completed. Following fencing installation and within 48 hours of the initiation of ground disturbance, a visual pre-construction survey for Foothill yellow-legged frog, California red-legged frog, and Western pond turtle covering all ground disturbance areas shall be performed by a qualified Biologist. If either of the subject species are observed within the covered areas, ground disturbance shall not proceed and other measures will be determined in coordination with the CDFW, as well as the USFWS if California red-legged frog is observed.

Recommendation 6
Following the pre-construction survey and prior to the initiation of ground-disturbing activities, a biological education program shall be provided to a qualified Biologist to all personnel who will be present at the site during ground disturbance and related activities. The worker education program shall include information regarding the identification and natural history of Foothill yellow-legged frog, California red-legged frog, and Western pond turtle (including photographs), the potential for occurrence of these species within work areas, the legal status of each species, and the ramifications for unauthorized take. The Biologist shall also explain the purpose of the exclusion fencing and measures for maintaining it. The Biologist shall also provide guidance on what to do if animals are observed on-site, including halting all ground disturbance and immediately alerting the qualified Biologist.

4.4 County-designated Sensitive Habitats and Tree Removal

Recommendation 7
A qualified Biologist shall determine the final number of trees greater than 6-inches DBH to be removed in the project area. Trees shall be replaced elsewhere on-site at a replanting ratio to be determined in consultation with the County of Napa. Trees should be replaced at not less than a 3:1 ratio and shall be of same species from local genotypes. Replanting should consist of irrigation and caging and shall be monitored for a minimum of 5 years.

NOTE: RECOMMENDATIONS NOTED ABOVE ARE FROM THE E&P PROPERTIES - BIOLOGICAL RESOURCES ASSESSMENT OF TECHNOLOGY WAY BUILDINGS A AND B LOCATED IN NAPA COUNTY, CA PREPARED BY PHOTOSYNTHESIS SOLUTIONS (DATED FEBRUARY 1, 2022)

0 15 30 60
SCALE: 1"=30'

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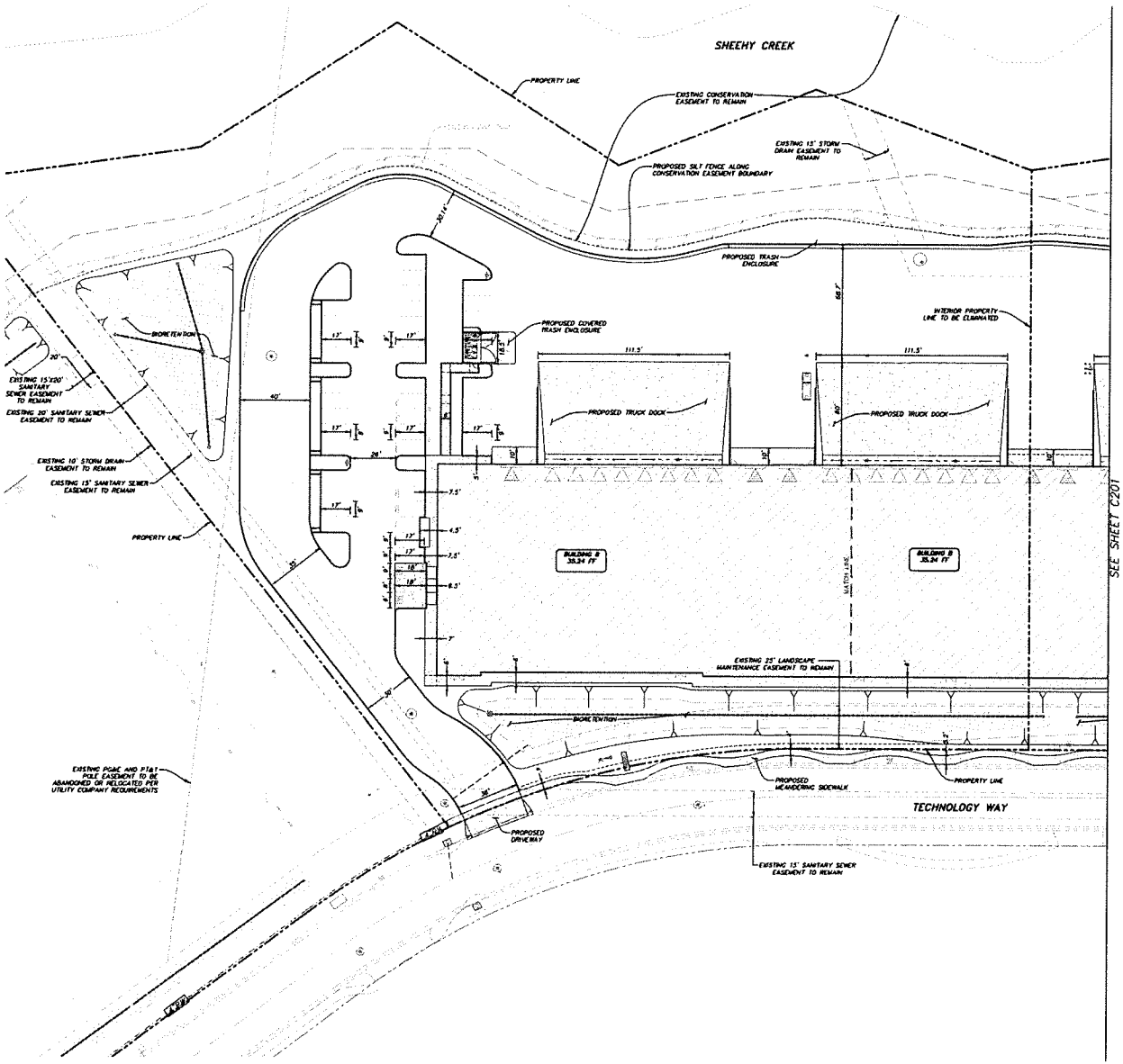


scale : AS NOTED

project number 3687-13

CIVIL SITE PLAN

sheet no. C201



CULTURAL RESOURCES ASSESSMENT

SUMMARY AND RECOMMENDATIONS

4.1 – Summary

In accordance with CEQA Guidelines, FCS assessed the potential for the proposed project to have an adverse impact on known and potential cultural resources at the project site. Results from the NWIC indicate that three historic resources are recorded within a 0.5-mile search radius of the project site, none of which are located within the project boundaries. Thirty survey reports are on file within the 0.5-mile radius of the project area, three of which address the project site, indicating that it has been previously surveyed for unrecorded cultural resources.

The pedestrian survey and NAHC Sacred Lands File search reported negative results for archaeological resources and TCRs in the immediate project area. FCS contacted Native American representatives and to date, no responses have been received.

4.2 – Recommendations

Based on the results of the records searches, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on historic or prehistoric cultural resources to be moderate. While there are no previously recorded resources within the project site, its geomorphology and close proximity to Sheehy Creek and other resources just outside the search radius increase the potential that subsurface construction may encounter and adversely impact cultural resources.

For this reason, FCS therefore recommends that all construction personnel directly involved with project-related ground disturbance attend a "Tailgate" WEAP training for archaeological resources. The training should include visual aids, a discussion of applicable laws and statutes relating to archaeological resources, types of resources that may found within the project site, and procedures to be followed in the event such resources are encountered. The training should be conducted by an Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology. Additionally, FCS therefore recommends an archaeological monitor reporting to the qualified archaeologist, should be present to during the clearing, grading and trenching phases of the project to check for the inadvertent discovery of archaeological resources or human remains. Over the course of the project, should the archaeologist determine that the probability of inadvertent discovery is low, they may make a recommendation to the lead agency that monitoring be reduced to regular periodic or "spot-check" monitoring, or that monitoring may cease altogether. Additional procedures for the inadvertent discoveries of human remains and cultural resources are provided below. Cultural Resources Regulations and Evaluation Criteria can be found in Appendix E.

4.3 – Inadvertent Discovery Procedures

4.3.1 – Inadvertent Discovery of Human Remains

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resources Code Section 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the 'most likely descendant' of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project area in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 48 hours after being notified by the Commission;
   - The descendant identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

4.3.2 – Inadvertent Discovery of Cultural Resources

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. In the event that buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified Archaeologist shall be consulted to determine whether the resource requires further study. The qualified Archaeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA Guidelines.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

NOTE: RECOMMENDATIONS NOTED ABOVE ARE FROM THE E&P PROPERTIES – PHASE I CULTURAL RESOURCES ASSESSMENT OF TECHNOLOGY WAY BUILDINGS A AND B LOCATED IN NAPA COUNTY, CA PREPARED BY FIRSTCARBON SOLUTIONS (DATED JANUARY 20, 2023)

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PRELIMINARY DESIGN DOCUMENTS FOR

NEW WAREHOUSE BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by

approved for the architect by

issue:	description	date:
A	INITIAL PLANNING RESUBMITTAL	07-27-2022
B	RESUBMITTAL FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR

drawn by: PJ plot date: 01-31-2023

checked by: PF

stamp

REGISTERED PROFESSIONAL ENGINEER
WILLIAM P. FOWLER
No. 61804
CIVIL
STATE OF CALIFORNIA

scale: AS NOTED

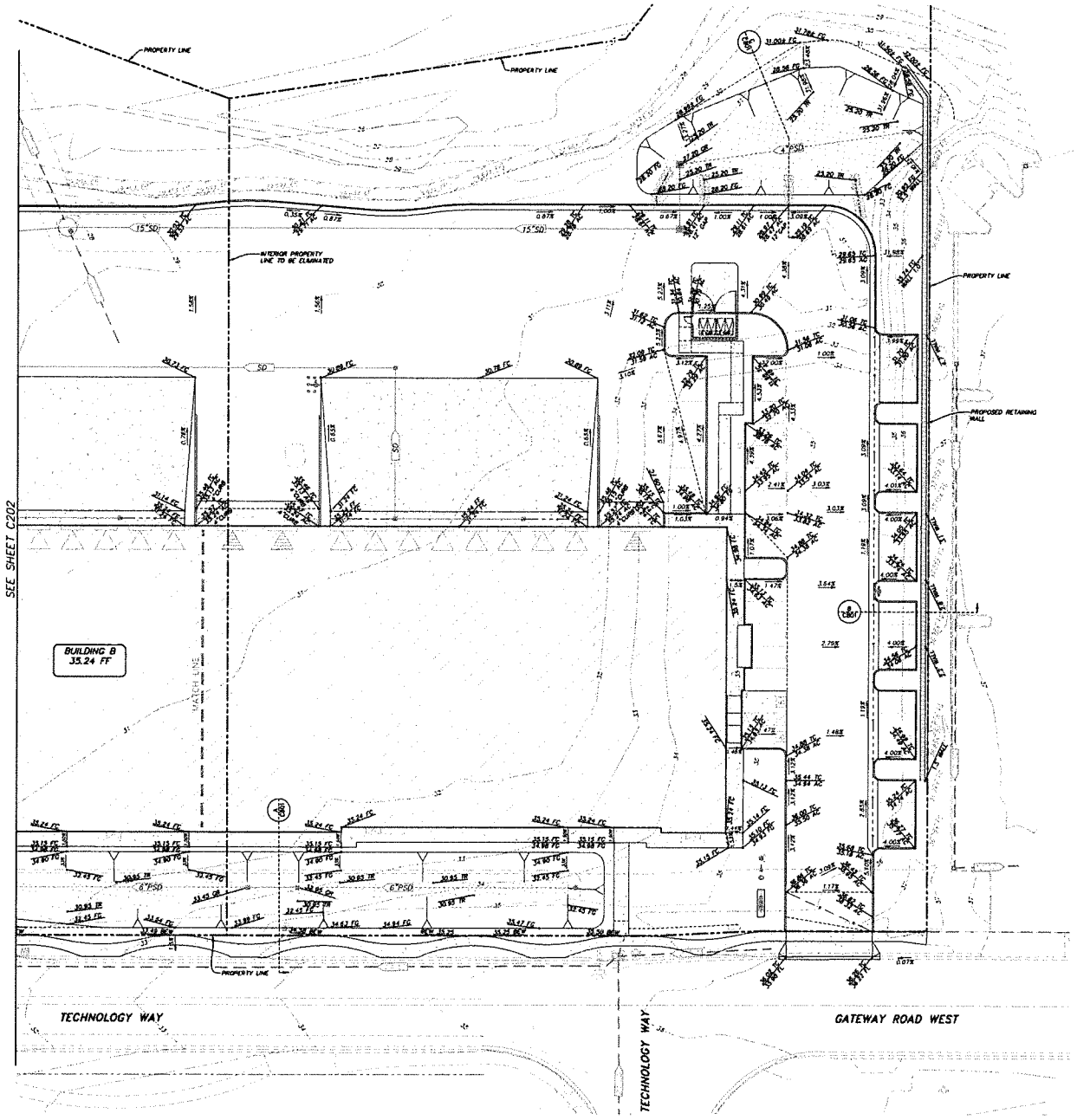
project number: 3687-13

CIVIL SITE PLAN

0 15 30 60
SCALE: 1"=30'

sheet no.

C202



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drawn by : PJ plot date 01-31-2023

checked by : PF

stamp



scale : AS NOTED

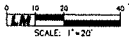
project number 3687-13

GRADING &
DRAINAGE PLAN

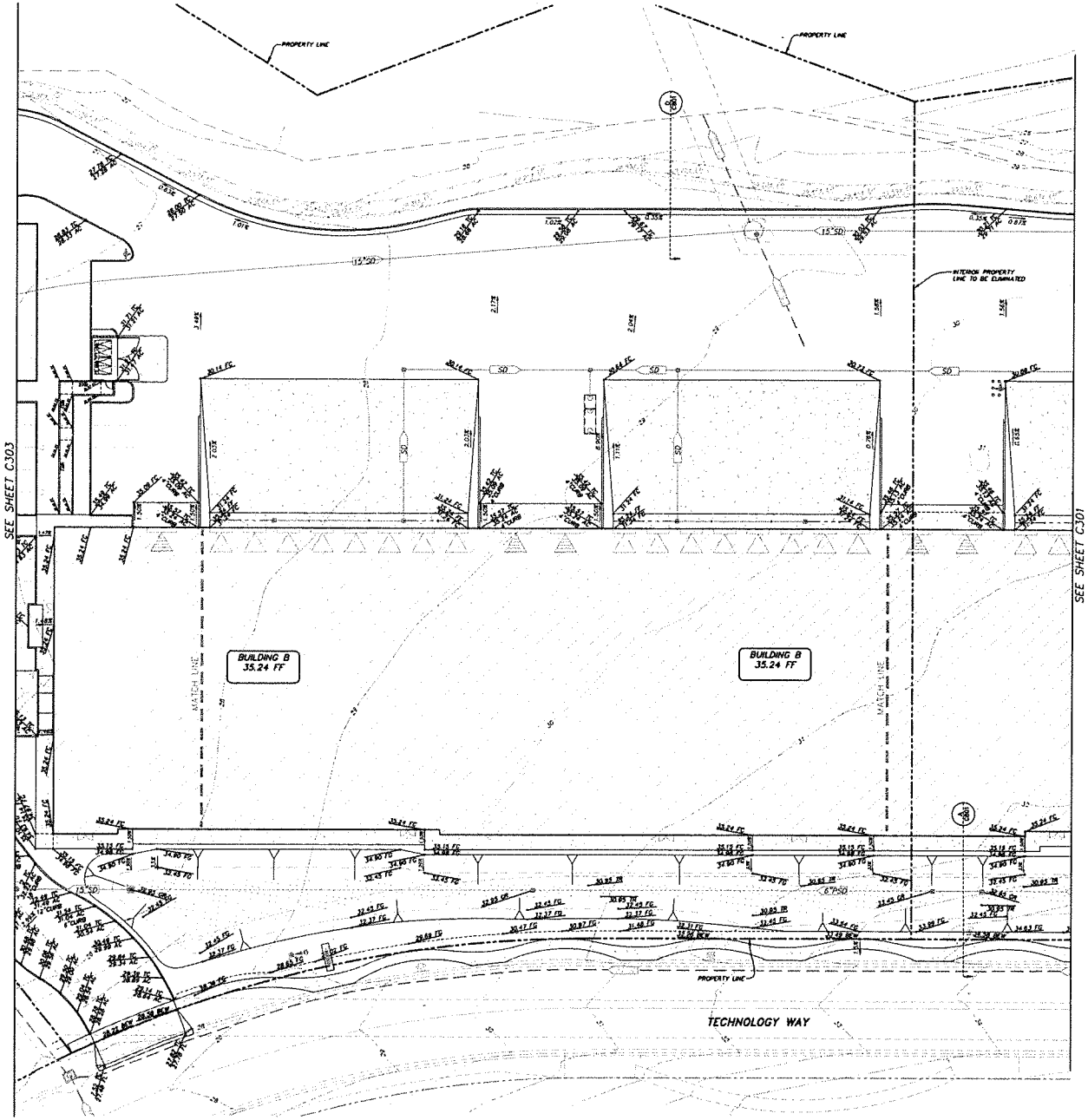
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C301





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GENERAL CONTRACTOR

drawn by: PJ plot date: 01-31-2023

checked by: PF

stamp

REGISTERED PROFESSIONAL ENGINEER
PHILIP F. FERRARI
No. 61604
CIVIL
STATE OF CALIFORNIA

scale: AS NOTED

project number: 3687-13

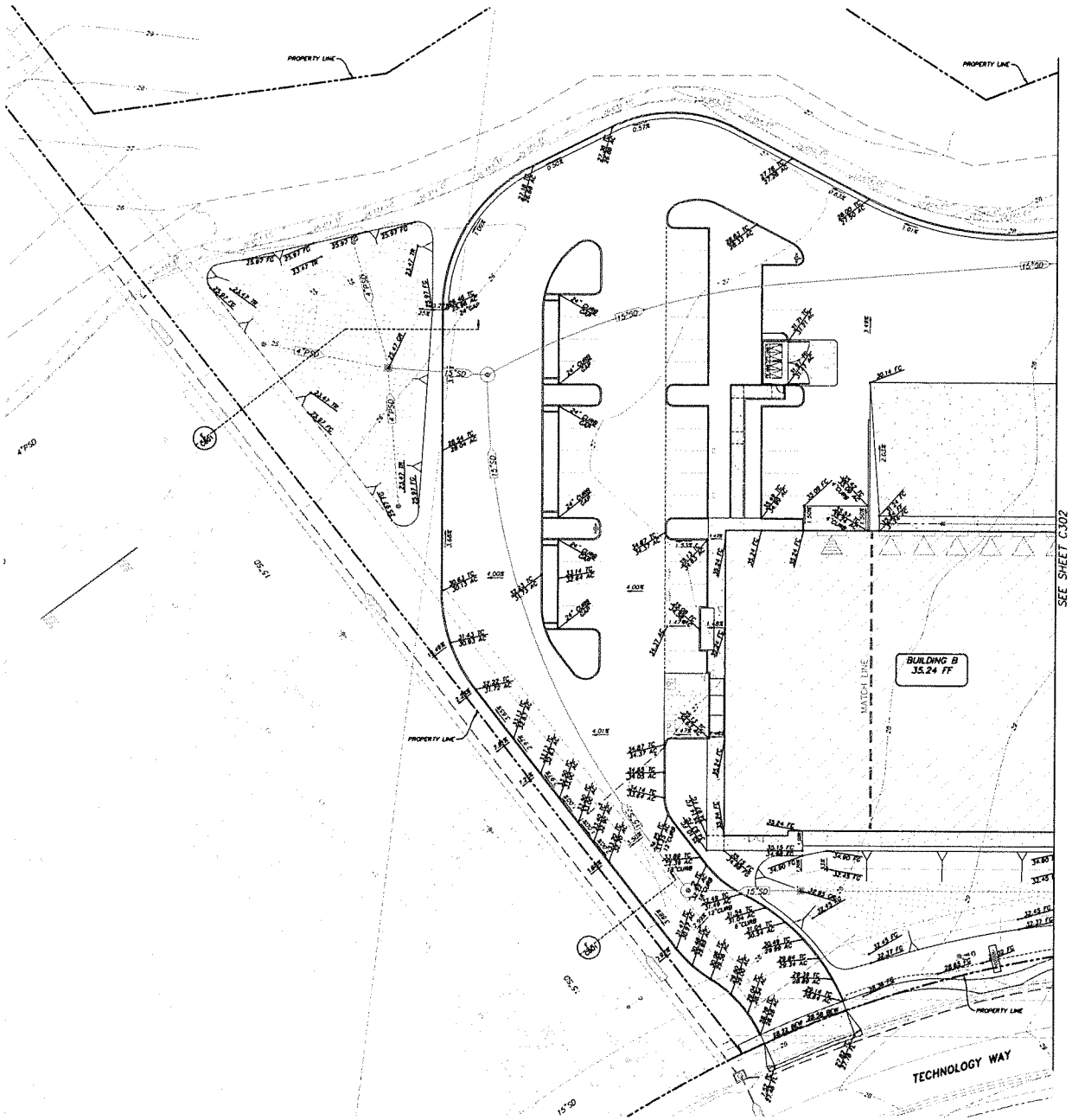
GRADING & DRAINAGE PLAN

sheet no.

C302

SCALE: 1"=20

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stamp:

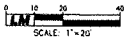


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project number: 3687-13

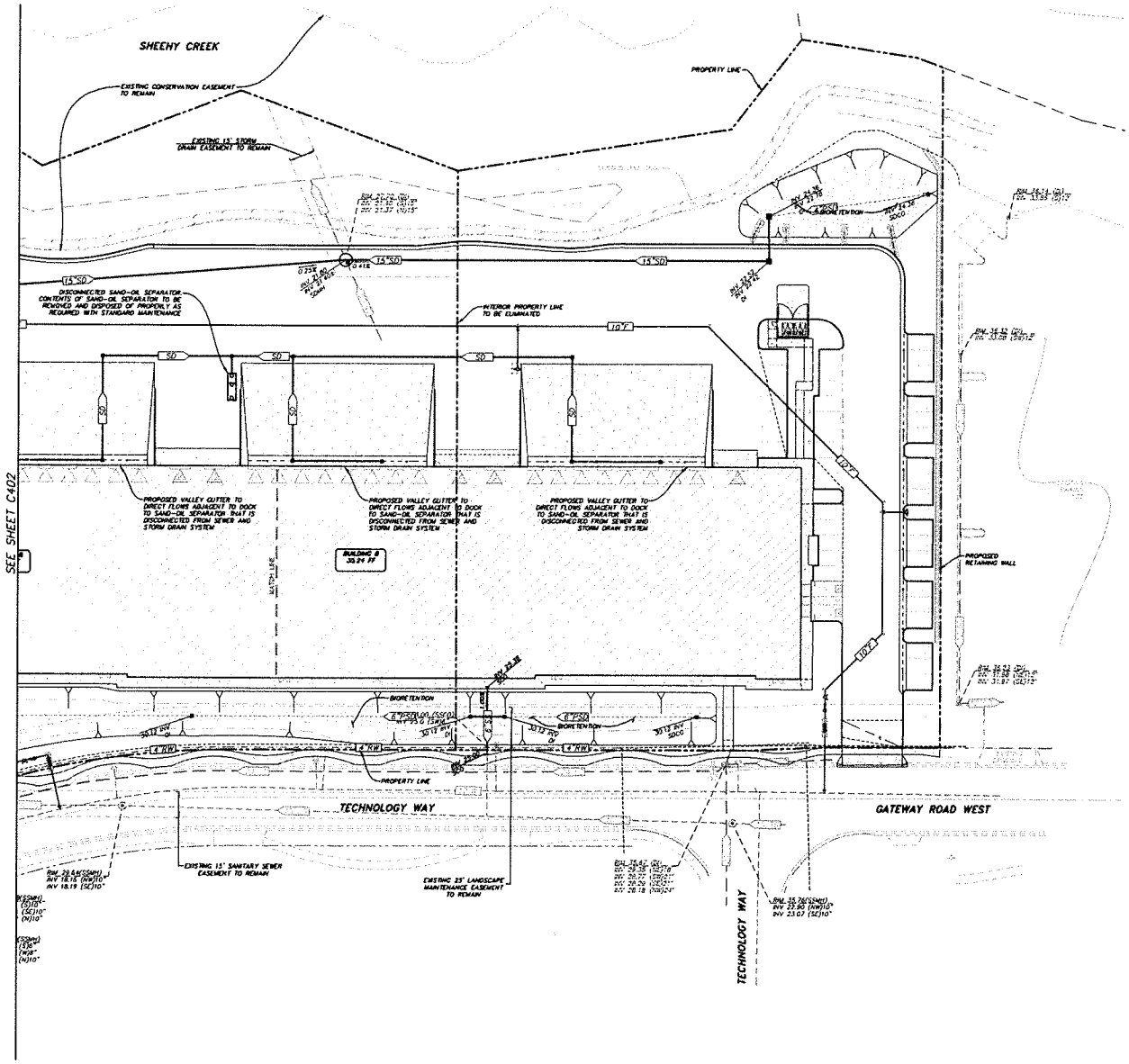
GRADING &
DRAINAGE PLAN





sheet no.

C303



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approved for the architect by:

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checked by: PF

stamp:

scale: AS NOTED

project number: 3687-13

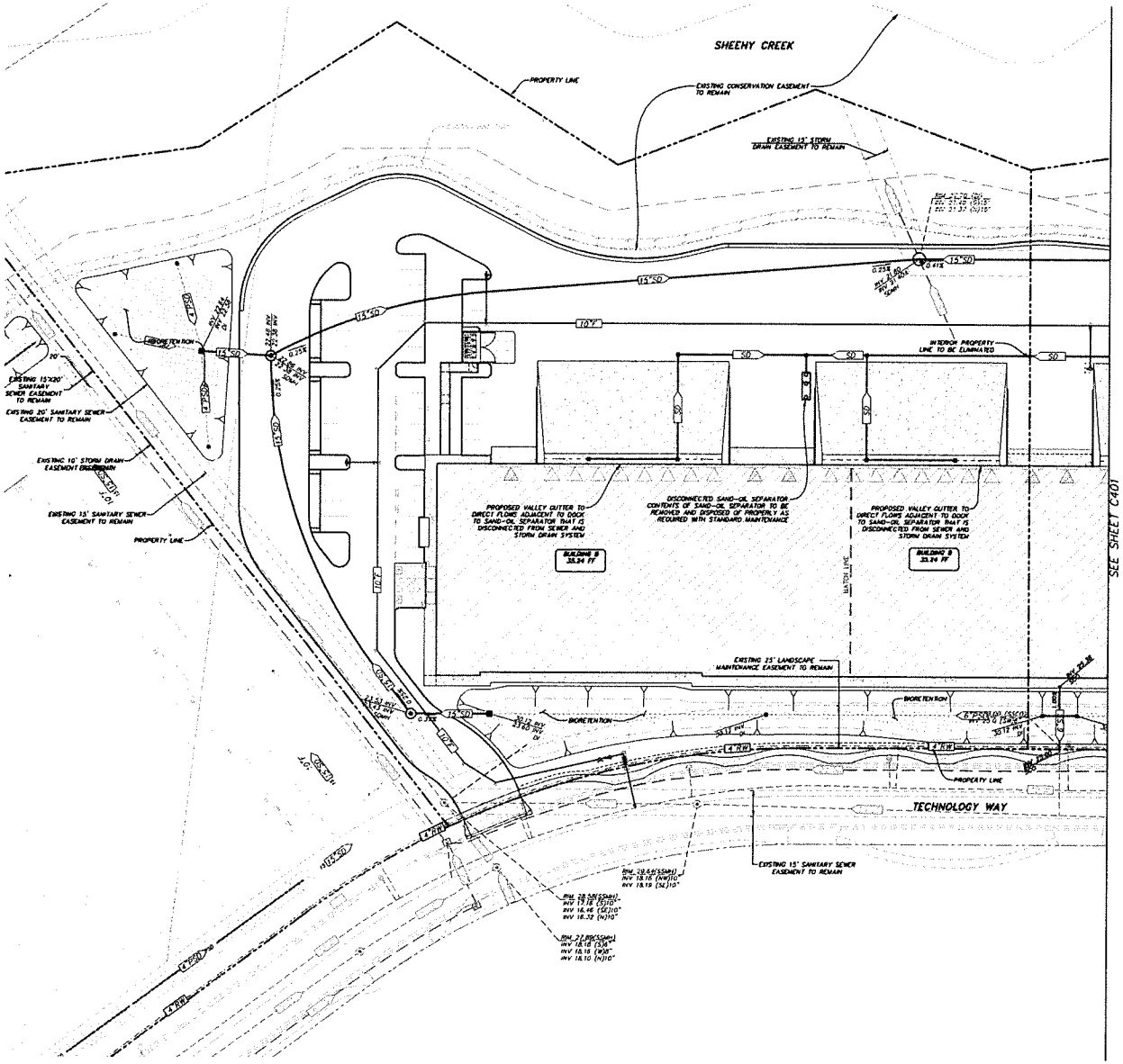
UTILITIES PLAN



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SCALE: 1"=30

sheet no.:

C401



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stamp



scale AS NOTED

project number 3687-13

UTILITIES PLAN

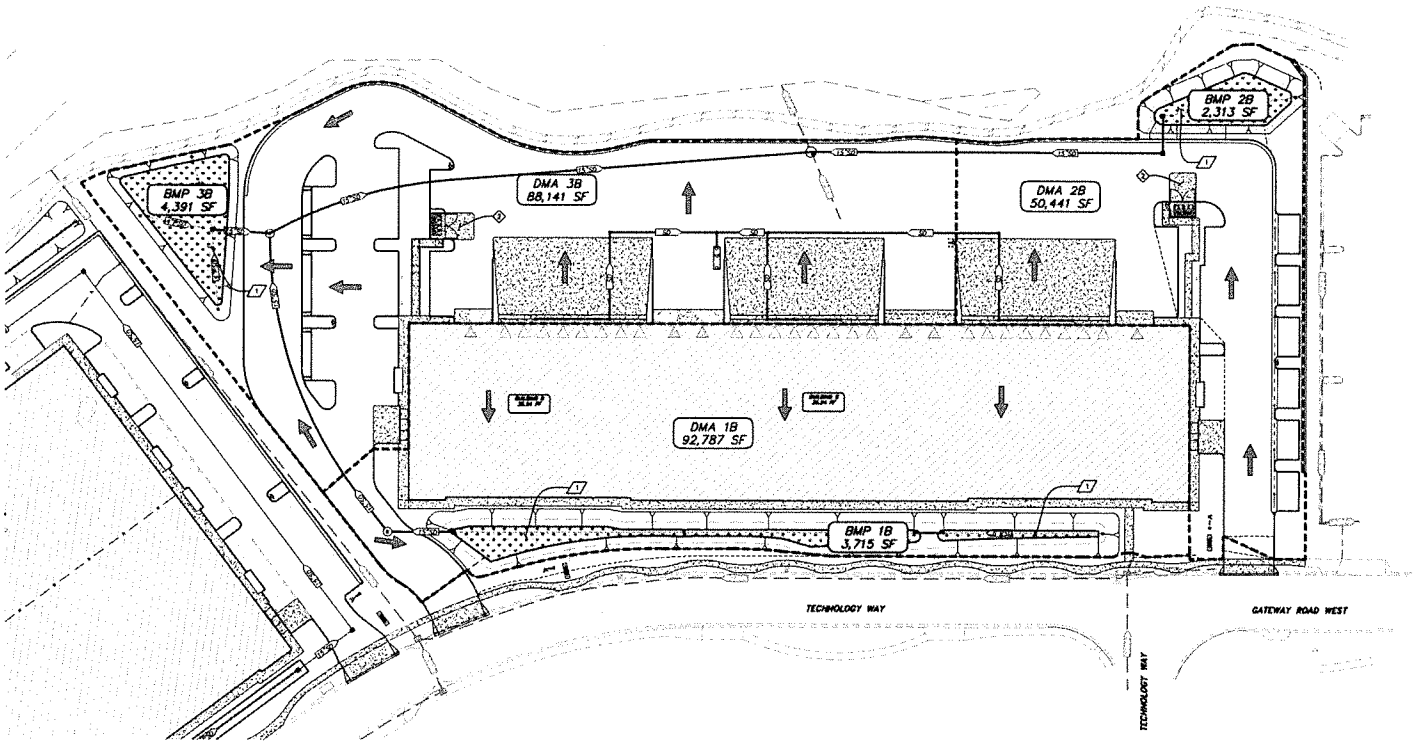


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SCALE: 1"=30'

sheet no.

C402

File Name: X:\Land Projects\3687-13\dwg\3687-13_B_C402.dwg Date Plotted: February 02, 2023 - 8:24am



GENERAL NOTES:

A. TOTAL PROJECT AREA IS 231,800 SF (5.32 AC)
B. DMA = DRAINAGE MANAGEMENT AREA
C. BF = BIORETENTION FACILITY, TREATMENT CONTROL MEASURE
D. SOILS ARE GROUP D, PER USDA SOIL MAP VIEWER REPORT.
E. DEPTH TO GROUNDWATER IS YET TO BE DETERMINED
F. RECEIVING WATER BODY IS SHEEHY CREEK.

SITE DESIGN MEASURES ○:

1. PRESERVE NATURAL DRAINAGE PATTERNS.
2. DIRECT RUNOFF FROM IMPERVIOUS AREAS TO LANDSCAPED AREAS. FLOW DIRECTION (⟹).
3. PLANT TREES ADJACENT TO IMPERVIOUS AREAS. TREE LOCATIONS TO BE IDENTIFIED WITH FINAL CONSTRUCTION DOCUMENTS.
4. SELF-TREATING OR SELF-RETAINING AREA
5. DMA DRAINING TO A SELF-RETAINING AREA.

POTENTIAL POLLUTION SOURCES AND CONTROL MEASURES ◇:

1. LOADING DOCK, COVERED FOR SIX FEET OUT BEYOND THE EDGE OF THE BUILDING ROOF. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL
2. REFUSE AREA, COVERED AND ENCLOSED FOR DUMPSTERS. SEE ARCHITECTURAL PLANS FOR FURTHER DETAIL. GRADED TO MINIMIZE STORMWATER RUN-ON AND RUNOFF. SEE GRADING PLAN FOR FURTHER DETAIL
3. STORM DRAIN INLET, MARK WITH WORDS "NO DUMPING! FLOWS TO BAY". SEE UTILITY PLAN FOR FURTHER DETAIL.

TREATMENT CONTROL MEASURES □:

1. INSTALL BIORETENTION FACILITY PER DETAILS ON SHEET C502. SEE GRADING PLAN, SITE PLAN, UTILITY PLAN, AND LANDSCAPING PLAN FOR MORE DETAIL.

O&M SUMMARY:

1. O&M ACTIVITIES AND RESPONSIBLE PARTIES WILL BE SPECIFIED WITH THE FINAL CONSTRUCTION DOCUMENTS.

LEGEND

DMA	DRAINAGE MANAGEMENT AREA
BMP	BEST MANAGEMENT PRACTICE
DMA 1 1,000 SF	WATER QUALITY AREA NAME AND SQUARE FOOTAGE
------	WATER QUALITY AREA BOUNDARY
BMP 1 1,000 SF	BIORETENTION MANAGEMENT AREA NAME AND SQUARE FOOTAGE
	BIORETENTION MANAGEMENT AREA
⟹	DIRECTION OF FLOW

SCALE: 1"=40'

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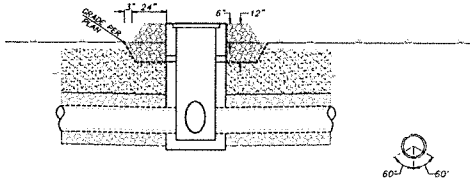


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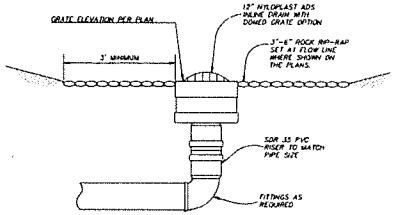
STORMWATER CONTROL PLAN

sheet no.
C501

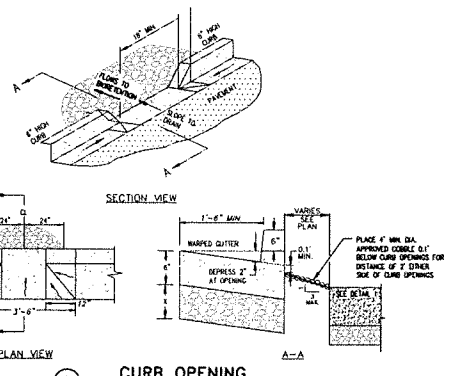
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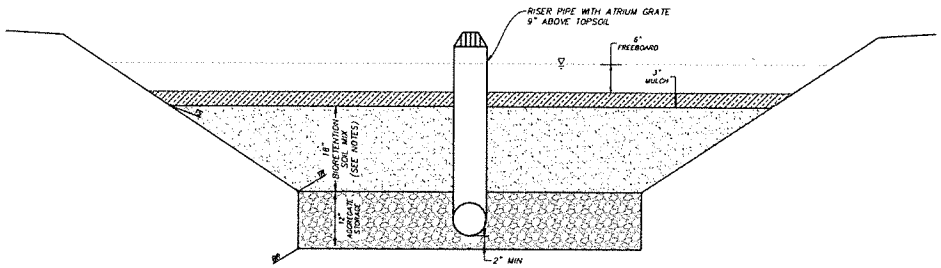
1 DRAINAGE INLET AND BIORETENTION DETAIL
NTS



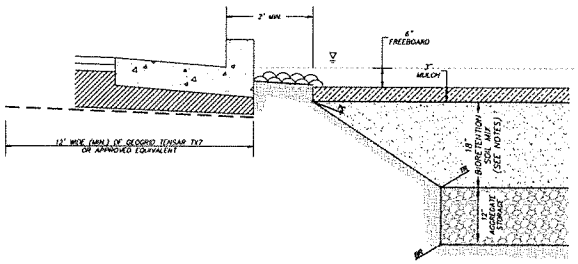
2 LANDSCAPE AREA DRAIN
NTS



3 CURB OPENING
NTS



4 BIORETENTION FACILITY WITH SLOPED GROUND
NTS



5 BIORETENTION FACILITY WITH SLOPED GROUND ADJACENT TO CURB AND GUTTER
NTS

BIORETENTION NOTES:

1. FOR LOCATION, SIZE, AND IDENTIFICATION OF PROPOSED LANDSCAPING/PLANT MATERIAL SEE LANDSCAPE PLANS.
2. BIOTREATMENT SOIL MIX SHALL CONSIST OF 60%-70% SAND AND 30%-40% COMPOST PER BASMAA SPECIFICATIONS. SPECIFICATIONS AVAILABLE FROM CONTRA COSTA CLEAN WATER PROGRAM. (CCCWP) SOIL MIX MUST BE OBTAINED FROM LOCAL SUPPLIER APPROVED BY THE CCCWP.
3. INSTALLATION OF PERMEABLE SOIL SHALL BE PER BASMAA REQUIREMENTS.

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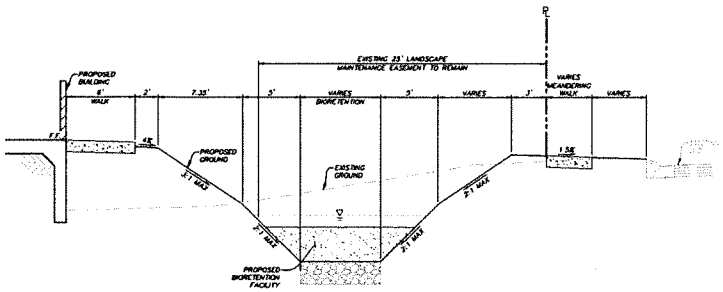
scale : AS NOTED

project number 3687-13

STORMWATER
CONTROL PLAN
DETAILS

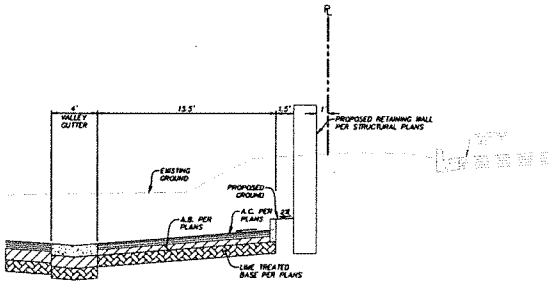
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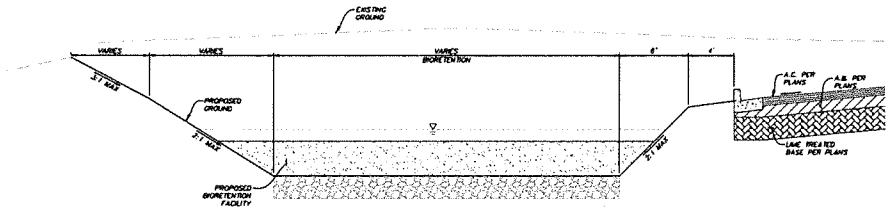
BIORETENTION ADJACENT TO TECHNOLOGY WAY

A NTS



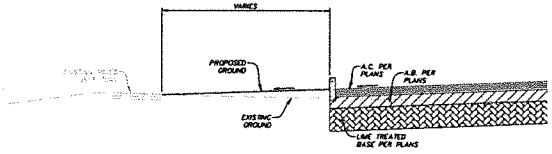
SOUTHEAST PROPERTY LINE

B NTS



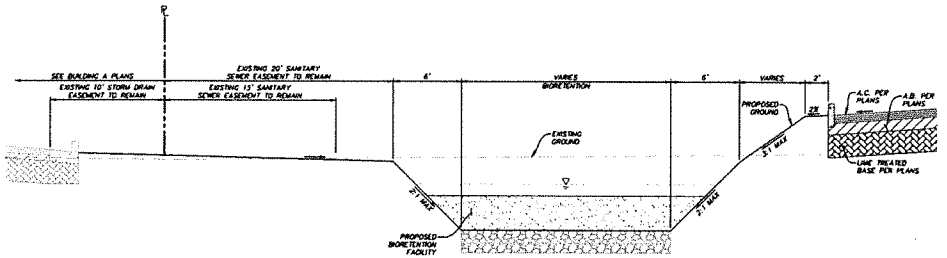
NORTHEAST BIORETENTION

C NTS



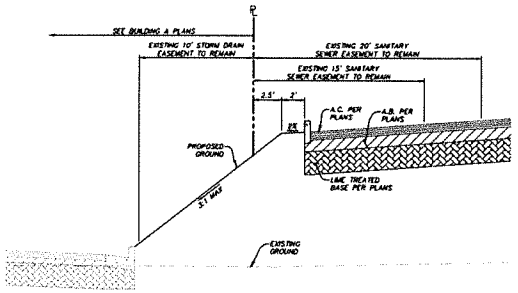
NORTHEAST PROPERTY LINE

D NTS



NORTHWEST BIORETENTION

E NTS



WEST END PROPERTY LINE

F NTS

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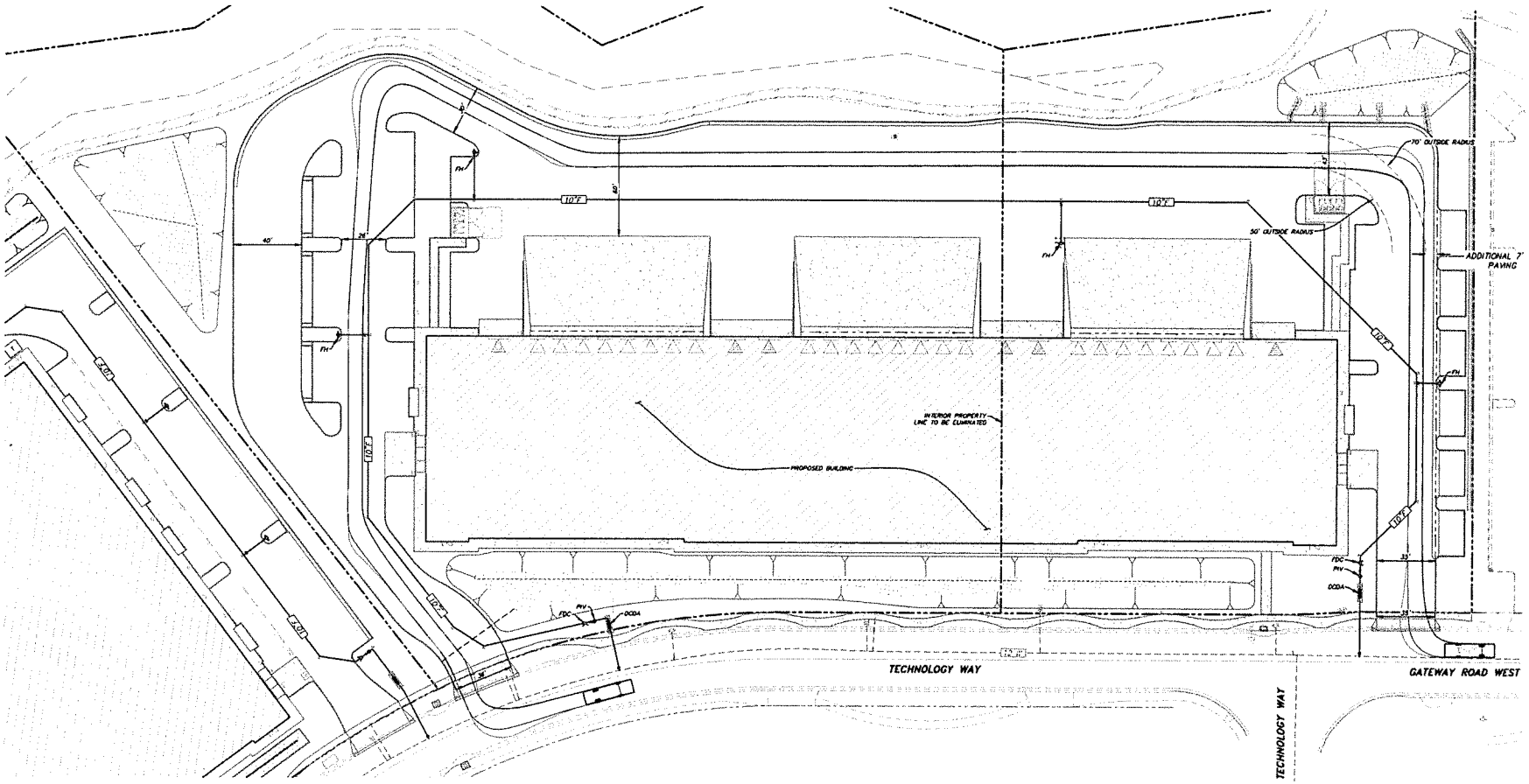
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project number : 3687-13

CROSS SECTIONS

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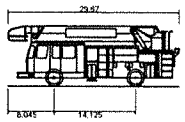
C801



LEGEND

BODY ENVELOPE

OUTER WHEEL WALLS



PIERCE - VEL7000	
Overall Length	29.670ft
Overall Width	8.000ft
Overall Body Height	10.514ft
Min Body Ground Clearance	0.944ft
Track Width	8.470ft
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	30.000ft

1 NAPA COUNTY FIRE ENGINE
NTS

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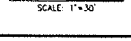
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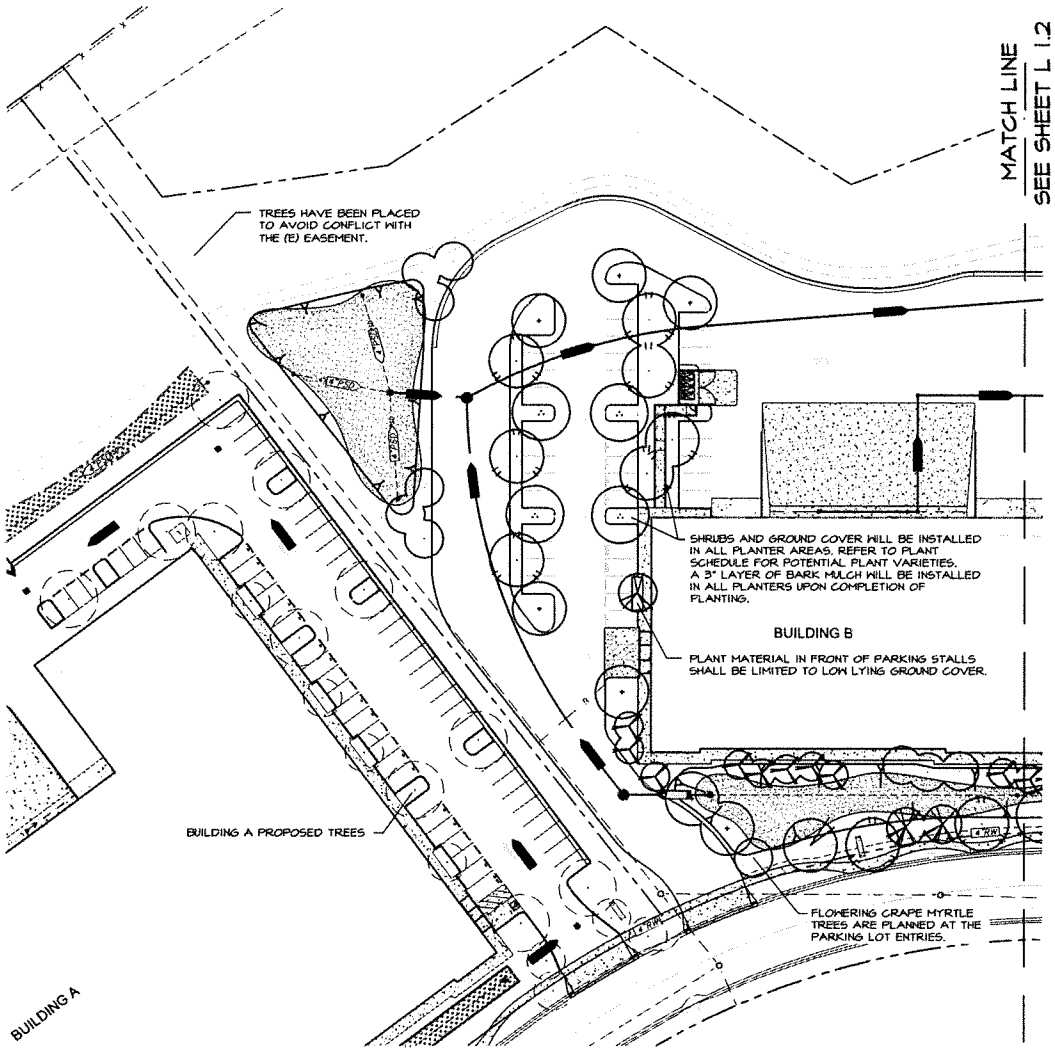
FIRE PLAN

sheet no.

C901







PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME
	CER FOR	27	Cercis canadensis 'Forest Pansy' / Forest Pansy Eastern Redbud
	ERI DEF	2	Eriobotrya deflexa (standard) / Bronze Loquat
	LAG NAT	17	Lagerstroemia indica x fauriei 'Natchez' / Natchez Crape Myrtle
	PIN ELD	8	Pinus eldarica / Afghan Pine
	PIS KEI	12	Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache
	PLA COL	17	Platanus x acerifolia 'Columbia' / Columbia London Plane Tree
	QUE SUB	9	Quercus suber / Cork Oak
	ZEL VIL	10	Zelkova serrata 'Green Vase' / Green Vase Zelkova
BIOFILTRATION BASIN	CODE	QTY	BOTANICAL / COMMON NAME
	TUR BIO	16,719 sf	Biofiltration Sod / Avail. from: Delta Bluegrass

SEE SHEET L1.3 FOR COMPLETE PLANT SCHEDULE

0' 60' 120'
30'
SCALE: 1"=30'-0"

NORTH

YAMASAKI
LANDSCAPE ARCHITECTURE
1223 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042

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Interiors
1718 Third Street
Suite 101
Sacramento
California 95811

Office
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OWNER / DEVELOPER:

E & P PROPERTIES

5400 INDUSTRIAL WAY,
BENICIA, CA 94510

PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by

issue	description	date
A	INITIAL PLANNING REVIEW	07-27-2022
B	REISSUED FOR PLANNING REVIEW	01-25-2023

GENERAL CONTRACTOR:

drawn by : JMA plot date : 07-27-2022
checked by : JMA

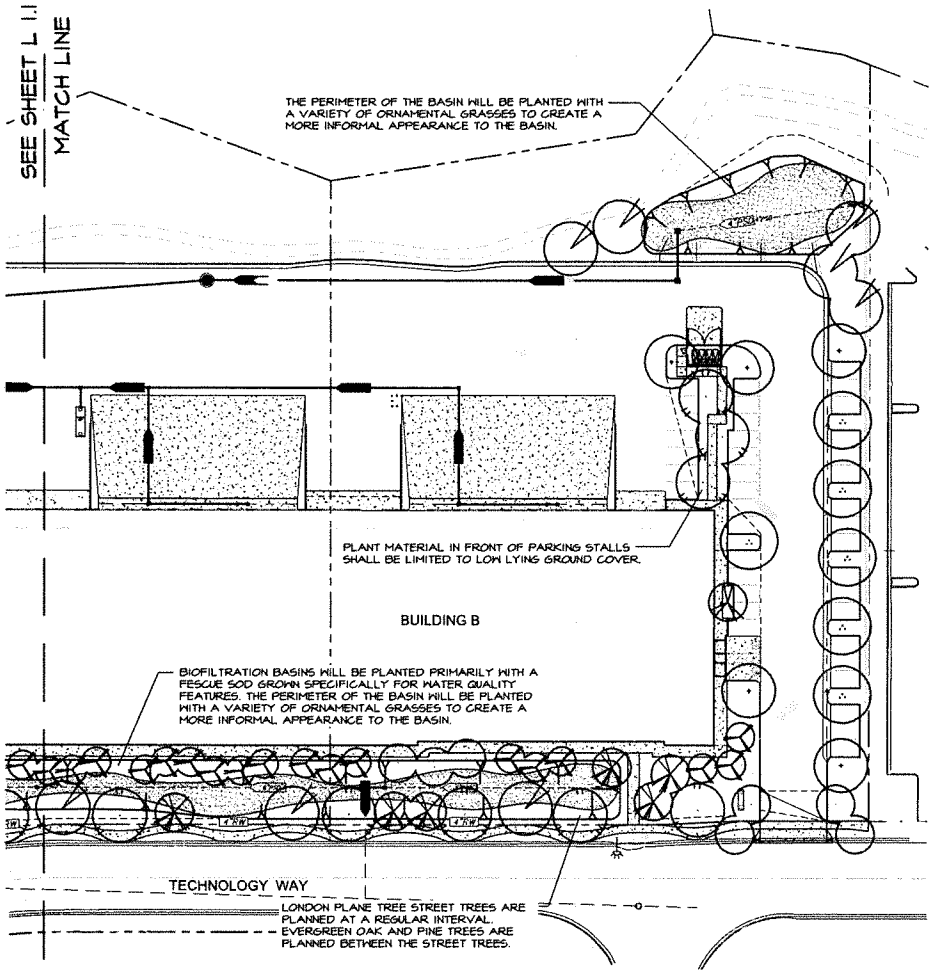
stamp

scale : AS NOTED
project number : 2204068.00

PRELIMINARY LANDSCAPE PLAN

sheet no. :
L1.1

File Name: S:\dwg\Technology Way\DWG's\00\TW B PL.dwg Date Plotted: January 24, 2023 - 2:32pm



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME
	CER FOR	27	Cercis canadensis 'Forest Pansy' / Forest Pansy Eastern Redbud
	ERI DEF	2	Eriobotrya deflexa (standard) / Bronze Loquat
	LAG NAT	17	Lagerstroemia indica x fauriei 'Natchez' / Natchez Crape Myrtle
	PIN ELD	8	Pinus eldorica / Afghan Pine
	PIS KEI	12	Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache
	PLA COL	17	Platanus x acerifolia 'Columbia' / Columbia London Plane Tree
	QUE SUB	9	Quercus suber / Cork Oak
	ZEL VIL	10	Zelkova serrata 'Green Vase' / Green Vase Zelkova
BIOFILTRATION BASIN	CODE	QTY	BOTANICAL / COMMON NAME
	TUR BIO	16,719 sf	Biofiltration Sod / Avail. from: Delta Bluegrass

SEE SHEET L1.3 FOR COMPLETE PLANT SCHEDULE

0' 60' 120'
30'
SCALE: 1"=30'-0"

NORTH

YAMASAKI
LANDSCAPE ARCHITECTURE
1223 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042

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PRELIMINARY DESIGN DOCUMENTS FOR:

NEW WAREHOUSE BUILDING B

TECHNOLOGY WAY & MORRIS COURT
NAPA COUNTY, CALIFORNIA

approved for the owner by :

approved for the architect by

issue	description	date
A	INITIAL PLANNING REVIEW	07-27-2022
B	REISSUED FOR PLANNING REVIEW	01-31-2023

GENERAL CONTRACTOR:

drawn by : JMA plot date : 07-27-2022
checked by : JMA

stamp

scale : AS NOTED
project number : 2204008.00

PRELIMINARY LANDSCAPE PLAN

sheet no. :
L1.2

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE
	CER FOR	Cercis canadensis 'Forest Pansy' / Forest Pansy Eastern Redbud	24" box
	ERI DEF	Eriobotrya deflexa (standard) / Bronze Loquat	24" box
	LAG NAT	Lagerstroemia indica x fauriei 'Natchez' / Natchez Crape Myrtle	24" box
	PIN ELD	Pinus eldarica / Afghan Pine	15 gal
	PIN HAL	Pinus halepensis / Aliepo Pine	15 gal
	PIS KEI	Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache	24" box
	PLA COL	Platanus x acerifolia 'Columbia' / Columbia London Plane Tree	15 gal
	QUE SUB	Quercus suber / Cork Oak	15 gal
	ZEL VIL	Zelkova serrata 'Green Vase' / Green Vase Zelkova	15 gal
POTENTIAL SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE
	CAL DWA	Callistemon viminalis 'Little John' / Dwarf Weeping Bottlebrush	5 gal
	CIS PRO	Cistus salvifolius 'Prostratus' / Sageleaf Rockrose	5 gal
	DIE VEG	Dietes vegeta / African Iris	1 gal
	ELA MAC	Elaeagnus pungens 'Maculata' / Eleagnus	5 gal
	GRE NOE	Grevillea x 'Noellii' / Grevillea	5 gal
	MAH SOF	Mahonia eurybracteata 'Soft Caress' / Soft Caress Mahonia	5 gal
	NAN GUL	Nandina domestica 'Gulf Stream' TM / Heavenly Bamboo	5 gal
	RHA EVE	Rhamnus californica 'Eve Case' / California Coffeeberry	5 gal
	RHA DWA	Rhaphiolepis umbellata 'Minor' / Dwarf Yedda Hawthorn Standard	5 gal
	ROS COL	Rosmarinus o. 'Collingwood Ingram' / Collingwood Ingram Rosemary	5 gal
	VIB DAV	Viburnum davidii / David Viburnum	5 gal
	XYL COM	Xylosma congestum 'Compacta' / Compact Xylosma	5 gal
POTENTIAL GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE
	CAL KAR	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	1 gal
	MUH RIG	Muhlenbergia rigens / Deer Grass	1 gal
POTENTIAL VINES	CODE	BOTANICAL / COMMON NAME	SIZE
	MAC UNG	Macfadyena unguis-cati / Cat's Claw Creeper	5 gal
POTENTIAL GROUND COVERS	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING
	ARC ECP	Arctostaphylos x 'Emerald Carpet' / Emerald Carpet Manzanita	1 gal	36" o.c.
	COT LOW	Cotoneaster dammeri 'Lowfast' / Lowfast Bearberry Cotoneaster	1 gal	48" o.c.
BIOFILTRATION BASIN	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING
	TUR BIO	Biofiltration Sod / Avail. from: Delta Bluegrass	sod	

PLANTING STATEMENT

The proposed landscape plant palette consists of low water use shrubs, groundcover, trees, and ornamental grasses that are considered low maintenance and hardy. Choice of plants is guided by considerations of solar exposure and climate conditions of the site. Plant selection aims for longevity by selecting plants that are long lived varieties of trees, shrubs, groundcover, and grasses.

Shrubs and groundcover are minimum #1 size. Trees are minimum #15 size. Plant materials shall be spaced to provide substantial cover, but also to allow adequate room to mature into their natural form and ultimate size without required pruning.

IRRIGATION STATEMENT

The irrigation system will be serviced by a new point of connection. The irrigation design will consist of low volume point source drip irrigation. Proposed trees shall utilize bubbler irrigation to encourage deep root watering. The overall irrigation system will be designed with a smart irrigation controller. A weather sensor will be used to automatically adjust duration of application in accordance with recent weather conditions based on evapotranspiration. Maximum water allowance will be determined by State code. To also be consistent with the planting design, the irrigation design will create separate irrigation stations by hydrozone, locating plants of different water and solar needs into groups.

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GENERAL CONTRACTOR:

drawn by : JMA plot date : 07-27-2022

checked by : JMA

stamp:

scale : AS NOTED

project number : 2204060.00

PLANT SCHEDULE AND NOTES

sheet no. :

L1.3

“L”

NVBPSP Wineries

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

NAPA VALLEY BUSINESS PARK SPECIFIC PLAN AREA WINERIES

Winery	Status	Address	Multi-tenant Building	Site Area (acres)	Floor Area (sq. ft.)	Production (gallons/year)	Tours & Tastings (visitors/week)	Tours & Tastings (visitors/year)	Annual Marketing Events	Annual Marketing Attendance
Vinum Cellars	Approved	NEC Airport Blvd & Devlin Road	Yes*	1.17	3,090	1,200	600**	31,200	0	0
Sawyer Cellars	Operating	759 Technology Way	Yes	3.1	3,859	10,000	56	2,912	6	300
Black Cat Winery	Operating	194 Camino Oruga	Yes	1.67	3,350	12,500	140	7,280	4	120
Leaf and Vine Winery	Operating	190 Camino Oruga	Yes	1.67	3,899	18,500	135	7,020	6	200
Peju Winery	Approved	210 Camino Oruga	No	1.07	12,800	20,000	2	104	0	0
Rocca Winery	Approved	129 Devlin Road	No	1	6,700	20,000	224	11,648	216	10,800
Busby Winery	Approved	455 Technology Way	No	1.28	18,162	50,000	0	0	0	0
Spelletich Winery	Operating	425 Gateway Road East	Yes	2.2	7,300	60,000	0	0	0	0
Bourassa Winery / Holman Cellars	Operating	190 Camino Oruga	Yes	1.67	9,604	60,000	45	2,340	10	500
Farm Collective Winery	Operating	394-396 Devlin Rd	Yes	2.3	13,865	80,000	210	10,920	13	1,300
Sheehy Winery	Approved	East Side of Devlin Road, APN 057-210-037 & -038	No	2.74	40,085	98,400	0	0	0	0
Rudd Winery	Approved	Sheehy Court/Devlin Road	No	2.5	34,510	120,000	0	0	0	0
Rombauer Vineyards	Operating	615 Airpark Rd	No	1.8	26,098	120,000	0	0	0	0

NAPA VALLEY BUSINESS PARK SPECIFIC PLAN AREA WINERIES

Winery	Status	Address	Multi-tenant Building	Site Area (acres)	Floor Area (sq. ft.)	Production (gallons/year)	Tours & Tastings (visitors/week)	Tours & Tastings (visitors/year)	Annual Marketing Events	Annual Marketing Attendance
Vintedge Winery	Approved	144 Gateway Road E	No	5.52	86,393	460,000	210	10,920	13	1,300
Wilkinson/Bin to Bottle Custom Crush	Operating	122 Camino Oruga	No	3.5	48,250	250,000	0	0	0	0
Wilkinson Winery (Bin to Bottle)	Operating	110 Camino Oruga	No	1.2	13,000	310,000	0	0	12	400
Gateway Partners Winery	Approved	501 Gateway Drive	Yes	13.1	80,200	400,000	0	0	0	0
Rang Dong Winery	Operating	3 Executive Way	No	7.22	70,418	600,000	50	2,600	3	600
Gateway Winery	Approved	Technology Way/Morris Court	No	11.1	261,000	600,000	200	10,400	36	9,000
Safe Harbor 3	Approved	665 Napa-Vallejo Hwy	No	12.03	67,470 (Two Buildings)	850,000	0	0	0	0
Rombauer Vineyards	Operating	601 Airport Road	No	5.95	108,000	1,200,000	0	0	0	0
Barrel Ten Quarter	Operating	33 Harlow Court	No	3.65	96,200	43,000,000	70	3,640	36	4,800
Gateway 24 Napa	Approved	End Gateway Rd East	No	4.33	54,790	250,000	0	0	0	0
E&P Technology Wy	**Proposed**	**Technology Way**	**No**	**13.2**	**143,312**	**450,000**	**0**	**0**	**0**	**0**

* Uses - Office - 1,330 sf; Café - 840 sf; Winery with Wine Tasting - 920 sf

** Visitor per Day - 56 per day - Weekday; 120 per day - Weekend

“M”

CA Dept. of Fish & Wildlife
Letter Dated November 15, 2024

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

Docusign Envelope ID: 7CBA9409-1745-4F3A-BEF7-243EC7B98880

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

November 15, 2024

Sean Trippi, Supervising Planner
Napa County Planning, Building, and Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559
Sean.Trippi@countyofnapa.org

Subject: E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Initial Study/Mitigated Negative Declaration, SCH No. 2024100855, Napa County

Dear Mr. Trippi:

The California Department of Fish and Wildlife (CDFW) received an Initial Study/Mitigated Negative Declaration (IS/MND) from Napa County (County) for the E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032) (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.

CDFW is submitting comments on the IS/MND to inform the County, as the Lead Agency, of potentially significant impacts to biological resources associated with the Project.

CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under CEQA pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Lake and Streambed Alteration (LSA) Agreement, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources.

PROJECT DESCRIPTION SUMMARY

Proponent: Mike Kelly

Objective: The Project is limited to the development of a 143,312 square-foot wine production facility (Building A) and a 66,915 square-foot warehouse (Building B). The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 square feet of covered outdoor work area will be located on the north side of the

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building. The Project also includes 129 parking spaces and 8 spaces for semi-trailers. Access will be provided by three new driveways: one on Technology Way and two on Morris Court.

Building B is limited to warehouse uses within the proposed 66,915 square-foot building. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side of the building. The entrance driveway will be wide enough to accommodate two-way traffic.

Location: The Project is located on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030), at approximately 38.22753°N and -122.26939°W; and Building B is proposed on a 6.87-acre site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031, -032, to be combined), at approximately 38.22677°N, -122.26638°W. A conservation easement runs along the north and northeast boundary of the Project site which includes a meandering path along the south side of Sheehy Creek.

REGULATORY REQUIREMENT

California Endangered Species Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in "take" of plants or animals listed or candidate species under CESA either during construction or over the life of the Project. **The Project has the potential to impact Swainson's hawk (*Buteo swainsoni*), CESA listed as threatened species. Thank you for including mitigation measures for Swainson's hawk. Please be advised that the California Natural Diversity Database (CNDDB) documents a nesting Swainson's hawk record in year 2021 approximately 300 feet north of the Project site. Swainson's hawks often utilize the same nests sites from year to year, therefore there is a high potential for nesting Swainson's hawk to be impacted by the Project during nesting season, warranting an ITP. The Project also has the potential to impact burrowing owl (*Athene cunicularia*), a CESA candidate species, as further described below.** Issuance of an ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain an ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub.

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Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, & 15065.). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

Raptors and Other Nesting Birds

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those CDFW recommends below and included in **Attachment 1** Draft Mitigation Monitoring and Reporting Program, CDFW concludes that an MND is appropriate for the Project.

I. Mitigation Measure and Related Impact Shortcoming

MANDATORY FINDING OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

COMMENT 1: Burrowing Owl

Issue: Thank you for including in the IS/MND mitigation measures for burrowing owl (BUOW). However, the language in the IS/MND and the Biological Resources Analysis does not reflect the recent status change of BUOW to a CESA candidate species, and Mitigation Measure (MM) BIO-6 does not stipulate whether the Project would obtain a CESA ITP if take of BUOW may occur. Take of CESA candidate species is prohibited without a CESA take authorization from CDFW, typically an ITP. CNDDB documents a wintering BUOW record approximately 1,100 feet northeast of the Project site, within the area of potential Project disturbance.

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Recommended mitigation measure: To reduce potential impacts to BUOW to less-than-significant and comply with CESA, CDFW recommends adding the following requirements to MM BIO-6.

> Mitigation Measure BIO-6 (Burrowing Owl Habitat Assessment and Surveys): If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

II. Editorial Comment

COMMENT 2: California Endangered Species Act Incidental Take Permit

Issue: The IS/MND Page 2, Section 10 states: "The proposed project does not involve the "take" of listed endangered or threatened species, and thus does not require a "take permit" from the Department of Fish and Wildlife…" As discussed above, the Project has the potential to result in take of BUOW and Swainson's hawk. Furthermore, the IS/MND MM BIO-4 states: "If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence. Therefore, the Project may require a "take permit" (i.e., ITP) from CDFW.

Recommendation: CDFW recommends revising the above language on IS/MND Page 2, Section 10 to: "The proposed project has the potential to result in "take" of listed endangered or threatened species, or candidate species for listing, and thus may require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

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ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNDDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist the County in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Nicholas Magnuson, Environmental Scientist, at (707) 815-4166 or Nicholas.Magnuson@wildlife.ca.gov, or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Erin Chappell
B77E9A6211EF486...

Erin Chappell
Regional Manager
Bay Delta Region

Attachment 1: Draft Mitigation Monitoring and Reporting Program

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024100855)
Sean Kennings, LAK Associates, LLC - Sean@lakassociates.com

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ATTACHMENT

Draft Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)			
Mitigation Measure (MM)	**Description**	**Timing**	**Responsible Party**
MM BIO-6	***ADD THE BELOW LANGUAGE TO THE EXISTING MM BIO-6.*** Burrowing Owl Habitat Assessment and Surveys: If take of BUOW cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur, and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.	Prior to Ground Disturbance and During Project Construction	Project Applicant
Editorial Comment	CDFW recommends revising the language on IS/MND Page 2, Section 10 to: “The proposed project has the potential to result in “take” of listed endangered or threatened species, or candidate species for listing, and thus may require a “take permit” from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.	Prior to Finalizing IS/MND	Lead Agency

“N”

Adams Broadwell Joseph & Cardoza Letter Dated November 19, 2024

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

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ALAURA R. McGUIRE
TARA C. RENGIFO

Of Counsel
MARC D. JOSEPH
DANIEL L. CARDOZO

November 19, 2024

Via Email and Overnight Mail

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Vice Chair Heather Phillips
Commissioner Kara Brunzell
Commissioner Andrew Mazotti
Commissioner Megan Dameron
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Sean Trippi, Supervising Planner
Sean Kennings, Contract Planner
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Re: Agenda Item #7: Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855)

Dear Chair Dave Whitmer, Vice Chair Heather Phillips, Commissioner Kara Brunzell, Commissioner Andrew Mazotti, Commissioner Megan Dameron, Director Bordona, Mr. Trippi, and Mr. Kennings:

On behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents"), we submit these comments on the Initial Study/Mitigated Negative Declaration (collectively, "MND")[1] prepared pursuant to the California Environmental Quality Act ("CEQA")[2] by Napa County ("County") for the E&P Technology Way - Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855) ("Project"), proposed by Michael Kelley ("Applicant").

[1] Napa County, *Initial Study/Mitigated Negative Declaration for E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* (October 2024), available at: https://ceqanet.opr.ca.gov/2024100855 (hereinafter "MND").
[2] Pub. Resources Code § 21000 *et seq.*; 14 C.C.R. §§ 15000, *et seq*.

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The Project proposes to construct two separate buildings on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031 and -032, which will be combined).[3] Both sites are located in the Napa Valley Business Park Specific Plan ("NVBPSP") area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.[4]

Building A is a 143,312 square foot ("SF") refrigerated wine production facility with an annual production capacity of 450,000 gallons.[5] The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space.[6] An additional 13,000 SF of covered outdoor work area is also proposed for the north side of the building.[7] During non-harvest season, the facility will have 16 full-time and 7 part-time employees, which will increase during harvest to approximately 35 total employees.[8] Building A will have 129 parking spaces and eight (8) spaces for semi-trailers.[9]

Building B is a proposed 66,915 SF building for warehouse uses that the MND claims will be "consistent with allowable warehouse uses as outlined in Industrial Park zoning district (18.40.020) and the [NVBPSP]."[10] Building B will be utilized primarily for warehousing/distribution as well as office space.[11] The facility will be run by up to 30 employees but no user has been identified.[12] There will be no retail sales and no access for the general public.[13]

The Building A and Building B projects will be provided with water service from the City of American Canyon.[14] Napa Sanitation District will provide sewer.[15]

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[3] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* at p. 2 (November 8, 2024).
[4] *Ibid.*
[5] MND at p. 1.
[6] *Ibid.*
[7] *Ibid.*
[8] *Ibid.*
[9] *Ibid.*
[10] *Id.* at p. 2.
[11] *Ibid.*
[12] *Ibid.*
[13] *Ibid.*
[14] *Ibid.*
[15] *Ibid.*
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We reviewed the MND and its technical appendices with the assistance of Napa-Solano Residents' expert consultants, including air quality, public health, and greenhouse gas ("GHG") emissions expert James Clark, biological resources expert Dr. Shawn Smallwood, and transportation expert Daniel Smith. Mr. Clark's technical comments and curriculum vitae are attached hereto as Exhibit A.[16] Dr. Smallwood's technical comments and curriculum vitae are attached hereto as Exhibit B.[17] Mr. Smith's technical comments and curriculum vitae are attached hereto as Exhibit C.[18] These comment letters and all attachments thereto are incorporated by reference as if fully set forth herein.[19]

Based on our review of the MND, the MND fails as an informational document under CEQA and lacks substantial evidence to support its conclusions that the Project's significant impacts would be mitigated to less than significant levels, as asserted in the MND. The MND lacks an adequate project description and fails to adequately characterize the Project site's environmental setting. There is also substantial evidence to support a fair argument that the Project would have potentially significant environmental impacts on air quality, greenhouse gas ("GHG") emissions, biological resources, transportation, and agricultural lands. Napa-Solano Residents and their expert consultants have identified potentially significant impacts that the MND either mischaracterizes, underestimates, or fails to identify. Moreover, the mitigation measures described in the MND will not, in fact, reduce impacts to less-than-significant levels.

For the foregoing reasons and as explained in detail herein, the County must prepare an Environmental Impact Report ("EIR") for the Project before the County may consider Project approval.

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[16] Exhibit A, James Clark, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Clark Comments").
[17] Exhibit B, Dr. Smallwood, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smallwood Comments").
[18] Exhibit C, Daniel Smith, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smith Comments").
[19] Napa-Solano Residents reserves the right to supplement these comments, and to file further comments at any and all future proceedings and hearings related to the Project. Gov. Code § 65009(b); Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; *see also Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.
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I. STATEMENT OF INTEREST

Napa-Solano Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential environmental impacts associated with Project development. Napa-Solano Residents includes members of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, the District Council of Ironworkers, and their members and their families, and other individuals that live and/or work in Napa County.

Napa-Solano Residents supports the development of sustainable residential, commercial, and industrial centers where properly analyzed and carefully planned to minimize impacts on public health and the environment. Developments like the Project should avoid adverse impacts to air quality, biological resources, transportation, and public health, and should take all feasible steps to ensure unavoidable impacts are mitigated to the maximum extent feasible. Only by maintaining the highest standards can development truly be sustainable.

The individual members of Napa-Solano Residents and the members of the affiliated labor organizations live, work, recreate and raise their families in and around Napa County. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work constructing the Project itself. They would be the first in line to be exposed to any health and safety hazards which may be present on the Project site. They each have a personal interest in protecting the Project area from unnecessary, adverse environmental and public health impacts.

Napa-Solano Residents and its members also have an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for the members they represent. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand in Napa County, and by making it less desirable for businesses to locate and people to live and recreate in the County, including the Project vicinity. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduces future employment opportunities.

Finally, Napa-Solano Residents is concerned with projects that can result in serious environmental harm without providing countervailing economic benefits. CEQA provides a balancing process whereby economic benefits, including the provision of jobs for highly trained workers, are weighed against significant impacts to the environment.[20] It is in this spirit we offer these comments.

II. LEGAL BACKGROUND

CEQA requires that lead agencies analyze a project with potentially significant environmental impacts in an EIR.[21] The purpose of the EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment, but also informed self-government.'"[22] The EIR has been described "as an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[23]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances. CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[24]

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

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[20] Pub. Res. Code § 21081 (a)(3); *Citizens for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 171.
[21] *See* Pub. Res. Code § 21000; 14 C.C.R. § 15002.
[22] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 [internal citations omitted].
[23] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[24] Pub. Res. Code §§ 21080(d); 21082.2(d); 14 C.C.R. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
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> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review ***would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur***, and (2) there is ***no substantial evidence*** in light of the whole record before the public agency that the project, as revised, ***may*** have a significant effect on the environment.[25]

Courts have held that "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[26] The fair argument standard creates a "'low threshold'" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[27] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[28]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[29]

According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (g):

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement

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[25] Pub. Res. Code § 21064.5 (emphasis added).
[26] *See, e.g., Communities for a Better Environment. v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[27] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754 [internal citations omitted].
[28] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318; *see also Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[29] 14 C.C.R. § 15384(a).
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among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.[30]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts during construction and operation, and fails to provide substantial evidence to support its conclusions that impacts will be mitigated to a less than significant level.[31] Because substantial evidence shows that the Project may result in potentially significant impacts, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR.

III. THE MND FAILS TO PROVIDE A COMPLETE PROJECT DESCRIPTION

CEQA requires that an Initial Study include a description of the project.[32] "An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action… Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal … and weigh other alternatives in the balance."[33] Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining meaningful public review.[34]

The MND relies on an inadequate Project Description because it omits critical details about the Project's construction timeline and activities, the frequency and number of clients that will visit Building A during operations, and the construction and operation of new recycled water facilities. As a result of these deficiencies, the Project Description in the MND misleads the public by failing to describe the full scope of the Project and its impacts.

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[30] *Id.* at § 15064(g).
[31] Pub. Res. Code § 21064.5.
[32] 14 C.C.R. § 15063(d)(1).
[33] *County of Inyo,* 71 Cal.App.3d at 192-193.
[34] *See, e.g., Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.

First, the MND's Project Description fails to provide information regarding the Project's construction timeline or identify the activities during construction. The Project Description must disclose the timeline for construction, the construction activities that will occur and equipment to be utilized during each construction phase, the start date for construction, and if construction will occur simultaneously for both buildings. The failure to provide this information in the Project Description affects the impacts analysis related to air quality, public health, GHG emissions, and biological resources, among others.

Construction activities require soil disturbing activities, heavy equipment, and numerous hauling truck trips that can significantly impact air quality and public health. An adequate description of the Project's construction period is critical to an informed analysis of the Project's impacts on air quality and public health during construction. Omitting this information in the Project Description also precludes any evaluation of construction-related air quality and GHG emissions. The lack of information concerning the Project's construction phase also severely affects the MND's biological resources impacts analysis. When and where construction activities may occur can directly impact the Project's effects on biological resources such as migratory birds. The County's own evidence acknowledges that avian species have the potential to nest on the Project site, yet the MND lacks any analysis about whether ground-disturbing activities could commence during the nesting season (February 1 through August 31).[35]

Second, the Project Description fails to provide details about the expected visitors to Building A during Project operations. The MND explains that clients will travel onsite to meet with distributors, restaurants, wine shop owners, and other wine buyers but no other information is provided about these visits.[36] Daniel Smith, Napa-Solano Residents' transportation expert, comments that details about the frequency of these visitor meetings and the estimated number of visitors must be disclosed in the Project Description to allow for an adequate analysis of the Project's VMT impacts.[37] The VMT analysis for the Project only evaluates full time and part time employees, even though the Napa County Winery Trip Generation Worksheet relied upon in the trip generation analysis has a line item for "maximum daily

[35] First Carbon Solutions, *Biological Resources Analysis* at p. 34 (January 30, 2024; updated February 21, 2024).
[36] MND at 2.
[37] Smith Comments at p. 2.

visitation."[38] The MND confirms visitor trips will occur as part of the Project yet improperly omits these trips from the VMT analysis.[39] Mr. Smith concludes that the Project Description as well as the transportation impact analysis is deficient in omitting this information.

Finally, since the Project site is within NapaSan's recycled water service area, the Project is required to install new facilities to utilize recycled water for landscape irrigation.[40] Yet the Project Description omits any discussion about the construction and operation of these new recycled water facilities, which are required for the Project.[41] As of 2023, the Project had requested service for approximately 3.2 acres of landscaping with a recycled water demand of approximately 5.4 acre-feet per year.[42] To be serviced by the existing NapaSan recycled water service area, the Project may need to construct new pipelines, install service connections, add metering devices, install on-site storage tanks, and retrofit the irrigation system to handle recycled water. The construction and operation of these Project components must be evaluated in the MND as part of the whole of the action. Construction of these facilities may worsen the impacts on air quality, noise, biological resources, and transportation. During operations, pumps or other parts of the facilities may require electricity, thereby increasing energy impacts. Thus, information regarding the facilities that must be installed for the Project to use recycled water from NapaSan for landscape irrigation must be disclosed in the Project Description and analyzed to determine the significance of environmental impacts.

A complete Project Description is necessary to ensure informed decision making and meaningful public review.[43] Approving a project without having identified and mitigated all of the project's significant environmental effects violates CEQA's requirements. An EIR must be prepared which fully discloses all components of the Project.

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[38] W-Trans, *Transportation Impact Study* at Appendix C (November 21, 2023); Smith Comments at p. 2.
[39] *Ibid.*
[40] Letter to the Napa County Planning, Building & Environmental Services from Gavin Glascott, Assistant Civil Engineer at NapaSan at p. 2 (February 1, 2023).
[41] *Ibid.*
[42] *Ibid.*
[43] *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 26.
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IV. THE MND FAILS TO ADEQUATELY DESCRIBE THE ENVIRONMENTAL SETTING FOR BIOLOGICAL RESOURCES

The MND fails to adequately describe the environmental setting against which the Project's impacts on biological resources are to be measured. This contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. [44] CEQA requires that a lead agency include a description of the physical environmental conditions, or "baseline," in the vicinity of the project as they exist at the time environmental review commences.[45] As the courts have repeatedly held, the impacts of a project must be measured against the "real conditions on the ground."[46] The description of the environmental setting constitutes the "baseline" physical conditions against which the lead agency assesses the significance of a project's impacts.[47] An environmental setting is required "to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.[48]

To establish the Project's baseline for biological resources, a Biological Resources Analysis was prepared earlier this year that reviewed the California Natural Diversity Database ("CNDDB") polygons that overlap with the Project site and relied on a wildlife and botanical survey performed on December 8, 2022—nearly two years ago.[49] Based on the Biological Resource Analysis, the MND describes the Project site as having been impacted by disking and a lack of vegetation.[50]

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[44] 14 C.C.R. § 15063(d).
[45] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal. 4th 310, 321.
[46] *Id.*; Save *Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the-Sea v. Bd. of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229, 246.
[47] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist.*, 48 Cal. 4th at 321.
[48] 14 C.C.R. § 15125(a).
[49] MND at p. 10.
[50] *Ibid.* Notably, the NVBPSP describes the area as containing grassland that provide "principal habitat" for several birds and mammals as well as hunting and feeding ground for other wildlife. Napa County, *Napa Valley Business Park Specific Plan & EIR* at pp. 249-250 (Adopted July 29, 1986; amended thru October 22, 2013).
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Dr. Smallwood recognizes that the characterization of the environmental setting, including the regional setting, is essential for proper CEQA analysis. These steps typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases, and local experts for documented occurrences of special-status species.[51] With regards to the Project's biological resources survey, Dr. Smallwood's comments provide substantial evidence that the survey is inadequate to establish the environmental setting for several reasons.[52] For example, Dr. Smallwood comments that the duration of the December 2022 biological resources survey is unknown, the proper California Department of Fish and Wildlife ("CDFW") guidelines were not implemented for rare plants, and surveys were not performed for bats and reptiles.[53]

Dr. Smallwood's comments also identify several issues with the Project's desktop review.[54] By way of example, the Biological Resources Analysis relied upon the CNDDB to identify documented occurrences of special-status species, but as Dr. Smallwood comments, the desktop review did not also involve a search of eBird or iNaturalist.[55] A more complete database review would have shown that some of the species omitted from consideration in the Biological Resources Analysis have actually been recorded on the Project site, according to Dr. Smallwood.[56] Moreover, of the 31 species identified in the MND as having a very low occurrence potential, Dr. Smallwood emphasizes that three of those species have been documented on the Project site and of the 13 species determined to have no potential to occur on the site, one of those species was documented on the site.[57]

Furthermore, based on his own survey efforts in the area and database reviews, Dr. Smallwood determines that there are around 125 special-status species known to occur within sufficient proximity to the Project site.[58] Of those 125 special-status species, Dr. Smallwood states that 8 species were recorded on or adjacent to the Project site, 46 species were documented within 1.5 miles of the site, 25 species were within 1.5-4 miles of the site, and 41 were identified within 4-30 miles of the

[51] Smallwood Comments at p. 1.
[52] *Id.* at pp. 2, 11.
[53] *Id.* at p. 11.
[54] *Id.* at pp. 11-23.
[55] *Id.* at p. 11.
[56] *Id.* at p. 12.
[57] *Ibid.*
[58] *Id.* at p. 12.

site.[59] While the Project's survey effort only resulted in the detection of 13 taxa of vertebrate wildlife, Dr. Smallwood has detected 69 species of vertebrate wildlife—of which 13 species were special-status species—during visual-scan surveys at three locations within 700 m of the Project site.[60] Dr. Smallwood has also surveyed for biological resources at three locations around 2.7 miles south/southeast of the Project site where he, along with the other consulting firms, detected 44 species of vertebrate wildlife.[61]

For the foregoing reasons, Dr. Smallwood concludes that the MND and Biological Resources Analysis fail to accurately describe the Project's environmental setting for biological resources.[62] Dr. Smallwood's own desktop review and survey efforts demonstrate that the Project site supports multiple special-status species of wildlife that are not disclosed and analyzed in the MND.[63] These errors and omissions in the baseline for biological resources prevents the County from adequately assessing impacts to the existing environment at the Project site. The environmental setting and impacts analysis must be adequately disclosed and analyzed in an EIR.

V. AN EIR IS REQUIRED BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY HAVE SIGNIFICANT IMPACTS

An MND is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact.[64] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[65] An effect on the environment need not be "momentous" to meet the

[59] *Ibid.*
[60] *Id.* at p. 2.
[61] *Ibid.*
[62] *Id.* at p. 12.
[63] *Ibid.*
[64] Pub. Res. Code § 21151; 14 C.C.R. § 15064(f)(1); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319.
[65] Pub. Res. Code § 21068; 14 C.C.R. § 15382.
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CEQA test for significance; it is enough that the impacts are "not trivial."[66] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or **expert opinion** supported by fact."[67]

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.[68] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an MND or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[69] Even when the substantial evidence standard is applicable to agency decisions to certify an MND and approve a project, reviewing courts will not "'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'"[70]

A. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Air Quality are Potentially Significant

The MND lacks substantial evidence to support its conclusion that the Project would result in less-than-significant impacts on air quality.[71] The MND does not include any modeling of the Project's emissions during construction or operations as is typically done in CEQA documents to evaluate a project's air quality impacts; however, James Clark performed detailed emissions calculations using CalEEMod.[72] Based on his modeling, Mr. Clark identifies a potentially significant air quality impact during the construction phase of the Project.[73] Mr. Clark finds that the Project's emissions of reactive organic gases ("ROGs") during the architectural coating phase in summer months would exceed the Bay Area Air Quality Management District's ("BAAQMD") significance threshold unless

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[66] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[67] Pub. Res. Code § 21080(e)(1) (emphasis added).
[68] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.
[69] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[70] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1355 [internal citations omitted].
[71] MND at pp. 5-8.
[72] Clark Comments at p. 5.
[73] *Ibid.*
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mitigation is imposed.[74] Mr. Clark recommends imposing a mitigation measure that requires the use of architectural coating products that have Volatile Organic Compound ("VOC") contents of less than 50 grams per liter to reduce the ROG emissions to 49.9 lbs. per day, which is under the BAAQMD threshold of significance.[75]

Notably, Mr. Clark's emission calculations do not include all of the Project' construction emissions due to missing details about the grading activities for the construction of the Project's bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements.[76] The Project's air quality impacts may be more severe and require additional mitigation measures upon a complete analysis of all of the Project's emissions.

B. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Greenhouse Gas Emissions are Potentially Significant

The MND lacks substantial evidence to support its conclusion that the Project would not have a significant impact on GHG emissions based on a qualitative analysis of the Project's GHG emissions.[77] To support the less-than-significant determination, the MND relies on the Project's adherence to BAAQMD design standards, the California Building Code requirements, and the County's conditions of approval.[78] More specifically, the Planning Commission Staff Report for the Project explains that "[t]he applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize

[74] *Ibid.*
[75] *Ibid.*
[76] *Ibid.*
[77] MND at pp. 17-18.
[78] *Id.* at p. 18.
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daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application."[79]

Mr. Clark reviewed the applications for Building A and Building B and found that minimal Voluntary Best Management Practices Measures had been selected by the Applicant.[80] These measures are limited to energy conserving lighting, installation of water efficient fixtures, water efficient landscape, planting of shade trees within 40 feet of the south side of the building elevation, and electric vehicle ("EV") charging, specifically, dedicated parking provided for future EV charging stations.[81] Only this limited set of measures will actually be implemented by the Applicant to reduce the Project's GHG emissions, and only these measures will be included as conditions of approval for the Project.[82] According to Mr. Clark, and contrary to statements in the Staff Report, "the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions."[83] There is no evidence that such measures will be required for Project operations.

Mr. Clark therefore concludes that "[t]o the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR."[84]

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[79] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 8 (November 20, 2024).
[80] Clark Comments at p. 3.
[81] *Ibid.*
[82] *Ibid.*
[83] *Id.* at pp. 3-4.
[84] *Ibid.*
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C. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Biological Resources are Potentially Significant

The MND lacks substantial evidence to support its conclusion that with the adoption of mitigation measures, the Project would not result in impacts on biological resources.[85] The Biological Resources Analysis acknowledges that the Project would result in the loss of non-native grassland, and ruderal habitats, but fails to adequately assess the potentially significant impacts from this habitat loss, as supported by Dr. Smallwood's comments.[86] Dr. Smallwood explains that habitat loss can cause "the immediate numerical decline of wildlife."[87] Through his own study, Dr. Smallwood has measured and quantified the impacts of habitat loss from development projects on wildlife and found that development—even with mitigation measures—results in a 66% loss of species on the site and a 48% loss of species in the project area.[88]

Dr. Smallwood also comments that habitat loss can "result[] in the permanent loss of productive capacity."[89] He explains that "[h]abitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small [internal citations omitted]."[90] Dr. Smallwood estimates that the annual loss of birds from the Project could be over 1,000 birds, many of which are otherwise protected by the state and federal Migratory Bird Treaty Acts.[91] Dr. Smallwood therefore concludes that the Project may result in a significant impact on biological resources.[92]

Dr. Smallwood also comments that Project-generated traffic may significantly impact biological resources on and even beyond the Project footprint including, but not limited to, California tiger salamander, California red-legged frog, and American badger.[93] "Vehicle collisions have accounted for the deaths of many

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[85] MND at pp. 9-11.
[86] Smallwood Comments at p. 23.
[87] *Id.* at p. 24.
[88] *Id.* at pp. 23-24.
[89] *Id.* at p. 24.
[90] *Ibid.*
[91] *Id.* at p. 25.
[92] *Ibid.*
[93] *Ibid.*

thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level [internal citations omitted]."[94] A study of traffic-caused wildlife mortality in Contra Costa County, California found 1,275 carcasses of 49 species of mammals, birds, amphibians, and reptiles over a 15 month period.[95] Based on Dr. Smallwood's estimates of traffic-related mortality from this Project, and the lack of any mitigation measures to reduce these impacts, Dr. Smallwood concludes that Project-generated traffic may cause significant impacts to biological resources that are not disclosed, analyzed, or mitigated in the MND.[96]

Dr. Smallwood also provides comments on several of the proposed mitigation measures for the Project's significant impacts on biological resources.[97] First, MM BIO-1 requires the installation of silt fencing along the conservation easement boundary to the riparian corridor.[98] Dr. Smallwood recommends that the silt fence be installed 300 feet from the southern edge of the top of bank of Sheehy Creek to lessen significant impacts to terrestrial wildlife along the riparian corridor.[99] His recommendation is based on a study which found that from the edge of an aquatic site, core terrestrial habitat can span from 159 to 209 m for amphibians and from 127 to 289 m for reptiles.[100]

Second, for MM BIO-2 requiring a preconstruction survey for rare plants, Dr. Smallwood explains that the cited CDFW rare plant survey guidelines are for a reconnaissance survey that should be utilized to support preparation of the CEQA environmental review document and not a preconstruction survey for rare plants.[101]

Third, MM BIO-3 would require implementation of a preconstruction survey for nesting birds and if nests are identified, buffers must be established around the nests from construction activities.[102] Dr. Smallwood comments that the mitigation measure will not reduce the potentially significant impacts from habitat loss that he details in his comments to less-than-significant levels and that the measure

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[94] *Ibid.*
[95] *Id.* at p. 26.
[96] *Id.* at p. 27.
[97] *Id.* at pp. 27-28.
[98] MND at 11.
[99] Smallwood Comments at p. 27.
[100] *Ibid.*
[101] *Ibid.*
[102] MND at pp. 11-12.
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requires additional objective criteria to be effective, particularly regarding the determination of the buffer area size for any given species.[103] Without such objective criteria, the measure's efficacy is questionable and it cannot be enforced.

Fourth, MM BIO-6 concerns burrowing owls and Dr. Smallwood explains that given the recent designation of burrowing owl as candidate for Threatened or Endangered status under the California Endangered Species Act ("CESA"), no take of burrowing owls is allowed and "detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey."[104]

Finally, Dr. Smallwood identifies issues with the proposed mitigation measure to install exclusion fencing during the wet season in MM BIO-8.[105] He explains that unless a one-way passage is enabled, the proposed fencing could trap amphibians on the Project site. Additionally, Dr. Smallwood determines that MM BIO-8 "would not avoid substantial, highly significant impact[s] to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted."[106]

For the foregoing reasons, Dr. Smallwood's comments provide substantial evidence supporting a fair argument that the Project's impacts on biological resources may be significant and unmitigated. An EIR must be prepared to evaluate the Project's potentially significant impacts on biological resources and all feasible mitigation measures.

D. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Transportation are Potentially Significant

The MND fails to provide substantial evidence to support its conclusion that the Project would not result in significant transportation impacts after the implementation of MM TRANS-1.[107]

[103] Smallwood Comments at p. 28.
[104] *Ibid.*
[105] *Ibid.*
[106] *Ibid.*
[107] MND at pp. 25-28.
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First, Mr. Smith demonstrates that the MND improperly segments the Project's VMT impacts by separately analyzing impacts of Building A and Building B.[108] This piecemealing of the environmental review of the Project violates CEQA.[109] A project under CEQA means the "whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment."[110] CEQA prohibits segmenting the review of the significant environmental impacts of a project.[111] CEQA mandates "that 'environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.'"[112] Public agencies must construe the project broadly to capture the whole of the action and its environmental impacts.[113]

Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences.[114] "The CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish."[115]

Here, however, Mr. Smith explains that while the MND's air quality analysis is based on the Project's total weekday trip estimate of 218 trips, the transportation analysis piecemeals the daily trip estimates for Building A from Building B's trips and fails to consider the VMT impacts from the whole Project.[116] The MND utilizes the County's current Transportation Impact Study Guidelines' threshold of significance, which requires a project to prepare a Transportation Impact Study if it

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[108] Smith Comments at pp. 1-2.
[109] *Ibid.*
[110] 14 C.C.R. § 15378(a).
[111] *Laurel Heights Improvement Assn.,* 47 Cal. 3d at 396; *See also* Pub. Res. Code § 21002.1(d).
[112] *Id.*; *See also City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452; *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165.
[113] 14 C.C.R. § 15378.
[114] *See Citizens Assn. for Sensible Development of Bishop Area,* 172 Cal. App. 3d at 165–168.
[115] *Natural Resources Defense Council v. City of Los Angeles* (2002) 103 Cal.App.4th 268; *See also Whitman v. Board of Supervisors* (1979) 88 Cal.App.3d 402 (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).
[116] Smith Comments at pp. 1-2; MND at p. 7-8, 26.
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generates 110 or more net new daily vehicle trips.[117] Building A is estimated to generate an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months.[118] Both estimates are under the threshold of significance.[119] Building B is anticipated to generate 114 trips per day, which exceeds the threshold and triggers the requirement for a Transportation Demand Management Plan as mitigation (MM TRANS-1).[120] Mr. Smith explains that the MND impermissibly segments the Project's VMT impacts by splitting up the Project rather than evaluating the total daily trips for both buildings, i.e., 218 trips.[121]

Mr. Smith concludes that the Project's 218 daily trips would exceed the threshold of significance.[122] Even with the mitigation for Building B, the MND estimates that the Project would result in a combined 202 VMT per day, which still exceeds the threshold of significance.[123] Therefore, the Project as a whole would cause a significant impact requiring mitigation measures to reduce these significant VMT impacts.[124] Given that there is a fair argument based on substantial evidence that the Project may have significant transportation impacts, an EIR must be prepared that fully evaluates these impacts as well as the necessary mitigation measures to lessen these impacts.

Second, Mr. Smith comments that the trip generation estimates for Building B are unsupported in the MND.[125] The MND estimates that Building B would require 44 parking spaces for the office uses and as stated in the Staff Report, there would be approximately 11,000 SF of office area in Building B.[126] Mr. Smith determines that Building B's office use "is not a small ancillary use to the warehouse," and would be over 16% of Building B's floor area.[127] As such, Mr. Smith states that the office uses in Building B must be analyzed based on the trip generation category for "Office" rather than "Warehouse."[128] Mr. Smith describes

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[117] MND at p. 26.
[118] *Ibid.*
[119] *Ibid.*
[120] *Ibid.*
[121] Smith Comments at p. 2.
[122] *Ibid.*
[123] MND at p. 27.
[124] Smith Comments at p. 2.
[125] *Id.* at pp. 3-4.
[126] MND at p. 27; *see also* Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 13 (November 20, 2024).
[127] Smith Comments at p. 3.
[128] *Ibid.*
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the substantial disparity between trip generation rates for "Office" and trip generation rates for "Warehouse."[129] He estimates that Building B's office uses would generate around 6-8 times more traffic than the same square footage of warehouse.[130] Accordingly, Mr. Smith concludes that utilizing the correct trip generation categories for Building B's uses would result in potentially significant VMT impacts that are not disclosed or mitigated in the MND.[131]

Therefore, the MND fails to fully disclose, analyze, and mitigate the full scope of the Project's potentially significant impacts on transportation. The County must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the entire Project.

E. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Agricultural Resources are Potentially Significant

The MND fails to analyze the impacts from the conversion of farmland to non-agricultural use, as required by CEQA. The MND explains that "[a]ccording to Napa County GIS the property is categorized as Farmland of Local Importance. … Undeveloped lands within the boundary of the NVBPSP are designated as Farmland of Local Importance because they include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance except for irrigation."[132] Farmland of Local Importance is "land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production; but does not meet the criteria of Prime, Statewide or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county."[133]

The MND nevertheless concludes that "[a]lthough the site, as well as other undeveloped land in the NVBPSP area, is classified as locally important, the site

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[129] *Ibid.*
[130] *Ibid.*
[131] *Ibid.*
[132] MND at p. 5; *see also* California Department of Conservation, *California Important Farmland Finder*, available at: https://maps.conservation.ca.gov/DLRP/CIFF/.
[133] *Farmland of Local Importance* (2018), available at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland_of_Local_Importance_2018.pdf.
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has been designated for industrial/business park uses for over 35 years. … As development in the NVBPSP area continues, the surrounding developed parcels have been reclassified as Urban and Built-up Land. The project will not result in the conversion of existing farmland. As such, there are no significant impacts to prime farmland created by the project."[134] Despite the value of the site's agricultural lands, and to justify a less-than-significant determination, the MND relies on the fact that the conversion of the site's agricultural lands has been planned for and is therefore not significant. However, the EIR for the NVBPSP identified significant, unavoidable, and irreversible adverse impacts from the conversion of agricultural lands within the NVBPSP area because the "proposed industrial area could ultimately eliminate approximately 1,730 acres of what is presently defined as 'agricultural or open land.'"[135] Since this Project would convert Farmland of Local Importance to non-agricultural uses, CEQA mandates that the impacts of this conversion be adequately disclosed, analyzed, and mitigated.

VI. CONCLUSION

For the reasons discussed above, the MND for the Project is wholly inadequate under CEQA. An EIR must be circulated to provide a legally adequate analysis of, and mitigation for, all of the Project's potentially significant impacts. Until an EIR is prepared and circulated, as described herein, the Project may not lawfully be approved.

Sincerely,

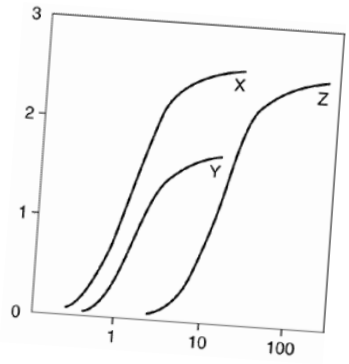
Tara C. Rengifo

Tara C. Rengifo

TCR:ljl

[134] MND at p. 5.
[135] Napa County, *Napa Valley Business Park Specific Plan & EIR* at p. 280 (Adopted July 29, 1986; amended thru October 22, 2013).
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EXHIBIT A



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November 13, 2024

Adams Broadwell Joseph & Cardozo
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Attn: Ms. Tara Rengifo

Subject: Comment Letter on Initial Study/Mitigated Negative Declaration (IS/MND) For E&P Technology Way - Building A & B Use Permit #'sP22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Napa County, California.

Dear Mrs. Rengifo:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the IS/MND. If we do not comment on a specific item, this does not constitute acceptance of the item.

Project Description:

The IS/MND prepared by the County of Napa (the County) describes the Project as consisting of two separate buildings. Building A is proposed as a 143,312 square foot (SF) building with an annual wine production capacity of 450,000 gallons. The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 SF of covered outdoor work area will be located on the north side of the building. The proposal also includes 129 parking spaces and eight (8) spaces for semi-

trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court.

The winery building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full-time and 7 part time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine and juice. Wine storage (tank and barrel) and bottling will take place on a year-round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage, and bottling uses.

No retail sales or access for the general public is proposed. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

The Building B project proposes to allow warehouse uses within the proposed 66,915 SF building. The floor area ratio (FAR) after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will then off load or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side the building. The entrance driveway will be wide enough to accommodate two-way traffic.

Building B will be utilized primarily for warehousing/distribution with accessory office. The facility will be run by up to 30 employees. No user has yet been identified. There will be no retail sales and no access for the general public. The only signage will be to identify the building for the future tenant.

Both buildings include site-cast tilt-up concrete wall panels with a multi-color textured coating system and multiple score lines/reveals, storefront glazing systems, painted steel channel canopies, truck loading docks, grade level roll-up doors, and metal man-doors. Color choices include white, green, and grey painted stucco panels. The winery building also includes a covered outdoor work area for the crush pad in front of the loading docks.

The IS/MND does not provide sufficient information to justify the conclusion that the impacts are less than significant and no additional mitigation measures are required for the Project. The

analysis presented does not include an air quality analysis compiled in CalEEMOD as is typically performed in CEQA analyses. The County must compile the emission estimates in a meaningful manner in an environmental impact report (EIR) for the Project.

Specific Comments:

1. **The IS/MND Makes Assertions Regarding Greenhouse Gas (GHG) Reductions That Are Not Supported In The Applications For Building A and B. The Project's Impacts from Greenhouse Gas Emissions May be Significant and Unmitigated**

The IS/MND did not quantify the Project's GHG emissions and instead performed a qualitative analysis of the Project's impacts from GHG emissions pursuant to BAAQMD thresholds. According to the MND, "BAAQMD recommends that a land use project must include specified minimum design elements to ensure that the project is contributing its 'fair share' toward achieving the state's key climate goal of carbon neutrality by 2045." The MND at page 18 concludes that "[i]f the proposed project adheres to these relevant design standards identified by BAAQMD, the requirements of the California Building Code, and the County's conditions of project approval, impacts are considered less than significant."

The Staff Report for the Project states on page 8 that: "The applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application."

A review of the applications submitted for each of the buildings shows that only BMP-9 (Energy conserving lighting), BMP-14 (installation of water efficient fixtures), BMP-16 (water efficient landscaping), BMP-20 (planting of shade trees within 40 feet of the south side of the building elevation), BMP-21 (electrical vehicle charging station(s)) are checked in the applications and only these measures will be required by the Project's Conditions of Approval. Contrary to the statement in

the Staff Report, the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions.

I performed a quantitative analysis of the Project's GHG emissions using CalEEMOD. Using the default values within the CalEEMOD model I have calculated the following GHG emissions for the construction phase and the operational phase.

Phase	MT CO2eq
Construction	18.8 per annum (564/30 years)
Operational	
Mobile	222
Area	3.08
Energy	415
Water	95.6
Waste	61.7
Refrigeration	632
Total	1,447.8

Based on my calculations, the incorporation of all of the mitigation measures identified in the Staff Report would reduce the Project's GHG mitigated emissions by 169 MT CO2eq per year or 12% of the total emissions. The results of the analysis are attached as an exhibit to this letter.

To the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR.

2. **Using The Details Outlined In The IS/MND I Have Calculated The Emissions From The Project Using CalEEMOD. Without Mitigation Emissions Of Reactive Organic Gases (ROGs) Will Exceed The BA-AQMD Significance Thresholds.**

Using the details outlined in the IS/MND I have calculated the emissions from the construction phase and operational phase using CalEEMOD. The IS/MND on page 29 states that there will be grading for construction of the bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements. The amount of soil disturbance is not detailed in the IS/MND and the emissions from the additional improvements were not included in the CalEEMOD analysis since they could not be quantified. The results of the analysis are attached as an exhibit to this letter.

The results of the analysis show that during the construction phase of the Project (Table 2.1 of the output) emissions of Reactive Organic Gases (ROGs) will exceed the BA-AQMD significance threshold. The exceedances occur during the architectural coating phase of the Project and will reach levels of 111 lbs per day during summer months if no mitigation measure is in place. Requiring the use of architectural coating products that have VOC contents less than 50 grams per liter would reduce the ROG levels to 49.9 lbs per day, below the BA-AQMD significance threshold. The County must evaluate the impacts of the Project in an EIR

Conclusion

The facts identified and referenced in this comment letter led me to reasonably conclude that the Project could result in significant impacts if allowed to proceed. An EIR should be prepared to address these substantial concerns.

Sincerely,



Wine Warehouse Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339

Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622

Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134

Architectural	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935

Unrefrigerated Warehouse-No	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9

Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

757

Landscape	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394

Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

760

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

762

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 mete

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00
Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9

Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934
Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248

Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3
Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6

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Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3
English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
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Wine Warehouse Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Mit.	50.1	50.1	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
% Reduced	55%	55%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Mit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Mit.	3.29	3.20	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Mit.	0.60	0.58	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	50.1	50.1	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	3.29	3.20	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	0.60	0.58	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505

Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959

Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415

Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143

Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.9	49.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34

Architectural	2.73	2.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.(

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888

Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935

Unrefrigerated	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9

Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4

Unrefrig Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7

Unrefrigerated	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coating	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

840

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00

Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9
Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934

Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248
Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3

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Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3
English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

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7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
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Wine Warehouse Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Energy	E-1	Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-A	Establish Onsite Renewable Energy Systems: Generic
Water	W-5	Design Water-Efficient Landscapes

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Mit.	50.1	50.1	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
% Reduced	55%	55%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Mit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Mit.	3.29	3.20	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Mit.	0.60	0.58	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	50.1	50.1	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	3.29	3.20	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	0.60	0.58	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Mit.	7.83	7.62	1.30	17.4	0.02	0.05	1.59	1.63	0.04	0.40	0.44	200	3,605	3,805	20.5	0.35	3,827	8,249
% Reduced	< 0.5%	< 0.5%	3%	< 0.5%	—	7%	—	< 0.5%	8%	—	1%	—	22%	21%	1%	5%	—	11%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Mit.	6.17	6.07	1.39	8.00	0.02	0.03	1.59	1.62	0.03	0.40	0.43	200	3,474	3,674	20.5	0.36	3,820	8,113
% Reduced	< 0.5%	< 0.5%	3%	< 0.5%	—	10%	—	< 0.5%	11%	—	1%	—	23%	22%	1%	5%	—	11%

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Mit.	6.66	6.53	1.02	9.99	0.01	0.03	1.11	1.14	0.03	0.28	0.31	200	2,979	3,178	20.5	0.33	3,822	7,610
% Reduced	< 0.5%	< 0.5%	4%	< 0.5%	—	9%	—	< 0.5%	10%	—	1%	—	25%	24%	1%	5%	—	12%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Mit.	1.22	1.19	0.19	1.82	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	493	526	3.40	0.05	633	1,260
% Reduced	< 0.5%	< 0.5%	4%	< 0.5%	2%	9%	—	< 0.5%	10%	—	1%	—	25%	24%	1%	5%	—	12%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	37

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.83	7.62	1.30	17.4	0.02	0.05	1.59	1.63	0.04	0.40	0.44	200	3,605	3,805	20.5	0.35	3,827	8,249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.39	8.00	0.02	0.03	1.59	1.62	0.03	0.40	0.43	200	3,474	3,674	20.5	0.36	3,820	8,113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.66	6.53	1.02	9.99	0.01	0.03	1.11	1.14	0.03	0.28	0.31	200	2,979	3,178	20.5	0.33	3,822	7,610
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	243	243	0.04	< 0.005	—	246
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.82	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	493	526	3.40	0.05	633	1,260

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

877

Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7

879

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.9	49.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	2.73	2.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22

Architectural Coating	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refriger Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	907	907	0.15	0.02	—	916
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	353	353	0.06	0.01	—	356
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,301	1,301	0.21	0.03	—	1,313
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	907	907	0.15	0.02	—	916
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	353	353	0.06	0.01	—	356

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,301	1,301	0.21	0.03	—	1,313
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	150	150	0.02	< 0.005	—	152
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.4	58.4	0.01	< 0.005	—	59.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	215	215	0.03	< 0.005	—	217

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.1	89.1	0.01	< 0.005	—	89.3
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.3	80.3	0.01	< 0.005	—	80.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.1	89.1	0.01	< 0.005	—	89.3
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.3	80.3	0.01	< 0.005	—	80.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.8	14.8	< 0.005	< 0.005	—	14.8
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373

905

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

907

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45

Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—

Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	1,623,703	204	0.0330	0.0040	278,014
Unrefrigerated Warehouse-No Rail	630,961	204	0.0330	0.0040	250,539
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

923

Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

928

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00
Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9
Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

929

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934
Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248
Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—

Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3
Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3

English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

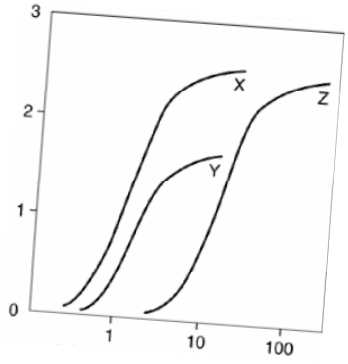
Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
Operations: Vehicle Data	per IS/MND



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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment.*

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

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EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080 15 November 2024

RE: E&P Technology Way - Building A & B

Dear Ms. Rengifo,

I write to comment on potentially significant impacts to biological resources from the proposed E&P Technology Way - Building A & B, which I understand would add one 143,312 sf warehouse and a 13,000 sf outbuilding, and another 66,915 sf warehouse for a total 223,227 sf, along with 211 total parking spaces and spaces for eight semi-trailers located on Technology Way in the Napa Valley Business Park Specific Plan area, County of Napa, California. I comment on the characterization of the existing environmental setting and on the analyses of impacts to biological resources in FirstCarbon Solutions (2024) and the County's Initial Study/Mitigated Negative Declaration (IS/MND).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

EXISTING ENVIRONMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the wildlife community, key ecological relationships, and known and ongoing threats to special-status species. A reasonably accurate characterization of the environmental setting can provide the baseline against which to analyze potential project impacts. For this reason, characterization of the environmental setting, including its regional setting, is one of the CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, this first step remains incomplete and misleading.

Environmental Setting informed by Field Surveys

To the CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

The IS/MND (p. 10) reports that "The Biological Resources Analysis was prepared by FCS in January 2024 (updated February 2024) to determine if any biological resources were *potentially present*…" (emphasis added) But this reporting is misleading. FirstCarbon Solutions (2024) had a biologist survey the project site on 8 December 2022 to record "the location and identity of all plant and animal species *encountered*." (emphasis added) FirstCarbon Solutions' statement of objectives differs from the objective claimed in the IS/MND. A reconnaissance survey cannot achieve the objective claimed in the IS/MND.

The reconnaissance survey began at 11:00 hours, but FirstCarbon Solutions (2024) did not report how long the survey lasted. Without knowing how long the survey lasted, the survey result cannot be fully interpreted. Survey duration imparts a large influence over which species are detected and how many species are detected.

The 11:00 start time would have had the effect of limiting the number of species detected. I have found that a late morning start time detects 34% fewer species than an early morning start time (Figure 1).

FirstCarbon Solutions (2024) detected 13 taxa of vertebrate wildlife, four (31%) of which the biologist was unable to identify to species. For comparison, I have detected 69 species of vertebrate wildlife in only 8.56 hours of visual-scan surveys at three locations within 700 m of the project site (Tables 1 and 2). Thirteen of these species were special-status species. At a cluster of three other project sites that I surveyed 4,345 m (2.7 miles) south-southeast of the project site, I or one or more of three consulting firms detected 44 species of vertebrate wildlife, including nine special-status species (Table 3). Inclusive of the findings from these surveys, I am aware of 113 species of vertebrate wildlife, including 22 special-status species within only 2.7 miles of the project site. Again, FirstCarbon Solutions (2024) detected only 13 taxa of vertebrate wildlife, or only 11% of the number of species known to the local project area by professional biologists. FirstCarbon Solutions' (2024) reconnaissance survey effort was grossly deficient, and its results ill-suited for characterizing the existing environmental setting.

FirstCarbon Solutions (2024) failed to implement the CDFW (2018) survey guidelines for rare plants. FirstCarbon Solutions (2024) should have disclosed that the guidelines were available and should have been implemented.

Figure 1. *Numbers of vertebrate wildlife species detected in visual-scan surveys as proportions of the maximum number detected among 5 surveys per project site, and as a function of start time during the day. The red symbols represent the Greentree project site in Vacaville, and the blue symbols represent the Kassis site in Rancho Cordova, spring and summer 2022.*

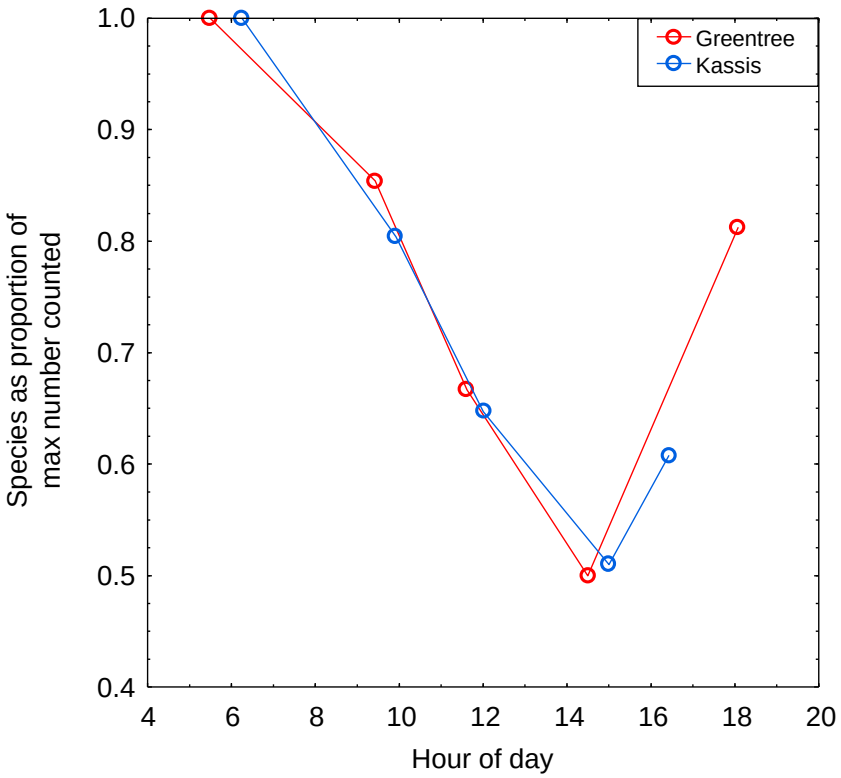


Table 1. *Species of wildlife I observed during 3.9 hours of survey at a site 1,380 m north-northeast of the project site on 9 May 2024, and during 3.08 hours at a site 1,100 m north of the project site on 15 July 2018 and 16 July.*

Common name	***Species name***	**Status[1]**	**Notes**
Western fence lizard	*Sceloporus occidentalis*		
Canada goose	*Branta canadensis*		Pair nesting
Mallard	*Anas platyrhynchos*		Flew to land at wastewater ponds
California quail	*Callipepla californica*		
Rock pigeon	*Columba livia*	Non-native	
Band-tailed pigeon	*Patagioenas fasciata*		Flock flew over
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	
Mourning dove	*Zenaida macroura*		
White-throated swift	*Aeronautes saxatalis*		
Anna's hummingbird	*Calypte anna*		
American coot	*Fulica americana*		
Wild turkey	*Meleagris gallopavo*	Re-introduced	
Killdeer	*Charadrius vociferus*		
Greater yellowlegs	*Tringa melanoleuca*		
Bonaparte's gull	*Chroicocephalus philadelphia*		
California gull	*Larus californicus*	BCC, TWL	

Common name	*Species name*	Status[1]	Notes
Herring gull	*Larus argentatus*		
Forster's tern	*Sterna forstreri*		
Great egret	*Ardea alba*		Flyover
Double-crested cormorant	*Nannopterum auritum*	TWL	
Turkey vulture	*Cathartes aura*	BOP	
White-tailed kite	*Elanus leucurus*	CFP, BOP	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	Harassed turkey vulture, likely to defend nest
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Chased nesting RTHA
Red-tailed hawk	*Buteo jamaicensis*	BOP	Nest with at least 2 chicks
Swainson's hawk	*Buteo swainsoni*	CT, BOP	
Belted kingfisher	*Ceryle alcyon*		
American kestrel	*Falco sparverius*	BOP	
Western kingbird	*Tyrannus verticalis*		Nest in Eucalyptus
Black phoebe	*Sayornis nigricans*		
Say's phoebe	*Sayornis saya*		
California scrub-jay	*Aphelocoma californica*		Nesting
American crow	*Corvus brachyrhynchos*		
Common raven	*Corvus corax*		
Tree swallow	*Tachycineta bicolor*		Nesting
Northern rough-winged swallow	*Stelgidopteryx serripennis*		
Barn swallow	*Hirundo rustica*		
Cliff swallow	*Petrochelidon pyrrhonota*		
Oak titmouse	*Baeolophus inornatus*	BCC	
Bushtit	*Psaltriparus minimus*		
Northern mockingbird	*Mimus polyglottos*		
European starling	*Sturnus vulgaris*	Non-native	
Western bluebird	*Sialia mexicana*		
Hermit thrush	*Catharus guttatus*		
American robin	*Turdus migratorius*		
Spotted towhee	*Pipilo maculatus*		
Purple finch	*Haemorhous purpureus*		
House finch	*Haemorphous mexicanus*		
Lesser goldfinch	*Spinus psaltria*		Collecting nest material
American goldfinch	*Spinus tristis*		
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	
California towhee	*Melozone crissalis*		
Bullock's oriole	*Icterus bullockii*		
Red-winged blackbird	*Agelaius phoeniceus*		Nesting

Common name	*Species name*	Status[1]	Notes
Brown-headed cowbird	*Molothrus ater*		
Brewer's blackbird	*Euphagus cyanocephalus*		
Great-tailed grackle	*Quiscalus mexicanus*		Fledglings
Western tanager	*Piranga ludoviciana*		
Black-headed grosbeak	*Pheucticus melanocephalus*		
Black-tailed jackrabbit	*Lepus californicus*		
Botta's pocket gopher	*Thomomys bottae*		
California vole	*Microtus californicus*		
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*		

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Table 2. *Species of wildlife I observed during an evening visit* from 17:15 to 18:50 hours *on 21 April 2018 at the site of the proposed Napa Airport Corporate Center, 2,200 m south of the project site. Blue-highlighted species are those I did not detect in survey results listed in Table 1.*

Species	*Scientific name*	Status[1]
Great blue heron	*Ardea herodias*	
Great egret	*Casmerodius albus*	
Canada goose	*Branta canadensis*	
Mallard	*Anas platyrhynchos*	
Gadwall	*Anas strepera*	
Killdeer	*Charadrius vociferus*	
Greater yellowlegs	*Tringa melanoleuca*	
Turkey vulture	*Cathartes aura*	BOP
Cooper's hawk	*Accipiter cooperi*	BOP, TWL
Red-tailed hawk	*Buteo jamaicensis*	BOP
Red-shouldered hawk	*Buteo lineatus*	BOP
White-tailed kite	*Elanus leucurus*	CFP, TWL
American kestrel	*Falco sparverius*	BOP
Mourning dove	*Zenaida macroura*	
Rock pigeon	*Columba livea*	Non-native
Eurasian collared-dove	*Streptopelia decaocto*	Non-native
Black phoebe	*Sayornis nigricans*	
Barn swallow	*Hirundo rustica*	
Northern rough-winged swallow	*Stelgidopteryx serripennis*	
Cliff swallow	*Hirundo pyrrhonota*	
Common raven	*Corvus corax*	
American crow	*Corvus brachyrhynchos*	

Species	***Scientific name***	**Status**[1]
American robin	*Turdus migratorius*	
Northern mockingbird	*Mimus polyglottos*	
European starling	*Sturnus vulgaris*	Non-native
White-crowned sparrow	*Zonotrichia leucophrys*	
Western meadowlark	*Sturnella neglecta*	
Red-winged blackbird	*Agelaius phoeniceus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
Brown-headed cowbird	*Molothrus ater*	
American goldfinch	*Carduelis tristis*	
House finch	*Carpodacus mexicanus*	
Pocket gopher	*Thomomys bottae*	
Black-tailed jackrabbit	*Lepus californicus*	
Coyote	*Canis latrans*	
Western fence lizard	*Sceloporus occidentalis*	

[1] Listed as BOP = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), TWL = Taxa to Watch List (Shuford and Gardali 2008).

Table 3. *Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse*, during an *offsite visit during my 2021 survey that includes a walk along Napa River and Bay Trails just south and west of the project site, during surveys conducted by myself (KSS), Monk & Associates (M&A), Pinecrest Research Corp, (PRC), and FirstCarbon Solutions (FCS). These surveys were completed only 4,345 m south-southeast of the E & P Technology Way project site. Blue-highlighted species are those I did not detect in survey results listed in Tables 1 and 2.*

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
Sierran treefrog	*Pseudacris sierra*		X		X	X		
Western fence lizard	*Sceloporus occidentalis*					X		
Canada goose	*Branta canadensis*		X			X	X	X
Northern shoveler	*Anas clypeata*				X			
Mallard	*Anas platyrhynchos*		X				X	X
California quail	*Callipepla californica*		X			X		
Wild turkey	*Meleagris gallopavo*	Non-native				X	X	
Pied-billed grebe	*Podilymbus podiceps*				X			
Ring-necked pheasant	*Phasianus colchicus*	Non-native				X		
Mourning dove	*Zenaida macroura*		X		X	X	X	X
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	X			X		
Black-chinned hummingbird	*Archilochus alexandri*		X					
Anna's hummingbird	*Calypte anna*		X	X	X	X	X	X
Allen's hummingbird	*Selasphorus sasin*	BCC					X	
Virginia rail	*Rallus limicola*					X		
American coot	*Fulica americana*				X		X	X
Black-necked stilt	*Himantopus mexicanus*				X			
American avocet	*Recurvirostra americanus*				X			
Killdeer	*Charadrius vociferus*						X	
Long-billed dowitcher	*Limnodromus scolopaceus*				X			
Least sandpiper	*Caladris minutilla*				X			
Ring-billed gull	*Larus delawarensis*		X		X			

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
California gull	*Larus californicus*	BCC, TWL					X	X
Herring gull	*Larus argentatus*		X		X			
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC					X	X
Great blue heron	*Ardea herodias*					X	X	X
Turkey vulture	*Cathartes aura*	BOP			X	X	X	X
Osprey	*Pandion haliaetus*	TWL, BOP				X	X	
White-tailed kite	*Elanus leucurus*	CFP, BOP				X	X	X
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	X		X			
Cooper's hawk	*Accipiter cooperii*	WL, BOP	X					
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP	X					
Red-shouldered hawk	*Buteo lineatus*	BOP			X	X	X	X
Red-tailed hawk	*Buteo jamaicensis*	BOP	X	X	X	X	X	
Barn owl	*Tyto alba*	BOP				X		
Great horned owl	*Bubo virginianus*	BOP	X					
Belted kingfisher	*Ceryle alcyon*					X		
Nuttall's woodpecker	*Picoides nuttallii*	BCC	X		X	X	X	X
Northern flicker	*Colaptes auratus*		X	X	X	X	X	X
American kestrel	*Falco sparverius*	BOP	X		X	X		
Peregrine falcon	*Falco peregrinus*	BOP			X		X	
Black phoebe	*Sayornis nigricans*		X		X	X	X	X
Say's phoebe	*Sayornis saya*		X		X	X		
California scrub-jay	*Aphelocoma californica*		X			X	X	X
American crow	*Corvus brachyrhynchos*		X	X		X	X	X
Common raven	*Corvus corax*		X		X	X	X	X
Hutton's vireo	*Vireo huttoni*		X					
Chestnut-backed chickadee	*Poecile rufescens*					X	X	X
Tree swallow	*Tachycineta bicolor*					X	X	X

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
Northern rough-winged swallow	*Stelgidopteryx serripennis*		X					
Violet-green swallow	*Tachycineta thalassina*						X	
Barn swallow	*Hirundo rustica*		X			X		
Cliff swallow	*Petrochelidon pyrrhonota*					X	X	X
Bushtit	*Psatriparus minimus*		X	X		X		
Wrentit	*Chamaea fasciata*	BCC				X		
Ruby-crowned kinglet	*Regulus calendula*					X	X	X
Cedar waxwing	*Bombycilla cedrorum*						X	X
Brown creeper	*Certhia americana*					X	X	
Rock wren	*Salpinctes obsoletus*						X	X
Bewick's wren	*Thryomanes bewickii*					X	X	X
House wren	*Troglodytes aedon*		X				X	X
Marsh wren	*Cistothorus palustris*				X	X		
Northern mockingbird	*Mimus polyglottos*		X		X	X	X	
European starling	*Sturnus vulgaris*	Non-native	X	X	X	X	X	X
Western bluebird	*Sialia mexicana*		X			X	X	X
Hermit thrush	*Catharus guttatus*						X	X
American robin	*Turdus migratorius*					X	X	X
House sparrow	*Passer domesticus*	Non-native				X	X	
American pipit	*Anthus rubescens*						X	
House finch	*Carpodacus mexicanus*		X		X	X	X	X
Purple finch	*Haemorhous purpureus*						X	X
Lesser goldfinch	*Carduelis psaltria*				X	X	X	X
American goldfinch	*Carduelis tristis*		X				X	X
Fox sparrow	*Passerella iliaca*				X		X	X
Dark-eyed junco	*Junco hyemalis*		X	X	X	X	X	X
White-crowned sparrow	*Zonotrichia leucophrys*		X		X	X	X	X
Golden-crowned sparrow	*Zonotrichia atricapilla*		X		X		X	X

Species	*Scientific name*	Status[1]	KSS 2019	KSS 2021	KSS offsite 2019, 2021	M&A 2006-2019	PRC 2023	FCS 2023
Savannah sparrow	*Passerculus sandwichensis*					X		
Song sparrow	*Melospiza melodia*				X	X	X	X
Lincoln's sparrow	*Melospiza lincolnii*				X			
California towhee	*Pipilo crissalis*		X		X		X	X
Spotted towhee	*Pipilo maculatus*					X		
Western meadowlark	*Sturnella neglecta*		X					
Bullock's oriole	*Icterus bullockii*	BCC				X		
Red-winged blackbird	*Agelaius phoeniceus*		X		X	X	X	X
Brown-headed cowbird	*Molothrus ater*				X	X	X	X
Brewer's blackbird	*Euphagus cyanocephalus*		X		X	X	X	
Yellow-rumped warbler	*Setophaga coronata*		X	X	X	X	X	X
Black-tailed jackrabbit	*Lepus californicus*					X	X	X
Botta's pocket gopher	*Thomomys bottae*				X			
Western gray squirrel	*Sciurus griseus*					X		
California ground squirrel	*Otospermophilus beecheyi*				X	X		
Raccoon	*Procyon lotor*			X				
Coyote	*Canis latrans*					X		
House cat	*Felis catus*					X	X	X
Mule deer	*Odocoileus hemionus*						X	X
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*					X		
California vole	*Microtus californicus*						X	X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

No surveys were performed for bats, nor were any live-trapping surveys performed for small mammals. With a single survey completed in December, no survey effort was made for reptiles.

FirstCarbon Solutions (2024) is also inconsistent with its analysis. It reports on the one hand, "…the Sheehy Creek riparian corridor … provide[s] high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County." And on the other hand, it reports "The project area does not contain significant natural biological communities or habitat for special-status species due to the history of disking and lack of vegetation present currently … Therefore, impacts to sensitive upland terrestrial biological communities in the footprint of the proposed development would not be anticipated." The Sheehy Creek riparian corridor is the foundation of a natural biological community (Ohmart 1994, Ballard et al. 2004, Andy 2020), and such communities do not function at anywhere close to full potential in isolation from neighboring uplands such as occur on the project site (Lee and Rotenberry 2015).

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

FirstCarbon Solutions (2024) does not report having reviewed eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, FirstCarbon Solutions (2024) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species, but it did so within an unreported distance from the project site. I could not determine whether the query was to the project site, to the USGS Quad inclusive of the site, or within one or more Quads surrounding the Quad inclusive of the site. It is impossible to fully interpret the results of the CNDDB query without knowing the locations on and around the project site that were reviewed on the database.

Moreover, by relying on the CNDDB query, FirstCarbon Solutions (2024) screens out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting (see the differences in species analyzed by myself and FirstCArbon Solutions in Table 4). The CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by the CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" FirstCarbon Solutions (2024) misuses the CNDDB.

The CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to the CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to the CNDDB. Furthermore, the CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to the CNDDB than were species assigned special status since the inception of the CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to the CNDDB, the CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 125 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 4). Of these species, eight were recorded on or just next to the project site, and another 46 (37%) species have been documented within 1.5 miles of the site ('Very close'), another 25 (20%) within 1.5 and 4 miles ('Nearby'), and another 41 (33%) within 4 to 30 miles ('In region'). Nearly two-thirds (63%) of the species in Table 4 below have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife, and it carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in FirstCarbon Solutions (2024).

FirstCarbon Solutions (2024) analyzes only 51 (41%) of the special-status species in Table 4 for occurrence potential, having omitted from its analysis 74 (59%) of the special-status species in Table 4. Of the species omitted from FirstCarbon Solutions's (2024) analysis, four have been recorded on the project site, 32 have been recorded within 1.5 miles of the site, 18 have been recorded between 1.5 and 4 miles of the site, and 20 have been recorded between 4 and 30 miles of the site. Of the 51 species analyzed for occurrence likelihood by FirstCarbon Solutions (2024), FirstCarbon Solutions (2024) determines only eight to have potential to occur, and six of these determined to have low potential. Of the seven special-status species determined to have low potential, three have been recorded within 1.5 miles of the project site. Of the 31 special-status species determined to have very low occurrence potential, three have been documented on the project site, eight have been recorded within 1.5 miles of the site, and three have been recorded between 1.5 and 4 miles of the site. Of the 13 special-status species FirstCarbon Solutions (2024) determines to have no potential for occurrence, one has been documented on the project site, two within 1.5 miles, and three between 1.5 and 4 miles from the site. On the whole, FirstCarbon Solutions (2024) analyses of occurrence likelihoods are inaccurate and fail to serve as a baseline for performing impacts analysis.

Table 4. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where "Very close" indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and "in range" means the species' geographic range overlaps the site.*

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Conservancy fairy shrimp	*Branchinecta conservatio*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	None	In region
California freshwater shrimp	*Syncaris pacifica*	FE, CE	None	In region
Monarch	*Danaus plexippus*	FC	Very low	Nearby
Marin Elfin butterfly	*Callophrys mossii marinensis*	SSC	Very low	In region
Obscure bumble bee	*Bombus caliginosus*	SSC	Low	In region
Crotch's bumble bee	*Bombus crotchii*	CCE	Medium	Nearby
Western bumble bee	*Bombus occidentalis*	CCE	Low	In range
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	Very low	In region
California giant salamander	*Dicamptodon ensatus*	SSC	Very low	In region
Red-bellied newt	*Taricha rivularis*	SSC	None	In region
Foothill yellow-legged frog	*Rana boylii*	CT, SSC	Low	In region
California red-legged frog	*Rana draytonii*	FT, SSC	Low	In region
Western pond turtle	*Emys marmorata*	SSC	None	Nearby
Brant	*Branta bernicla*	SSC2		Nearby
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		Very close
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE	Very low	In region
Black swift	*Cypseloides niger*	SSC3, BCC	None	Nearby
Vaux's swift	*Chaetura vauxi*	SSC2		Very close
Calliope hummingbird	*Selasphorus calliope*	BCC		Nearby
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*	FE, CE, CFP	None	Nearby
Yellow rail	*Coturnicops noveboracensis*	BCC, SSC	None	In region
Black oystercatcher	*Haematopus bachmani*	BCC		In region
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		Nearby
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC	None	In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Black turnstone	*Arenaria melanocephala*	BCC		Nearby
Red knot (Pacific)	*Calidris canutus*	BCC		Nearby
Pectoral sandpiper	*Calidris melanotos*	BCC		Nearby
Short-billed dowitcher	*Limnodromus griseus*	BCC		Very close
Wandering tattler	*Tringa incana*	BCC		Nearby
Lesser yellowlegs	*Tringa flavipes*	BCC		Very close
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, TWL		Very close
California least tern	*Sternula antillarum browni*	FE, CE, CFP		Nearby
Black tern	*Chlidonias niger*	SSC2, BCC		Nearby
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Nearby
Brandt's cormorant	*Urile penicillatus*	BCC		In region
Double-crested cormorant	*Phalacrocorax auritus*	WL		Very close
American white pelican	*Pelacanus erythrorhynchos*	SSC1		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
California brown pelican	*Pelecanus occidentalis californicus*	FP		Nearby
Least bittern	*Ixobrychus exilis*	SSC2		In region
White-faced ibis	*Plegadis chihi*	WL		Very close
Turkey vulture	*Cathartes aura*	BOP		On site
Osprey	*Pandion haliaetus*	WL, BOP	Very low	Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP	Very low	On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL	Low	Very close
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	Low	Very close
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP	Very low	On site
Cooper's hawk	*Accipiter cooperii*	WL, BOP	None	On site
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP	Very low	Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP	Very low	On site
Red-tailed hawk	*Buteo jamaicensis*	BOP		On site
Ferruginous hawk	*Buteo regalis*	WL, BOP	Low	Very close
Rough-legged hawk	*Buteo lagopus*	BOP		Very close
American barn owl	*Tyto furcata*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Nearby
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP, CCE	Very low	Very close - CNDDB
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Northern saw-whet owl	*Aegolius acadicus*	BOP		Nearby
Northern pygmy-owl	*Glaucidium gnoma*	BOP		Nearby
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Peregrine falcon	*Falco peregrinus*	BOP	Very low	Very close
Prairie falcon	*Falco mexicanus*	WL, BOP	Very low	Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Nearby
Willow flycatcher	*Empidonax trailii*	CE		Very close
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		In region
Loggerhead shrike	*Lanius ludovicianus*	SSC2		On site
Yellow-billed magpie	*Pica nuttalli*	BCC		In region
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
California horned lark	*Eremophila alpestris actia*	WL	None	Very close
Bank swallow	*Riparia riparia*	CT	None	Very close
Purple martin	*Progne subis*	SSC2	Very low	Very close
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2	Very low	Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	BCC, SSC	Very low	Very close
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Bell's sparrow	*Amphispiza b. belli*	WL		Nearby
Yellow-breasted chat	*Icteria virens*	SSC3	Very low	Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Bullock's oriole	*Icterus bullockii*	BCC		Very close
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Very low	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3, BCC	Very low	In range
Yellow warbler	*Setophaga petechia*	SSC2	Very low	Very close
Summer tanager	*Piranga rubra*	SSC1		Nearby
Little brown bat	*Myotis lucifugus*	WBWG: M		In region

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Yuma myotis	*Myotis yumanensis*	WBWG: LM	Very low	In region
Long-eared myotis	*Myotis evotis*	WBWG: M	Very low	In region
Fringed myotis	*Myotis thysanodes*	WBWG: H	Very low	In range
Long-legged myotis	*Myotis volans*	WBWG: H	Very low	In range
Canyon bat	*Parastrellus hesperus*	WBWG: M		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG: M	Very low	In region
Hoary bat	*Lasiurus cinereus*	WBWG: M	Very low	In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG: H	Very low	In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG: H	Very low	In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG: H	Very low	In region
Big free-tailed bat	*Nyctinomops macrotis*	SSC, WBWG: MH	Very low	In range
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE, FP	None	In region
American badger	*Taxidea taxus*	SSC	None	In region
Mountain lion	*Puma concolor*	SA		In region

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

The occurrence likelihood analyses of FirstCarbon Solutions (2024) include too many errors and omissions:

- Western yellow-billed cuckoo is not only Endangered under CESA, but also Threatened under FESA;

- Bald eagle is not a California Species of Special Concern, but is listed as Endangered under CESA and protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code;

- Golden eagle is not a California Species of Special Concern, but is also California Fully Protected, protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code, and is on California's Watch List;

- Northern harrier is not listed as Threatened under FESA and CESA;

- Ferruginous hawk is not a California Species of Special Concern, but is protected by California's Birds of Prey Code, and is on California's Watch List;

- Burrowing owl is no longer just a California Species of Special Concern, but is now a Candidate for listing as Threatened or Endangered under CESA;

- Peregrine falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code;

- Prairie falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code and is on California's Watch List;

- The horned larks that occur in the Napa area are not the subspecies referred to as California horned lark, and the subspecies that is referred to as California horned lark is not a California Species of Special Concern;

- Bank swallow is not listed as Endangered in either the FESA or CESA, but rather as Threatened under CESA;

- Purple martin is not listed as Endangered in either the FESA or CESA, but rather as a California Species of Special Concern priority level 2;

- Tricolored blackbird is not only a California Species of Special Concern, but is also listed as Threatened under CESA and a USFWS Bird of Conservation Concern;

- Long-eared myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;

- Fringed myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;

- Long-legged myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;

- Silver-haired bat is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;

- Hoary bat is not a California Species of Special Concern, but it is designated by the Western Bat Working Group as moderate conservation concern.

FirstCarbon Solutions (2024) also does not give valid reasons for why each of the special-status species it analyses should be determined to have no potential or low potential for occurrence. A frequent explanation is that the project site provides foraging habitat but no nesting habitat; however, this explanation introduces a contrived bifurcation of habitat that lacks scientific foundation. No animals can successfully breed without finding sufficient forage during the breeding and non-breeding seasons, and that also goes for winter migrants such as ferruginous hawk and merlin.

Another frequent explanation is that the project site fails to provide some habitat feature that FirstCarbon Solutions (2024) claims the species must have in order to survive. FirstCarbon Solutions (2024) describes the habitat of each species to be unrealistically narrow, and in so doing fails to cite sources in support of its habitat descriptions. For example, FirstCarbon Solutions (2024) explains that American badgers required "Open grassland habitats with plenty of prey," and then claims that no suitable habitat occurs in the project area. It is unclear what "plenty of prey" means, or from where how this notion came about, but I have found American badgers in many environments such as grasslands, savannas, oak woodlands, conifer forests, chaparral, and on agricultural landscapes. FirstCarbon Solutions (2024) points out that the nearest record is two miles from the project site, insinuating that two miles is too far from the site to consider the occurrence of badgers as likely. Two miles is a trivial distance to American badgers, as it is about a fifth the distance foraging badger can cover in a night.

In another example, the occurrence likelihood of bald eagle is reportedly very low because "No suitable nesting or foraging habitat exists in the project area," as according to FirstCarbon Solutions (2024: App. B), the species "Nests in forests, forages over lakes and streams." I observed bald eagles at a research site for nearly 10 years. Bald eagles are not limited to forests for nesting, nor do they only forage over lakes and streams. In fact, they hunt ground squirrels and other mammals and birds on annual grasslands and other environments. I observed a bald eagle only 2.7 miles from the project site (Photos 1 and 2). A bald eagle only 2.7 miles from the project site is essentially at the project site. Bald eagles fly 2.7 miles in about five minutes.

The same determination based on the same reasoning is applied to peregrine falcon in FirstCarbon Solutions (2024). But again, I saw a peregrine falcon only 2.7 miles from the project site. The determination of very low likelihood of occurrence is inaccurate.

Photos 1 and 2. *A juvenile bald eagle flew along the eucalyptus trees only 2.7 miles south-southeast of the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area that winter.*





In another example, FirstCarbon solutions (2024: App. B) determines pond turtle to have no occurrence potential on the project site. This determination is inaccurate. Pond turtles occur in streams, and they nest on adjacent upland environments.

There are many other examples of occurrence likelihood determinations that are inaccurate and poorly founded, but I want to focus on two more examples – the burrowing owl and Swainson's hawk. FirstCarbon solutions (2024: App. B) determines the occurrence likelihood of burrowing owl to be very low. No reason for this determination is provided other than the insinuation that the disturbed nature of the site would discourage burrowing owls. However, burrowing owls are well known to occur on disturbed soils (e.g., Smallwood and Morrison 2018). Furthermore, an occurrence record exists only 0.15 miles (240 m) from the project site. An occurrence record this close is essentially on the project site, because burrowing owls typically forage out to 400 m from their burrows. Regardless of whether one considers the occurrence record on site, even the determination of a very low occurrence likelihood -- which I dispute – warrants the implementation of the CDFW (2012) survey protocol.

There are three types of surveys recommended and described in the CDFW's (2012) survey and mitigation guidelines: (1) Habitat assessment, (2) Detection surveys, and (3) Preconstruction survey. The habitat assessment is intended to evaluate the likelihood that the site supports burrowing owls, and to decide whether detection surveys should be performed. The detection surveys, otherwise described as either breeding-season or non-breeding-season surveys, are intended to detect whether the site truly supports burrowing owls, and if so where and how many. The preconstruction survey, otherwise known as a take-avoidance survey, is intended to determine whether burrowing owls immigrated to the site since completion of the detection survey, or returned to the site since passive or active relocations were performed as mitigation. The three types of survey carry distinct but inter-related purposes, and they are to be completed in chronological order.

The first two types of survey support impacts analysis, whereas the third type of survey is a mitigation measure. Burrowing owls can be determined absent based on evidence derived from the habitat assessment or evidence derived from the detection survey, but only if the surveys achieved the minimum standards of CDFW (2012). Whereas an absence determination naturally follows from the negative findings of properly performed detection surveys, the following three questions drawn from CDFW (2012) must be answered negatively to determine absence based on the habitat assessment, which thus far is the only type of survey completed for burrowing owls at the project site:

A) Are there occurrence records nearby the project site?
B) Is the site's vegetation cover and height typical of where burrowing owls are found?
C) Are there fossorial mammals present which typically construct burrows useable by burrowing owls, or are there surrogate cavities that can serve as nest sites?

If the answers to these questions are compellingly negative, then detection surveys are not necessary, but they could be implemented to make certain the site is absent of

burrowing owls. If the answers to these questions are affirmative or not compellingly negative, then it should be assumed that burrowing owl habitat exists on the site until detection surveys prove otherwise.

The answer to question A is affirmative, as an occurrence record is located only 0.15 miles from the project site, which is essentially on the site. The answer to question B is affirmative, as the vegetation height on the project site is intentionally kept low for "weed abatement," pretty much just the way burrowing owls like it. The answer to question C is unknown, as the reconnaissance survey of 8 December 2022 was grossly deficient and it was performed at a time of year when ground squirrels are least abundant and least active. I have seen ground squirrels near the project site, thereby indicating a higher likelihood of burrowing owl presence. With two of the three answers solidly affirmative, and answer to the third likely affirmative, burrowing owl habitat needs to be assumed on the site, followed by detection surveys consistent with CDFW (2012). Considering that a listing petition has been submitted to the California Fish and Game Commission in response to an ongoing rapid decline of burrowing owls across California (Miller 2024), and considering that CDFW (2024) endorsed consideration of the listing petition and the Commission voted unanimously to protect western burrowing owls throughout California as a "candidate" species under CESA on October 10, 2024, it is my opinion that the proposed project would result in potentially significant adverse impacts to burrowing owls unless breeding-season detection surveys are implemented to the standards of CDFW (2012).

Lastly in terms of examples, FirstCarbon Solutions (2024: App. B) determines the occurrence likelihood of Swainson's hawk to be very low. Having researched Swainson's hawks over many years (Smallwood 1995), it is my opinion that FirstCarbon Solutions' habitat description is inaccurate. Swainson's hawks forage over many more vegetation covers that grassland (Smallwood 1995). Moreover, Swainson's hawks forage over disturbed ground, especially while the ground is undergoing disturbance (Smallwood 1995). FirstCarbon Solutions' is also at odds with its reporting that the nearest Swainson's hawk occurrence record is a mere 0.25 miles from the project site. In flight time, 0.25 miles is a matter of seconds before the Swainson's hawk is over the project site.

At p. 9, the IS/MND attempts to defend the County's failure to implement the Swainson's hawk detection survey protocol as unnecessary: "This recovery success and expansion of SWHA range has been well-documented in other environmental documents from projects in the region, which have not been required to provide SWHA mitigation for foraging habitat." However, I have read some of the other environmental documents from projects in the region, and the analysis in these documents lack a quantitative basis for the claim that Swainson's hawks have been expanding in the project area. In fact, with all the new warehouses and other structures that have been recently added to the landscape, the notion that Swainson's hawks have expanded in the area is hard to believe; Swainson's hawks do not find forage on rooftops and blacktops.

The IS/MND (p. 9) attempts another approach to downplay the County's failure to implement the appropriate survey and mitigation guidelines, "While Swainson's hawk's

nests are protected, foraging habitat mitigation has generally not been required in the business park area." However, this excuse is only an admission that the County has so far failed to comply with the CEQA by not implementing the CDFW (2000) survey and mitigation guidelines.

Finally, the IS/MND (p 9) attempts to downplay potential impacts to Swainson's hawks by claiming that the loss of 23.66 acres of foraging habitat would take only 0.16% of potential foraging habitat. I have to assume that the 0.16% figure would apply to an average Swainson's hawk home range, as otherwise it makes no sense. If this is so, then the 0.16% of foraging habitat that is lost is the 0.16% that makes the difference between persistence and extirpation, then the 0.16% would be of critical importance. The IS/MND goes on to speculate wildly that there exists plenty of habitat of better quality located elsewhere. The Swainson's hawks at issue are those that occur at the project site, and not somewhere else. The IS/MND's speculations do not qualify as a serious analysis of potential impacts.

POTENTIALLY SIGNIFICANT BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss and wildlife-automobile collision mortality, discussed below.

HABITAT LOSS

FirstCarbon Solutions (2024) found that the proposed project will result in the loss of non-native, grassland and ruderal habitats, but the MND (p. 10) explains that the project site is previously disturbed, located within an existing industrial/business park, and there is "No evidence of wildlife corridors, raptor nests, wildlife dens, burrows or other unique or sensitive biological habitats or resources are located on site." The MND (p. 10) therefore concludes that there would not be significant impacts to wildlife or other sensitive habitat.

The proposed project would result in potentially significant adverse biological impacts. Noriko Smallwood and I measured the impacts of habitat loss to wildlife caused by mitigated development projects, such as by industrial warehouses. We revisited 80 sites of proposed projects that we had originally surveyed in support of comments on CEQA review documents (Smallwood and Smallwood 2023). We revisited the sites to repeat the survey methods at the same time of year, the same start time in the day, and the same methods and survey duration to measure the effects of mitigated development on wildlife. We structured the experiment in a before-after, control-impact experimental design, as some of the sites had been developed since our initial survey and some had remained undeveloped. We found that mitigated development resulted in a 66% loss of

species on site, and 48% loss of species in the project area. Counts of vertebrate animals declined 90%. “Development impacts measured by the mean number of species detected per survey were greatest for amphibians (-100%), followed by mammals (-86%), grassland birds (-75%), raptors (-53%), special-status species (-49%), all birds as a group (-48%), non-native birds (-44%), and synanthropic birds (-28%). Our results indicated that urban development substantially reduced vertebrate species richness and numerical abundance, even after richness and abundance had likely already been depleted by the cumulative effects of loss, fragmentation, and degradation of habitat in the urbanizing environment,” and despite the mitigation measures per existing policies and regulations. We also specifically tested for the effects of projects to wildlife in neighboring habitats, and we found significant decreases in species richness and overall abundance in those areas as well.

Habitat loss not only results in the immediate numerical decline of wildlife, but it also results in permanent loss of productive capacity. Habitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small (Smallwood 2015). In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, I surveyed various patches of vegetation cover in northern California throughout the breeding seasons of 2023 and 2024. I surveyed a 1.32-acre patch of riparian forest in Rancho Cordova where I estimated 28.79 nests/acre, a 2.95-acre patch of grassland/wetland adjacent to riparian forest east of Davis, where I estimated 5.08 nests/acre in 2024, and a 9.42-acre patch of annually disked grassland adjacent to riparian forest in Rancho Cordova, where I estimated 5.47 nests/acre. Applying 28.79 nests/acre to the 6.13 acres of riparian, and the mean 5.275 between my grassland estimates to the 14.2 acres of the project site covered by periodically disked grassland would predict an annual average 251 nest sites on the project site. Assuming 1.39 broods per nest site, which is the average among 322 North American bird species I asked Noriko Smallwood to review, then I predict the project would cost California 349 nest attempts/year.

The loss of 251 nest sites and 349 nest attempts per year would qualify as significant impacts that have not been analyzed in the IS/MND. But the impacts would not end with the immediate loss of nest sites. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young’s (1948) study was 2.9. Assuming Young’s (1948) study site typifies bird productivity, the project would prevent the production of 41 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number

of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 1,113 birds per year denied to California.

Most if not all the estimated 1,113 birds that annually could be lost to the project are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act, both of which most strongly protect breeding migratory birds. It is my opinion that the proposed project would result in potentially significant adverse biological impacts.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 3—5), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.



Photo 3. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*



Photo 4. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*



Photo 5. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 9,462 animals killed by traffic on the road. This fatality number projected over 1.25 years and 2.5 miles of road translates to 3,028 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 188,191 animals killed per 100 km of road per year, or 22 times that of Loss et al.'s (2014) upper bound estimate and 53 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Special-status species that could suffer project-generated, traffic-collision mortality in the areas surrounding the project site include California tiger salamander, California red-legged frog, American badger, among many others listed in Table 4.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,028 animals killed per mile along a county road in Contra Costa County. The estimated numbers of fatalities were 1.75% birds, 26.4% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 67.4% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 4.4% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009) study, hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

Predicting project-generated traffic impacts to wildlife

The IS/MND predicts 1,227 daily VMT for the winery and 1,345 daily VMT for the warehouse, which projected to a year predicts 938,780 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 9,462 wildlife fatalities, or 2,351 vehicle miles per fatality. This rate divided into the predicted annual VMT would predict 399 vertebrate wildlife fatalities per year.

Based on my analysis, the project-generated traffic may cause substantial, significant impacts to wildlife. The IS/MND does not analyze this potential impact, nor does it propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts.

MITIGATION

Mitigation Measure BIO-1: *Install silt fencing along the Conservation Easement boundary to the riparian corridor*.

Should the project go forward, the silt fencing would need to be placed farther from the riparian corridor than the depicted in the IS/MND. According to Semlitsch and Bodie (2003), “Core terrestrial habitat [from aquatic habitat] ranged from 159 to 290 m for amphibians and from 127 to 289 m for reptiles from the edge of the aquatic site." To avoid direct impacts to terrestrial wildlife along the riparian corridor, I recommend the silt fence be placed 300 feet from the southern edge of the top of bank of Sheehy Creek.

Mitigation Measure BIO-2: *Implement CDFW (2018) as a preconstruction survey for rare plants.*

This measure misrepresents CDFW (2018) as a preconstruction survey rather than as a reconnaissance survey. The CDFW (2018) rare plant survey guidelines are intended to support the preparation of the CEQA review document. Implementation of CDFW (2018) would not qualify as a legitimate mitigation measure, as it was never intended to serve as a mitigation measure.

Mitigation Measure BIO-3: *Implement preconstruction survey for nesting birds, and if nests are found, a biologist shall establish buffers to construction activities.*

If the project goes forward, preconstruction surveys for nesting birds should be performed. However, the survey would not detect all of the available nests, nor would it prevent the loss of productive capacity I predict above under Habitat Loss.

Furthermore, the language of this mitigation allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Mitigation Measure BIO-6: *Implement CDFW (2012) habitat assessment and surveys for wintering burrowing owls.*

This measure makes little sense, and as written would not be consistent with CDFW (2012). A habitat assessment has already been completed, and the findings already warrant detection surveys. The detection surveys that are needed are breeding-season surveys consistent with CDFW's (2012) protocol. These surveys are intended to be completed prior to the issuance of the CEQA review document, not afterwards. The habitat assessment and detection surveys are not intended to be mitigation measures, as clearly stated in CDFW (2012).

The burrowing owl has been designated a Candidate for listing as Threatened or Endangered under CESA. No take of burrowing owls is allowed. Detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey.

Mitigation Measure BIO-8: *Install exclusion fencing during the wet season.*

Should the project go forward, exclusion fencing should be installed and monitored for integrity over the winter months, but passage would need to be accommodated from the project site toward Sheehy Creek, and prevented from Sheehy Creek toward the project site. Unless this one-way passage is enabled, the amphibians the fencing is installed to protect would instead trap the amphibians on the project site. Even if the fencing would prevent some amphibians from being crushed by heavy machinery, it would not avoid the loss of habitat along with the productive capacity of that habitat. The measure would not avoid a substantial, highly significant impact to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted.

Thank you for your attention,



Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in Sacramento, California. Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 480 professional publications, including:
- 83 peer reviewed publications
- 24 in non-reviewed proceedings
- 371 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC

reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their

conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS

analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the

County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

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Smallwood, K.S. and W. A. Erickson (written under supervision of W.E. Howard, R.E. Marsh, and R.J. Laacke). 1990. Environmental exposure and fate of multi-kill strychnine gopher baits. Final Report to USDA Forest Service –NAPIAP, Cooperative Agreement PSW-89-0010CA.

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Comments on Environmental Documents

I was retained or commissioned to comment on environmental planning and review documents, including:

- The Villages of Lakeview EIR (2017; 28 pp);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4 pp);
- San Gorgonio Crossings EIR (2017; 22 pp);
- Replies to responses on Jupiter Project IS and MND (2017; 12 pp);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12 pp);
- Central SoMa Plan DEIR (2017; 14 pp);
- Colony Commerce Center Specific Plan DEIR (2016; 16 pp);
- Fairway Trails Improvements MND (2016; 13 pp);
- Review of Avian-Solar Science Plan (2016; 28 pp);
- Replies to responses on Initial Study for Pyramid Asphalt (2016; 5 pp);
- Initial Study for Pyramid Asphalt (2016; 4 pp);
- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14 pp);
- Santa Anita Warehouse IS and MND (2016; 12 pp);
- CapRock Distribution Center III DEIR (2016: 12 pp);
- Orange Show Logistics Center Initial Study and MND (2016; 9 pp);
- City of Palmdale Oasis Medical Village Project IS and MND (2016; 7 pp);
- Comments on proposed rule for incidental eagle take (2016, 49 pp);
- Grapevine Specific and Community Plan FEIR (2016; 25 pp);
- Grapevine Specific and Community Plan DEIR (2016; 15 pp);
- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study (2016; 6 pp);
- Tri-City Industrial Complex Initial Study (2016; 5 pp);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02 (2016; 12 pp);
- Kimball Business Park DEIR (2016; 10 pp);
- Jupiter Project IS and MND (2016; 9 pp);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18 pp);
- Palo Verde Mesa Solar Project Draft Environmental Impact Report (2016; 27 pp);

- Reply Witness Statement on Fairview Wind Project, Ontario, Canada (2016; 14 pp);
- Fairview Wind Project, Ontario, Canada (2016; 41 pp);
- Supplementary Reply Witness Statement Amherst Island Wind Farm, Ontario (2015, 38 pp);
- Witness Statement on Amherst Island Wind Farm, Ontario (2015, 31 pp);
- Second Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 6 pp);
- Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 10 pp);
- Witness Statement on White Pines Wind Farm, Ontario (2015, 9 pp);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9 pp);
- Replies to comments 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015; 28 pp);
- Sierra Lakes Commerce Center Project DEIR (2015, 9 pp);
- Columbia Business Center MND (2015; 8 pp);
- West Valley Logistics Center Specific Plan DEIR (2015, 10 pp);
- World Logistic Center Specific Plan FEIR (2015, 12 pp);
- Bay Delta Conservation Plan EIR/EIS (2014, 21 pp);
- Addison Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Addison Wind Energy Project DEIR (2014, 15 pp);
- Addison and Rising Tree Wind Energy Project FEIR (2014, 12 pp);
- Alta East Wind Energy Project FEIS (2013, 23 pp);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16 pp);
- Clearwater and Yakima Solar Projects DEIR (2013, 9 pp);
- Cuyama Solar Project DEIR (2014, 19 pp);
- Draft Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49 pp);
- Kingbird Solar Photovoltaic Project EIR (2013, 19 pp);
- Lucerne Valley Solar Project Initial Study & Mitigated Negative Declaration (2013, 12 pp);
- Palen Solar Electric Generating System Final Staff Assessment of California Energy Commission, (2014, 20 pp);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9 pp);
- Rising Tree Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Rising Tree Wind Energy Project DEIR (2014, 15 pp);
- Soitec Solar Development Project Draft PEIR (2014, 18 pp);
- Comment on the Biological Opinion (08ESMF-00-2012-F-0387) of Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3 pp);
- West Antelope Solar Energy Project Initial Study and Negative Declaration (2013, 18 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28 pp);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10 pp);
- Declaration on Tule Wind project FEIR/FEIS (2013; 24 pp);
- Sunlight Partners LANDPRO Solar Project Mitigated Negative Declaration (2013; 11 pp);
- Declaration in opposition to BLM fracking (2013; 5 pp);
- Rosamond Solar Project Addendum EIR (2013; 13 pp);
- Pioneer Green Solar Project EIR (2013; 13 pp);
- Reply to Staff Responses to Comments on Soccer Center Solar Project Mitigated Negative

Declaration (2013; 6 pp);
- Soccer Center Solar Project Mitigated Negative Declaration (2013; 10 pp);
- Plainview Solar Works Mitigated Negative Declaration (2013; 10 pp);
- Reply to the County Staff's Responses on comments to Imperial Valley Solar Company 2 Project (2013; 10 pp);
- Imperial Valley Solar Company 2 Project (2013; 13 pp);
- FRV Orion Solar Project DEIR (PP12232) (2013; 9 pp);
- Casa Diablo IV Geothermal Development Project (3013; 6 pp);
- Reply to Staff Responses to Comments on Casa Diablo IV Geothermal Development Project (2013; 8 pp);
- FEIS prepared for Alta East Wind Project (2013; 23 pp);
- Metropolitan Air Park DEIR, City of San Diego (2013;);
- Davidon Homes Tentative Subdivision Map and Rezoning Project DEIR (2013; 9 pp);
- Analysis of Biological Assessment of Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10 pp);
- Declaration on Campo Verde Solar project FEIR (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8 pp);
- Declaration on North Steens Transmission Line FEIS (2012; 62 pp);
- City of Lancaster Revised Initial Study for Conditional Use Permits 12-08 and 12-09, Summer Solar and Springtime Solar Projects (2012; 8 pp);
- J&J Ranch, 24 Adobe Lane Environmental Review (2012; 14 pp);
- Reply to the County Staff's Responses on comments to Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 8 pp);
- Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 9 pp);
- Desert Harvest Solar Project EIS (2012; 15 pp);
- Solar Gen 2 Array Project DEIR (2012; 16 pp);
- Ocotillo Sol Project EIS (2012; 4 pp);
- Beacon Photovoltaic Project DEIR (2012; 5 pp);
- Declaration on Initial Study and Proposed Negative Declaration for the Butte Water District 2012 Water Transfer Program (2012; 11 pp);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16 pp);
- City of Elk Grove Sphere of Influence EIR (2011; 28 pp);
- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);
- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge & Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of

Intervenors Friends of the Columbia Gorge & Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);

- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);
- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009: 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);
- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- County of Placer's Categorical Exemption of Hilton Manor Project (2009; 9 pp);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9 pp);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);
- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008: 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008: 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008: 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed

Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);

- Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 15 pp);
- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21 pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);
- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed

species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);
- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176): 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Skyranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9 pp).

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12 pp);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8 pp);
- Draft Program Level EIR for Covell Village (2005; 19 pp);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping document (2003: 7 pp.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7 pp);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8 pp.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35 pp.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2 pp.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7 pp.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10 pp.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7 pp.);

- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10 pp);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 pp + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian

fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind

power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa

Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association,

Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

“No Surprises” -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT C

SMITH ENGINEERING & MANAGEMENT

November 12, 2024

Ms. Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Subject: E & P Technology **Way – Building A & B** ISMND

P24006

Dear Ms. Rengifo:

Per your request, I reviewed the Draft Initial Study Mitigated Negative Declaration (the "ISMND") for the E & P Technology Way – Building A & B Project (the "Project") in the County of Napa (the "County"). My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

My comments follow.

The Transportation Section of the ISMND Evaluates the VMT of the Two Components of the Project Independently of One Another. This Is a Project Segmentation or Piecemealing That Is Improper Under CEQA.

The ISMND at pages 1 and 2 identifies the proposed development as a single project comprised of 2 components, a winery ("Building A") and a warehouse ("Building B"). Moreover, the air quality and public health analysis in the MND at pages 7-8 estimates "the project is anticipated to generate 218 total weekday trips. However, the Transportation Section, at page 26, does not consider the VMT of the Project as a whole as required by CEQA. Instead, it independently

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evaluates the winery in Building A as having an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months. Based on the trip calculations for Building A alone, the MND states no further VMT analysis is required under the OPR guidance "that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact."

The MND at page 27 determines that the Building B warehouse would generate 114 trips per day, which would exceed the 110 trip threshold, and requires the implementation of a Transportation Demand Management Plan (MM TRANS-1). Segmenting the transportation analysis for Building A from Building B is clear piecemealing and violates CEQA. Building A and Building B, i.e., the Project as a whole, would have an estimated 218 daily trips, which is well more than the 110 daily trip maximum for presumption of a less than significant VMT impact. The Project's impact on VMT must be analyzed for the whole of the action and since the Project as a whole would exceed the threshold, there would be a significant and unavoidable impact on VMT. Mitigation measure(s) are necessary to reduce these significant impacts on VMT for the Project to less than significant levels.

Omissions in the Project Description

The Project Description lacks information about the number and frequency of clients that will visit Building A. The ISMND states at page 2 that no retail sales or access for the general public is proposed. However, the ISMND does state at page 2 that "Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers."

The ISMND provides no information about how frequently such gatherings would occur and the numbers of attendees. Due to these omissions in the Project Description, the transportation analysis provides no information about the traffic and VMT associated with such meetings. The Project's Transportation Impact Study at page 7 explains that the anticipated trip generation for Building A was estimated using the Napa County Winery Trip Generation Worksheet. Appendix C to the study includes this worksheet, which puts zero as the maximum daily visitation during the harvest and non-harvest seasons. Only full-time and part-time employees are considered in the trip generation analysis for Building A even though the MND acknowledges that there will be client meetings at the facility during operations. The Project Description must be revised to include information about how frequently such gatherings would occur and the numbers of attendees and the Project's VMT analysis must be revised accordingly.

The Trip Generation Estimates for Building B are Unsupported

For Building B (the warehouse), where a staff of 30 employees is indicated, 82 parking spaces are to be provided. The staff report at page 7 states that 38 of the 82 to be provided are "for the warehouse" and 44 are "for the office". An estimated 11,000 square feet of office space 9the square footage that would typically be needed to support 44 office workers) in Building B is over 16 percent of the building's floor area and thus the office component is not a small ancillary use to the warehouse.

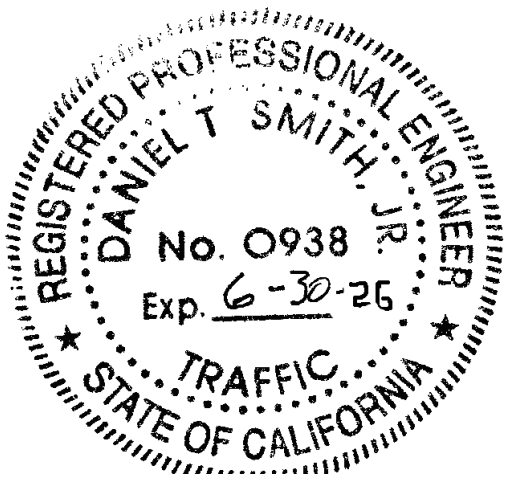
The office uses in Building B should have been analyzed using *Trip Generation, 11th Edition* Land Use Category 710 "Office" instead of Land Use Category 150 "Warehouse". That authoritative reference source indicates office use generates 10.84 trips per thousand square feet daily, 1.52 trips per thousand in the AM peak hour and 1.44 trips per thousand in the PM peak hour whereas warehouse use generates only 1.71 trips per thousand square feet daily, 0.19 per thousand in the AM peak and 0.18 trips per thousand in the PM peak, In other words, depending on the time period under consideration, office use generates between 6 and 8 times more traffic than the same square footage of warehouse. Had the analysis considered an office component, both the trip totals and the VMT generation of Building B would be significantly increased. These impacts are undisclosed and unmitigated in the MND.

Conclusion

Given the above, the ISMND's transportation section is inadequate and an EIR must be prepared.

Sincerely,

Smith Engineering & Management
A California Corporation



Daniel T. Smith Jr., P.E.
President

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
California No. 938 (Traffic) Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

“O”

Water Audit California
Letter Dated November 19, 2024

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

WATER AUDIT CALIFORNIA

A PUBLIC BENEFIT CORPORATION

952 SCHOOL STREET #316 NAPA CA 94559
VOICE: (707) 681-5111
EMAIL: GENERAL@WATERAUDITCA.ORG

November 19, 2024

County of Napa
Planning Commission

meetingclerk@countyofnapa.org

RE: Hearing – November 20, 2024

E&P TECHNOLOGY WAY - BUILDING A & B / DENNIS PAULLEY / USE PERMIT APPLICATIONS #P22-00307 and #P22-00308 CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration.

Water Audit California ("Water Audit") is an advocate for the public trust.

WAC recommends Option 4 to the Commission - Continuance Option, as the Commission may continue an item to a future hearing date at its own discretion.

FINDINGS

Water Audit disagrees with the Findings. The Application submitted omits critical material required in permitting Industrial Zone in Airport Zone. There is no Airport Land Use Commission project determination. A Variance Application for Building A setback is not in agenda packet, County Electronic Document Retrieval, or County Parcel Report.

FINDINGS at pdf page 18:

"10. Analysis consistent w IP/AC...The proposed use complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan and the Napa Valley Business Park Specific Plan. Analysis: Compliance with the Zoning Ordinance The proposed use is consistent with the Industrial Park: Airport Compatibility Combination (IP:AC) zoning district regulations, as conditioned, including setbacks, excepted as noted below, landscaping, building height, parking requirements, lot coverage and floor area ratio."

FINDINGS at pdf page 19: "VARIATION TO DEVELOPMENT STANDARDS reduce 40ft bldg setback to 31ft Bldg A... VARIATION TO DEVELOPMENT STANDARDS The Commission has reviewed the use permit variation request to development standards to reduce the 40-foot average building setback to 31-feet for Building A from the south property line in accordance with the requirements of Napa County Code Section 18.40.250, and makes the following findings:"

FINDINGS at pdf page 19:

"14. consistent w airport... The proposed modifications are consistent with applicable airport safety regulations. Analysis: The proposed modification pertains to reducing average building setback requirements that do not directly affect airport safety."

CONDITIONS OF APPROVAL ("COA") BUILDING A AND B

There are two Conditions of Approvals sought, one for Building A and one for Building B. This is very confusing. There is no wastewater connection frac-out plan under Sheehy Creek. COAs continue to assign Responsible agency to PBES to every BIO Mitigation Measure. No letters appended to COAs from CDFW, Caltrans, CalFire, CDFW, US Army Corp. The November 15, 2024 CDFW letter posted on State Clearing House is not in the packet before Commission. That CDFW letter recommended language has not been incorporated in COAs. (see CDFW Letter below.)

CDFW letter at page 6: ADD THE BELOW LANGUAGE TO THE EXISTING MM BIO-6.

Burrowing Owl Habitat Assessment and Surveys: If take of BUOW cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur, and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Timing: Prior to Ground Disturbance and During Project Construction
Responsible Party: Project Applicant
Responsible Agency: CDFW

WATER and SEWER

The Conditions of Approval do not reflect what is currently recorded with the County. Staff claims no record of historical potable water use and no will-serve letter. Not in the agenda packet but found online is the County EDR records with a Well Permit E07- 00683 filed in parcel 057-250-031 (the Well Completion Report is filed in 057-250-030), and, a prior City of American Canyon Will Serve Letter was included with the earlier referenced permit submittal P07-00864 on APN 057-250-030.

Condition of Approval pdf page 75 (emphasis added below):

1.3 - Status of Existing Services

The property is currently vacant. The **City has no record of historical potable water use** at the property. **No prior Will-Serve Letters have been issued by the City**. The property is located within the Napa Sanitation District's (NSD) recycled water service area. Recycled water is available in the area.

INITIAL STUDY

The Initial Study and Mitigated Negative Declaration determination was evaluated by Sean Kennings, LAK Associates LLC, a contract planner (packet pdf 155.) There is no disclosure of a Kennings 'Conflict of Interest Disclosure. The Initial Study mistakenly omits from project review the Responsible Agencies CDFW, USFW and US Army Corp. The November 15, 2024 CDFW letter recommended language requires clarification prior to the finalization of the Initial Study. Without a Notice of Determination from CDFW, the project is not approved, operative, vested, or final.

CDFW letter at page 6 omitted from agenda packet (emphasis added):

"CDFW recommends revising the language on IS/MND Page 2, Section 10 to: "The proposed project has the potential to result in "take" of listed endangered or threatened species, or candidate species for listing, and thus may require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

Timing: Prior to Finalizing IS/MND

Responsible Party: Lead Agency

Responsible Agency: CDFW

CDFW letter at page 5 omitted from agenda packet (emphasis added):

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. **Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final.** (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

APPLICATION

Wrong Application. This is not a "Major Modification", it is a Site Development Plan. No deed on any of the three parcels. No notice list to neighbors. No Assessor Parcel Pages. No "grape source" for 057-250-030 winery parcel. No Application for Variance for Building A set-back. Neither Application is signed or date stamped. No Fees. No Airport Land Use Commission determination. No Compatibility Map. Checklist omits Industrial Zone supplemental checklist, CUPA, Business Activities Form, Hazardous Materials Business Plan. No Solid waste & Recycling Storage area location & size included on overall site plan. No referenced P07-00864 or P08-00057 in packet for review. No referenced Conservation Easement 2006-0004963 with Site Map in packet for review. NapaSan requires separate sanitary sewer laterals, but the Applicant does not explain how Sheehy Creek will be impacted.

Building A and B are NOT Major Modifications. There is no relationship with previous application submitted in 2007 by Rombauer Vineyards for permit P07-00864. That P07-00864 was withdrawn by owner.

Further, the E & P Project Statement claims this "modification" is exempt from submitting a Variance Application for Building A setback. No Variance for any Building setback has been filed then, or now. The E & P claim is also supported by a 2008 Permit P08-00057 applied for by Caymus Vineyards on a different APN. That P08-00057 is APN 057-250-032, and is supported with conditions from Environmental Health Services October 13, 2008 Memo requiring siting the hazardous waste stored and disposed per CA HSC, Hazardous Materials Business Plan, Business Activities Form. That P08-00057 is "Pending as of 2008" and has long since expired (see County Parcel Report.)

Project Statement Building A (emphasis added) pdf 150:
NapaSan Will Serve "11. Each parcel shall be served by a **separate sanitary sewer latera**l"

Project Statement Building A (emphasis added) pdf 193:
"GENERAL PROJECT DESCRIPTION: The property is located on the north side of Technology Way and Morris Court within the Industrial Park Area of the Napa County Airport Business Park. The parcel is undeveloped. **This proposal supplements application P22-00307 to allow for full winery production and wine storage within the proposed 143,325 SF building. The winery uses will include grape crushing,** bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 square feet of covered work area will be located on the north side of the building

Project Statement Building A (emphasis added) pdf 194:
"Site Development: The Napa Valley Business Park Specific Plan includes a requirement for an unnamed setback from Sheehy Creek, which is adjacent to this parcel on the north side. **The necessary setbacks were evaluated and established under a previous application (P08-00557). A Conservation Easement has been recorded to established for habitat conservation (2006-0004963).** First Carbon Solutions has prepared updated Biological Asessment. All recommendations contained in this report are included in the project."

Project Statement Building B pdf 213:
"GENERAL PROJECT DESCRIPTION: The property is located on the north side of Technology Way and Morris Court within the Industrial Park Area of the Napa County Airport Business Park. The parcel is undeveloped. **This proposal supplements application P22-00308 to allow warehouse uses within the proposed 66,915 SF building.** The warehouse use would be consistent with allowable warehouse uses as outlined in Napa County Code (18.40.020)."

STORMWATER

The Stormwater plan claims the bike trail is a sufficient setback designation from Sheehy Creek. and from the proposed construction.

STORMWATER CONTROL PLANS packet pdf 478:
"III.A. OPTIMIZATION OF SITE LAYOUT:
III.A.3 SETBACKS FROM CREEKS, WETLANDS, AND RIPARIAN HABITATS
An existing **bike trail borders the Sheehy Creek, creating a natural setback for proposed construction.** Proposed construction will not encroach within 5 ft of the existing bike trail and the creek to the north.

BIOLOGICAL RESOURCES ASSESSMENT

The Biological assessment maps omit Fagan, Sheehy and Suscol Creeks altogether (see packet pdf 307.) There is no wetlands verification number from US Army Corp. No wetlands delineation worksheets, either wet or dry seasons. All three project parcels are in wetlands (County GIS wetland vegetation layer map Exhibit attached below.)

Biological Resources Study pdf page 21 (emphasis added in bold):

"Biological Report 3.4 Watercourses and Potential Wetlands...Potential wetlands on-site were assessed based on the likelihood to satisfy the three-tier wetland delineation criteria used by the USACE Wetland Delineation Manual (USACE 1987); **however, a protocol-level wetland delineation was not performed.**

GEOLOGICAL

The Geological Study pdf page 491 "C203 Civil Site Plan" omits distances to Sheehy Creek. There are Sanitary Sewer connections crossing Sheehy Creek. At pdf page 497 "C403 Utilities Building A" No distances sited. There is an "existing 20' sanitary sewer to remain" crossing Sheehy Creek to connect with NapaSan pipe. Is NapaSan pipe inside the setback "Habitat Conservation Easement"? At pdf page 493 "C303 Grading & Planning" sites the sewer crossing at Sheehy Creek, with no distance sited.

The Geological Study does not include any LSAA or US Army Corp verification to permit filling in Sheehy Creek, cutting a new channel, and relocating it. No explanation regarding connection to NapaSan pipe. Soils description is same as wetland soil composition. No wetland delineation worksheets, wet or dry seasons, or verification from US Army Corp.

Geological Study pdf page 2 through 4 (emphasis added):

"... **We also noted that there is fill on both properties, which is most significant on the easterly portion of the easterly property. The approximate location of the pre-existing trace of Sheehy Creek, which according to Gogle Earth® imagery was moved to its present location within the interval between the summers of 2003 and 2004, crosses the property as shown approximately on Plate 1. The backfill of the pre-existing creek trace is discussed in the next section**."

"It should be recognized that eight of the 11 borings drilled on the composite property were located over the pre-existing creek trace in order to assess the quality of the creek backfill. In locating borings over the former creek trace we considered historic aerial photography, and by virtue ofthe composition of the creek fill materials we engaged, it is apparent that our exploratory location methodology was appropriate. The depths offill engaged in the creek-specific borings ranged from 5.3 to 19 feet, likely reflecting the locations of our explorations relative to the centerline ofthe trace; the quality of the creek backfill appears to be good. The immediate surface of the creek backfill soils consists of a foot or less of silt which is typically underlain by a six-to 20-foot-thick dark, high plasticity clay stratum, although the dark heavy clays also appear at the surface locally, and also are interlayered with leaner, lighter-colored silty clays and silty sands locally. **Within areas outside the pre-existing creek trace, it would appear that the native soil profile consists of two to four feet of locally loose but generally medium dense silt at ground surfaces, underlain by comparatively thin strata of dark heavy clay soils, which are locally interrupted by lighter, leaner silty clays and clayey silts. At depths of six to seven feet within the native soils, silty clays of stiff to very stiff consistency were engaged; these soils were found to extend to depths of nearly 20 feet. Below about 20 feet the native soils consist of a complex sequence of silty sand, sandy silt, silty clay, and even fine gravel locally, which appear to**

extend beyond our maximum 50-depth of our exploration; consistencies of the soils in this lowermost interval generally are stiff to hard/dense."

"Free groundwater was encountered in nine of the 11 borings drilled for this study. Measured depths ranged from, as little as eight feet, to 17.5 feet, although no water was engaged in either the 20-foot-deep Boring 3 or the15-foot-deep Boring 4. **Nearly three feet of artesian pressure was measured in Boring B where the free groundwater is confined by dark heavy clay backfill materials."**

"As indicated above, the plasticity oft he uppermost native clays is quite high. These near surface clays are capable of exerting high to very high expansion pressures on slabs, flatwork, pavements and foundations with variations in moisture content. As with other projects in this setting, **soil expansion potential will be addressed by chemical treatment."**

TRAFFIC

The Traffic Study at pdf page 372 "Winery Trip Generation" for Building A is named differently from the Application Project Statement. Dates are not consistent. Worksheets are not consistent. Employees full-time and part-time are not consistent.

GRAPHICS

No USGS with watercourses and distances sited per Checklist Sample. Napa County Land Use Plan map is only a tight-shot with the project parcels. It omits surrounding parcels. Maps have illegible font and numbers. The plan "C402 Utilities Building B" designates an "INTERIM PROPERTY LINE TO BE ELIMINATED." There are No APNs on map. There is no lot line or easement permit number (see pdf page 577.)

PARCEL REPORT

Not in agenda packet and noted on individual Parcel Reports **"**Not currently updating as of August 2024." No pre-site application on Parcel Report. No lot line adjustment per -031, -032 Bldg B. No 1994 "original" Use Permit application approved. No Variance permit.

WATER BOARDS

Not in agenda packet is Sheehy Creek Stream Maintenance report. The modified channel is mowed to reduce weeds, and it was realigned to accommodate the development of the industrial park. There are no LSAA or US Army Corp verification numbers.
Link here (emphasis added):
https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2019/July/NapaCounty/Attachment_A_Napa_Stream_Maintenance_Manual_Part_1.pdf

At pdf page 177 REACH SETTING:

The District-maintained reach of Sheehy Creek is significantly modified for drainage and flood control. The channel generally has a trapezoidal cross-section, and a planform alignment that appears to have been modified to accommodate the development of the industrial park. The District has planted native trees along the banks, which has substantially enhanced the riparian habitat along the drainage corridor.

MAINTENANCE HISTORY:

In 2010, bank stabilization work was performed at the downstream end of the reach (Photos 3 and 4). **Cattails in the middle of the main channel are mowed on a routine basis.** In 2016, 250 linear feet of cattails were removed.

At pdf page 177 PHYSICAL CONDITIONS:

Active channel: **The channel bed is 20-30 ft wide; the bed is 10-15 ft beneath the top of banks.**

Bed sediments/texture: The bed is composed of sands and fine sediment (Photo 4). Some riprap has been placed in the channel bed at the downstream portion of the reach.

Bank structure: The channel has 10-12 ft high earthen banks; slopes are typically 3:1. Slopes on the right bank in the downstream portion of the reach are considerably steeper (~1:1). Riprap has been placed on the banks on the outer bends of meanders and near the culverts at North Kelly Road and Highway 29.

Water quality: **On September 22, 2010 water in the upstream portion of the reach appeared stagnant and was covered with aquatic vegetation (Photo 1).** In the middle and lower portions of the reach the water was flowing and appeared clear (Photos 2 and 3). The observation of significant streamflow (estimated to be 0.25 to 0.5 cfs) within a drainage of this size in late September suggests the creek receives runoff and/or subsurface flow from agricultural sources or the adjacent golf course. The golf course and adjacent fields are irrigated with recycled water from the Napa County Sanitation District.

Channel processes: The channel is depositional and traps fine sediment delivered from the upper watershed. There is a significant sediment "wedge" that begins at the downstream end of the reach near Highway 29 (Photo 3) and continues upstream.

THE PUBLIC TRUST

The public trust fulfills the basic elements of a trust: intent, purpose, and subject matter. (Estate of Gaines (1940) 15 Cal.2d 255, 266.) It has beneficiaries, the people of the state, and trustees, the agencies of the state entrusted with public trust duties. Fish and wildlife form a critical part of the res of the public trust. In the limited circumstances of the alienation of components of the public trust into private hands, the private party becomes bound with trustee duties pursuant to Public Resources Code § 6009.1.

The essential idea of the public trust doctrine is that the government holds and protects certain natural resources in trust for the public benefit. (See *Illinois Central Railroad v. Illinois* (1892) 146 U.S. 387, 452, 456; *National Audubon Society v. Superior Court* (*Audubon*) (1983) 33 Cal.3d 419, 441; *Berkeley v. Superior Court* (1980) 26 Cal.3d 515, 521.)

Public trust theory has its roots in the Roman and common law (*United States v. 11.037 Acres of Land* (N.D. Cal. 1988) 685 F. Supp. 214, 215) and its principles underlie the entirety of the State of California. Upon its admission to the United States in 1850, California received the title to its tidelands, submerged lands, and lands underlying inland navigable waters as trustee for the benefit of the public. (*People v. California Fish Co.* (*California Fish*) (1913) 166 Cal. 576, 584; *Carstens v. California Coastal Com.* (1986) 182 Cal.App.3d 277, 288.) The People of California did not surrender their public trust rights; the state holds land in its sovereign capacity in trust for public purposes. (*California Fish*, Ibid.)

The courts have ruled that the public trust doctrine requires the state to administer, as a trustee, all public trust resources for current and future generations, specifically including the public trust in surface waters and the life that inhibits our watercourses. These trust duties preclude the state from alienating those resources into private ownership.

The beneficiaries of the public trust are the people of California, and it is to them that the trustee owes fiduciary duties. As Napa County is a legal subdivision of the state, it must deal with the trust property for the beneficiary's benefit. No trustee can properly act for only some of the beneficiaries – the trustee must represent them all, taking into account any differing interests of the beneficiaries, or the trustee cannot properly represent any of them. (*Bowles v. Superior Court* (1955) 44 C2d 574.) This principle is in accord with the equal protection provisions of the Fourteenth Amendment to the US Constitution.

An agency of the State "may not approve of destructive activities without giving due regard to the preservation of those [public trust] resources." (*Center for Biological Diversity, Inc. v. FPL Group, Inc.* (*Bio Diversity*) (2008) 166 Cal.App.4th 1349, 1370, fn. 19, 83 Cal.Rptr.3d 588.)

Agencies of the state must not engage in unlawful conduct. "It is a fundamental principle of our constitutional scheme that government, like the individual, is bound by the law." (*Alderman v. United States* (1968) 394 U.S. 165, 202.) When lawless conduct occurs, the Government may not profit from its fruits. (*Weeks v. United States*, (1914) 232 U.S. 383.) The County's duty is to obey the law, which among other things requires that it not harm public trust resources by its decisions and requires the state to use its best efforts for the long-term preservation of public trust resources for the public benefit. (Audubon, supra, 33 Cal.3d 419, 440-441; *Surfrider Foundation v. Martins Beach 1, LLC* (2017) 14 Cal.App.5th 238, 249-251; Public Resources Code, § 6009.1.)

Common law imposes public trust considerations upon the County's decisions and actions pertaining to trust assets. (*Bio Diversity*, supra, 166 Cal.App.4th 1349; *Environmental Law Foundation v. State Water Resources Control Board* (ELF) (Cal. Ct. App. 2018) 26 Cal.App.5th 844.) The courts have recognized the State's responsibility to protect public trust uses whenever feasible. (See, e.g., *Audubon*, supra. 33 Cal.3d 419, 435; *California Trout, Inc. v. State Water Resources Control Bd.* (Cal. Trout I) (1989) 207 Cal.App.3d 585, 631; *California Trout, Inc. v. Superior Court* (Cal. Trout II) (1990) 218 Cal.App.3d 187, 289.) Napa County has an affirmative duty to administer the natural resources held by public trust solely in the interest of the people of California.

Napa County must manage its public trust resources so as to derive the maximum benefit for its citizenry. Article X of the California Constitution and the public trust doctrine hold that no water rights in California are truly "vested" in the traditional sense of property rights.

Regardless of the nature of the water right in question, no water user in the State "owns" any water. The owner of "legal title" to all water is the State in its capacity as a trustee for the benefit of the public. There can be no vested rights in water use that harm the public trust. A "water right" grants the holder only the right to use water, an "usufructuary right." All water rights are usufructuary only and confer no right of private ownership in the water or the watercourse, which belongs to the State. (*People v. Shirokow* (1980) 26 Cal.3d 301 at 307.)

Fish & Game Code, section 1600 provides:

> The Legislature finds and declares that the protection and conservation of the fish and wildlife resources of this state are of utmost public interest. Fish and wildlife are the property of the people and provide a major contribution to the economy of the state, as well as providing a significant part of the people's food supply; therefore their conservation is a proper responsibility of the state.

The California Department of Fish & Wildlife (CDFW):

… is California's Trustee Agency for the State's fish, wildlife, and plant resources. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of those species. For the purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. (https://wildlife.ca.gov/Conservation/Environmental-Review/CEQA.)

Respectfully,



William McKinnon
General Counsel
Water Audit California

“P”

Other Public Comments

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

From: Yvonne Baginski
To: Trippi, Sean
Subject: Public hearing comments P22-00307/P22-00308
Date: Thursday, November 21, 2024 9:28:41 AM

[External Email - Use Caution]

Good morning.

I tried to call in on Zoom during the public hearing portion of the Planning Commission meeting but received a message that the meeting was not in progress. I think it was a snafu because I was watching it online.

Anyway, here are my comments:

I am advocating for a complete Environmental Impact Report with public hearings/comments. There are important biological resources in this area that must be considered for protection throughout the build and development of this project.

I know this area very well. I have walked the path along Sheehy Creek for the past twenty years. It used to be an area full of jackrabbits, several coyotes, snakes and up until three years ago, beavers. It is often used by birdwatchers and walkers on breaks from the local business park. It is an active wildlife corridor. However, in the past ten years, wildlife has significantly declined due to the cumulative effects of the builds in the area. This business park is business park is taking away 1, 744 acres of wildlife habitat . That is very significant of such a biologically diverse area.

An incredible variety of birds have been seen along this creek. I have personally seen terns white tailed kites, , pheasants, Swainson Hawks, various raptors, and cranes. Please ensure that ebird.org and iNaturalist data are included in this property's Environmental Impact Report records search. Many birdwatchers have posted verifications of bird sightings, and the Napa Solano Audubon Society has also kept records. Please make sure that local environmentalists are included and that their data is part of the report. The Napa Valley Native Plant Society should also be contacted for records and verifications.

This is the last open field along Sheehy Creek. Open fields are imperative as foraging sites for raptors. This field, at one time, might very well have proven to be a site for burrowing owls. However, the twice-yearly disking (that started in 2021) has killed off any opportunity to establish any ground-dwelling creatures in that area. People and wildlife do not mix. The buildings built directly across the street from this site have also destroyed wildlife with a proliferation of bait stations to poison and kill food supplies for the raptors, foxes, and coyote. One of the buildings, too, has placed spikes along the roof to repel the birds from landing on the roof. It appears, from the hundreds of bait stations (we discovered 357 bait stations around ten of the buildings along this creek), that the rodents/moles/voles, are desperately looking for ways to find space to live in the area. But they're no match for the 26 pesticide companies currently setting out traps. I am asking that only snap traps, and not bait stations be used for rodent control. And, that the snap traps be placed inside the buildings. These rodents are an important food supply for creatures up the food chain. Killing them outside (where they belong), is cruel and unnecessary.

There are owls in the area. I have found owl pellets under the street lights on Morse Ct.

This project developer must understand that they are encroaching on wildlife habitat. As one of the last open fields alongside the creek, the build will significantly impact and contribute to the decline of habitat, food sources and ultimately, the animals themselves. The stormwater basins will spill water into the creek, the cement will smother and extricate all life in the soil, the lighting will confuse the night creatures and the traffic will maim and kill animals. This project will have an enormously disruptive effect on the environment of that area.

There is no way to minimize or mitigate this reality. There are legal requirements, but there are other things the developer can do that go beyond the legal. Here are my suggestions:

1 No night lighting.
2. No bait stations, snap traps only. Ban all pesticides and herbicide use. There will be runoff of any herbicides, which inevitability end up in the creek.
3.All landscaping is replanted with native plants and riparian habitat. Replace as much of what is destroyed, as possible. Especially along the path. There needs to be a conservation easement of at least 30 feet on the south side of that path. The diskers have destroyed the plants right up to the edge of the sidewalk.
4.A requirement to keeping the site clean of litter during construction. This means weekly picking up trash and litter that labor employees will inevitably throw into the bushes from the parking lot. (I pick up trash along the trail several times a month). All trash inevitably ends up in the creek. Whenever there's a build, there's a significant increase in litter, especially plastic water bottles, coffee and fast food containers. This need to be monitored.
6. Place signs around the construction site so that ALL labor knows that any wildlife injured or killed during construction must go immediately to the Napa Wildlife Rescue Center. Post with directions and a phone number. Require a significant, (at least $25,000) donation to the Napa Wildlife Rescue Center as a mitigation for the animals who will be displaced, maimed or extricated due to this project.
7. Plant native trees, not landscaping crepe myrtles and other decorative species.
8, Plant pollinator-friendly native vegetation in all landscaping. This translates a reduction in sod, ornamental grasses , etc. Landscapers can work with the local Native Plant Society to put forth the best effort.
9. All fencing contains areas for animals to move in and out of the project area. There must be excape routes so that animals who find themselves trapped, can get out.

What I'm really asking for is to do the best we can to protect the wildlife habitat, provide areas for them to forage, nest and basically live. This project can work to be a good neighbor to all creatures.

Thank you for this opportunity.

Yvonne Baginski. Conservation Team Leader
Napa Solano Audubon Society

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From: Bordona, Brian
To: Yvonne Baginski
Cc: MeetingClerk; Trippi, Sean
Subject: RE: This mornings planning commission
Date: Wednesday, November 20, 2024 1:47:06 PM

Hi Yvonne

I have included our meeting clerk team to make them aware of the issues you experience trying to call in this morning so that they can be resolved for future meetings. Also including Sean Trippi to make him aware of your comments related to biological impacts.

Brian

-----Original Message-----
From: Yvonne Baginski <yvonnebaginski@gmail.com>
Sent: Wednesday, November 20, 2024 11:54 AM
To: Bordona, Brian <Brian.Bordona@countyofnapa.org>
Subject: This mornings planning commission

[External Email - Use Caution]

On another note, I tried to call in on this morning's meeting and while I got through on zoom, it stated that the public hearing hadn't started yet. I will have to email you my comments.

That property, and the entire walk along Sheehy Creek are part of my favorite solitary walks. That is also a favorite bird watching site. This is the last open field alongside the creek. They have been discing the field since 2020 and have slaughtered any existence of the ground dwelling animals. Once an area with a large population of jackrabbits, several coyotes, lizards and snakes…no more. The beavers were there about three years ago, but the Bus depot site scared them away.

That is a very active wildlife corridor. They may not be hanging out there, but they walk through at night.

Somehow, that corridor needs protection.

Sent from my iPhone

“Q”

First Carbon Solutions
Memo Dated November 10, 2025

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

FCS
An ADEC Innovation

Memorandum

Date:	November 10, 2025
To:	Dennis Paulley, E&P Properties, Inc.
From:	Jason Brandman, Sr. Vice President, Environmental Services, FirstCarbon Solutions
Subject:	Responses to Comments for the E&P Technology Way Buildings A and B Project Initial Study/Mitigated Negative Declaration

Responses to Comments

The FirstCarbon Solutions (FCS) team has been requested to respond to comments received during the public comment period from October 19, 2024 to November 20, 2024 regarding the E&P Technology Way Buildings A and B Project Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearinghouse [SCH] No. 2024100855). The list of relevant commenters on the proposed E&P Technology Way Buildings A and B Project (proposed project) is presented below. Each comment has been assigned an author code. Individual comments within each communication have been numbered so comments can be cross-referenced with responses. Comment Letters are included in the attachments to this memorandum.

List of Commenters

State Agencies

California Department of Fish and Wildlife (11-15-24).....CDFW

Organizations

Adams Broadwell Joseph & Cardoza (11-14-24)
On behalf of the Napa-Solano Residents for Responsible Development.....NSRRD1

Adams Broadwell Joseph & Cardoza (11-19-24)
On behalf of the Napa-Solano Residents for Responsible Development.....NSRRD2

This memorandum also contains an Errata section where clarifying information and revisions to the IS/MND are provided for incorporation into the Final IS/MND. These revisions represent minor technical changes, updates and clarification. None of the information provided in this memorandum or the Errata section include information requiring recirculation of the IS/MND.

State Agencies

California Department of Fish and Wildlife (CDFW)

Response to CDFW-1

CDFW confirms receipt of the IS/MND and confirms use permit and parcel numbers associated with the project. This comment is noted. No additional response is required.

Response to CDFW-2

CDFW clarifies their role as Trustee Agency and Responsible Agency. This comment is noted. No additional response is required.

Response to CDFW-3

The project proponent, objectives, and location are identified including parcel numbers and approximate dimensions of proposed buildings and parking areas. This comment is noted. No additional response is required.

Response to CDFW-4

The conditions under which an Incidental Take Permit (ITP) is required are provided. CDFW also states that the project has the potential to impact Swainson's hawk due to an observation of a nesting individual in 2021 approximately 300 feet north of the project site in the California Natural Diversity Database (CNDDB) database, and burrowing owl due to an observation of a wintering individual in 2006 approximately 1,100 feet northeast of the project site in the CNDDB database.

These comments are noted. Mitigation Measure (MM) BIO-6 in Section IV, Biological Resources, of the IS/MND has been revised to include changes recommended by CDFW (see Errata, Section IV Biological Resources below). This change reflects the recent status change of burrowing owl to a California Endangered Species Act (CESA) candidate speceis and stipulates that the proposed project would obtain a CESA ITP if take of burrowing owl cannot be avoided. This will further ensure that biological impacts remain less than significnat. This change would not result in a new significant evnironmental impact. Additionally, MM BIO-6 has been revised to include language on the provisions for an ITP (see Errata, Section IV Biological Resources below).

Implementation of MM BIO-6, as recommended by CDFW, would ensure that biological impacts remain less than significant. This nominal modification merely clarifies and amplifies the analysis and would not trigger any new significant impacts or an increase in any previously identified significant impacts.

Response to CDFW-5

The jurisdiction of CDFW over natural resources governed by Fish and Game Code and the Migratory Bird Treaty Act is clarified. This comment is noted. No additional response is required.

Response to CDFW-6

CDFW introduces the subsequent discussion of recommended Avoidance and Mitigation Measures (AMM) and concludes that an IS/MND is appropriate for the project provided suitable AMM are implemented.

This comment is noted. Responses to specific recommended AMM are provided below (see Responses to CDFW-7 and CDFW-8). No additional response is required.

Response to CDFW-7

CDFW states that language in the IS/MND and FCS (2024) biological assessment does not reflect the recent status of change of burrowing owl under CESA. CDFW recommends adding language to MM BIO-6 that specifies the conditions under which an ITP is warranted.

This comment is noted. As stated in Response to CDFW-4, MM BIO-6 in Section IV, Biological Resources, of the IS/MND has had language added to include changes recommended by CDFW (see Errata, Section IV Biological Resources below). This addition reflects the recent status change of burrowing owl to a CESA candidate species and stipulates that the proposed project would obtain a CESA ITP if take of burrowing owl cannot be avoided. Additionally, MM BIO-6 has been revised to include language on the provisions for an ITP (see Errata, Section IV Biological Resources below). Implementation of MM BIO-6, as recommended by CDFW, will further ensure that biological impacts remain less than significant. This nominal modification merely clarifies and amplifies the analysis and would not trigger any new significant impacts or an increase in any previously identified significant impacts.

Response to CDFW-8

CDFW provides an editorial comment that describes the conditions under which an ITP for Swainson’s hawk may be warranted. CDFW recommends modifying language from the IS/MND to reflect that the project has the potential for “take” as defined under CESA of burrowing owl and Swainson's hawk.

As stated in Response to CDFW-4, the IS/MND Page 2, Section 10 has been revised to contain recommended language provided by CDFW. This language includes the provisions of an ITP and states that the proposed project has the potential to result in the take of listed endangered or threatened species, or candidate species for listing and thus may require a take permit from CDFW or the National Marine Fisheries Service (NOAA Fisheries) (see Errata, Section IV Biological Resources below). Implementation of this suggested language from CDFW will further ensure that biological impacts remain less than significant. This nominal modification merely clarifies and amplifies the analysis and would not trigger any new significant impacts or an increase in any previously identified significant impacts.

Response to CDFW-9

The requirements for submitting environmental data to databases including CNDDB are discussed by the commenter. This comment is noted. No additional response is required.

Response to CDFW-10

Filing fees for submission of environmental documents as part of California Environmental Quality Act (CEQA) review are discussed by the commenter. This comment is noted. No additional response is required.

Response to CDFW-11

Contact information for CDFW personnel are presented by the commenter. This comment is noted. No additional response is required.

Organizations

Adams Broadwell Joseph & Cardoza on behalf of the Napa-Solano Residents for Responsible Development, dated November 14, 2024 (NSRRD1)

Response to NSRRD1-1

This comment requests an extension to the current public comment period based on the claim that the County failed to provide timely access to the supporting documents to the IS/MND. This comment also describes the proposed project, including the project proponent, objectives, and location, including parcel numbers and approximate dimensions of proposed buildings.

Contrary to the commenter's assertion, all supporting documentation, except the confidential Phase I Cultural Resource Assessment (Phase I CRA) was available on the County's website[1] and the link to those documents was included in the Notice of Planning Commission Hearing and Notice of Intent to Adopt a Negative Declaration.[2] Furthermore, it is stated in the Notice that "copies of documents and other information relating to the project described above may be examined between 8:00 a.m. and 4:00 p.m. Monday through Friday at the office of the Planning, Building, and Environmental Service Department, Napa County Administration Building, 1195 Third Street, Suite 210, Napa, California." The Phase I CRA contains sensitive information relating to cultural resources and is not intended for public distribution pursuant to Public Resources Code Section 21082.3(C)(2). This document is only available to qualified professionals upon request. Additionally, the County notes that the Public Records Act exempts from disclosure records "of Native American graves, cemeteries, and sacred places and records of Native American places, features and objects" described in Public Resources Code Sections 5097.9 and 5097.993. These confidentiality mandates take precedence over CEQA's disclosure policies. Government Code Section 6524(r); *Clover Valley Found. V. City of Rocklin* (2011) 197 CA4th 200, 221.

CEQA also specifically protects the confidentiality of information that is provided by a Tribe as part of the Assembly Bill (AB) 52 consultation process. Such information may not be disclosed to the public without the consent of the Tribe that provided the information. There is no such consent in this situation and, therefore, the County is precluded by law from disclosing confidential information.

Therefore, the County provided timely access to supporting documents to the IS/MND in full compliance with CEQA's requirements. Thus, no additional response is required.

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1 County of Napa. 2025. P22-00308 E&P Technology Way, Building B. Website: https://www.pbes.cloud/index.php/s/4DJdazPtwt7P6wN. Accessed June 24, 2025

2 County of Napa. 2024. Notice of Planning Commission Hearing and Notice of Intent to Adopt a Negative Declaration. October 18. Website: https://ceqanet.lci.ca.gov/2024100855/Attachment/x0tGiK. Accessed June 18, 2025.

Response to NSRRD1-2

This comment reiterates the previous comment's request for supporting documents for the IS/MND. Comment noted.

This comment is noted. See Response to NSRRD1-1. No additional response is required.

Response to NSRRD1-3

This comment claims that Phase I CRA conducted by FCS has not been provided for public review.

This comment is noted. As previously mentioned within Response to NSRDD1-1, the Phase I CRA contains sensitive information relating to cultural resources and is not intended for public distribution pursuant to Public Resources Code Section 21082.3(C)(2). This document is only available to qualified professionals upon request. Furthermore, the methodology and results of the Phase I CRA were provided in Section V. Cultural Resources of the IS/MND.

Response to NSRRD1-4

This comment reiterates the requests summarized by Response to NSRRD1-1 through Response to NSRRD1-3 for the provision of the Phase I CRA conducted by FCS and the extension of the public review period by at least 30 days.

This comment is noted. See Response to NSRRD1-1 and Response to NSRRD1-3. No additional response is required.

Response to NSRRD1-5

This comment requests the provision of all related project documents not provided for the public review period.

This comment is noted. See Response to NSRRD1-1 through Response to NSRRD1-3. The public review period for an IS/MND requires submission of a "mitigated negative declaration and initial study" for public and agency review. These guidelines do not specify the requirement of including all project documents, but require that documents incorporated by reference, per CEQA Guidelines Section 15072(g)(4) as cited in the comment, be "readily accessible to the public during the lead agency's normal working hours." The ruling cited in the comment, *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, was brought under the plaintiffs' claims objecting to an Environmental Impact Report (EIR) prepared for the construction of a 22,000-unit mixed-use residential project. The plaintiffs claimed that "(1) the environmental impact report (EIR) prepared for the community and specific plans failed to adequately identify and evaluate future water sources for the development, and (2) potential impacts on migratory salmon in the Cosumnes River, disclosed in the Final EIR, should instead have been incorporated in a revised Draft EIR and recirculated for public comment." The ruling concluded that although the EIR prepared by the County (defendant) "identifies the intended water sources in general terms, it does not clearly and coherently explain, using material properly stated or incorporated in the EIR, how the long-term demand is likely to be met with those sources, the environmental impacts of exploiting those sources, and how those impacts are to be mitigated." The ruling also reiterated that the Draft EIR must be revised and recirculated for public comment based on the newly-disclosed information. Given that the holding for *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* case

addresses water resources, and does not remark on requirements related to the availability of documents incorporated by reference or for ensuring any related or referenced documents remain "readily accessible" to the public, the holding of *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* is unrelated to the proposed project. No additional response is required.

Response to NSRRD1-6

This comment reiterates the claims made by Response to NSRRD1-5, citing the California Public Records Act (Government Code § 7922.525(a)).

This comment is noted. See Response to NSRRD1-5. No additional response is required.

Adams Broadwell Joseph & Cardoza on behalf of the Napa-Solano Residents for Responsible Development, dated November 19, 2024 (NSRRD2)

Response to NSRRD2-1

This comment describes the proposed project, including the project proponent, objectives, parking area, utilities, and location, including parcel numbers and approximate dimensions of proposed buildings of the proposed project.

This comment is noted for the record. No additional response is required.

Response to NSRRD2-2

This comment introduces the intent of the comment letter and a brief summary of claims made by the comment letter asserting that the IS/MND lacks an adequate Project Description and fails to provide substantial evidence that the proposed project would not assert in significant environmental impacts. Based on these claims, the commenter claims that an EIR is required for the proposed project.

This comment is noted. CEQA Guidelines state that commenters on mitigated negative declarations should focus on the proposed finding that the project will not have a significant environmental effect (CEQA Guidelines § 15204(a)). This general comment fails to address the requirements of Section 15204(b) because it does not identify the specific effect the commenter alleges is significant, fails to explain why the commenter believes a significant effect would occur; and fails to explain why the effect would be significant. The commenter has not provided any credible evidence in this general comment to support a fair argument that there are significant impacts. The IS/MND, as well as all supporting technical studies, provide all required elements of a legally adequate Project Description, and all feasible mitigation measures for the proposed project's impacts have been applied. Therefore, an EIR is not required. Thus, these claims remain unsubstantiated. No additional response is required.

Response to NSRRD2-3

Napa-Solano Residents for Responsible Development (NSRRD) introduces their role as an Organization.

This comment is noted for the record. The comment did not raise any issues with respect to the environmental analysis. No response additional is required.

Response to NSRRD2-4

This comment claims that the IS/MND fails the “fair argument” standard in disproving that the proposed project would avoid significant environmental impacts and that an EIR is required.

Comment noted. This comment does not reference the project-specific findings of the IS/MND; therefore, the comment is vague and unsubstantiated, lacking critical information or examples demonstrating the project’s lack of conformance with the CEQA “fair argument” standard. Given the lack of substantial evidence supporting a fair argument that impacts would result, no additional response is required.

Response to NSRRD2-5

The comment claims that the IS/MND fails to provide a complete Project Description due to the omission of details on the proposed project’s construction timeline, activities, the frequency and number of clients that would visit the building.

Comment noted. The commenter fails to establish basis for their comments and submit supporting data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts. Section 15204(c). Accordingly, this comment fails to establish “substantial evidence” sufficient to support a “fair argument” that the alleged impacts may occur and further fails to establish that the alleged impacts should be considered “significant.”

Neither CEQA nor the CEQA Guidelines require the inclusion of a specific, detailed construction schedule in the Project Description. Potential impacts associated with construction are analyzed based on reasonable assumptions of construction duration and intensity. They are not analyzed on an exact day-by-day or phase-specific construction schedule. Therefore such a schedule is unnecessary in a Project Description. Courts have upheld that CEQA does not demand "excessive detail" that would hamper flexibility or unnecessarily burden the environmental review process. For example, *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61 emphasized that CEQA does not require details that are impractical or speculative at the planning stage. Given the lack of specification on the scope of construction, as evidenced by variable factors, it would be too speculative to assume a definitive construction timeline during the public review phase of the proposed project. Furthermore, as stated in the Project Description of the IS/MND, the proposed project does not include retail sales or access for the general public. Individual clients could visit the site on occasion, any number of client trips would be nominal at best, and would therefore not impact the conclusions of the IS/MND. No additional response is required.

Response to NSRRD2-6

This comment reiterates the claims of Comment NSRRD2-5 on the supposed inadequacy of the Project Description in failing to provide information on the proposed project’s construction timeline in addition to construction activities, equipment, and construction/start dates. The comment claims that this would impact the conclusions of the IS/MND regarding air quality, public health, greenhouse gas (GHG) emissions, and biological resources. Comment noted. See Response to NSRRD2-5. As previously noted, any proposed timeline for construction activity for the proposed project would be conceptual in nature, given the uncertainty due to funding, environmental conditions, and other factors. This would include when providing information on activities and equipment, which would be contingent on site-specific needs at the time of project implementation. Furthermore, the comment fails to cite the project-specific findings

of the IS/MND that would be impacted by the lack of provision of this information, vaguely referring to potential impacts whose conclusions would be altered as a result of this information. As such, the claims of the comment are unsubstantiated given the lack of references to the findings of the environmental analysis, and are therefore speculative at best. No additional response is required.

Response to NSRRD2-7

The commenter discusses how the lack of knowledge about the timing and location of construction may result in impacts to biological resources such as migratory birds if ground-disturbing activities commence during the nesting season (February 1 to August 31).

Comment noted. Implementation of MM BIO-3, MM BIO-4, and MM BIO-6 would eliminate the potential for impacts to nesting birds including Swainson's hawk and burrowing owl. MM BIO-3 stipulates that if any ground-disturbing activities are to occur during the nesting season from February 1 to August 31, that pre-construction surveys for nesting birds will be performed following protocols approved by CDFW for detecting the presence or absence of these species. Pre-construction surveys shall occur no more than 14 days prior to the initiation of work and shall be conducted both on the project site and in a sufficient area surrounding the project site to identify any nests that could potentially be directly or indirectly affected by construction-related activities. If active nests are found within the project area or close enough that nesting success may be affected, a work exclusion zone shall be established around each nest and remain in place until all young in the nest have fledged or the nest becomes inactive. The size of the exclusion zone shall be determined through consultation with CDFW and will be species-specific, ranging from as small as 25 feet for common species disturbance tolerant, to 250 feet or more for raptors.

In addition, MM BIO-4 stipulates that if any project activities are to commence during the nesting season for Swainson's hawk (March 1 to September 15), that surveys shall be performed for Swainson's hawk according to protocols specified in the CDFW publication *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000).* If active Swainson's hawk nests are detected, a 0.5-mile construction avoidance buffer shall be observed around the nest until the nest is no longer active.

Finally, MM BIO-6 stipulates that surveys for burrowing owl shall be performed that follow the protocols specified in the CDFW publication *Staff Report on Burrowing Owl Mitigation (2012)* if any project activities are to commence during the burrowing owl wintering season (September 1 to January 31). Protocol-level surveys shall include a habitat assessment that includes both the project site and within 500 meters of the project site and shall be performed each year work is conducted to account for any changes in habitat conditions such as the creation of small mammal burrows. Surveys for nonbreeding burrowing owls during the wintering season shall also be performed on at least four occasions, including within 24 hours prior to ground disturbance. In the event any burrowing owls are found during any of these surveys, construction activities shall be scheduled to avoid nesting and breeding periods in consultation with CDFW. Language to MM BIO-6 has also been added to include changes recommended by CDFW, as described in Response to CDFW-4 and Response to CDFW-7. No additional response is required.

Response to NSRRD2-8

This comment claims that the Vehicle Miles Traveled (VMT) Analysis prepared for the proposed project is deficient due to the lack of detail on visitor trips. In assessing this, the commenter references the conclusions of a local transportation expert.

This comment is noted. As previously mentioned in Response to NSRRD2-5, the proposed project would not generate a high number of visitor trips because the proposed project would not be open to the public. As such, the nominal amount of client trips would not impact the conclusions of the IS/MND regarding transportation impacts. No additional response is required.

Response to NSRRD2-9

This comment states that since the project site is within the Napa Sanitation District (NapaSan) recycled water service area, the installation of new facilities is required, and that this should be disclosed within the Project Description to analyze the significance of environmental impacts, specifically those related to air quality, noise, biological resources, transportation, and energy. The comment concludes by stating that the proposed project should address these impacts with an EIR.

This comment is noted. Although the project site is within NapaSan's recycled water service area, this does not preclude the expansion or construction of new facilities constituting an environmental impact under CEQA, as noted on page 30 of Section XIX. Utilities and Service Systems of the IS/MND. As noted within the section, the proposed project would not result in the relocation or construction of water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond connections to existing facilities, and the construction of new facilities is not directly referenced in the comment letter. Furthermore, potential environmental impacts resulting from connections to existing facilities, comprising a portion of overall anticipated construction and use during operations, are fully evaluated in the IS/MND across all sections, including those for air quality, noise, biological resources, transportation, and energy. Furthermore, as noted on page 31 of Section XIX. Utilities and Service Systems of the IS/MND, NapaSan, has provided a Will Serve letter for the proposed project. Therefore, the construction of connections to existing facilities, and the potential for unanticipated or significant environmental impacts, would not occur as a result of the proposed project. No additional response is required.

Response to NSRRD2-10

The commenter describes the requirement of CEQA to document baseline environmental conditions on the project site and the rationale for including detailed descriptions of existing environmental conditions.

This comment is noted. CEQA directs commenters on a negative declaration to state the basis for their comments and submit supporting data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts. CEQA Guidelines Section 15204(c). This comment does not provide any specific information regarding the proposed project. No additional response is required.

Response to NSRRD2-11

The commenter describes how the Biological Resources Assessment prepared by FCS dated February 21, 2024, relies on a CNDDB analysis as well as a wildlife and botanical survey performed on December

8, 2022. The commenter also notes that the FCS report describes the site as having been impacted by disking and lack of vegetation. The comment does not identify any specific issues with the IS/MND.

In addition to the reconnaissance survey performed on December 8, 2022, FCS performed 10 focused surveys for avian species as described in the Special-Status Avian Survey Report prepared by Pinecrest dated January 29, 2024, as well as five special-status plant surveys as described in the memorandum prepared by Pinecrest titled Results of Special-Status Plant Surveys at E&P Technology Way dated July 21, 2023. The number of avian surveys performed exceeds the minimum number of surveys required for Swainson's hawk described in the CDFW publication titled Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000). The number of plant surveys also exceeds the minimum number of surveys required for assessing the presence of special-status plants as described in the CDFW publication titled Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (2018).

A total of 54 species of birds were observed in the Sheehy Creek riparian corridor, and 18 species of birds were observed in the project area, with the project area defined as the grassland portion of the three parcels excluding the Sheehy Creek riparian corridor and pedestrian pathway. A total of 58 unique species of bird were observed between the project area and the Sheehy Creek riparian corridor. No species of bird were observed nesting in the project area, and two species of bird—Anna's hummingbird and red-shouldered blackbird—were observed nesting in the Sheehy Creek riparian corridor. A total of 45 non-native plant species and nine native plant species were observed in the project area for a total of 54 unique species of plants. None of the native plants observed in the project area were considered special-status plants.

Additionally, the Biological Resources Assessment prepared by FCS does not claim that there is a "lack of vegetation" in the project area, but rather that the vegetation has been impacted by the history of disking leading to domination by non-native plant species and precluding the formation of fossorial mammal burrows.

Response to NSRRD2-12

The commenter summarizes the steps required for characterization of the environmental setting, and cites the letter prepared by Dr. Shawn Smallwood dated November 15, 2024 in arguing that the December 8, 2022 reconnaissance survey was performed for an unknown duration, that the CDFW protocols for surveying for special-status plants were not implemented, and that no surveys were performed for bats and reptiles.

As described in Response to NSRRD2-11, above, the December 8, 2022 reconnaissance survey was followed by 10 focused avian surveys that followed duration and timing protocols specified in the CDFW *publication Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000).* Five focused special-status plant surveys were also performed in 2023 that followed protocols as described in the CDFW publication *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (2018)*. The number of avian and plant surveys performed exceeds the minimum number of recommended surveys described in both CDFW protocol publications.

Focused surveys for bats were not performed because the Biological Resources Assessment prepared by FCS concluded that there was no habitat for roosting bats in the project area due to the lack of trees or structures suitable for roosting. Because of the lack of bat roosting habitat in the project area, no impacts to bats are expected to occur and no focused surveys for bats were recommended.

The Biological Resources Assessment did conclude that there was the potential for reptiles, specifically western pond turtle, to exist in the project area and does recommend several mitigation measures to avoid impacts to reptiles and amphibians including western pond turtle. Specifically, MM BIO-8 requires the applicant to perform pre-construction surveys for reptiles and amphibians including western pond turtle, California tiger salamander, foothill yellow-legged frog, and California red-legged frog within 48 hours of ground-disturbing activities. MM BIO-8 also requires the applicant to install exclusion fencing along the entire length of Sheehy Creek to prevent native reptiles and amphibians from entering the project area and requires the applicant to cease all construction activities and notify CDFW and/or the United States Fish and Wildlife Service (USFWS) if special-status reptile or amphibian species are observed on-site. An education program on the identification of special-status reptile and amphibian species is also to be administered to all personnel who will be present at the site during ground disturbance and related activities. No additional response is required.

Response to NSRRD2-13

The commenter summarizes Dr. Smallwood's letter claiming that CNDDB was consulted to identify documented occurrences of special-status species on or near the project site but did not consult the eBird or iNaturalist databases. The commenter cites Dr. Smallwood's letter stating that four species identified in the IS/MND as having low or no potential for occurrence were documented in the project site.

Comment noted. The likelihood of occurrence presented in the IS/MND is based on the suitability of the habitat in the project area primarily for nesting and secondarily for foraging. The four species presumably alluded to based on examination of Table 4 in Dr. Smallwood's letter are sharp-shinned hawk, Cooper's hawk, Swainson's hawk, and American kestrel. None of these species have any likelihood of nesting in the project area due to the lack of trees or shrubs.

As described in the Biological Resources Assessment prepared by FCS, there is foraging habitat for these and other raptor species in the project area. In order to compensate for the loss of foraging habitat, the applicant, in consultation with CDFW and the County of Napa, proposed MM BIO-5 that requires the applicant to mitigate for the loss of foraging habitat for Swainson's hawk and other raptors at a 1:1 ratio by purchasing foraging credits at a CDFW-approved Swainson's hawk mitigation bank, or by permanently preserving Swainson's hawk foraging habitat through a conservation easement and funding a long-term management plan in perpetuity. Through the implementation of this mitigation, impacts to foraging habitat for raptors would be reduced to less than significant.

Determination of species with the potential to exist in the vicinity of the site was based on an industry standard "nine-quadrangle" search around the project site using the CNDDB database. Neither eBird or iNaturalist were used since they are not reliable sources of information on determining the presence or absence of species at a given location. EBird and iNaturalist are not based on expert opinion. Rather, they allow any citizen to upload occurrences and therefore occurrences are not regularly checked for accuracy. These databases are known to frequently misidentify species, particularly species that are

frequently confused, such as hawks and raptors. However, CNDDB's comprehensive and curated data is maintained by CDFW and contains vetted and updated records which caters to special-status species. CNDDB is also widely used in CEQA compliance and is the standardized method of identifying the likelihood of species occurrences. As Dr. Smallwood did not reference CNDDB in his discussion of the likelihood of species presence on-site and relied solely on eBird and iNaturalist, his conclusions cannot be confirmed as accurate. No additional response is required.

Response to NSRRD2-14

The commenter paraphrases Dr. Smallwood's letter and states that around 125 special-status species occur in the vicinity of the project site and eight special-status species were recorded on or adjacent to the project site. The commenter additionally states that only 13 vertebrate taxa were documented on the project site by FCS. The commenter reports that Dr. Smallwood found 69 species of vertebrates in three locations within 700 meters of the project site, and 44 species of vertebrates at three additional locations south/southeast of the project site.

Comment noted. The FCS Biological Resources Assessment describes and analyzes the likelihood of the occurrence of 259 special-status species (94 species of animals and 165 species of plants and bryophytes) known within the vicinity of the project site, based on a CNDDB industry standard "nine-quadrangle" search around the project site.

Additionally, the 125 special-status species Dr. Smallwood identified occurring in the vicinity of the project site include occurrences primarily pulled from eBird and iNaturalist. As described in Response to NSRRD2-13, eBird and iNaturalist are community-sourced platforms that may include misidentification or non-verified data and, as such, are not a substitute for resources agency recognized data like CNDDB. As such, they are not reliable sources of information on determining the presence or absence of species at a given location. EBird and iNaturalist are not based on expert opinion. Rather, they allow anyone to upload occurrences and therefore occurrences are not regularly checked for accuracy. These databases are known to frequently misidentify species, particularly species that are frequently confused, such as hawks and raptors. CNDDB's comprehensive and curated data is maintained by CDFW and contains vetted and updated records which caters to special-status species. CNDDB is also widely used in CEQA compliance and is the standardized method of identifying the likelihood of species occurrences. As Dr. Smallwood did not reference CNDDB in his discussion of the likelihood of species presence on-site and relied solely on eBird and iNaturalist, his conclusions cannot be confirmed as accurate. Therefore, Dr. Smallwood's list cannot be considered accurate given the databases used to create it. Additionally, as described in Response to NSRRD2-11, above, the Pinecrest Special-Status Avian Survey Report and the FCS Biological Resources Assessment documented a combined total of 61 species of vertebrates, not 13 (58 species of birds, American beaver, Pacific tree frog, and California vole). The 61 species of vertebrates recorded from a single site exceeds the 44 species observed by Dr. Smallwood at three combined sites south/southeast of the project site and is approximately equal to the 69 species observed by Dr. Smallwood at three combined sites within 700 meters of the project site. Additionally, Dr. Smallwood's species counts resulted from summing the number of species observed at each of three different sites whereas the FCS and Pinecrest observations were made at a single site. To be comparable to the single site surveyed in the FCS and Pinecrest reports, the 44 and 69 species reported by Dr. Smallwood across three sites should be reverse extrapolated to a lower number to be comparable to the single site surveyed in the FCS and Pinecrest reports, since the number of species observed will increase as you increase the

number of sites surveyed. Thus, based on Dr. Smallwood's own data, the community of vertebrates at the project site has been adequately characterized by the FCS and Pinecrest reports. No additional response is required.

Response to NSRRD2-15

The commenter claims that the reports prepared for the project do not accurately describe the baseline environmental setting for biological resources. The commenter also paraphrases Dr. Smallwood's letter stating that multiple special-status species are "not disclosed or analyzed" in the IS/MND.

Comment noted. As described in Response to NSRRD2-14 above, 61 species of vertebrates were observed on-site in the FCS and Pinecrest reports, exceeding or approximately equaling the number of species observed by Dr. Smallwood and other consulting companies at similar sites. As described in Response to NSRRD 2-11, above, a total of 54 unique species of plants were observed in the project area, excluding the Sheehy Creek riparian area, during surveys performed according to CDFW protocols. In addition, the number of surveys performed for birds and plants exceeds the number of surveys required by CDFW protocols. Thus, the baseline biological resources of the site have been adequately described based on Dr. Smallwood's own data and based on adherence to industry standard sampling protocols published by CDFW.

As described in Response to NSRRD 2-14, above, a total of 259 special-status species were analyzed from the vicinity of the project site using an industry standard "nine-quadrangle" search of the CNDDB database. No species occurrences that appeared during this search were omitted. As described in Response to NSRRD 2-13, above, the likelihood of occurrence for each avian species was determined primarily based on nesting and secondarily based on foraging, thus the low likelihood of occurrence listed for several raptor species in the project area is substantiated since there is no nesting habitat but some foraging habitat that ranges in quality from low to very low depending on the foraging preferences of the species. Low forage quality is primarily due to the history of disking on-site that precludes the formation of small mammal burrows. The comment does not provide substantial evidence that the proposed project would have a significant impact on the environment; therefore, the demand to prepare and EIR is unsupported. The IS/MND properly considers potential impacts. No additional response is required.

Response to NSRRD2-16

This comment reiterates the claims of Comment NSRRD2-4, citing the “fair argument” standard on the need for an EIR for the proposed project due to a lack of substantial evidence disproving the proposed project’s potential to result in significant environmental impacts.

As described in Response to NSRRD2-5 through NSRRD2-15, the commenter’s claims that the proposed project would result in significant impacts are unsubstantiated. Additionally, the commenter does not provide any substantial evidence or examples to suggest that the County failed to address a subject or disclose information regarding the proposed project’s environmental impact. As such, the comment is speculative, given the lack of reference to the findings of the environmental analysis prepared for the IS/MND. No additional response is required.

Response to NSRRD2-17

The comment claims that the IS/MND lacks evidence suggesting that the project emissions would be less than significant during construction and operations. The comment provides attachments of California Emissions Estimator Model (CalEEMod) calculations supposedly showing emissions results for the proposed project and suggesting that implementation of mitigation measures requiring use of products with limited volatile organic compound (VOC) concentrate would reduce impacts to less than significant.

The CalEEMod results included in the comment letter misinterpreted Bay Area Air Quality Management District (Bay Area Air District) thresholds. The commenter erroneously compared the modeling's summer maximum emissions to the Bay Area Air District thresholds that are based on average daily emissions as opposed to summer maximum emissions. Utilizing the commenter's modeling results for illustrative purpose only, when comparing the appropriate CalEEMod emissions (i.e., average daily emissions) to Bay Area Air District thresholds, all emissions are below the established thresholds. The proposed project would not result in significant air quality impacts. No additional response is required.

Response to NSRRD2-18

The comment states that the project's reliance on Bay Area Air District design standards, California Building Standards Code (CBC) requirements, and the County's conditions of approval lack substantial evidence supporting the conclusion that the proposed project would not result in less than significant GHG emission impacts. The comment quotes Section VIII Greenhouse Gas Emissions of the IS/MND summarizing GHG emission reduction strategies of the proposed project.

Comment noted. This comment provides an overview of the GHG emission reduction strategies of the proposed project but fails to fully explain how incorporation of the aforementioned strategies fails the CEQA fair argument standard for proving that the proposed project would result in significant environmental impacts. Given the vagueness of the comment and the lack of substantial evidence disproving the findings of the IS/MND, this comment does not meet the fair argument test required by CEQA. No additional response is required.

Response to NSRRD2-19

This comment asserts that lack of implementation of certain GHG emission reduction strategies, would preclude the proposed project from reducing GHG emission impacts to a less than significant level. The comment references an uncited statement in the Staff Report, claiming that lack of incorporation of these strategies would entail preparation of an EIR.

Comment noted. As discussed in greater detail in Response to NSRRD2-33 below, per CEQA Guidelines Section 15070(b), the proposed project is not required to reduce project-specific impacts to the maximum extent possible, but to a level that is less than significant. Although the comment references a statement supposedly referencing the possibility of incorporating additional GHG emissions reduction strategies, an overview of potential measures to be incorporated into the proposed project does not preclude the findings in that not all reduction strategies would need to be implemented to reduce GHG emissions impacts to a level that is less than significant, as required by CEQA. Without an explanation as to why implementation of the select GHG emissions reduction strategies would not reduce GHG emissions impacts to a level that is less than significant, the claims purported by this comment are unsupported assumptions and do not provide facts or substantial evidence of significant impacts. Pursuant to CEQA

Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence. As demonstrated in Section VIII, Greenhouse Gas Emissions, of the IS/MND, the proposed project would have a less than significant GHG emissions impact and would not require mitigation. No additional response is required.

Response to NSRRD2-20

The commenter states that loss of grassland would result in potentially significant impacts due to habitat loss. The commenter quotes Dr. Smallwood's letter stating that loss of habitat results in "66% loss of species on the site and a 48% loss of species in the project area."

Comment noted. These statements are vague and do not provide substantial evidence of potential significant impacts. Moreover, impacts must be analyzed for each species individually. For raptors, including Swainson's hawk, no nesting habitat exists on-site. However, there is some foraging habitat on-site. As described in MM BIO-5 and in the Response to NSRRD 2-13 above, loss of foraging habitat will be mitigated at a 1:1 ratio either at a CDFW-approved mitigation bank or through preservation of off-site habitat in perpetuity. Additionally, as described in Response to NSRRD 2-7 above, implementation of MM BIO-3, BIO-4, and BIO-6 would reduce impacts to migratory birds and burrowing owl to less than significant. As described in Response to NSRRD 2-12 above, MM BIO-8 is designed to reduce impacts to reptiles and amphibians to less than significant. CDFW reviewed each of these MMs from the IS/MND and did not have any further comments nor did CDFW object to the conclusions in the IS/MND. No additional response is required.

Response to NSRRD2-21

The commenter quotes Dr. Smallwood's letter that habitat loss results in the loss of "productive capacity" and that the project may result in the loss of "over 1,000 birds" annually.

Comment noted. As discussed in greater detail in Response to NSRRD 2-72 below, it is unclear through what mechanism over 1,000 birds would be lost annually because of implementation of the proposed project. It is also unclear what is meant by "productive capacity" as it relates to wildlife reproduction as this is not a term used in peer-reviewed academic literature. Without definition of these terms or any explanation of the causal factors of mortality, these calculations are unsupported assumptions and do not provide facts or substantial evidence of significant impacts. Pursuant to CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence. No additional response is required.

Response to NSRRD2-22

The commenter states that project-generated traffic may significantly impact biological resources such as California red-legged frog, California tiger salamander, and American badger.

Comment noted. CDFW reviewed the IS/MND and did not have any comments regarding traffic-related impacts to special-status species. See Response to NSRRD 2-78 below, for further discussion of traffic-related mortality. No additional response is required.

Response to NSRRD2-23

The commenter states that Dr. Smallwood's letter recommends silt fencing be installed 300 feet from the southern top of bank of Sheehy Creek to lessen impacts to wildlife in the riparian corridor.

Comment noted. CDFW reviewed the IS/MND and did not have any comments regarding the placement of silt fencing along the edge of the riparian corridor. Additionally, MM BIO-1 and MM BIO-8 require the installation of a silt fence along with exclusion fencings around Sheehy Creek's riparian corridor to prevent native amphibian species from entering the project site from Sheehy Creek. This minimizes the potential for amphibian mortality via dispersal, while lowering human disturbances within the riparian corridor via construction activities. Placement of silt fencing 300 feet south of the top of bank of Sheehy Creek is not a practical recommendation or standard protocol, since the width of the project area between Sheehy Creek and Technology Way ranges from 350 to 440 feet, leaving only 50-140 feet of buildable space. This is not financially feasible for the proposed project, nor is it necessary because the exclusion fencing would adequately reduce potential impacts to less than significant levels under CEQA. Although the studies referenced by Dr. Smallwood affirm why silt fencing is necessary as amphibian and reptile species have been recorded moving almost 300 feet within adjacent terrestrial habitat, with implementation of the exclusion fencing, movement through the project site during ground disturbance will be negated, reducing impacts to amphibians and reptiles. No additional response is required.

Response to NSRRD2-24

The commenter paraphrases Dr. Smallwood's letter asserting that the CDFW rare plant guidelines are for reconnaissance surveys and not pre-construction surveys.

Comment noted. Rare plant surveys that follow the CDFW (2018) guidelines are typically called "protocol level," whereas "reconnaissance level" surveys are those that are less thorough and preliminary in nature. MM BIO-2 proposes protocol-level surveys to be performed the spring before construction begins, in addition to the five protocol-level surveys that were performed on the project site by Pinecrest in 2023. If protocol-level surveys are performed, these can be considered pre-construction or reconnaissance surveys, as the difference between pre-construction and reconnaissance surveys is largely semantic. No additional response is required.

Response to NSRRD2-25

The commenter paraphrases Dr. Smallwood's letter asserting that implementation of pre-construction surveys for nesting birds and establishment of buffers if nests are identified will not reduce potentially significant impacts from habitat loss.

Comment noted. As described in Response to NSRRD 2-13 above, there is no suitable nesting habitat in the project area except for ground nesting bird species, and pre-construction nest surveys will be performed to ensure that no nests are impacted. Loss of foraging habitat would also be mitigated off-site at a 1:1 ratio. CDFW reviewed the mitigation measures in the IS/MND and did not have any further comments regarding the adequacy of nesting bird surveys or the implementation of buffers. Nor did CDFW comment on the impact conclusions. No additional response is required.

Response to NSRRD2-26

The commenter paraphrases Dr. Smallwood's letter asserting that burrowing owl require detection surveys during both nonbreeding and breeding periods as well as pre-construction take avoidance surveys.

Comment noted. Proposed surveys for MM BIO-6 include pre-construction surveys as well as surveys that follow the protocols in the CDFW publication *Staff Report on Burrowing Owl Mitigation (2012).* Specifically, protocol-level surveys shall include a habitat assessment that includes both the project site and within 500 meters of the project site and shall be performed each year work is conducted to account for any changes in habitat conditions such as the creation of small mammal burrows. Surveys for nonbreeding burrowing owls during the wintering season shall also be performed on at least four occasions, including within 24 hours prior to ground disturbance. In the event any burrowing owls are found during any of these surveys, construction activities shall be scheduled to avoid nesting and breeding periods in consultation with CDFW. Additionally, MM BIO-6 in Section IV, Biological Resources, of the IS/MND has been revised to include additional language recommended by CDFW which stipulates that the proposed project would obtain a CESA ITP if take of burrowing owl cannot be avoided. No additional response is required.

Response to NSRRD2-27

The commenter paraphrases Dr. Smallwood's letter asserting that one-way passages should be installed in silt fencing and that "highly significant impacts to amphibians" would occur as a result of installation of the fencing.

Comment noted. One-way passages are feasible to install in the silt fencing, and if combined with regular visual inspection of the fence by the project Biologist, will ensure that no amphibians or reptiles are trapped on the project side of the fence. The assertion that fencing would create highly significant impacts to amphibians is not supported by data, and the assumption that fencing would create impacts is not supported by any provided facts. No additional response is required.

Response to NSRRD2-28

The commenter states that the proposed project's impacts on biological resources may be significant and unmitigated and that an EIR must be prepared to evaluate potential impacts.

Comment noted. As described in Response to NSRRD2-7 and Response to NSRRD2-12 above, environmental baseline data has been adequately documented, and surveys and mitigation measures for plants and wildlife follow accepted protocols and have been approved by CDFW through their review of the IS/MND.

The CEQA Guidelines directs commenters to focus on the proposed finding in an IS/MND that the project will not have a significant environmental effect (CEQA Guidelines § 15204(a)). In accordance with Section 15204(b), commenters who believe that a project will have a significant environmental effect should identify the specific significant effect, explain why the specific effect would occur, and explain why the effect would be significant.

Commenters should also submit supporting data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts to support their assertions (CEQA Guidelines § 15204(c)). Here, the comments fail to identify specific significant effects and do not provide any specific facts to support the general statements that the project "may be significant and unmitigated."

No additional response is required.

Response to NSRRD2-29

The commenter, Daniel T. Smith, Jr. of Smith Engineering & Management, states in a letter dated November 12, 2024, that the VMT impacts were improperly evaluated by separately analyzing Buildings A and B. The commenter also raises an issue relative to the trip generation and need to treat the office space separately as opposed to being ancillary to the warehouse function.

Comment noted. The projects are on separate parcels and are intended to be owned and managed separately; a single traffic study was prepared as both projects are proceeding at the same time. Although the projects were analyzed separately, the IS/MND properly analyzes the whole of the project because the combined traffic impacts were considered via the cumulative impacts discussion within the IS/MND. However, under the County's VMT policy, projects that do not screen out are required to reduce their VMT by 15 percent to mitigate their potential impact. The recommendation to prepare a Transportation Demand Management (TDM) Plan can be applied to both buildings rather than to Building B, if the County deems it necessary. With implementation of trip reduction measures by 15 percent, the impacts for both buildings would be less than significant.

It is noted that for Building B the office space is indicated as 11,000 square feet out of a total of 66,915 square feet, or approximately 16 percent of the total floor area. The description provided in the *Trip Generation Manual*, 11th Edition, for "Warehouse" (Land Use 150) says, "A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas." As almost 84 percent of the building would be dedicated to warehouse uses, it is reasonable to conclude that this is the primary use, making the application of this rate to the entire space consistent with the land use designation.

As a point of comparison, it is noted that application of trip generation rates for an office use versus a warehouse use for the 11,000 square feet of that use proposed in Building B would increase the trip generation by 10 trips during the AM peak-hour and one during the PM peak-hour, with 67 more trips on a daily basis. However, as the building was already anticipated to generate more than 110 daily trips, so has a recommended measure to mitigate potential VMT impacts, the change in the trip generation would have no effect on the findings or conclusions of the analysis. Similarly, the limited number of additional peak-hour trips would reasonably be expected not to result in any new adverse effects, though it is noted that this issue is not related to CEQA, so would have no effect on the Initial Study.

Based on the details provided above, the potentially significant transportation impacts of the project have already been identified and mitigations identified; hence an EIR is not warranted with respect to further evaluating potential transportation impacts. No additional response is required.

Response to NSRRD2-30

The comment states that the IS/MND fails to analyze the impacts resulting from the conversion of farmland to nonagricultural use, citing the proposed project's findings on the continued buildout of area surrounding the project site and the project site's classification under Farmlands of Local Importance.

As mentioned within the quote cited by the comment, the proposed project would not result in the conversion of existing farmland; as noted in Section II Agriculture and Forestry Resources in the IS/MND, the site is undeveloped and has been designated for industrial/business park uses for the last 35 years. As such, development of the proposed project would not result in the conversion of farmland to nonagricultural uses, given the broad definition of the site's classification under Farmlands of Local Importance, which includes all undeveloped lands with soils which "meet the characteristics of Prime Farmland or of additional Farmland of Statewide Importance except for irrigation." As noted in the same Section, this parallels the development of surrounding parcels in the Napa Valley Business Park Specific Plan (NVBPSP) area, which have been reclassified as Urban and Built-Up Land, thus negating the potential for future agricultural uses within the site and the surrounding area. As such, there is no evidence that the proposed project would result in significant environmental impacts due to the conversion of farmland to nonagricultural uses. No additional response is required.

Response to NSRRD2-31

This concluding comment reiterates the claim that the proposed project is inadequate under CEQA and requires provision of an EIR to account for potential significant impacts. The comment does not contain any specifics or details to support the statements.

Comment noted. See Response to NSRRD2-4 through Response to NSRRD2-30. No additional response is required.

Response to NSRRD2-32

This comment describes the project proponent, objectives, proposed uses, parking area, circulation plan, utilities, and location, including parcel numbers and approximate dimensions of proposed buildings of the proposed project. The comment concludes by stating that the IS/MND fails to provide sufficient information justifying the environmental impacts would be less than significant, specifically air quality impacts through the lack of provision of an air quality analysis performed through CalEEMod.

As explained in Section III, Air Quality, of the IS/MND, the project falls well below the Bay Area Air District screening criteria, and consequently will not significantly affect air quality individually or contribute considerably to any cumulative air quality impacts. Since all screening criteria for criteria air pollutants and precursors are met by the proposed project, a detailed assessment of the project's criteria air pollutant and precursor emissions is not required since the emissions from the proposed project would be under the Bay Area Air District quantitative thresholds of emissions for these pollutants.

No additional response is required.

Response to NSRRD2-33

This comment states that assertions regarding GHG emissions impacts for Buildings A and B are significant and unmitigated. The comment references the lack of incorporation of certain GHG emissions

reduction strategies, which the comment asserts would cause the proposed project to result in significant GHG emissions impacts. To supplement this response, the commenter provides a conceptualized quantitative analysis of the proposed project's GHG emissions during construction and operation using CalEEMod.

Although the commenter asserts that incorporation of additional GHG emissions reduction measures would result in lower GHG emissions, per CEQA Guidelines Section 15070(b), the proposed project would not be required to reduce project-specific impacts to the maximum extent possible, but to a level that is less than significant. Although the comment references a statement within the IS/MND supposedly referencing the possibility of incorporating additional GHG emissions reduction measures, incorporation of these measures is speculative and would be conducted on a project-specific basis to result in reducing GHG emissions impacts to a level that is less than significant. The commenter does not demonstrate how the proposed project would conflict with any local or regional air quality screening thresholds of significance when assessing whether GHG emissions impacts resulting from the proposed project would be less than significant, wherein the Lead Agency is permitted to select these thresholds based on "substantial evidence" per CEQA Guidelines Section 15064(c). As such, the commenter does not raise substantial evidence that the proposed project would result in significant GHG emissions impacts under CEQA Guidelines. No additional response is required.

Response to NSRRD2-34

The comment claims that without mitigation, emissions resulting from reactive organic compounds (ROCs) would exceed Bay Area Air District thresholds.

As previously mentioned in Response to NSRRD2-32 through Response to NSRRD2-33, the proposed project would not exceed established Bay Area Air District thresholds, which establishes an emission threshold for average daily emissions. The commenter erroneously compared the modeling's summer maximum emissions to the Bay Area Air District's thresholds which are based on average daily emissions. When correctly comparing the modeling's average daily emissions to the Bay Area Air District thresholds, all emissions are below thresholds. Therefore, utilizing the commenter's own modeling results for illustrative purposes, the proposed project still would not result in a significant air quality impact.

No additional response is required.

Response to NSRRD2-35

The comment provides concluding remarks that the proposed project would result in significant environmental impacts and would require an EIR.

Comment noted. Refer to Response to NSRRD2-31 through Response to NSRRD2-35. No additional response is required.

Response to NSRRD2-36

The commenter describes the location of the proposed project, the dimensions of the proposed buildings, and that the purpose of writing the letter is to comment on impacts to biological resources in the IS/MND prepared by FCS and the County. This comment is noted. No additional response is required.

Response to NSRRD2-37

The commenter describes their qualifications. This comment is noted. No additional response is required.

Response to NSRRD2-38

The commenter describes the process of characterizing existing environmental conditions through field surveys and reviews of literature and available databases. This comment is noted. No additional response is required.

Response to NSRRD2-39

The commenter describes the purpose of CEQA and the requirement to know biological species that exist on-site and which species are likely to occur; however, this comment does not raise any issues specific to the proposed project or the IS/MND. This comment is noted. No additional response is required.

Response to NSRRD2-40

The commenter states that the survey performed on December 8, 2022 was reconnaissance level and therefore not appropriate for use as baseline data for an IS/MND.

Comment noted. As described in Response to NSRRD2-11 above, the December 8, 2022 survey was followed by 10 protocol-level avian surveys and five protocol-level plant surveys. No additional response is required.

Response to NSRRD2-41

The commenter states that without knowing how long the December 8 survey lasted the survey results cannot be fully interpreted.

Comment noted. As described in Response to NSRRD2-11 above, the December 8 survey was followed by 10 protocol-level avian surveys and five protocol-level plant surveys. Duration and timing of each survey was performed according to CDFW protocols. Duration of avian surveys were at least 4 hours and were initiated typically between 7:30 a.m. and 8:30 a.m. as described in the Special-Status Avian Survey Report prepared by Pinecrest dated January 29, 2024. No additional response is required.

Response to NSRRD2-42

The commenter states that starting surveys at 11:00 a.m. results in fewer species observed than early morning surveys.

Comment noted. As described in Response to NSRRD2-41 above, avian surveys were initiated typically between 7:30 a.m. and 8:30 a.m. as described in the Special-Status Avian Survey Report prepared by Pinecrest dated January 29, 2024. No additional response is required.

Response to NSRRD2-43

The commenter argues that FCS detected 13 taxa of vertebrate wildlife within the project site and stated that he detected 69 species of vertebrate wildlife at three separate locations within 700 meters of the site. The commenter concludes that the reconnaissance surveys conducted by FCS were “grossly deficient, and its results ill-suited for characterizing the existing environmental settings.”

Comment noted. As described in Response to NSRRD2-14*,* above, the Pinecrest Special-Status Avian Survey Report and the FCS Biological Resources Assessment report a combined total of 61 vertebrate species, not 13. This number from a single site exceeds the 44 species observed by the commenter at three combined sites south/southeast of the project site and is approximately equal to the 69 species observed by the commenter at three combined sites within 700 meters of the project site. Additionally, the commenter's species counts result from summing the number of species observed at each of three different sites, which is not an industry accepted practice for conducting species counts. To be comparable to the single site surveyed in the FCS and Pinecrest reports, the 44 and 69 species observed by Dr. Smallwood across three sites should be reverse extrapolated to a lower number to be comparable to the single site surveyed in the FCS and Pinecrest reports, since the number of species observed will increase as you increase the number of sites surveyed. Thus, based on Dr. Smallwood's own data, the community of vertebrates at the project site has been adequately characterized by the FCS and Pinecrest reports. No additional response is required.

Response to NSRRD2-44

The commenter states that FCS did not follow the CDFW 2018 plant survey guidelines.

Comment noted. As described in Response to NSRRD2-11 above, five special-status plant surveys were conducted according to protocols described in the CDFW publication titled *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (2018),* exceeding the number of surveys required. The results of these surveys are described in the memorandum prepared by Pinecrest titled Results of Special-Status Plant Surveys at E&P Technology Way dated July 21, 2023. A total of 54 species of plants were observed in the project area, defined as the grassland portion of the three parcels excluding the Sheehy Creek riparian corridor and pedestrian pathway. No additional response is required.

Response to NSRRD2-45

The commenter states that no surveys were performed for bats, small mammals, or reptiles.

Comment noted. See Response to NSRRD2-12, above, regarding bat, reptile, and amphibian surveys. Live trapping for small mammals is not warranted since there are no known special-status species of small mammals that have the potential to exist on the project site. No additional response is required.

Response to NSRRD2-46

The commenter reports there is a discrepancy in the FCS (2024) report in that the riparian corridor is stated as having high quality habitat whereas the project area does not contain habitat for special-status species due to the history of disking.

Comment noted. This is correct, the Sheehy Creek riparian corridor is in a conservation easement, and is not defined as part of the project area. The project area is defined as the ruderal grassland portion of the parcels, exclusive of the riparian corridor and pedestrian walkway. The project area has been disked and mowed annually for many years and is not high-quality natural habitat particularly when compared to the conservation easement. The value of the upland grassland habitat is reduced due to the history of disking, since disking eliminates fossorial mammal burrows and soil cracks that might otherwise provide

refugia for animals migrating out of the riparian corridor. There is no discrepancy or inconsistency in the IS/MND. No additional response is required.

Response to NSRRD2-47

The commenter describes the purpose of literature and database reviews. This comment is noted. No additional response is required.

Response to NSRRD2-48

The commenter indicates that the FCS report did not consult eBird or iNaturalist when compiling a list of species that are known to occur on or near the project site.

As described in Response to NSRRD2-13, above, species with potential to exist in the vicinity of the site were compiled based on an industry standard "nine-quadrangle" search around the project site using the CNDDB database. Neither eBird or iNaturalist were used since they are not reliable sources of information on the presence or absence of species at a given location, nor are they consistent with industry practice. Whereas the CNDDB database is curated, eBird and iNaturalist are community-sourced platforms that allow lay individuals to upload occurrences. The data is not vetted by experts and occurrences are not regularly checked for accuracy. These databases are known to frequently misidentify species that are frequently confused, such as hawks and raptors. However, CNDDB’s comprehensive and curated data is maintained by CDFW and contains vetted and updated records that cater to special-status species. CNDDB is also widely used in CEQA compliance and is the standardized method of identifying the likelihood of species occurrences. As Dr. Smallwood did not reference CNDDB in his discussion of the likelihood of species presence on-site and relied solely on eBird and iNaturalist, his conclusions cannot be confirmed as accurate. No additional response is required.

Response to NSRRD2-49

The commenter states that CNDDB is not sufficient to characterize the wildlife community of a site and states that FCS "misuses" the CNDDB database.

Comment noted. As described in Response to NSRRD2-43, above, the wildlife community of the site was extensively characterized with over 10 targeted wildlife surveys identifying a total of 61 vertebrate species, and five protocol-level plant surveys identifying a total of 54 plant species. The number of animal species identified on-site meets or exceeds the commenter's own species counts from nearby locations.

The CNDDB database was also used according to its intended purpose. As described in Response to NSRRD2-48above, an industry standard "nine-quadrangle" search was performed around the project site using the CNDDB database in order to generate a minimum list of species that may occur on-site, not to rule out species that may exist on-site. Subsequent field surveys were performed to identify any special-status species on-site, and any special-status species on-site would be identified even if they did not appear on the nine-quadrangle CNDDB search. No additional response is required.

Response to NSRRD2-50

The commenter describes how the CNDDB database is compiled and notes general features about the database; however, the comment does not identify any issues specific to the proposed project or the IS/MND.

This comment is noted. No additional response is required.

Response to NSRRD2-51

The commenter states they believe 125 special-status species of wildlife should be analyzed for occurrence, and reports that some of these species have been observed on or in the vicinity of the project site.

The numbers presented by the commenter are in error. Additionally, the comment's assertion that, based on those numbers, the project site supports multiple special-status species of wildlife is unsupported. See *Response to* NSRRD2-14above. No additional response is required.

Response to NSRRD2-52

The commenter claims that FCS analyzed only 51 special-status species for the potential to occur on-site and contends that numerous species are misclassified as having a low likelihood of existing on-site.

The numbers presented by the commenter are in error. As described in Response to NSRRD2-14 above, the Biological Resources Assessment prepared by FCS analyzes the likelihood of occurrence of a total of 259 special-status species including 94 species of animals. This list was generated using an industry standard "nine-quadrangle" search of the CNDDB database. No species occurrences that appeared during this search were omitted. As described in Response to NSRRD2-13 above, the likelihood of occurrence for each avian species was determined primarily based on nesting habitat and secondarily based on foraging habitat, thus the "low" or "very low" likelihood of occurrence listed for several raptor species in the project area is substantiated since there is no nesting habitat in the project area but some foraging habitat that ranges in quality from low to very low due to the history of disking.

Subsequent field surveys were performed to identify any special-status species on-site, and any special-status species on-site would be identified even if they did not appear on the nine-quadrangle CNDDB search. No additional response is required.

Response to NSRRD2-53

The commenter describes inaccuracies in the legal status of various species in the occurrence likelihood table.

Comment noted. Out of 259 species in the occurrence likelihood table, 17 displayed legal status based on outdated classifications. Despite this, none of the conclusions in the IS/MND are affected or require revision. The occurrence likelihood table does not claim to be an exhaustive listing of all the state and federal protections afforded to each species. Any special-status species observed on-site would be given appropriate protections regardless of the status presented in the occurrence likelihood table. No additional response is required.

Response to NSRRD2-54

The commenter states that no valid reason for determining potential for occurrence is given. The commenter also claims that differences between nesting and foraging habitat are a "contrived bifurcation of habitat that lacks scientific foundation."

Comment noted. The claim by the commenter that the difference between nesting and foraging habitat is a "contrived bifurcation of habitat that lacks scientific foundation" is without merit. It is common knowledge that most birds nest in different habitats than they forage in. Furthermore, birds spend much more time proportionately at their nest site than in any one foraging site. Finally, from a population dynamic perspective, disturbance of nest sites has a much more profound influence on population persistence than an equal area of foraging habitat. These are all broadly accepted scientific principles.

The "likelihood to occur" is an often-used phrase but really contains two distinct components, likelihood of nesting, and likelihood of foraging. As described in Response to NSRRD2-13 above, the likelihood of occurrence for each avian species was determined primarily based on nesting habitat and secondarily based on foraging habitat. For this project site, there is no likelihood of nesting, but some likelihood of foraging for most raptors. To come up with a single "likelihood to occur," FCS weighted the lack of nesting habitat as greater than the presence of foraging habitat. Thus the "low" or "very low" likelihood of occurrence listed for several raptor species in the project area is substantiated since there is no nesting habitat but some foraging habitat that varies in quality from high to low depending on the foraging patterns and preferences of the species. No additional response is required.

Response to NSRRD2-55

The commenter states that American badger may exist on-site due to their personal observation of American badger in a variety of habitats. The commenter takes issue with the claim that American badger prefer habitats with "plenty of prey;" however, the comment does not provide any specific evidence or facts related to the project site.

Comment noted. The likelihood of occurrence for this species was determined based on the probability that this species would den in the project area. The project area is defined as the grassland habitat of the parcels exclusive of the Sheehy Creek riparian corridor and pedestrian pathway. The project area is entirely flat, lacks any woody plant cover or topography, is regularly disked and mowed, and is surrounded on three sides by development. This would be considered by most Biologists as unsuitable habitat for American badger to create dens in.

In terms of foraging, it is an established principle in the scientific literature that large predators including badgers prefer and migrate toward habitats with plenty of prey. The project area is surrounded on three sides by development and has no fossorial mammal or rodent burrows due to the history of disking and mowing, limiting the prey abundance. The project site quantitatively contains less prey than un-disked habitats adjacent to open space, and American badger, like most predators, prefer habitats with plenty of prey. No additional response is required.

Response to NSRRD2-56

The commenter states that bald eagles forage in a variety of habitats and may hunt ground squirrels and other mammals. The commenter says they observed a bald eagle 2.7 miles from the project site and that "2.7 miles from the project site is essentially at the project site."

Comment noted. As discussed in Response to NSRRD2-54 above, the likelihood of occurrence for each avian species was determined primarily based on nesting habitat and secondarily based on foraging habitat. For this project site, there is no likelihood of nesting for bald eagle, and the likelihood of foraging

for this particular species is also close to zero. Moreover, there is a lack of substantial evidence to support a finding of foraging habitat on the project site in the comment. As the commenter mentions, bald eagles will occasionally hunt ground squirrels and other terrestrial animals. However, there are no ground squirrels or other fossorial mammals at this site due to the history of disking and mowing. Bald eagles prefer large prey, and the project site entirely lacks large prey such as rabbits and ground squirrels, making the likelihood of observing a bald eagle foraging this site unlikely. While the commenter may have observed a bald eagle 2.7 miles away, this is not "essentially at the project site." The observation of a bald eagle 2.7 miles away coincides with a known occurrence of bald eagle in the CNDDB database in the Napa-Sonoma Marsh surrounding the Napa River, a much more likely place to find a bald eagle foraging and a completely different habitat than on the project site. Nonetheless, FCS classified the likelihood of occurrence of this species as "very low" and not "none." No additional response is required.

Response to NSRRD2-57

The commenter states that they saw a peregrine falcon within 2.7 miles of the project site and that the classification of "low" likelihood of occurrence is inaccurate.

Comment noted. As discussed in Response to NSRRD2-54 above, the likelihood of occurrence for each avian species was determined primarily based on nesting habitat and secondarily based on foraging habitat. To come up with a single "likelihood to occur," FCS weighted the lack of nesting habitat as greater than the presence of foraging habitat. For this project site, there is no likelihood of nesting for peregrine falcon, and the likelihood of foraging for this particular species is low. Peregrine falcons primarily hunt other birds in the air, thus a peregrine falcon would tend to occur on-site only if they caught a bird and landed in the field to process the prey. Therefore, the weighted likelihood of occurrence for this species as "very low" is substantiated.

Regardless of the stated likelihood of occurrence, if peregrine falcon were observed nesting near the project parcel, appropriate protections would be afforded this species. The likelihood of occurrence is only a guide and does not exclude species from consideration. No additional response is required.

Response to NSRRD2-58

The commenter disagrees that western pond turtle is listed as having no likelihood of occurrence on-site.

Comment noted. This is a typographical error and is clarified in the sentence in the occurrence likelihood table that immediately follows: "Some marginally suitable nesting habitat exists on-site." In addition, surveys and avoidance measures for western pond turtle are recommended in the conclusions of the Biological Resources Assessment and incorporated into MM BIO-8. The conclusions in the IS/MND accurately reflect the biological findings and do not require any revisions. No additional response is required.

Response to NSRRD2-59

The commenter states that the likelihood determination for burrowing owl is incorrectly classified as "very low" and asserts that no reason is given for this determination other than the disturbed nature of the site. The commenter describes a locality known from 240 meters off-site, and claims that this is "essentially on the project site."

Comment noted. As described in Response to CDFW-4 above, a habitat assessment for burrowing owl following the CDFW (2012) protocols determined that the entirety of the project site is free from structures that could be utilized as burrows including fossorial mammal burrows, pipes, culverts, and debris piles. The entirety of the project site has been disked and mowed regularly, disrupting the formation of ground squirrel or other types of burrows, and is free from debris including pipes or wood piles. This is sufficient to declare the habitat unsuitable for burrowing owl according to the CDFW (2012) protocols. Nonetheless, FCS performed burrowing owl surveys 10 times in 2022 and 2023 that encompassed the entirety of the project site. No burrowing owls were observed on-site, and no burrowing owls have been observed within 15 miles of the project site since the single observation of a wintering individual 0.2 mile off-site to the northeast in 2006. No additional response is required.

Response to NSRRD2-60

The commenter presents the different types of surveys described in the CDFW publication *Staff Report on Burrowing Owl Mitigation (2012).*

This comment is noted. No additional response is required.

Response to NSRRD2-61

The commenter describes additional detail about the purpose of each kind of burrowing owl survey in the CDFW (2012) protocols.

This comment is noted. No additional response is required.

Response to NSRRD2-62

The commenter describes how the site may be suitable for burrowing owl and how they have seen ground squirrels near the project site, but not on the project site. The commenter states that protocol-level burrowing owl surveys should be performed according to the CDFW (2012) protocols.

Comment noted. As described in Response to CDFW-4, and Response to NSRRD2-59 above, the commenter is incorrect in stating only a single reconnaissance survey was performed. In fact, 10 targeted burrowing owl field surveys were performed on the project site that conform to the protocols specified in the CDFW publication *Staff Report on Burrowing Owl Mitigation (2012).* No additional response is required.

Response to NSRRD2-63

The commenter states that they believe that the designation of Swainson's hawk likelihood of occurrence as very low is incorrect. The commenter states that Swainson's hawk forage over many types of habitats including disturbed ground and that 0.25 mile is not far for a Swainson's hawk to fly.

Comment noted. As described in Response to NSRRD2-54 above, the likelihood of occurrence for each avian species was determined primarily based on nesting habitat and secondarily based on foraging habitat. To come up with a single "likelihood to occur" FCS weighted the lack of nesting habitat as greater than the presence of foraging habitat. For this project site, there is no likelihood of nesting for Swainson's hawk, and the likelihood of foraging for this particular species is low due to the lack of small mammal prey on-site due to the history of disking and disruption of fossorial mammal burrows. Nonetheless, FCS

conducted 10 focused field surveys for Swainson's hawk in 2022 and 2023 according to the CDFW publication *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000).*

Regardless of the stated likelihood of occurrence, if Swainson's hawk were observed nesting near the project parcel, appropriate protections would be afforded this species. The likelihood of occurrence is only a guide and does not exclude species from consideration. No additional response is required.

Response to NSRRD2-64

The commenter describes their skepticism of reports documenting the recovery of Swainson's hawk in the region; however, this comment does not raise any issues specific to the project site or the IS/MND.

This comment is noted. No additional response is required.

Response to NSRRD2-65

The commenter criticizes the County's "failure" to implement "appropriate survey and mitigation guidelines" related to Swainson's hawk.

This comment is noted. The IS/MND states that less than 1 percent of Swainson’s hawk foraging habitat would be affected by the proposed project and that hundreds of acres of additional foraging habitat is within 5 miles of the project site. However, the proposed project would mitigate for the loss of Swainson’s hawk habitat through MM BIO-5 which stipulates that the proposed project shall provide Swainson’s hawk foraging habitat mitigation at a minimum 1:1 ratio. Dr. Smallwood does not address why MM BIO-5 would be insufficient to mitigate for the loss of foraging habitat for Swainson’s hawk. Therefore, appropriate survey and mitigation guidelines are present within the IS/MND. No additional response is required.

Response to NSRRD2-66

The commenter takes issue with the claim that 0.16 percent of potential foraging habitat of the average home range of a single individual would be lost due to implementation of the proposed project. The commenter states that "[if] the 0.16% of foraging habitat that is lost is the 0.16% that makes the difference between persistence and extirpation, then the 0.16% would be of critical importance."

Comment noted. The County is aware of the severity of the loss of foraging habitat for the Swainson’s hawk and although there is no conclusive way to argue that 0.16 percent of habitat loss would be the difference between persistence and extirpation, the project nonetheless offers up mitigation to account for the loss of Swainson’s hawk foraging habitat through the implementation of MM BIO-5. As stated above in Response to NSRRD2-65*,* the proposed project shall provide Swainson’s hawk foraging habitat mitigation at a minimum 1:1 ratio. Therefore, impacts to Swainson’s hawk foraging habitat would not be reduced to a less than significant level under CEQA. No additional response is required.

Response to NSRRD2-67

The commenter describes the purpose of an impact analysis and emphasizes the importance of adequate characterization of the environmental setting. The commenter asserts that the environmental setting has not been adequately characterized and that potential impacts have not been analyzed.

Comment noted. As described in Response to NSRRD2-14 and Response to NSRRD2-12, adequate characterization of the environmental setting was performed including protocol-level surveys for plants, Swainson's hawk, and burrowing owl. No additional response is required. The comment does not raise any specific issues related to the proposed project or the IS/MND.

Response to NSRRD2-68

The commenter summarizes text from the IS/MND making the case that no evidence of raptor nests, wildlife dens or burrows, or other sensitive habitats have been identified from the project area, concluding that there would be no significant impacts to wildlife or other sensitive habitats.

This comment is noted. With mitigation, as stated in the IS/MND, this comment is correct, there would be no significant impacts to wildlife or other sensitive habitats. No additional response is required.

Response to NSRRD2-69

The commenter states that there would be potentially significant impacts from the project and describes surveys they have performed for other warehouse projects including before and after control-intervention studies that purported to detect declines in wildlife abundance and richness.

This comment is noted. No additional response is required.

Response to NSRRD2-70

The commenter describes how habitat loss consists of numerical declines of wildlife and also loss of "productive capacity" due to habitat fragmentation. The commenter describes methods for estimating the loss of productive capacity.

This comment is noted. See Response to NSRRD2-21 above. No additional response is required.

Response to NSRRD2-71

The commenter relates the results of studies on avian abundance in different habitats that have been fragmented. The commenter describes data they collected on nest abundance at a location in Southern California.

This comment is noted. No additional response is required.

Response to NSRRD2-72

The commenter states that loss of nest sites and nest attempts would qualify as significant impacts for the purposes of the IS/MND. The commenter provides calculations where they estimate the number of birds that will be lost due to project implementation.

Comment noted. While the calculations and studies presented by the commenter are interesting, they are contradicted by the environmental conditions on-site. The proposed project would not increase habitat fragmentation because the project site is surrounded on three sides by industrial development and would not isolate patches of habitat from other patches of habitat, which is the scientific definition of habitat fragmentation.

Additionally, there is little to no suitable habitat for nesting in the project area, and no nesting birds were observed in the project area during 10 protocol-level avian surveys in 2022 and 2023. Thus, the commenter's claim that project implementation will result in the loss of 1,113 birds per year is difficult to reconcile with the observation that no nests have so far been observed in the project area. No additional response is required.

Response to NSRRD2-73

The commenter states that many of the 1,113 birds that could be lost annually are protected by various State and federal laws, resulting in significant project impacts.

Comment noted. See Response to NSRRD2-72. No additional response is required.

Response to NSRRD2-74

The commenter states that traffic-related impacts to wildlife account for numerous mortality events each year for birds, reptiles, mammals, amphibians, and arthropods. The commenter provides statistics for traffic-related mortality in the United States and Canada.

This comment is noted. No additional response is required.

Response to NSRRD2-75

The commenter provides statistics on traffic-related mortality along Vasco Road in Contra Costa County. The commenter estimates the number of wildlife killed by traffic per mile per year and states that an analysis is needed to determine whether increased traffic at the project site will result in local impacts on wildlife.

This comment is noted. CDFW did not find issue with the lack of conversation related to traffic-related mortality within the IS/MND. Impacts of traffic-related mortality are not a threshold held under CEQA or identified by the lead agency and is therefore not a necessary component that need to be addressed. Additionally, Vasco Road in Contra Costa County is a significantly busier road than Technology Way or Morris Court which bound the project site. The commenter’s calculations are speculative to the amount of traffic-related mortality that the project would produce due to the type of road analyzed in his sample study. No additional response is required.

Response to NSRRD2-76

The commenter states that special-status species such as California tiger salamander and California red-legged frog could suffer traffic collision mortality.

This comment is noted. See Response to NSRRD2-75 above. No additional response is required.

Response to NSRRD2-77

The commenter cites scientific literature to estimate the number of individuals killed along Vasco Road in Contra Costa County. The commenter lists the various species that were observed and states that VMT is an effective metric for predicting wildlife mortality.

This comment is noted. No additional response is required.

Response to NSRRD2-78

The commenter calculates wildlife fatalities for the proposed project based on VMT from the IS/MND and mortality estimates from the Vasco Road study and concludes that 399 vertebrate fatalities per year would result.

Comment noted. The calculations provided are interesting and potentially useful, however parameterizing these calculations with data from Vasco Road and comparing them to the project site is problematic. Vasco Road is in a rural area surrounded by undeveloped land and runs along a major wildlife corridor in the Altamont Pass. In contrast, the project area is surrounded on three sides by industrial development and is not a known wildlife movement corridor. These factors significantly affect the number of roadway deaths, making the calculations from Vasco Road inapplicable to the project site.

It is equally conceivable that development of the proposed budlings will prevent animals from migrating from the Sheehy Creek corridor onto Technology Way. Currently there are no barriers preventing animals from migrating onto Technology Way from Sheehy Creek. Thus, implementation of the proposed project could actually reduce wildlife mortality from traffic. No additional response is required.

Response to NSRRD2-79

The commenter states that based on their analysis, traffic may cause significant impacts to wildlife. The commenter states that the IS/MND does not consider this possibility and that mitigation measures for avoidance of traffic mortality are available and feasible.

Comment noted. See Response to NSRRD2-78. No additional response is required.

Response to NSRRD2-80

The commenter recommends that MM BIO-1 be amended such that silt fencing is placed 300 feet from the top of bank of Sheehy Creek.

Comment noted. See Response to NSRRD2-23 above. CDFW reviewed the IS/MND and did not have any comments regarding the placement of silt fencing along the edge of the riparian corridor. Placement of silt fencing 300 feet south of the top of bank of Sheehy Creek is not a practical recommendation, since the width of the project area between Sheehy Creek and Technology Way ranges from 350 to 440 feet, leaving only 50-140 feet of buildable space. No additional response is required.

Response to NSRRD2-81

The commenter claims that MM BIO-2 "misrepresents CDFW (2018) as a pre-construction survey rather than as a reconnaissance survey" and that implementing CDFW (2018) "would not qualify as a legitimate mitigation measure."

Comment noted. See Response to NSRRD2-24 above. Rare plant surveys that follow the CDFW (2018) guidelines are typically called "protocol level", whereas "reconnaissance level" surveys are those that are less thorough and preliminary in nature. MM BIO-2 proposes protocol-level surveys to be performed the spring before construction begins, in addition to the five protocol-level surveys that were performed on the project site by Pinecrest in 2023. If protocol-level surveys are performed, these can be considered more effective than pre-construction or reconnaissance surveys.

Response to NSRRD2-82

The commenter states that MM BIO-3 would not detect all available nests nor prevent the loss of "productive capacity." The commenter also states that MM BIO-3". . . allows a single individual to make a subjective decision [about buffer width], outside the public's view. . . and lacks objective criteria."

Comment noted. MM BIO-3 states that the project Biologist will consult with CDFW, a public agency, to determine buffer widths. No additional response is required.

Response to NSRRD2-83

The commenter recommends that MM BIO-6 require implementation of the CDFW (2012) protocols including breeding season surveys. The commenter states surveys should be completed prior to CEQA review, not after.

Comment noted. As described in Response to NSRRD2-11 above, the CDFW (2012) burrowing owl protocols including breeding season surveys were already completed in 2022 and 2023 and will be performed again the year construction is scheduled to begin.

Response to NSRRD2-84

The commenter states that exclusion fencing should be fitted with one-way passages to ensure that animals can move from the project site to the Sheehy Creek riparian corridor but not the other direction. The commenter states that even with these passages, there would be "substantial, highly significant impact to amphibians such as yellow-legged frog."

Comment noted. The recommendation to install one-way passages is a good idea and should be easy to implement. However, it is not substantiated that there will be "substantial, highly significant impacts" to amphibians despite pre-construction surveys and exclusion fencing required by MM BIO-8. Nor is there substantial evidence that the one-way passages would result in a substantial reduction of the already less than significant impacts. There have been no amphibians observed in the project area during any of the surveys performed at the project site, and no yellow-legged frogs observed in Sheehy Creek. It is unlikely that amphibians would migrate from the riparian corridor onto the project area in substantial numbers due to the lack of fossorial mammal burrows or cracks in the ground suitable for estivation, because of the history of disking. Pre-construction surveys required by MM BIO-8, as well as exclusion fencing and installation of one-way passages, will reduce the likelihood of impacts to amphibians to less than significant. No additional response is required.

Response to NSRRD2-85

The commenter, Daniel T. Smith, Jr. of Smith Engineering & Management, states in a letter dated November 12, 2024, that the VMT impacts were improperly evaluated by separately analyzing Buildings A and B. The commenter also raises an issue relative to the trip generation and need to treat the office space separately as opposed to being ancillary to the warehouse function.

Comment noted. The projects are on separate parcels and are intended to be owned and managed separately; a single traffic study was prepared as both projects are proceeding at the same time. Although the projects were analyzed separately, the IS/MND properly analyzes the whole of the project because the combined traffic impacts were considered via the cumulative impacts discussion within the IS/MND.

However, under the County's VMT policy, projects that do not screen out are required to reduce their VMT by 15 percent to mitigate their potential impact. The recommendation to prepare a TDM Plan can be applied to both buildings rather than to Building B, if the County deems it necessary. With implementation of trip reduction measures by 15 percent, the impacts for both buildings would be less than significant.

It is noted that for Building B the office space is indicated as 11,000 square feet out of a total of 66,915 square feet, or approximately 16 percent of the total floor area. The description provided in the *Trip Generation Manual*, 11th Edition, for "Warehouse" (Land Use 150) says, "A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas." As almost 84 percent of the building would be dedicated to warehouse uses, it is reasonable to conclude that this is the primary use, making the application of this rate to the entire space consistent with the land use designation.

As a point of comparison, it is noted that application of trip generation rates for an office use versus a warehouse use for the 11,000 square feet of that use proposed in Building B would increase the trip generation by 10 trips during the AM peak-hour and one during the PM peak-hour, with 67 more trips on a daily basis. However, as the building was already anticipated to generate more than 110 daily trips, so has a recommended measure to mitigate potential VMT impacts, the change in the trip generation would have no effect on the findings or conclusions of the analysis. Similarly, the limited number of additional peak-hour trips would reasonably be expected not to result in any new adverse effects, though it is noted that this issue is not related to CEQA, so would have no effect on the Initial Study.

Based on the details provided above, the potentially significant transportation impacts of the project have already been identified and mitigations identified; hence an EIR is not warranted with respect to further evaluating potential transportation impacts. No additional response is required.

Errata

The following are revisions to the IS/MND for the proposed project. These revisions are minor modifications and clarifications to the document, and do not change the significance of any of the environmental issue conclusions within the IS/MND. The revisions are listed by page number. All additions to the text are underlined (underlined) and all deletions from the text are stricken (stricken).

Section IV. Biological Resources

Page 2, Section 10, Only Paragraph

The following edit has been made because of CDFW recommendations to include language for the potential for "take" of listed species.

> The proposed project does not involve the "take" of listed endangered or threatened species, and thus does not require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

Nonetheless, MM BIO-6 includes requirements if a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service" is required.

Page 12-13, Section IV Biological Resources, Seventh Paragraph

This edit was made in response to CDFW's recommendation to include mitigation language in case avoidance of burrowing owls is not possible and an ITP is required. The addition of this language ensures the effectiveness of MM BIO-6, but does not have any impact on the significance conclusions in the IS/MND.

MM BIO-6 **(Burrowing Owl Habitat Assessment and Surveys):** A qualified Biologist shall conduct a habitat assessment and surveys for wintering burrowing owls prior to construction if construction starts during the burrowing wintering season (September 1 to January 31) Surveys shall be conducted if warranted based on the habitat assessment. The habitat assessment and surveys shall follow the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012) methodology (https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds) and the qualified Biologist shall prepare a report documenting the survey results. The habitat assessment and surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted, which is up to 500 meters (1,640 feet) around the Project site pursuant to the above methodology. Habitat assessments and surveys shall occur each year of project construction, as conditions may change annually and suitable refugia for burrowing owl, such as small mammal burrows, can be created within a few hours or days, unless otherwise approved in writing by CDFW.

Surveys for nonbreeding burrowing owls shall be spread over four visits during the nonbreeding season (i.e., wintering), September 1 to January 31. Time lapses between surveys or project activities shall trigger subsequent surveys including, but not limited to, a final survey within 24 hours prior to ground disturbance. The qualified Biologist shall have a minimum of 2 years of experience implementing the above methodology resulting in burrowing owl detections. The Biologist shall immediately notify CDFW if burrowing owl is detected and implement a construction avoidance buffer around any detected burrowing owl pursuant to the buffer distances outlined in the Department of Fish and Game Staff Report on Burrowing Owl Mitigation (2012), which may be up to 500 meters (1,640 feet). Any detected owl shall be monitored by the qualified Biologist to ensure it is not disturbed during construction activities, unless otherwise approved in writing by CDFW.

If take of burrowing owl (BUOW) cannot be avoided, the Biologist shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Biologist shall obtain an ITP if: (1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or (2) there is sign of BUOW occupancy on the Project site within the past 3 years and habitat has not had any substantial change that would make it no longer suitable within the past 3 years. Occupancy means a site that is assumed occupied if at least one BUOW has been

observed occupying a burrow or burrow surrogate within the last 3 years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Biologist shall consult with CDFW to determine whether avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

Section VIII. Greenhouse Gas Emissions

Page 18, Impact GHG-1, Fifth Paragraph

The following edit has been made to clarify the California Green Building Standards Code (CALGreen) electric vehicle (EV) charging requirements for warehouse buildings.

CALGreen's Tier 2 Voluntary Provisions are voluntary in nature and are not required by CALGreen or the County. The Project will comply with CALGreen EV charging requirements for nonresidential new construction which include EV capable and EV charging station requirements, and requirements for warehouses which include provisions to provide capacity for raceway, busway, transformer, and panel to serve future EV trucks. These features support long-term reductions in mobile-source emissions and align with state and regional climate goals, including AB 32, SB 32, and Executive Order B-55-18. ~~The project will be required to comply with the recently adopted version of CALGreen Tier 2.~~ Project approval will include a condition of approval to ensure this is reviewed and implemented at the time of construction through adherence to the California Building Code. Therefore, the Project is consistent with this design standard.

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SPECIAL-STATUS AVIAN SURVEY REPORT

Date: January 29, 2024

To: Robert Carroll, FCS International

From: Dr. Christopher T. DiVittorio, Pinecrest Research Corp., Inc.

Subject: Results of special-status avian surveys at Technology Way, Napa County, CA (APN 057-250-030, 057-250-031, 057-250-032; FCS Project 5639.0001)

Robert Carroll,

This special-status avian survey report (Report) details the findings of ten (10) avian surveys conducted between December 8, 2022 and June 21, 2023 at the above-referenced property located in the County of Napa. The property consists of three parcels assigned Napa County APN 057-250-030, 057-250-031, and 057-250-032 (Figures 1 & 2). The parcels measure 13.53, 4.9, and 2.23 acres, respectively, and are currently undeveloped, although they are surrounded on the east, west, and south by commercial warehouses. Surveys were conducted in order to determine the presence or absence of the following special-status animals: burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), nesting raptors, and nesting passerine birds. Surveys for these species were recommended to be performed according to a Biological Resources Assessment (BRA) prepared for the property by FCS International dated January 2, 2023. Surveys were conducted by consulting biologist Dr. Christopher DiVittorio.

Site Description

The portion of the property that is the proposed project area is composed of disked and mowed ruderal grassland (Figure 3). Sheehy Creek flows west along the north boundary of the property, however the entirety of the Sheehy Creek riparian corridor is in a conservation easement and is not part of the proposed project area. The conservation easement is separated from the project area along the entirety of its length by a paved pedestrian pathway. The ruderal grassland that comprises the project area exhibits low species diversity and few native plant species due to the history of disking and mowing. The vegetation type of the project area as determined by Sawyer et al. (2009) *Manual of California Vegetation 2nd Edition* (MCV)[1] is *Bromus* (*diandrus, hordeaceous*)-*Brachypodium distachyon* Semi-Natural Herbaceous Stand.

Methods

Between December 8, 2022 and June 21, 2023, ten (10) surveys were conducted for nesting passerine birds, raptors (including Swainson's hawk), and burrowing owl. During each survey, the entirety of the project area was examined on foot. These surveys included the entirety of the project area on all three parcels, as well visual inspection of the Sheehy Creek conservation easement on the north property

[1] Sawyer, J.O., T. Keeler-Wolf, J. Evens. 2009. *Manual of California Vegetation*. California Native Plant Society Press, Sacramento, CA.

boundary that is not part of the project area but is adjacent to it. Areas on adjacent parcels were also examined with binoculars where possible. A total of approximately 30 survey hours were completed across all survey dates.

Survey methods followed established procedures and applicable protocols, including the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*, and the *Staff Report on Burrowing Owl Mitigation*.[2,3] Survey equipment included high-quality binoculars and a high-quality spotting scope. Surveys were conducted during the appropriate times of day (including peak bird detection periods between sunrise and 10 a.m.). Surveys were conducted on foot. Survey dates with the corresponding Swainson's hawk survey periods are shown below, although all species of birds were surveyed for at each time period. The survey on 12/8/22 was technically prior to the beginning of Swainson's hawk Period 1 as described in the 2000 protocol[2], however this sample period is only recommended and primarily used to determine the presence or absence of suitable habitat onsite.

Date	Swainson's Hawk Survey Period
12/8/2022	1st survey in Period I
3/20/2023	1st survey in Period II
3/31/2023	2nd survey in Period II
4/4/2023	3rd survey in Period II
4/5/2023	1st survey in Period III
4/6/2023	2nd survey in Period III
4/7/2023	3rd survey in Period III
4/24/2023	1st survey in Period IV
5/29/2023	2nd survey in Period IV
6/21/2023	1st survey in Period V

Results & Recommendations

Transcribed field notes from each of the ten site visits are provided in Appendix A, and a master list of all species of birds encountered across the ten site visits is provided in Appendix B. A total of 16 unique species of birds were observed in the project area, and 52 unique species of birds observed in the Sheehy Creek conservation easement. The lack of birds observed in the project area was likely due to the lack of suitable nesting habitat on the project area itself, which is composed of disked ruderal grassland that is periodically mowed.

No special-status species including Swainson's hawk or burrowing owl were observed in the project area. Three special-status species were observed in the Sheehy Creek conservation easement--white-tailed kite, loggerhead shrike, and red-tailed hawk--however this easement is not in the project area. Additionally, none of these species were engaged in nesting behaviors and were not actively foraging in the project area. No nesting birds were observed in the project area. Nesting birds observed in the Sheehy Creek riparian corridor included red-shouldered blackbird and Anna's hummingbird.

[2] Swainson's Hawk Technical Advisory Committee. 2000. *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*. California Department of Fish and Wildlife, May 31, 2000.

[3] California Department of Fish and Wildlife 2012. *Staff Report on Burrowing Owl Mitigation*. State of California Natural Resource Agency Department of Fish and Game. March 7, 2012.

Swainson's Hawk

No individuals of Swainson's hawk were observed during any of the surveys. One raptor nest was observed in the conservation easement of Sheehy Creek in a cottonwood tree, the location of which is indicated in Figure 1. Repeated observations of this nest showed that it was not active during 2023 and has fallen into disrepair. The presence of red-tailed hawk (*Buteo jamaicensis*) and white-tailed kite soaring in the vicinity of the project area also suggests that Swainson's hawk are not utilizing this habitat currently since these species are antagonistic and do not typically share ranges. The negative survey results for Swainson's hawk despite approximately 30 survey hours satisfies the requirements of the survey protocol for this species, therefore it is reasonable to conclude Swainson's hawk are absent from the project area.

Nesting Raptors

No active raptor nests were observed in the vicinity of the project area. One raptor nest was observed in the conservation easement of Sheehy Creek in the location indicated in Figure 1, however repeated observations of this nest showed that it was not active during 2023 and has fallen into disrepair. Pairs of red-tailed hawk (*Buteo jamaicensis*) and white-tailed kite (*Elanus leucurus*) were occasionally observed soaring over the project area, and occasionally perching on adjacent buildings and trees within the Sheehy Creek conservation easement, however none of these birds behaved in a way that indicated any nest building activity was occurring on or near the project area. Although red-tailed hawks occasionally flew over the project area, they did not appear to be actively foraging in the project area. The frequent disking and mowing of the project area typically precludes the existence of small mammal burrows, thus it is likely that the project area is not high quality foraging habitat for raptors.

Other Nesting Birds

No active nests of any other bird species were observed within the project area. Nests of red-shouldered blackbird (*Agelaius phoeniceus*) and Anna's hummingbird (*Calypte anna*) were observed in the Sheehy Creek conservation easement, however these species are not special-status and their nests were outside of the proposed project area. These species are typically very tolerant of human activity, thus it is reasonable to conclude that construction in the project area would not significantly affect or preclude continued nesting of these species in the Sheehy Creek conservation easement.

Burrowing Owl

No evidence of burrowing owl activity was observed during any of the ten field surveys. No California ground squirrel burrows were observed on-site, and no other burrows or dens were observed in the project area that would provide suitable nesting habitat for burrowing owl. Frequent disking and mowing of the project area precludes the existence of small mammal burrows due to severe disturbance of the upper soil horizon. Therefore, it is reasonable to conclude burrowing owl is absent from the project area.

Please contact me at the email or phone number below if you have any questions about this or any other studies we've performed for this project.

Sincerely,



Christopher DiVittorio, PhD
President, PEC
(510) 881-3039
chris@pinecrestenvironmental.org

Figure 1: Site Map - West



Figure 2: Site Map - East



Figure 3: Ruderal Grassland



Pinecrest Environmental Consulting
www.pinecrestenvironmental.org

SOURCES: PEC Inc.

APN 057-250-030, 057-250-031, 057-250-032
E&P Technology Way, Napa, CA 94558

Appendix A: Animal Survey Field Notes

The following is a transcription of field notes for each of the ten (10) protocol-level surveys conducted at the project area and the Sheehy Creek conservation easement.

Site Visit: 12/8/22

Time: 10:00 AM
Weather: clear, 50 degF, 66% RH, wind 2-4 mph
Notes: most of project area recently disked; nest in cottonwood tree in Sheehy Creek conservation easement does not look maintained and is not in use; 2 adult red-tailed hawk soaring above conservation easement and landing on nearby buildings
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: crow (*Corvus brachyrhynchos*), kildeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), turkey vulture (*Cathartes aura*)

Bird Species in Conservation Easement: crow (*Corvus brachyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), white-crowned sparrow (*Zonotrichia leucophrys*), mourning dove (*Zenaida macroura*), loggerhead shrike (*Lanius ludovicianus*), dark-eyed junco (*Junco hyemalis*), rufous-crowned sparrow (*Aimophlia ruficeps*), black phoebe (*Sayornis nigricans*), rock pigeon (*Columba livia*), Western scrub jay (*Aphelocoma californica*), unknown gull, Anna's hummingbird (*Calypte anna*), Hutton's vireo (*Vireo huttoni*), turkey vulture (*Cathartes aura*)

Other Animals: American beaver (*Castor canadensis*) dams located in Sheehy Creek appear active; runways of California vole (*Microtus californicus*)

Site Visit: 3/20/23

Time: 8:15 AM
Weather: no wind, 49 degF, 46% RH
Notes: old raptor nest in cottonwood tree not active; sticks falling down, looks in disrepair
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: red-shouldered blackbird (*Agelaius phoeniceus*), California towhee (*Melozone crissalis*), crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), Western meadowlark (*Sturnella neglecta*), kildeer (*Charadrius vociferus*)

Bird Species in Conservation Easement: red-shouldered blackbird (*Agelaius phoeniceus*), great egret (*Ardea alba*), California towhee (*Melozone crissalis*), crow (*Corvus brachyrhynchos*), tree swallow (*Tachycineta bicolor*), mallard ducks (*Anas platyrhynchos*), bushtit (*Psaltriparus minimus*), savannah sparrow (*Passerculus sandwichensis*), song sparrow (*Melospiza melodia*), horned lark *(Eremophila alpestris*), rock pigeon (*Columba livia*), sora (*Porzana carolina*), mourning dove (*Zenaida macroura*), kildeer (*Charadrius vociferus*)

Other Animals: dam of American beaver (*Castor canadensis*) on Sheehy Creek observed, black-tailed jackrabbit (*Lepus californicus*)

Site Visit: 3/31/23

Time: 7:45 AM
Weather: clear then partly cloudy by mid-day, wind 0 mph, 44.5 degF, 76.5% RH
Notes: no activity at stick nest in cottonwood tree; no raptors observed soaring today
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: American robin (*Turdus migratorius*), Western meadowlark (*Sturnella neglecta*), white-crowned sparrow (*Zonotrichia leucophrys*), crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), house finch (*Haemorhous mexicanus*), barn swallow (*Hirundo rustica*) (soaring overhead high altitude)

Bird Species in Conservation Easement: American robin (*Turdus migratorius*), red-shouldered blackbird (*Agelaius phoeniceus*), Western scrub jay (*Aphelocoma californica*), white-crowned sparrow (*Zonotrichia leucophrys*), hermit thrush (*Catharus guttatus*), Virginia rail (*Rallus limicola*), Lawrence's goldfinch (*Spinus lawrencei*), crow (*Corvus brachyrhynchos*), raven (*Corvus corax*), song sparrow (*Melospiza melodia*), California towhee (*Melozone crissalis*), Northern mockingbird (*Mimus polyglottos*), mallard ducks (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), yellow-rumped warbler (*Setophaga coronata*), California gull (*Larus californicus*), house finch (*Haemorhous mexicanus*), barn swallow (*Hirundo rustica*) (soaring overhead high altitude), European starling (*Sturnus vulgaris*)

Site Visit: 4/4/23

Start time: 7:35 AM
Weather: clear and sunny, 49 degF, no wind, 81% RH
Notes: stick nest in cottonwood tree still inactive; sticks falling down; cottonwood just leafing out; pair of hawks perching on large dead tree offsite approx. 0.2 mile N of parcel; white tail kite perching on cottonwood tree in Sheehy Creek easement, but not nesting or acting territorial, left after 15 min
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: Western meadowlark (*Sturnella neglecta*), red-shouldered blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), crow (*Corvus brachyrhynchos*)

Bird Species in Conservation Easement: red-shouldered blackbird (*Agelaius phoeniceus*), crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), California towhee (*Melozone crissalis*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), yellow-rumped warbler (*Setophaga coronata*), European starling (*Sturnus vulgaris*), American robin (*Turdus migratorius*), rock pigeon (*Columba livia*), ruby-crowned kinglet (*Regulus calendula*), crow (*Corvus brachyrhynchos*), unidentified species of sparrow, Canada goose (*Branta canadensis*), black phoebe (*Sayornis nigricans*), tree swallow (*Tachycineta bicolor*), white-throated sparrow (*Zonotrichia albicollis*), marsh wren (*Cistothorus palustris*), wild turkey (*Meleagris gallopavo*), mallard ducks (*Anas platyrhynchos*), bufflehead (*Bucephala albeola*), Western kingbird (*Tyrannus verticalis*), Western scrub jay (*Aphelocoma californica*), unknown hummingbird (likely Allen's or rufous), white-tailed kite (*Elanus leucurus*)

Other Animals: dam of American beaver (*Castor canadensis*), calls of Pacific tree frog (*Pseudacris regalia*)

Site Visit: 4/5/23

Start time: 7:45 AM
Weather: clear and sunny, 45 degF, no wind, 80% RH
Notes: white-tail kite perching on cottonwood tree with nest but is not near or paying attention to the nest; nest still inactive; second white-tail kite hovering nearby, both flushed after several minutes; 2 large raptors, unknown species, perching on large dead tree offsite 0.2 miles to the north
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: red-shouldered blackbird (*Agelaius phoeniceus*), crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), American robin (*Turdus migratorius*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), Western meadowlark (*Sturnella neglecta*)

Bird Species in Conservation Easement: red-shouldered blackbird (*Agelaius phoeniceus*), crow (*Corvus brachyrhynchos*), rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), song sparrow (*Melospiza melodia*), European starling (*Sturnus vulgaris*), Bewick's wren (*Thryomanes bewickii*), marsh wren (*Cistothorus palustris*), yellow-rumped warbler (*Setophaga coronata*), bushtit (*Psaltriparus minimus*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), American robin (*Turdus migratorius*), lesser goldfinch (*Spinus psaltria*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), blue-gray gnatcatcher (*Polioptila caerulea*), black phoebe (*Sayornis nigricans*), white-tailed kite (*Elanus leucurus*), Anna's hummingbird (*Calypte anna*)

Site Visit: 4/6/23

Start time: 7:30 AM
Weather: clear and sunny, 44 degF, 50% RH, no wind
Notes: no activity at nest in cottonwood tree
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: red-shouldered blackbird (*Agelaius phoeniceus*), American robin (*Turdus migratorius*), crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), Western meadowlark (*Sturnella neglecta*), cliff swallow (*Petrochelidon pyrrhonota*), great egret (*Ardea alba*) foraging in field, house finch (*Haemorhous mexicanus*)

Bird Species in Conservation Easement: California towhee (*Melozone crissalis*), American robin (*Turdus migratorius*), crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), yellow-rumped warbler (*Setophaga coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), cliff swallow (*Petrochelidon pyrrhonota*), Bewick's wren (*Thryomanes bewickii*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), Northern mockingbird (*Mimus polyglottos*), Anna's hummingbird (*Calypte anna*), loggerhead shrike (*Lanius ludovicianus*), white-tailed kite (*Elanus leucurus*)

Site Visit: 4/7/23

Start time: 7:30 AM
Weather: cloudy with light rain, 54 degF, 81% RH, wind 1-2 mph, fewer birds today
Notes: fewer birds today likely due to rain; white-tail kite perching on cottonwood but not using or interested in the dilapidated nest; nest in cottonwood tree inactive; juvenile red-tailed kite perching in Eucalyptus trees offsite to E of project area, flew away after several minutes;
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: song sparrow (*Melospiza melodia*), red-shouldered blackbird (*Agelaius phoeniceus*), crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), violet-green swallow (*Tachycineta thalassina*)

Bird Species in Conservation Easement: Bewick's wren (*Thryomanes bewickii*), song sparrow (*Melospiza melodia*), red-shouldered blackbird (*Agelaius phoeniceus*), Northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), crow (*Corvus brachyrhynchos*), white-tailed kite (*Elanus leucurus*), dark-eyed junco (*Junco hyemalis*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), yellow-rumped warbler (*Setophaga coronata*), house finch (*Haemorhous mexicanus*), great egret (*Ardea alba*), white-crowned sparrow (*Zonotrichia leucophrys*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), violet-green swallow (*Tachycineta thalassina*), mallard ducks (*Anas platyrhynchos*), Western kingbird (*Tyrannus verticalis*), great blue heron (*Ardea herodias*)

Site Visit: 4/24/23

Start time: 10:25 AM
Weather: cloudy, then sunny; 61 degF, 64% RH, 1-3 mph wind
Notes: no activity at nest in cottonwood tree
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: red-shouldered blackbird (*Agelaius phoeniceus*), crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), violet-green swallow (*Tachycineta thalassina*)

Bird Species in Conservation Easement: red-shouldered blackbird (*Agelaius phoeniceus*), violet-green swallow (*Tachycineta thalassina*), California towhee (*Melozone crissalis*), dark-eyed junco (*Junco hyemalis*), black phoebe (*Sayornis nigricans*), lesser goldfinch (*Spinus psaltria*), crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), European starling (*Sturnus vulgaris*), white-crowned sparrow (*Zonotrichia leucophrys*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), white-tailed kite (*Elanus leucurus*) soaring and hovering over field, unidentified species of sparrow

Site Visit: 5/29/23

Start time: 8:35 AM
Weather: sunny
Notes: nest in cottonwood tree not active
Purpose: Swainson's hawk, BUOW

Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: no sign of BUOW or Swainson's hawk; presence/absence survey only; no comprehensive bird list completed

Site Visit: 6/21/23

Start time: 11:00 PM
Weather: clear, sunny, 74 degF, 51% RH, 3-6 mph wind
Note: many species appear to have migrated offsite for the summer; site has been recently mowed
Purpose: Swainson's hawk, other raptor, nesting bird, BUOW
Personnel: Dr. Christopher DiVittorio

Bird Species in Project Area: no sign of BUOW or Swainson's hawk; presence/absence survey only; no comprehensive bird list completed

Appendix B: Master Species List

The following is a list of bird species observed across the ten (10) site visits at the project area and Sheehy Creek conservation easement. Special-status species are denoted with an asterisk (*).

Bird Species in Project Area

robin (*Turdus migratorius*)
barn American swallow (*Hirundo rustica*)
California towhee (*Melozone crissalis*)
cliff swallow (*Petrochelidon pyrrhonota*)
crow (*Corvus brachyrhynchos*)
great egret (*Ardea alba*) foraging in field
house finch (*Haemorhous mexicanus*)
house sparrow (*Passer domesticus*)
kildeer (*Charadrius vociferus*)
mourning dove (*Zenaida macroura*)
red-shouldered blackbird (*Agelaius phoeniceus*)
rock pigeon (*Columba livia*)
song sparrow (*Melospiza melodia*)
turkey vulture (*Cathartes aura*)
violet-green swallow (*Tachycineta thalassina*)
Western meadowlark (*Sturnella neglecta*)
white-crowned sparrow (*Zonotrichia leucophrys*)

Bird Species in Conservation Easement:

American robin (*Turdus migratorius*)
Anna's hummingbird (*Calypte anna*)
barn swallow (*Hirundo rustica*)
Bewick's wren (*Thryomanes bewickii*)
black phoebe (*Sayornis nigricans*)
blue-gray gnatcatcher (*Polioptila caerulea*)
bufflehead (*Bucephala albeola*)
bushtit (*Psaltriparus minimus*)
California gull (*Larus californicus*)
California towhee (*Melozone crissalis*)
Canada goose (*Branta canadensis*)
cliff swallow (*Petrochelidon pyrrhonota*)
crow (*Corvus brachyrhynchos*)
dark-eyed junco (*Junco hyemalis*)
European starling (*Sturnus vulgaris*)
great blue heron (*Ardea herodias*)
great egret (*Ardea alba*)
hermit thrush (*Catharus guttatus*)
horned lark *(Eremophila alpestris*)
house finch (*Haemorhous mexicanus*)
house sparrow (*Passer domesticus*)

Hutton's vireo (*Vireo huttoni*)
kildeer (*Charadrius vociferus*)
Lawrence's goldfinch (*Spinus lawrencei*)
lesser goldfinch (*Spinus psaltria*)
loggerhead shrike (*Lanius ludovicianus*)*
mallard ducks (*Anas platyrhynchos*)
marsh wren (*Cistothorus palustris*)
mourning dove (*Zenaida macroura*)
Northern mockingbird (*Mimus polyglottos*)
raven (*Corvus corax*)
red-shouldered blackbird (*Agelaius phoeniceus*)
red-tailed hawk (*Buteo jamaicensis*)
rock pigeon (*Columba livia*)
ruby-crowned kinglet (*Regulus calendula*)
rufous-crowned sparrow (*Aimophlia ruficeps*)
savannah sparrow (*Passerculus sandwichensis*)
song sparrow (*Melospiza melodia*)
sora (*Porzana carolina*)
tree swallow (*Tachycineta bicolor*)
turkey vulture (*Cathartes aura*)
violet-green swallow (*Tachycineta thalassina*)
Virginia rail (*Rallus limicola*)
Western kingbird (*Tyrannus verticalis*)
Western scrub jay (*Aphelocoma californica*)
white-crowned sparrow (*Zonotrichia leucophrys*)
white-tailed kite (*Elanus leucurus*)*
white-throated sparrow (*Zonotrichia albicollis*)
wild turkey (*Meleagris gallopavo*)
yellow-rumped warbler (*Setophaga coronata*)
unidentified species of sparrow
unidentified species of gull
unidentified species of hummingbird (likely Anna's)

Pinecrest Environmental Consulting

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M E M O R A N D U M

Date: July 21, 2023

To: Jason Brandman, FCS International.

From: Dr. Christopher T. DiVittorio, Pinecrest Research Corp., Inc.

Subject: Results of special-status plant surveys at E&P Technology Way, Napa County, CA (FCS Project 5816.0001)

To Whom It May Concern,

This rare plant survey report (Report) details the findings of five protocol-level special-status plant surveys conducted in 2023 at the above-referenced property located in the County of Napa. The site consists of three parcels, a 13.5 acre parcel assigned APN 057-250-030, a 4.9 acre parcel assigned APN 057-250-031, and a 2.2 acre parcel assigned APN 057-250-032. This Report is intended to compliment the Biological Assessment (BA) dated January 2, 2023 that was previously prepared for this project.

Site Description

A full description of habitats and potential development constraints are presented in the BA. In summary, the majority of the site is disked ruderal grassland with low cover of plants and low species diversity (Figures 1 & 2). Due to repeated disking and mowing, the species onsite are primarily ruderal, early-successional species adapted to colonizing disturbed habitats. The habitat type of this area as determined by Sawyer et al. (2009) *Manual of California Vegetation 2nd Edition* (MCV) is *Bromus* (*diandrus, hordeaceous*)-*Brachypodium distachyon* Semi-Natural Herbaceous Stand. On the north side of the parcels, separated by a paved pedestrian walkway, is a conservation easement containing the recreated Sheehy Creek channel and riparian corridor, that was established and planted to native species as part of nearby developments in the past. The MCV classification of this habitat is *Salix laevigata* (*lasiandra*) Woodland Alliance and *Populus fremontii* Forest Alliance. The project will affect only the ruderal grassland portion of the site, thus the rare plant survey was limited to this portion of the property.

Methods

Rare plants are defined here to include: (1) all plants that are federal- or state-listed as rare, threatened or endangered, (2) all federal and state candidates for listing, (3) all plants included in Lists 1 through 4 of the CNPS Inventory (Skinner and Pavlik 1994), and (4) plants that qualify under the definition of "rare" in the California Environmental Quality Act, section 15380. Background information searches were conducted prior to all site visits to identify potential rare plant species or sensitive plant communities recognized by the California Department of Fish and Game (CDFG) that may occur in the Study Area vicinity. A table of these species, and their protection status, habitat requirements, and likelihood to occur in the Study Area is provided below. Sources for this search included the California Department of Fish and Game (CDFG) Natural Diversity Database (CDFG 2023) and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2023).

Appendix A contains potential special-status species that were searched for based on plants known to exist in Napa County, and a "9-quad" search of all known special-status plant species from the surrounding region. In addition, plants known to occur within 5 miles of the project site are denoted with a description of the location of their nearest occurrence.

Site visits were performed during the growing season of 2023. Early-season site visits were performed on March 20 and March 31. Mid-season site visits were performed on April 24 and May 29. A late-season site visit was also performed on June 21. Site visits were performed by PEC botanist Dr. Christopher DiVittorio, with secondary identification on voucher and photograph specimens made by PEC botanist Dr. Zoya Akulova. During the site visit, Dr. DiVittorio surveyed the entirety of the project area using methods as specified in the California Department of Fish & Wildlife (CDFW) publication titled *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*, dated March 20, 2018. Field surveys were conducted by walking the entire project area on foot in parallel lines approximately 15 feet apart, identifying every species that was flowering, and making note of any species that were past flowering or that had not yet flowered. Voucher specimens were taken of any species that required identification in the laboratory. All terminology follows currently accepted nomenclature as described in *The Jepson Manual* (2012).

Results & Recommendations

The project area is comprised of routinely disked ruderal *Bromus* (*diandrus, hordeaceous*) semi-natural stands with some isolated individuals of *Baccharis pilularis* near the edges of the site. Due to the highly disturbed nature of the project site, all of the species found are early successional species adapted to colonizing new disturbances. As such, most of the species were non-native. No special-status native plant species or sensitive habitats were positively identified in the project area. A full list of the species encountered during the surveys is provided below in Appendix B. In total, 9 native species were observed onsite and 45 non-native species were observed.

No special-status species were found thus we have no recommendations for mitigation or avoidance for this project.

Please let me know if you have any questions about this or any other studies we've performed for this project.

Sincerely,



Christopher DiVittorio, PhD
President, PEC
(510) 881-3039
chris@pinecrestenvironmental.org

Figure 1: Habitat Map - West



Figure 2: Habitat Map - East



Appendix A: Special-Status Species Considered

The following is a list of sensitive and/or rare plants and habitats generated based on knowledge of the species and habitats of Napa County by PEC staff, from various State and Federal databases, and from the California Natural Diversity Database (CNDDB). Known occurrences within 5 miles of the project site are shown in bold with a description of the location of the nearest known locality.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
PLANTS			
Alkali milk-vetch (*Astragalus tener* var. *tener*)	**—/—/1B.2**	**Alkali grassland**	**Very Low: No alkali habitat exists in the project area. Nearest known occurrence is 1.5 miles N of the project site near Bordeaux Way.**
Anthony peak lupine (*Lupinus antoninus*)	—/—/1B.2	Coniferous forest	None: No coniferous forest habitat exists in the project area.
Baker's goldfields (*Lasthenia californica* ssp. *bakeri*)	—/—/1B.2	Coastal grasslands	Very Low: Some grassland habitat exists in the project area.
Baker's larkspur (*Delphinium bakeri*)	FE/SE/1B.1	Coastal scrub	Very Low: No coastal scrub habitat exists in the project area.
Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*)	—/—/1B.1	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	—/—/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Beaked tracyina (*Tracyina rostrata*)	—/—/1B.2	Grassland, foothill woodland	Very Low: Some grassland habitat exists in the project area.
Bent flowered fiddleneck (*Amsinckia lunaris*)	—/—/1B.2	Grassland, foothill woodland	Very Low: Some grassland habitat exists in the project area.
Big-scale balsamroot (*Balsamorhiza macrolepis*)	**—/—/1B.2**	**Grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 4.5 miles SE of the project site near American Canyon.**
Blasdale's bent grass (*Agrostis blasdalei*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Blue coast gilia (*Gilia capitata* ssp. *chamissonis*)	—/—/1B.1	Coastal sand dunes	None: No sand dune habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Bluff wallflower (*Erysimum concinnum*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)	—/—/1B.2	Vernal pool, pond	None: No vernal pool habitat exists in the project area.
Bolander's horkelia (*Horkelia bolanderi*)	—/—/1B.2	Coniferous forest, grassland	Very Low: Some grassland exists in the project area.
Brandegee's eriastrum (*Eriastrum brandegeeae*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Bristly sedge (*Carex comosa*)	—/—/2B.1	Wetland, riparian	None: No potential wetland habitat exists in the project area.
Brownish beaked-rush (*Rhynchospora capitellata*)	—/—/2B.2	Wetland, riparian	None: No potential wetland habitat exists in the project area.
Burke's goldfields (*Lasthenia burkei*)	FE/SE/1B.1	Vernal pools, grassland	Very Low: Some grassland habitat exists in the project area.
California alkali grass (*Puccinellia simplex*)	—/—/1B.2	Alkali grassland	None: No alkali grassland habitat exists in the project area.
California beaked-rush (*Rhynchospora californica*)	—/—/1B.1	Freshwater wetlands	None: No potential wetland habitat exists in the project area.
California satintail (*Imperata brevifolia*)	—/—/2B.1	Chaparral, coastal scrub	None: No chaparral habitat exists in the project area.
California sedge (*Carex californica*)	—/—/2B.3	Wetlands	None: No wetland habitat exists in the project area.
Calistoga ceanothus (*Ceanothus divergens*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Calistoga popcornflower (*Plagiobothrys strictus*)	FE/ST/1B.1	Wetland, riparian	None: No wetland habitat exists in the project area.
Clara Hunt's milk vetch (*Astragalus claranus*)	—/—/1B.1	Chaparral, grassland	Very Low: Some grassland habitat exists in the project area.
Coast lily (*Lilium maritimum*)	—/—/1B.1	Coastal grassland	Very Low: Some grassland habitat exists in the project area.
Coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*)	—/—/1B.2	Coastal grassland	Very Low: Some grassland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Cobb Mountain lupine (*Lupinus sericatus*)	—/—/1B.2	Chaparral, coniferous forest	None: No chaparral habitat exists in the project area.
Colusa layia (*Layia septentrionalis*)	—/—/1B.2	Chaparral, valley grassland	Very Low: Some grassland habitat exists in the project area.
Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	—/—/1B.2	Grassland, coastal scrub	Low: Some grassland habitat exists in the project area.
Contra Costa goldfields (*Lasthenia conjugens*)	**FE/—/1B.1**	**Vernal pool**	**Very Low: No vernal pool habitat exists in the project area. Nearest known occurrence is 1.0 miles N of the project site near Soscol Creek Road.**
Crystal Springs lessingia (*Lessingia arachnoidea*)	—/—/1B.2	Serpentine grassland	None: No serpentine grassland habitat exists in the project area.
Cunningham Marsh cinquefoil (*Potentilla uliginosa*)	—/—/1A	Wetland	None: No wetland habitat exists in the project area.
Dark-eyed gilia (*Gilia millefoliata*)	—/—/1B.2	Coastal sand dunes	None: No coastal sand dune habitat exists in the project area.
Deceiving sedge (*Carex saliniformis*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Deep-scarred cryptantha (*Cryptantha excavata*)	—/—/1B.2	Woodland	None: No woodland habitat exists in the project area.
Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*)	**—/—/1B.2**	**Freshwater and brackish marsh**	**Very Low: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles W of the project site near Sheehy Creek.**
Dimorphic snapdragon (*Antirrhinum subcordatum*)	—/—/4.3	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Dwarf downingia (*Downingia pusilla*)	**—/—/2B.2**	**Vernal pool, wetland**	**Very Low: No vernal pool habitat exists in the project area. Nearest known occurrence is 0.3 miles N of the project site near Delvin Road.**
Dwarf soaproot (*Chlorogalum pomeridianum* var. *minus*)	—/—/1B.2	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Eel-grass pondweed (*Potamogeton zosteriformis*)	—/—/2B.2	Wetland, pond	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Fragrant fritillary (*Fritillaria liliacea*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Few-flowered navarretia (*Navarretia leucocephala* ssp. *pauciflora*)	FE/SE/1B.1	Vernal pool, wetland	None: No vernal pool habitat exists in the project area.
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	**—/—/1B.2**	**Coastal grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 5.2 miles NE of the project site near Carneros Creek.**
Geysers panicum (*Panicum acuminatum* var. *thermale*)	—/—/1B.2	Chaparral, wetland	None: No chaparral habitat exists in the project area.
Glandular western flax (*Hesperolinon adenophyllum*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Golden larkspur (*Delphinium luteum*)	FE/SR/1B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Grassleaf water plantain (*Alisma gramineum*)	—/—/2B.2	Wetland, pond	None: No wetland habitat exists in the project area.
Greene's narrow-leaved daisy (*Erigeron greenei*)	**—/—/1B.2**	**Serpentine chaparral**	**None: No serpentine chaparral habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
Hall's harmonia (*Harmonia hallii*)	—/—/1B.2	Serpentine chaparral	None: No chaparral habitat exists in the project area.
Hoffman's bristly jewelflower (*Streptanthus glandulosus* spp. *hoffmanii*)	—/—/1B.3	Chaparral, woodland	None: No chaparral habitat exists in the project area.
Holly-leaved ceanothus (*Ceanothus purpureus*)	**—/—/1B.2**	**Chaparral**	**None: No chaparral habitat exists in the project area. Nearest known occurrence is 2.6 miles NE of the project site near Skyline Park.**
Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*)	—/—/1B.2	Woodland	None: No woodland habitat exists in the project area.
Humboldt County milk vetch (*Astragalus agnicidus*)	—/—/1B.1	Coniferous forest	None: No coniferous forest habitat exists in the project area.
Jepson's coyote thistle (*Eryngium jepsonii*)	—/—/4.2	Wetland, vernal pool	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Jepson's leptosiphon (*Leptosiphon jepsonii*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*)	—/—/1B.2	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Kenwood Marsh checkerbloom (*Sidalcea oregana* ssp. *valida*)	FE/SE/1B.1	Wetland	None: No wetland habitat exists in the project area.
Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*)	—/—/1B.3	Chaparral, woodland	None: No chaparral habitat exists in the project area.
Lake County stonecrop (*Sedella leiocarpa*)	—/—/1B.1	Grassland, wetland	None: No wetland habitat exists in the project area.
Legenere (*Legenere limosa*)	**—/—/1B.1**	**Wetland, grassland**	**Very Low: No potential wetland habitat exists in the project area. Nearest known occurrence is 0.9 miles N of the project site near Soscol Creek.**
Loch Lomond button-celery (*Eryngium constancei*)	FE/SE/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*)	—/—/1B.2	Wetland, grassland	None: No potential wetland habitat exists in the project area.
Lyngbye's sedge (*Carex lyngbyei*)	**—/—/2B.2**	**Salt marsh**	**None: No salt marsh habitat exists in the project area. Nearest known occurrence is 2.2 miles SW of the project site near the community of Brazos.**
Many-flowered navarretia (*Navarretia leucocephala* spp. *plieantha*)	FE/SE/1B.2	Vernal pool	None: No wetland habitat exists in the project area.
Maple-leaved checkerbloom (*Sidalcea malachroides*)	—/—/4.2	Coastal grassland, coniferous forest	Very Low: Some grassland habitat exists in the project area.
Marin checker lily (*Fritillaria lanceolata* var. *tristulis*)	—/—/1B.1	Grassland	Very Low: Some grassland habitat exists in the project area.
Marin checkerbloom (*Sidalcea hickmanii* spp. *viridis*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Marin County navarretia (*Navarretia rosulata*)	—/—/1B.2	Serpentine forest	None: No serpentine habitat exists in the project area.
Marin knotweed (*Polygonum marinense*)	**—/—/3.1**	**Coastal salt marsh**	**None: No coastal salt marsh habitat exists in the project area. Nearest**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
			known occurrence is 0.8 miles SW of the project site near Fagan Marsh.
Marin manzanita (*Arctostaphylos virgata*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Marin western flax (*Hesperolinon congestum*)	FT/ST/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*)	—/—/1B.2	Wetland, riparian	None: No wetland habitat exists in the project area.
Marsh microseris (*Microseris paludosa*)	—/—/1B.2	Wetland, grassland	None: No wetland habitat exists in the project area.
Marsh pea (*Lathyrus palustris*)	—/—/2B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Mason's ceanothus (*Ceanothus masonii*)	—/SR/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Mason's lilaeopsis (*Lilaeopsis masonii*)	**—/SR/1B.1**	**Freshwater and brackish marsh**	**None: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles W of the project site near the Napa River.**
Milo Baker's lupine (*Lupinus milo-bakeri*)	—/—/1B.1	Woodland, grassland	None: No woodland habitat exists in the project area.
Morrison's jewelflower (*Streptanthus morrisonii* ssp. *morrisonii*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Mt. St. Helena morning glory (*Calystegia collina* ssp. *oxyphylla*)	—/—/4.2	Serpentine chaparral	None: No serpentine habitat exists in the project area.
Mt. Tamalpais bristly jewelflower (*Streptanthus glandulosus* spp. *pulchellus*)	—/—/1B.2	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Mt. Tamalpais manzanita (*Arctostaphylos montana* spp. *montana*)	—/—/1B.3	Chaparral	None: No chaparral habitat exists in the project area.
Mt. Tamalpais thistle (*Cirsium hydrophilum* var. *vaseyi*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Napa blue grass (*Poa napensis*)	FE/SE/1B.1	Wetland, grassland	Very Low: Some grassland habitat exists in the project area.
Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Napa false indigo (*Amorpha californica* var. *napensis*)	—/—/1B.2	Forest, woodland	None: No woodland habitat exists in the project area.
Narrow-anthered brodiaea (*Brodiaea leptandra*)	**—/—/1B.2**	**Woodland, grassland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
North Coast semaphore grass (*Pleuropogon hooverianus*)	—/—/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*)	—/—/2B.2	Pond	None: No pond habitat exists in the project area.
Oval-leaved viburnum (*Viburnum ellipticum*)	**—/—/2B.3**	**Chaparral**	**None: No chaparral habitat exists in the project area. Nearest known occurrence is 2.5 miles NE of the project site near Skyline Park.**
Pacific gilia (*Gilia capitata* ssp. *pacifica*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Pacific Grove clover (*Trifolium polyodon*)	—/—/1B.1	Grassland, wetland	None: No wetland habitat exists in the project area.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	—/—/1B.2	Grassland, wetland	None: No wetland habitat exists in the project area.
Pennell's bird's beak (*Cordylanthus tenuis* ssp. *capillaris*)	FE/SR/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)	—/—/1B.2	Parasitic plant, grassland, chaparral	Very Low: Some grassland habitat exists in the project area.
Petaluma popcornflower (*Plagiobothrys mollis* var. *vestitus*)	—/—/1A	Coastal salt marsh	None: No coastal salt marsh habitat exists in the project area.
Pink sand verbena (*Abronia umbellata* var. *breviflora*)	—/—/1B.1	Coastal sand dune	None: No sand dune habitat exists in the project area.
Pitkin Marsh lily (*Lilium pardalinum* ssp. *pitkinense*)	FE/SE/1B.1	Wetland	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Pitkin Marsh paintbrush (*Castilleja uliginosa*)	FE/SE/1A	Wetland	None: No wetland habitat exists in the project area.
Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habiat exists in the project area.
Point Reyes salty bird's beak (*Chloropyron maritimum* ssp. *palustre*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habitat exists in the project area.
Purple-stemmed checkerbloom (*Sidalcea malviflora* spp. *purpurea*)	—/—/1B.2	Wetland	None: No wetland habitat exists in the project area.
Pygmy cypress (*Hesperocyparis pygmaea*)	—/—/1B.2	Hardpan soil	None: No hardpan forest habitat exists in the project area.
Raiche's manzanita (*Arctostaphylos stanfordiana* ssp. *raichei*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Raiche's red ribbons (*Clarkia concinna* spp. *raichei*)	—/—/1B.1	Coastal scrub	Very Low: No coastal scrub habitat exists in the project area.
Rincon Ridge ceanothus (*Ceanothus confusus*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Rincon Ridge manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Rose leptosiphon (*Leptosiphon rosaceus*)	—/—/1B.1	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Round-headed beaked rush (*Rhynchospora globularis*)	—/—/2B.1	Wetland, riparian	None: No l wetland habitat exists in the project area.
Round-headed Chinese houses (*Collinsia corymbosa*)	—/—/1B.2	Coastal strand	None: No coastal strand habitat exists in the project area.
Round-leaved filaree (*California macrophylla*)	—/—/1B.2	Foothill grassland	Very Low: Some grassland habitat exists in the project area.
Saline clover (*Trifolium hydrophilum*)	**—/—/1B.2**	**Wetland, riparian**	**Very Low: No potential wetland habitat exists in the project area. Nearest known occurrence is 0.9 miles N of the project site near Soscol Creek.**
San Francisco spineflower (*Chorizanthe cuspidata* var. *cuspidata*)	—/—/1B.2	Coastal sand dunes	None: No coastal sand dune habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
San Joaquin spearscale (*Extriplex joaquinana*)	**—/—/1B.2**	**Alkali scrub, grassland**	**Very Low: No alkali scrub habitat exists in the project area. Nearest known occurrence is 3.2 miles N of the project site near Kennedy Park.**
Santa Cruz clover (*Trifolium buckwestiorum*)	—/—/1B.1	Wetland, grassland	Very Low: Some grassland habitat exists in the project area.
Santa Cruz microseris (*Stebbinsoseris decipiens*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Santa Cruz tarplant (*Holocarpha macradenia*)	FT/SE/1B.1	Coastal prairie	None: No coastal prairie habitat exists in the project area.
Santa Rosa horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Seaside bittercress (*Cardamine angulata*)	—/—/2B.2	Forest, riparian	None: No forest habitat exists in the project area.
Sebastopol meadowfoam (*Limnanthes vinculans*)	FE/SE/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.
Serpentine cryptantha (*Cryptantha dissita*)	—/—/1B.2	Serpentine chaparral	None: No chaparral habitat exists in the project area.
Serpentine daisy (*Erigeron serpentinus*)	—/—/1B.3	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Short-leaved evax (*Hesperevax sparsiflora var. brevifolia*)	—/—/1B.2	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Slender Orcutt grass (*Orcuttia tenuis*)	FT/SE/1B.1	Vernal pool	None: No vernal pool habitat exists in the project area.
Small-flowered calycadenia (*Calycadenia micrantha*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Small groundcone (*Kopsiopsis hookeri*)	—/—/2B.3	Redwood forest	None: No redwood forest habitat exists in the project area.
Soft salty bird's beak (*Chloropyron molle* ssp. *molle*)	**FE/ST/1B.2**	**Coastal salt marsh**	**None: No salt marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*)	FE/—/1B.1	Wetland, vernal pool	None: No wetland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*)	—/—/1B.3	Chaparral	Very Low: Some grassland habitat exists in the project area.
Sonoma ceanothus (*Ceanothus sonomensis*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Sonoma spineflower (*Chorizanthe valida*)	FE/SE/1B.1	Coastal grassland	Very Low: Some grassland habitat exists in the project area.
Sonoma sunshine (*Blennosperma bakeri*)	FE/SE/1B.1	Grassland, wetland	Very Low: Some grassland habitat exists in the project area.
Suisun marsh aster (*Symphyotrichum lentum*)	**—/—/1B.2**	**Freshwater and brackish marsh**	**None: No marsh habitat exists in the project area. Nearest known occurrence is 0.8 miles SW of the project site near Fagan Marsh.**
Supple daisy (*Erigeron supplex*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists in the project area.
Swamp harebell (*Campanula californica*)	—/—/1B.2	Coastal grassland, wetland	None: No wetland habitat exists in the project area.
Tamalpais jewelflower (*Streptanthus batrachopus*)	—/—/1B.3	Serpentine	None: No serpentine habitat exists in the project area.
Tamalpais lessingia (*Lessingia micradenia* var. *micradenia*)	—/—/1B.2	Grassland	Very Low: Some grassland habitat exists in the project area.
Tamalpais oak (*Quercus parvula* var. *tamalpaisensis*)	—/—/1B.3	Woodland	None: No woodland habitat exists in the project area.
The Cedars fairy lantern (*Calochortus raichei*)	—/—/1B.2	Hardpan chaparral	None: No chaparral habitat exists in the project area.
The Cedars manzanita (*Arctostaphylos bakeri* ssp. *sublaevis*)	—/—/1B.2	Hardpan chaparral	None: No chaparral habitat exists in the project area.
Thin-lobed horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists in the project area.
Thurber's reed grass (*Calamagrostis crassiglumis*)	—/—/2B.1	Coastal scrub, wetland	None: No wetland habitat exists in the project area.
Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*)	—/—/1B.2	Serpentine grassland	None: No serpentine grassland exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Tiburon paintbrush (*Castilleja affinis* var. *neglecta*)	**FE/ST/1B.2**	**Serpentine grassland**	**Very Low: No serpentine grassland exists in the project area. Nearest known occurrence is 4.5 miles SE of the project site near American Canyon.**
Two-carpellate western flax (*Hesperolinon bicarpellatum*)	—/—/1B.2	Serpentine chaparral	None: No serpentine chaparral exists in the project area.
Two-fork clover (*Trifolium amoenum*)	**FE/—/1B.1**	**Grassland, wetland**	**Very Low: Some grassland habitat exists in the project area. Nearest known occurrence is 2.5 miles W of the project site near Milton Road.**
Vine Hill ceanothus (*Ceanothus foliosus* var. *vineatus*)	—/—/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Vine Hill clarkia (*Clarkia imbricata*)	FE/SE/1B.1	Chaparral, grassland	None: No chaparral habitat exists in the project area.
Vine Hill manzanita (*Arctostaphylos densiflora*)	—/SE/1B.1	Chaparral	None: No chaparral habitat exists in the project area.
Watershield (*Brasenia schreberi*)	—/—/2B.3	Pond	None: No pond habitat exists in the project area.
Western leatherwood (*Dirca occidentalis*)	—/—/1B.2	Woodland, chaparral	None: No woodland habitat exists in the project area.
White-beaked rush (*Rhynchospora alba*)	—/—/2B.2	Wetland, riparian	None: No wetland habitat exists in the project area.
White-flowered rein orchid (*Piperia candida*)	—/—/1B.2	Coniferous forest	None: No coniferous forest habitat exists in the project area.
White-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE/SE/1B.1	Grassland	Very Low: Some grassland habitat exists in the project area.
Wolly-headed gilia (*Gilia capitata* ssp. *tomentosa*)	—/—/1B.1	Coastal grassland	Very Low: No coastal grassland habitat exists in the project area.
Wolly meadowfoam (*Limnanthes floccosa* ssp. *floccosa*)	—/—/4.2	Vernal pool	None: No wetland habitat exists in the project area.
Wolly spineflower (*Chorizanthe cuspidata* var. *villosa*)	—/—/1B.2	Coastal sand dunes	None: No sand dune habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
MOSSES, LICHENS & LIVERWORTS			
Angel's hair lichen (*Ramalina thrausta*)	—/—/2B.1	Forest, woodland	None: No forest habitat exists in the project area.
Coastal triquetrella (*Triquetrella californica*)	—/—/1B.2	Forest, woodland	None: No forest habitat exists in the project area.
Elongate copper moss (*Mielichhoferia elongata*)	—/—/4.3	Rock outcrops	None: No rock outcrop habitat exists in the project area.
Koch's cord moss (*Entosthodon kochii*)	—/—/1B.3	Forest, woodland	None: No forest habitat exists in the project area.
Methuselah's beard lichen (*Dolichousnea longissima*)	—/—/4.2	Forest, woodland	None: No forest habitat exists in the project area.
Slender silver moss (*Anomobryum julaceum*)	—/—/4.2	Rocky substrates in forests	None: No forest habitat exists in the project area.
Torren's grimmia (*Grimmia torenii*)	—/—/1B.3	Forest, woodland	None: No forest habitat exists in the project area.
HABITATS			
Coastal & Valley Freshwater Marsh (CVFM)	—	—	None: No marsh habitat exists in the project area.
Coastal Brackish Marsh (CVFM)	—	—	None: No brackish marshes exist in the project area.
Northern Coastal Salt Marsh (NCSM)	—	—	None: No salt marsh habitat exists in the project area.
Northern Hardpan Vernal Pool (NHVP)	—	—	None: No hardpan vernal pool habitat exists in the project area.
Northern Vernal Pool (NVP)	—	—	None: No vernal pool habitat exists in the project area.
Sycamore Alluvial Woodland (SAW)	—	—	None: No woodland habitat exists in the project area.
Valley Needlegrass Grassland (VNG)	—	—	Very Low: Some disturbed grassland habitat exists in the project area.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Valley Oak Woodland (VOW)	—	—	None: No valley oaks exist in the project area.
Valley Sink Scrub (VSS)	—	—	None: No sink habitat exists in the project area.

[1] Status:
Federal
FE = Federally Endangered Species
FT = Federally Threatened Species

State
SE = State Endangered Species
ST = State Threatened Species
SSC = California Species of Special Concern
CFP = California Fully Protected Species

CNPS (applies to plants only)
List 1B = plants considered rare, threatened, or endangered in California and elsewhere
List 2B = plants rare, threatened or endangered in California, but more common elsewhere
List 3 = plant is likely rare but more information is required
List 4 = plants of limited distribution

Appendix B: Plant Species Observed Onsite

The following is a list of plant species directly observed onsite during the above-referenced plant surveys. No special-status species were observed onsite.

Non-native

bird's foot trefoil (*Lotus corniculatus*)
black mustard (*Brassica nigra*),
bristly ox-tongue (*Helminthotheca echioides*)
bull thistle (*Cirsium vulgare*)
bur clover (*Medicago polymorpha*)
chicory (*Cichorium intybus*)
common dandelion (*Taraxacum officinale*)
common groundsel (*Senecio vulgaris*)
crane's bill filaree (*Erodium botrys*)
curly dock (*Rumex crispus*)
fennel (*Foeniculum vulgare*)
field bindweed (*Convolvulus arvensis*)
foxtail barley (*Hordeum murinum*)
Fuller's teasel (*Dipsacus fullonum*)
hairgrass (*Aira caryophyllea*)
hairy vetch (*Vicia villosa*)
Harding grass (*Phalaris aquatica*)
hedge parsley (*Torilis arvensis*)
Italian ryegrass (*Festuca perennis*)
Italian thistle (*Circium pycnocephalus*)
Jersey cudweed (*Pseudognaphalium luteoalbum*)
narrowleaf cottonrose (*Logfia gallica*)
pineapple weed (*Matricaria discoidea*)
poison hemlock (*Conium maculatum*)
prickly lettuce (*Lactuca serriola*)
reed fescue (*Festuca arundinacea*)
ribwort (*Plantago lanceolata*)
ripgut brome (*Bromus diandrus*)
rose clover (*Trifolium hirtum*)
salsify (*Tragopogon porrifolius*)
scarlet pimpernel (*Lysimachia arvensis*)
sheep sorrel (*Rumex acetocella*)
shortpod mustard (*Hirschfeldia incana*)
smooth cat’s ear (*Hypochaeris glabra*)
soft chess (*Bromus hordeaceous*)
spring vetch (*Vicia sativa*)
strawberry clover (*Trifolium fragiferum*)
sweet pea (*Lathyrus latifolius*)
weedy brome (*Bromus caroli-henrici*)
wild geranium (*Geranium dissectum*)
wild lettuce (*Lactuca saligna*)
wild oatgrass (*Avena barbata*)

wild radish (*Raphanus sativa*)
yellow star thistle (*Centaurea solstitialis*)
Zorro fescue (*Festuca myuros*)

Native

California poppy (*Eschscholzia californica*)
common yarrow (*Achillea millefolium*)
coyote brush (*Baccharis pilularis*)
hairy gumweed (*Grindelia hirsutula*)
ladies' tobacco (*Pseudognaphalium californicum*)
meadow barley (*Hordeum brachyantherum*)
mountain dandelion (*Agoseris heterophylla*)
saltgrass (*Distichlis spicata*)
slender tarweed (*Madia gracilis*)

FCS
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Attachment A:

Comment Letters–State Agencies

Docusign Envelope ID: 7CBA9409-1745-4F3A-BEF7-243EC7B98880

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

November 15, 2024

Sean Trippi, Supervising Planner
Napa County Planning, Building, and Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559
Sean.Trippi@countyofnapa.org

Subject: E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Initial Study/Mitigated Negative Declaration, SCH No. 2024100855, Napa County

Dear Mr. Trippi:

The California Department of Fish and Wildlife (CDFW) received an Initial Study/Mitigated Negative Declaration (IS/MND) from Napa County (County) for the E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032) (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines. 1

CDFW is submitting comments on the IS/MND to inform the County, as the Lead Agency, of potentially significant impacts to biological resources associated with the Project.

CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under CEQA pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Lake and Streambed Alteration (LSA) Agreement, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources. 2

PROJECT DESCRIPTION SUMMARY

Proponent: Mike Kelly

Objective: The Project is limited to the development of a 143,312 square-foot wine production facility (Building A) and a 66,915 square-foot warehouse (Building B). The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 square feet of covered outdoor work area will be located on the north side of the 3

Docusign Envelope ID: 7CBA9409-1745-4F3A-BEF7-243EC7B98880

building. The Project also includes 129 parking spaces and 8 spaces for semi-trailers. Access will be provided by three new driveways: one on Technology Way and two on Morris Court.

Building B is limited to warehouse uses within the proposed 66,915 square-foot building. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side of the building. The entrance driveway will be wide enough to accommodate two-way traffic.

3 CONT

Location: The Project is located on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030), at approximately 38.22753°N and -122.26939°W; and Building B is proposed on a 6.87-acre site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031, -032, to be combined), at approximately 38.22677°N, -122.26638°W. A conservation easement runs along the north and northeast boundary of the Project site which includes a meandering path along the south side of Sheehy Creek.

REGULATORY REQUIREMENT

California Endangered Species Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in "take" of plants or animals listed or candidate species under CESA either during construction or over the life of the Project. **The Project has the potential to impact Swainson's hawk (*Buteo swainsoni*), CESA listed as threatened species. Thank you for including mitigation measures for Swainson's hawk. Please be advised that the California Natural Diversity Database (CNDDB) documents a nesting Swainson's hawk record in year 2021 approximately 300 feet north of the Project site. Swainson's hawks often utilize the same nests sites from year to year, therefore there is a high potential for nesting Swainson's hawk to be impacted by the Project during nesting season, warranting an ITP. The Project also has the potential to impact burrowing owl (*Athene cunicularia*), a CESA candidate species, as further described below.** Issuance of an ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain an ITP.

4

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub.

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Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, & 15065.). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA. 4 CONT

Raptors and Other Nesting Birds

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act. 5

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those CDFW recommends below and included in **Attachment 1** Draft Mitigation Monitoring and Reporting Program, CDFW concludes that an MND is appropriate for the Project. 6

I. Mitigation Measure and Related Impact Shortcoming

MANDATORY FINDING OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

COMMENT 1: Burrowing Owl

Issue: Thank you for including in the IS/MND mitigation measures for burrowing owl (BUOW). However, the language in the IS/MND and the Biological Resources Analysis does not reflect the recent status change of BUOW to a CESA candidate species, and Mitigation Measure (MM) BIO-6 does not stipulate whether the Project would obtain a CESA ITP if take of BUOW may occur. Take of CESA candidate species is prohibited without a CESA take authorization from CDFW, typically an ITP. CNDDB documents a wintering BUOW record approximately 1,100 feet northeast of the Project site, within the area of potential Project disturbance. 7

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Recommended mitigation measure: To reduce potential impacts to BUOW to less-than-significant and comply with CESA, CDFW recommends adding the following requirements to MM BIO-6.

> Mitigation Measure BIO-6 (Burrowing Owl Habitat Assessment and Surveys): If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

7 CONT

II. Editorial Comment

COMMENT 2: California Endangered Species Act Incidental Take Permit

Issue: The IS/MND Page 2, Section 10 states: "The proposed project does not involve the "take" of listed endangered or threatened species, and thus does not require a "take permit" from the Department of Fish and Wildlife…" As discussed above, the Project has the potential to result in take of BUOW and Swainson's hawk. Furthermore, the IS/MND MM BIO-4 states: "If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence. Therefore, the Project may require a "take permit" (i.e., ITP) from CDFW.

8

Recommendation: CDFW recommends revising the above language on IS/MND Page 2, Section 10 to: "The proposed project has the potential to result in "take" of listed endangered or threatened species, or candidate species for listing, and thus may require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

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ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNDDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals

9

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

10

CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist the County in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Nicholas Magnuson, Environmental Scientist, at (707) 815-4166 or Nicholas.Magnuson@wildlife.ca.gov, or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or Melanie.Day@wildlife.ca.gov.

11

Sincerely,

DocuSigned by:
Erin Chappell
B77E9A6211EF486...

Erin Chappell
Regional Manager
Bay Delta Region

Attachment 1: Draft Mitigation Monitoring and Reporting Program

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024100855)
Sean Kennings, LAK Associates, LLC - Sean@lakassociates.com

Docusign Envelope ID: 7CBA9409-1745-4F3A-BEF7-243EC7B98880

ATTACHMENT

Draft Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)			
Mitigation Measure (MM)	**Description**	**Timing**	**Responsible Party**
MM BIO-6	***ADD THE BELOW LANGUAGE TO THE EXISTING MM BIO-6.*** Burrowing Owl Habitat Assessment and Surveys: If take of BUOW cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur, and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.	Prior to Ground Disturbance and During Project Construction	Project Applicant
Editorial Comment	CDFW recommends revising the language on IS/MND Page 2, Section 10 to: “The proposed project has the potential to result in “take” of listed endangered or threatened species, or candidate species for listing, and thus may require a “take permit” from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.	Prior to Finalizing IS/MND	Lead Agency

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Attachment B:

Comment Letters–Organizations

November 14, 2024

Via Email and Overnight Mail
Brian D. Bordona, Director
County of Napa
Planning, Building, & Environmental Services Department
1195 Third Street, Suite 210
Napa, CA 94559
Email: Brian.bordona@countyofnapa.org

Via Email Only
Sean Trippi, Supervising Planner, Sean.trippi@countyofnapa.org

Re: Request to Extend the Public Review and Comment Period for the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855)

Dear Director Bordona and Mr. Trippi:

On behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents"), we respectfully request that the County of Napa ("County") extend the public review and comment period for the Initial Study/Mitigated Negative Declaration (collectively, "MND")[1] prepared pursuant to the California Environmental Quality Act ("CEQA")[2] for the E&P Technology Way - Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855) ("Project"), proposed by Michael Kelley ("Applicant"), **by at least thirty (30) days** due to the County's failure to provide timely access to the supporting documents for the MND. 1

The Project proposes to construct two separate buildings on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed

[1] Napa County, *Initial Study/Mitigated Negative Declaration for E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* (October 2024), available at: https://ceqanet.opr.ca.gov/2024100855 (hereinafter "MND").
[2] Pub. Res. Code § 21000 *et seq.*; 14 C.C.R. §§ 15000, *et seq*.

on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031, -032), which will be combined.[3] Building A is a 143,312 square foot ("SF") refrigerated wine production facility with an annual production capacity of 450,000 gallons.[4] Building B is a proposed 66,915 SF building for warehouse uses.[5]

1 CONT

On November 7, 2024, we submitted a letter to the County pursuant to CEQA requesting "***immediate access*** to any and all documents referenced or relied upon" in the MND ("MND reference document request").[6] CEQA requires that "all documents referenced in the draft environmental impact report or negative declaration" be available for review and "readily accessible" during the entire comment period.[7] On November 7, 2024, we also submitted a letter to the County pursuant to the California Public Records Act (Government Code §§ 7920.000, *et seq*.) ("PRA") as well as Article I, section 3(b) of the California Constitution[8] to request "*immediate access*[9] to any and all public records in the County's possession referring or related" to the Project ("PRA request").[10] The requests were sent separately to avoid confusion as to what documents and records were sought.

2

The County's NextRequest system sent an autoreply to acknowledge receipt of the PRA request on November 7, 2024 and sent an autoreply to acknowledge

[3] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* at p. 2 (November 8, 2024).
[4] MND at p. 1.
[5] *Id.* at p. 2.
[6] Letter to Request Immediate Access to Documents Referenced in the MND from Jeanne Grube, Adams Broadwell Joseph & Cardozo ("ABJC"), to Brian D. Bordona, Director of County of Napa Planning, Building, and Environmental Services Department, Neha Hoskins, Clerk of the Board of Supervisors, and Sean Trippi, Supervising Planner, (November 7, 2024) ("Exhibit A").
[7] Pub. Res. Code § 21092(b)(1) (stating that "all documents referenced in the draft environmental impact report or negative declaration" shall be made "available for review"); *see also* 14 C.C.R. § 15072(g)(4) (stating that all documents incorporated by reference in the MND . . . "shall be readily accessible to the public").
[8] Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.
[9] Gov't Code § 7922.525(a).
[10] Letter to Request Immediate Access to Public Records from Jeanne Grube, ABJC, to Brian D. Bordona, Director of County of Napa Planning, Building, and Environmental Services Department, Neha Hoskins, Clerk of the Board of Supervisors, and Sean Trippi, Supervising Planner, (November 7, 2024) ("Exhibit B").

receipt of the MND reference document request on November 8.[11] On November 13, 2024, our office contacted the County via email to ask when records would be provided to each request.[12] The County responded that same day that a response would be provided on November 18, which is the day before the MND comment period deadline.[13] No responsive records have been produced by the County to either request as of the date of this letter.

2
CONT

During our review of the MND, we identified that the "First Carbon Solutions, Phase 1 Cultural Resources Assessment, dated January 20, 2023" ("Assessment") is referenced and relied upon in the MND, but has not been provided in response to our MND reference document request. This missing Assessment is critical to understanding the MND's analysis of the Project's significant impacts on cultural resources and proposed mitigation measure (CULT-1). The MND references several recommendations made by First Carbon Solutions in the Assessment to lessen the significant impacts on cultural resources and also refers to Appendix E of the Assessment, which purportedly contains the "Cultural Resources Regulations and Evaluation Criteria."[14] Yet none of this information and analysis has been provided for public review and comment during the comment period on the MND.

3

Without access to this assessment and its appendices during the public comment period on the MND, Napa-Solano Residents and other members of the public are deprived of having a meaningful opportunity to comment on the MND. The County's failure to make the underlying MND documents available during the entire comment period precludes Napa-Solano Residents and other members of the public from evaluating the accuracy of the County's impact analysis and the adequacy of the proposed mitigation. By failing to make all documents referenced in the MND "readily available" during the current comment period, the County is violating the clear procedural mandates of CEQA, to the detriment of Napa-Solano Residents and other members of the public who wish to meaningfully review and comment on the MND.

Accordingly, we request that:

4

[11] Message from NextRequest to Jeanne Grube, ABJC re Request No. 24-924 (November 7, 2024); Message from NextRequest to Jeanne Grube, ABJC re Request No. 24-926 (November 8, 2024).
[12] Email from Jeanne Grube, ABJC, to Sean Trippi, Supervising Planner (November 13, 2024).
[13] Email from Marie E Willis, Senior Office Assistant, Planning, Building, & Environmental Services, to Jeanne Grube, ABJC (November 13, 2024).
[14] MND at p. 14.

1) the County immediately provide us with access to the missing document identified above and all documents referenced or relied upon in the MND, as requested in our November 7, 2024 MND reference document request; and

2) the County extend the public review and comment period on the MND for at least thirty (30) days from the date on which the County releases these documents for public review. 4 CONT

Given the short time before the current comment deadline, please contact me as soon as possible with your response to this request, but no later than tomorrow, November 15, 2024.

Please feel free to email with any questions at trengifo@adamsbroadwell.com. Thank you for your prompt attention and response to this matter.

Sincerely,

Tara C. Rengifo

Tara C. Rengifo

Attachments
TCR:acp

EXHIBIT A

November 7, 2024

Via Email and U.S. Mail

Brian D. Bordona
Director
County of Napa Planning, Building, and Environmental Services Department
1195 Third Street
Suite 210
Napa, CA 94559
Email: Brian.bordona@countyofnapa.org

Neha Hoskins
Clerk of the Board of Supervisors
County of Napa
1195 Third Street, Suite 310
Napa, CA 94559
Email:
clerkoftheboard@countyofnapa.org
Neha.hoskins@countyofnapa.org

Via Email Only

Sean Trippi, Supervising Planner
County of Napa
Sean.trippi@countyofnapa.org

Re: Request for *Immediate Access* to Documents Referenced or Relied Upon in the Mitigated Negative Declaration (MND) (SCH: 2024100855) for the E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308)

Dear Mr. Bordona, Ms, Hoskins, and Mr. Trippi:

We are writing on behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents") to request *immediate access to* a copy of any and all documents referenced or relied upon in the Mitigated Negative Declaration ("MND") (SCH:2024100855) for the E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308) Project ("Project"), proposed by Michael Kelley ("Applicant"). This excludes documents available on the County website here: https://www.pbes.cloud/index.php/s/ptc3SDW98WWmLnZ? (Building A) or https://www.pbes.cloud/index.php/s/4DJdazPtwt7P6wN (Building B). 5

The project proposes construction of a wine production facility (Building A) in a 143,312 SF-building with the necessary equipment for annual production of 450,000 gallons of wine. Building B proposes construction of an accompanying warehouse of 66,915 SF.

The project site is in the Napa Valley Business Park on the North side of Technology Way and Morris Court (APN 057-250-030 – Building A, and APN 057-250-031, -031 Building B).

Our request for all documents referenced or relied upon in the MND is made pursuant to the California Environmental Quality Act (CEQA"), which requires that all documents referenced, and incorporated by reference, in an environmental review document be made available to the public for the entire comment period.[1] 5 CONT

If the requested documents are in electronic format, please send them via a file hosting service such as Dropbox. If the electronic documents are 10 MB or less (or can be easily broken into chunks of 10 MB or less), please email them to jgrube@adamsbroadwell.com as attachments. Otherwise, please send the above requested items by U.S. Mail to our Sacramento Office as follows:

U.S. Mail
Jeanne K. Grube
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95814

Email
jgrube@adamsbroadwell.com

Sincerely,



Jeanne K. Grube
Paralegal

JKG:acp

[1] *See* Pub. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Reg. § 15072(g)(4) (stating that all documents incorporated by reference in the MND . . . "shall be readily accessible to the public"); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007).

EXHIBIT B

November 7, 2024

Via Email and U.S. Mail

Brian D. Bordona
Director
County of Napa Planning, Building, and Environmental Services Department
1195 Third Street
Suite 210
Napa, CA 94559
Email: Brian.bordona@countyofnapa.org

Neha Hoskins
Clerk of the Board of Supervisors
County of Napa
1195 Third Street, Suite 310
Napa, CA 94559
Email:
clerkoftheboard@countyofnapa.org
Neha.hoskins@countyofnapa.org

Via Email Only

Sean Trippi, Supervising Planner
County of Napa
Sean.trippi@countyofnapa.org

Via Online Portal

https://countyofnapa.nextrequest.com/

Re: Request for *Immediate Access* to Public Records - E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855), proposed by Michael Kelley

Dear Mr. Bordona, Ms, Hoskings, and Mr. Trippi:

We are writing on behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents") to request ***immediate access*** *to* any and all public records in the County of Napa's possession referring or related to the E&P Technology Way Building A and B (Use Permits #P22-00307 and #P22-00308) Project ("Project") proposed by Michael Kelley ("Applicant"). This request includes, but is not limited to, any and all file materials, applications, correspondence, resolutions, memos, notes, analysis, email messages, files, maps, charts, and any other documents related to the Project. This request excludes documents available on the County website here: 6

https://www.pbes.cloud/index.php/s/ptc3SDW98WWmLnZ? (Building A) or https://www.pbes.cloud/index.php/s/4DJdazPtwt7P6wN (Building B).

The project proposes construction of a wine production facility (Building A) in a 143,312 SF-building with the necessary equipment for annual production of 450,000 gallons of wine. Building B proposes construction of an accompanying warehouse of 66,915 SF.

The project site is in the Napa Valley Business Park on the North side of Technology Way and Morris Court (APN 057-250-030 – Building A, and APN 057-250-031, -031 Building B).

Napa-Solano Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the environmental and public health impacts associated with Project development. Napa-Solano Residents includes the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, District Council of Ironworkers and their members and families; and other individuals that live and/or work in Napa County.

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CONT

This request is made pursuant to the **California Public Records Act** (Government Code §§ 7920.000, *et seq*.). This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a Constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

We request *immediate access* to review the above documents pursuant to section 7922.525 of the Public Records Act, which requires public records to be "open to inspection at all times during the office hours of a state or local agency" and provides that "every person has a right to inspect any public record."[1] Therefore, the 10-day response period applicable to a "request for a copy of records" under Section 7922.535(a) does not apply to this request.

[1] Gov. Code §7922.525(a).

We request access to the above records in their original form, as maintained by the agency.[2] Pursuant to Government Code Section 7922.570, if the requested documents are in electronic format, please upload them to a file hosting program such as Dropbox, NextRequest or a similar program. Alternatively, if the electronic documents are 10 MB or less (or can be easily broken into sections of 10 MB or less), they may be emailed to me as attachments.

We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (916) 444-6201 with a cost estimate before copying/scanning the materials.

Please use the following contact information for all correspondence:

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If you have any questions, please call me at (916) 444-6201 or email me at jgrube@adamsbroadwell.com. Thank you for your assistance with this matter.

Sincerely,



Jeanne K. Grube
Paralegal

JKG:acp

[2] Gov. Code § 7922.570; *Sierra Club v. Super. Ct.* (2013) 57 Cal. 4th 157, 161-62.

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November 19, 2024

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Re: Agenda Item #7: Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855)

Dear Chair Dave Whitmer, Vice Chair Heather Phillips, Commissioner Kara Brunzell, Commissioner Andrew Mazotti, Commissioner Megan Dameron, Director Bordona, Mr. Trippi, and Mr. Kennings:

On behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents"), we submit these comments on the Initial Study/Mitigated Negative Declaration (collectively, "MND")[1] prepared pursuant to the California Environmental Quality Act ("CEQA")[2] by Napa County ("County") for the E&P Technology Way - Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855) ("Project"), proposed by Michael Kelley ("Applicant"). 1

[1] Napa County, *Initial Study/Mitigated Negative Declaration for E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* (October 2024), available at: https://ceqanet.opr.ca.gov/2024100855 (hereinafter "MND").
[2] Pub. Resources Code § 21000 *et seq.*; 14 C.C.R. §§ 15000, *et seq*.
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The Project proposes to construct two separate buildings on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031 and -032, which will be combined).[3] Both sites are located in the Napa Valley Business Park Specific Plan ("NVBPSP") area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.[4]

Building A is a 143,312 square foot ("SF") refrigerated wine production facility with an annual production capacity of 450,000 gallons.[5] The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space.[6] An additional 13,000 SF of covered outdoor work area is also proposed for the north side of the building.[7] During non-harvest season, the facility will have 16 full-time and 7 part-time employees, which will increase during harvest to approximately 35 total employees.[8] Building A will have 129 parking spaces and eight (8) spaces for semi-trailers.[9]

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Building B is a proposed 66,915 SF building for warehouse uses that the MND claims will be "consistent with allowable warehouse uses as outlined in Industrial Park zoning district (18.40.020) and the [NVBPSP]."[10] Building B will be utilized primarily for warehousing/distribution as well as office space.[11] The facility will be run by up to 30 employees but no user has been identified.[12] There will be no retail sales and no access for the general public.[13]

The Building A and Building B projects will be provided with water service from the City of American Canyon.[14] Napa Sanitation District will provide sewer.[15]

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[3] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* at p. 2 (November 8, 2024).
[4] *Ibid.*
[5] MND at p. 1.
[6] *Ibid.*
[7] *Ibid.*
[8] *Ibid.*
[9] *Ibid.*
[10] *Id.* at p. 2.
[11] *Ibid.*
[12] *Ibid.*
[13] *Ibid.*
[14] *Ibid.*
[15] *Ibid.*
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We reviewed the MND and its technical appendices with the assistance of Napa-Solano Residents' expert consultants, including air quality, public health, and greenhouse gas ("GHG") emissions expert James Clark, biological resources expert Dr. Shawn Smallwood, and transportation expert Daniel Smith. Mr. Clark's technical comments and curriculum vitae are attached hereto as Exhibit A.[16] Dr. Smallwood's technical comments and curriculum vitae are attached hereto as Exhibit B.[17] Mr. Smith's technical comments and curriculum vitae are attached hereto as Exhibit C.[18] These comment letters and all attachments thereto are incorporated by reference as if fully set forth herein.[19]

Based on our review of the MND, the MND fails as an informational document under CEQA and lacks substantial evidence to support its conclusions that the Project's significant impacts would be mitigated to less than significant levels, as asserted in the MND. The MND lacks an adequate project description and fails to adequately characterize the Project site's environmental setting. There is also substantial evidence to support a fair argument that the Project would have potentially significant environmental impacts on air quality, greenhouse gas ("GHG") emissions, biological resources, transportation, and agricultural lands. Napa-Solano Residents and their expert consultants have identified potentially significant impacts that the MND either mischaracterizes, underestimates, or fails to identify. Moreover, the mitigation measures described in the MND will not, in fact, reduce impacts to less-than-significant levels. 2

For the foregoing reasons and as explained in detail herein, the County must prepare an Environmental Impact Report ("EIR") for the Project before the County may consider Project approval.

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[16] Exhibit A, James Clark, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Clark Comments").
[17] Exhibit B, Dr. Smallwood, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smallwood Comments").
[18] Exhibit C, Daniel Smith, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smith Comments").
[19] Napa-Solano Residents reserves the right to supplement these comments, and to file further comments at any and all future proceedings and hearings related to the Project. Gov. Code § 65009(b); Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; *see also Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.
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I. STATEMENT OF INTEREST

Napa-Solano Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential environmental impacts associated with Project development. Napa-Solano Residents includes members of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, the District Council of Ironworkers, and their members and their families, and other individuals that live and/or work in Napa County.

Napa-Solano Residents supports the development of sustainable residential, commercial, and industrial centers where properly analyzed and carefully planned to minimize impacts on public health and the environment. Developments like the Project should avoid adverse impacts to air quality, biological resources, transportation, and public health, and should take all feasible steps to ensure unavoidable impacts are mitigated to the maximum extent feasible. Only by maintaining the highest standards can development truly be sustainable.

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The individual members of Napa-Solano Residents and the members of the affiliated labor organizations live, work, recreate and raise their families in and around Napa County. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work constructing the Project itself. They would be the first in line to be exposed to any health and safety hazards which may be present on the Project site. They each have a personal interest in protecting the Project area from unnecessary, adverse environmental and public health impacts.

Napa-Solano Residents and its members also have an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for the members they represent. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand in Napa County, and by making it less desirable for businesses to locate and people to live and recreate in the County, including the Project vicinity. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduces future employment opportunities.

Finally, Napa-Solano Residents is concerned with projects that can result in serious environmental harm without providing countervailing economic benefits. CEQA provides a balancing process whereby economic benefits, including the provision of jobs for highly trained workers, are weighed against significant impacts to the environment.[20] It is in this spirit we offer these comments. 3 CONT

II. LEGAL BACKGROUND

CEQA requires that lead agencies analyze a project with potentially significant environmental impacts in an EIR.[21] The purpose of the EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment, but also informed self-government.'"[22] The EIR has been described "as an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[23]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances. CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[24] 4

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

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[20] Pub. Res. Code § 21081 (a)(3); *Citizens for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 171.
[21] *See* Pub. Res. Code § 21000; 14 C.C.R. § 15002.
[22] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 [internal citations omitted].
[23] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[24] Pub. Res. Code §§ 21080(d); 21082.2(d); 14 C.C.R. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
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> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review ***would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur***, and (2) there is ***no substantial evidence*** in light of the whole record before the public agency that the project, as revised, ***may*** have a significant effect on the environment.[25]

Courts have held that "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[26] The fair argument standard creates a "'low threshold'" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[27] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[28] 4 CONT

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[29]

According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (g):

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement

[25] Pub. Res. Code § 21064.5 (emphasis added).
[26] *See, e.g., Communities for a Better Environment. v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[27] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754 [internal citations omitted].
[28] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318; *see also Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[29] 14 C.C.R. § 15384(a).
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among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.[30]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts during construction and operation, and fails to provide substantial evidence to support its conclusions that impacts will be mitigated to a less than significant level.[31] Because substantial evidence shows that the Project may result in potentially significant impacts, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR. 4 CONT

III. THE MND FAILS TO PROVIDE A COMPLETE PROJECT DESCRIPTION

CEQA requires that an Initial Study include a description of the project.[32] "An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action… Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal … and weigh other alternatives in the balance."[33] Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining meaningful public review.[34] 5

The MND relies on an inadequate Project Description because it omits critical details about the Project's construction timeline and activities, the frequency and number of clients that will visit Building A during operations, and the construction and operation of new recycled water facilities. As a result of these deficiencies, the Project Description in the MND misleads the public by failing to describe the full scope of the Project and its impacts.

[30] *Id.* at § 15064(g).
[31] Pub. Res. Code § 21064.5.
[32] 14 C.C.R. § 15063(d)(1).
[33] *County of Inyo,* 71 Cal.App.3d at 192-193.
[34] *See, e.g., Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.
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First, the MND's Project Description fails to provide information regarding the Project's construction timeline or identify the activities during construction. The Project Description must disclose the timeline for construction, the construction activities that will occur and equipment to be utilized during each construction phase, the start date for construction, and if construction will occur simultaneously for both buildings. The failure to provide this information in the Project Description affects the impacts analysis related to air quality, public health, GHG emissions, and biological resources, among others. 6

Construction activities require soil disturbing activities, heavy equipment, and numerous hauling truck trips that can significantly impact air quality and public health. An adequate description of the Project's construction period is critical to an informed analysis of the Project's impacts on air quality and public health during construction. Omitting this information in the Project Description also precludes any evaluation of construction-related air quality and GHG emissions. The lack of information concerning the Project's construction phase also severely affects the MND's biological resources impacts analysis. When and where construction activities may occur can directly impact the Project's effects on biological resources such as migratory birds. The County's own evidence acknowledges that avian species have the potential to nest on the Project site, yet the MND lacks any analysis about whether ground-disturbing activities could commence during the nesting season (February 1 through August 31).[35] 7

Second, the Project Description fails to provide details about the expected visitors to Building A during Project operations. The MND explains that clients will travel onsite to meet with distributors, restaurants, wine shop owners, and other wine buyers but no other information is provided about these visits.[36] Daniel Smith, Napa-Solano Residents' transportation expert, comments that details about the frequency of these visitor meetings and the estimated number of visitors must be disclosed in the Project Description to allow for an adequate analysis of the Project's VMT impacts.[37] The VMT analysis for the Project only evaluates full time and part time employees, even though the Napa County Winery Trip Generation Worksheet relied upon in the trip generation analysis has a line item for "maximum daily 8

[35] First Carbon Solutions, *Biological Resources Analysis* at p. 34 (January 30, 2024; updated February 21, 2024).
[36] MND at 2.
[37] Smith Comments at p. 2.
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visitation."[38] The MND confirms visitor trips will occur as part of the Project yet improperly omits these trips from the VMT analysis.[39] Mr. Smith concludes that the Project Description as well as the transportation impact analysis is deficient in omitting this information. 8 CONT

Finally, since the Project site is within NapaSan's recycled water service area, the Project is required to install new facilities to utilize recycled water for landscape irrigation.[40] Yet the Project Description omits any discussion about the construction and operation of these new recycled water facilities, which are required for the Project.[41] As of 2023, the Project had requested service for approximately 3.2 acres of landscaping with a recycled water demand of approximately 5.4 acre-feet per year.[42] To be serviced by the existing NapaSan recycled water service area, the Project may need to construct new pipelines, install service connections, add metering devices, install on-site storage tanks, and retrofit the irrigation system to handle recycled water. The construction and operation of these Project components must be evaluated in the MND as part of the whole of the action. Construction of these facilities may worsen the impacts on air quality, noise, biological resources, and transportation. During operations, pumps or other parts of the facilities may require electricity, thereby increasing energy impacts. Thus, information regarding the facilities that must be installed for the Project to use recycled water from NapaSan for landscape irrigation must be disclosed in the Project Description and analyzed to determine the significance of environmental impacts. 9

A complete Project Description is necessary to ensure informed decision making and meaningful public review.[43] Approving a project without having identified and mitigated all of the project's significant environmental effects violates CEQA's requirements. An EIR must be prepared which fully discloses all components of the Project.

[38] W-Trans, *Transportation Impact Study* at Appendix C (November 21, 2023); Smith Comments at p. 2.
[39] *Ibid.*
[40] Letter to the Napa County Planning, Building & Environmental Services from Gavin Glascott, Assistant Civil Engineer at NapaSan at p. 2 (February 1, 2023).
[41] *Ibid.*
[42] *Ibid.*
[43] *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 26.
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IV. THE MND FAILS TO ADEQUATELY DESCRIBE THE ENVIRONMENTAL SETTING FOR BIOLOGICAL RESOURCES

The MND fails to adequately describe the environmental setting against which the Project's impacts on biological resources are to be measured. This contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. [44] CEQA requires that a lead agency include a description of the physical environmental conditions, or "baseline," in the vicinity of the project as they exist at the time environmental review commences.[45] As the courts have repeatedly held, the impacts of a project must be measured against the "real conditions on the ground."[46] The description of the environmental setting constitutes the "baseline" physical conditions against which the lead agency assesses the significance of a project's impacts.[47] An environmental setting is required "to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.[48] 10

To establish the Project's baseline for biological resources, a Biological Resources Analysis was prepared earlier this year that reviewed the California Natural Diversity Database ("CNDDB") polygons that overlap with the Project site and relied on a wildlife and botanical survey performed on December 8, 2022—nearly two years ago.[49] Based on the Biological Resource Analysis, the MND describes the Project site as having been impacted by disking and a lack of vegetation.[50] 11

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[44] 14 C.C.R. § 15063(d).
[45] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal. 4th 310, 321.
[46] *Id.*; Save *Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the-Sea v. Bd. of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229, 246.
[47] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist.*, 48 Cal. 4th at 321.
[48] 14 C.C.R. § 15125(a).
[49] MND at p. 10.
[50] *Ibid.* Notably, the NVBPSP describes the area as containing grassland that provide "principal habitat" for several birds and mammals as well as hunting and feeding ground for other wildlife. Napa County, *Napa Valley Business Park Specific Plan & EIR* at pp. 249-250 (Adopted July 29, 1986; amended thru October 22, 2013).
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Dr. Smallwood recognizes that the characterization of the environmental setting, including the regional setting, is essential for proper CEQA analysis. These steps typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases, and local experts for documented occurrences of special-status species.[51] With regards to the Project's biological resources survey, Dr. Smallwood's comments provide substantial evidence that the survey is inadequate to establish the environmental setting for several reasons.[52] For example, Dr. Smallwood comments that the duration of the December 2022 biological resources survey is unknown, the proper California Department of Fish and Wildlife ("CDFW") guidelines were not implemented for rare plants, and surveys were not performed for bats and reptiles.[53] 12

Dr. Smallwood's comments also identify several issues with the Project's desktop review.[54] By way of example, the Biological Resources Analysis relied upon the CNDDB to identify documented occurrences of special-status species, but as Dr. Smallwood comments, the desktop review did not also involve a search of eBird or iNaturalist.[55] A more complete database review would have shown that some of the species omitted from consideration in the Biological Resources Analysis have actually been recorded on the Project site, according to Dr. Smallwood.[56] Moreover, of the 31 species identified in the MND as having a very low occurrence potential, Dr. Smallwood emphasizes that three of those species have been documented on the Project site and of the 13 species determined to have no potential to occur on the site, one of those species was documented on the site.[57] 13

Furthermore, based on his own survey efforts in the area and database reviews, Dr. Smallwood determines that there are around 125 special-status species known to occur within sufficient proximity to the Project site.[58] Of those 125 special-status species, Dr. Smallwood states that 8 species were recorded on or adjacent to the Project site, 46 species were documented within 1.5 miles of the site, 25 species were within 1.5-4 miles of the site, and 41 were identified within 4-30 miles of the 14

[51] Smallwood Comments at p. 1.
[52] *Id.* at pp. 2, 11.
[53] *Id.* at p. 11.
[54] *Id.* at pp. 11-23.
[55] *Id.* at p. 11.
[56] *Id.* at p. 12.
[57] *Ibid.*
[58] *Id.* at p. 12.
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site.[59] While the Project's survey effort only resulted in the detection of 13 taxa of vertebrate wildlife, Dr. Smallwood has detected 69 species of vertebrate wildlife—of which 13 species were special-status species—during visual-scan surveys at three locations within 700 m of the Project site.[60] Dr. Smallwood has also surveyed for biological resources at three locations around 2.7 miles south/southeast of the Project site where he, along with the other consulting firms, detected 44 species of vertebrate wildlife.[61] 14 CONT

For the foregoing reasons, Dr. Smallwood concludes that the MND and Biological Resources Analysis fail to accurately describe the Project's environmental setting for biological resources.[62] Dr. Smallwood's own desktop review and survey efforts demonstrate that the Project site supports multiple special-status species of wildlife that are not disclosed and analyzed in the MND.[63] These errors and omissions in the baseline for biological resources prevents the County from adequately assessing impacts to the existing environment at the Project site. The environmental setting and impacts analysis must be adequately disclosed and analyzed in an EIR. 15

V. AN EIR IS REQUIRED BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY HAVE SIGNIFICANT IMPACTS

An MND is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact.[64] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[65] An effect on the environment need not be "momentous" to meet the 16

[59] *Ibid.*
[60] *Id.* at p. 2.
[61] *Ibid.*
[62] *Id.* at p. 12.
[63] *Ibid.*
[64] Pub. Res. Code § 21151; 14 C.C.R. § 15064(f)(1); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319.
[65] Pub. Res. Code § 21068; 14 C.C.R. § 15382.
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CEQA test for significance; it is enough that the impacts are "not trivial."[66] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or **expert opinion** supported by fact."[67]

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.[68] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an MND or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[69] Even when the substantial evidence standard is applicable to agency decisions to certify an MND and approve a project, reviewing courts will not "'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'"[70]

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A. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Air Quality are Potentially Significant

The MND lacks substantial evidence to support its conclusion that the Project would result in less-than-significant impacts on air quality.[71] The MND does not include any modeling of the Project's emissions during construction or operations as is typically done in CEQA documents to evaluate a project's air quality impacts; however, James Clark performed detailed emissions calculations using CalEEMod.[72] Based on his modeling, Mr. Clark identifies a potentially significant air quality impact during the construction phase of the Project.[73] Mr. Clark finds that the Project's emissions of reactive organic gases ("ROGs") during the architectural coating phase in summer months would exceed the Bay Area Air Quality Management District's ("BAAQMD") significance threshold unless

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[66] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[67] Pub. Res. Code § 21080(e)(1) (emphasis added).
[68] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.
[69] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[70] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1355 [internal citations omitted].
[71] MND at pp. 5-8.
[72] Clark Comments at p. 5.
[73] *Ibid.*
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mitigation is imposed.[74] Mr. Clark recommends imposing a mitigation measure that requires the use of architectural coating products that have Volatile Organic Compound ("VOC") contents of less than 50 grams per liter to reduce the ROG emissions to 49.9 lbs. per day, which is under the BAAQMD threshold of significance.[75]

17 CONT

Notably, Mr. Clark's emission calculations do not include all of the Project' construction emissions due to missing details about the grading activities for the construction of the Project's bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements.[76] The Project's air quality impacts may be more severe and require additional mitigation measures upon a complete analysis of all of the Project's emissions.

B. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Greenhouse Gas Emissions are Potentially Significant

The MND lacks substantial evidence to support its conclusion that the Project would not have a significant impact on GHG emissions based on a qualitative analysis of the Project's GHG emissions.[77] To support the less-than-significant determination, the MND relies on the Project's adherence to BAAQMD design standards, the California Building Code requirements, and the County's conditions of approval.[78] More specifically, the Planning Commission Staff Report for the Project explains that "[t]he applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize

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[74] *Ibid.*
[75] *Ibid.*
[76] *Ibid.*
[77] MND at pp. 17-18.
[78] *Id.* at p. 18.
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daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application."[79]

18 CONT

Mr. Clark reviewed the applications for Building A and Building B and found that minimal Voluntary Best Management Practices Measures had been selected by the Applicant.[80] These measures are limited to energy conserving lighting, installation of water efficient fixtures, water efficient landscape, planting of shade trees within 40 feet of the south side of the building elevation, and electric vehicle ("EV") charging, specifically, dedicated parking provided for future EV charging stations.[81] Only this limited set of measures will actually be implemented by the Applicant to reduce the Project's GHG emissions, and only these measures will be included as conditions of approval for the Project.[82] According to Mr. Clark, and contrary to statements in the Staff Report, "the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions."[83] There is no evidence that such measures will be required for Project operations.

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Mr. Clark therefore concludes that "[t]o the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR."[84]

[79] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 8 (November 20, 2024).
[80] Clark Comments at p. 3.
[81] *Ibid.*
[82] *Ibid.*
[83] *Id.* at pp. 3-4.
[84] *Ibid.*
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C. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Biological Resources are Potentially Significant

The MND lacks substantial evidence to support its conclusion that with the adoption of mitigation measures, the Project would not result in impacts on biological resources.[85] The Biological Resources Analysis acknowledges that the Project would result in the loss of non-native grassland, and ruderal habitats, but fails to adequately assess the potentially significant impacts from this habitat loss, as supported by Dr. Smallwood's comments.[86] Dr. Smallwood explains that habitat loss can cause "the immediate numerical decline of wildlife."[87] Through his own study, Dr. Smallwood has measured and quantified the impacts of habitat loss from development projects on wildlife and found that development—even with mitigation measures—results in a 66% loss of species on the site and a 48% loss of species in the project area.[88] 20

Dr. Smallwood also comments that habitat loss can "result[] in the permanent loss of productive capacity."[89] He explains that "[h]abitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small [internal citations omitted]."[90] Dr. Smallwood estimates that the annual loss of birds from the Project could be over 1,000 birds, many of which are otherwise protected by the state and federal Migratory Bird Treaty Acts.[91] Dr. Smallwood therefore concludes that the Project may result in a significant impact on biological resources.[92] 21

Dr. Smallwood also comments that Project-generated traffic may significantly impact biological resources on and even beyond the Project footprint including, but not limited to, California tiger salamander, California red-legged frog, and American badger.[93] "Vehicle collisions have accounted for the deaths of many 22

[85] MND at pp. 9-11.
[86] Smallwood Comments at p. 23.
[87] *Id.* at p. 24.
[88] *Id.* at pp. 23-24.
[89] *Id.* at p. 24.
[90] *Ibid.*
[91] *Id.* at p. 25.
[92] *Ibid.*
[93] *Ibid.*
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thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level [internal citations omitted]."[94] A study of traffic-caused wildlife mortality in Contra Costa County, California found 1,275 carcasses of 49 species of mammals, birds, amphibians, and reptiles over a 15 month period.[95] Based on Dr. Smallwood's estimates of traffic-related mortality from this Project, and the lack of any mitigation measures to reduce these impacts, Dr. Smallwood concludes that Project-generated traffic may cause significant impacts to biological resources that are not disclosed, analyzed, or mitigated in the MND.[96]

22 CONT

Dr. Smallwood also provides comments on several of the proposed mitigation measures for the Project's significant impacts on biological resources.[97] First, MM BIO-1 requires the installation of silt fencing along the conservation easement boundary to the riparian corridor.[98] Dr. Smallwood recommends that the silt fence be installed 300 feet from the southern edge of the top of bank of Sheehy Creek to lessen significant impacts to terrestrial wildlife along the riparian corridor.[99] His recommendation is based on a study which found that from the edge of an aquatic site, core terrestrial habitat can span from 159 to 209 m for amphibians and from 127 to 289 m for reptiles.[100]

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Second, for MM BIO-2 requiring a preconstruction survey for rare plants, Dr. Smallwood explains that the cited CDFW rare plant survey guidelines are for a reconnaissance survey that should be utilized to support preparation of the CEQA environmental review document and not a preconstruction survey for rare plants.[101]

24

Third, MM BIO-3 would require implementation of a preconstruction survey for nesting birds and if nests are identified, buffers must be established around the nests from construction activities.[102] Dr. Smallwood comments that the mitigation measure will not reduce the potentially significant impacts from habitat loss that he details in his comments to less-than-significant levels and that the measure

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[94] *Ibid.*
[95] *Id.* at p. 26.
[96] *Id.* at p. 27.
[97] *Id.* at pp. 27-28.
[98] MND at 11.
[99] Smallwood Comments at p. 27.
[100] *Ibid.*
[101] *Ibid.*
[102] MND at pp. 11-12.
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requires additional objective criteria to be effective, particularly regarding the determination of the buffer area size for any given species.[103] Without such objective criteria, the measure's efficacy is questionable and it cannot be enforced. 25 CONT

Fourth, MM BIO-6 concerns burrowing owls and Dr. Smallwood explains that given the recent designation of burrowing owl as candidate for Threatened or Endangered status under the California Endangered Species Act ("CESA"), no take of burrowing owls is allowed and "detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey."[104] 26

Finally, Dr. Smallwood identifies issues with the proposed mitigation measure to install exclusion fencing during the wet season in MM BIO-8.[105] He explains that unless a one-way passage is enabled, the proposed fencing could trap amphibians on the Project site. Additionally, Dr. Smallwood determines that MM BIO-8 "would not avoid substantial, highly significant impact[s] to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted."[106] 27

For the foregoing reasons, Dr. Smallwood's comments provide substantial evidence supporting a fair argument that the Project's impacts on biological resources may be significant and unmitigated. An EIR must be prepared to evaluate the Project's potentially significant impacts on biological resources and all feasible mitigation measures. 28

D. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Transportation are Potentially Significant

The MND fails to provide substantial evidence to support its conclusion that the Project would not result in significant transportation impacts after the implementation of MM TRANS-1.[107] 29

[103] Smallwood Comments at p. 28.
[104] *Ibid.*
[105] *Ibid.*
[106] *Ibid.*
[107] MND at pp. 25-28.
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First, Mr. Smith demonstrates that the MND improperly segments the Project's VMT impacts by separately analyzing impacts of Building A and Building B.[108] This piecemealing of the environmental review of the Project violates CEQA.[109] A project under CEQA means the "whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment."[110] CEQA prohibits segmenting the review of the significant environmental impacts of a project.[111] CEQA mandates "that 'environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.'"[112] Public agencies must construe the project broadly to capture the whole of the action and its environmental impacts.[113]

29
CONT

Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences.[114] "The CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish."[115]

Here, however, Mr. Smith explains that while the MND's air quality analysis is based on the Project's total weekday trip estimate of 218 trips, the transportation analysis piecemeals the daily trip estimates for Building A from Building B's trips and fails to consider the VMT impacts from the whole Project.[116] The MND utilizes the County's current Transportation Impact Study Guidelines' threshold of significance, which requires a project to prepare a Transportation Impact Study if it

[108] Smith Comments at pp. 1-2.
[109] *Ibid.*
[110] 14 C.C.R. § 15378(a).
[111] *Laurel Heights Improvement Assn.,* 47 Cal. 3d at 396; *See also* Pub. Res. Code § 21002.1(d).
[112] *Id.*; *See also City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452; *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165.
[113] 14 C.C.R. § 15378.
[114] *See Citizens Assn. for Sensible Development of Bishop Area,* 172 Cal. App. 3d at 165–168.
[115] *Natural Resources Defense Council v. City of Los Angeles* (2002) 103 Cal.App.4th 268; *See also Whitman v. Board of Supervisors* (1979) 88 Cal.App.3d 402 (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).
[116] Smith Comments at pp. 1-2; MND at p. 7-8, 26.
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generates 110 or more net new daily vehicle trips.[117] Building A is estimated to generate an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months.[118] Both estimates are under the threshold of significance.[119] Building B is anticipated to generate 114 trips per day, which exceeds the threshold and triggers the requirement for a Transportation Demand Management Plan as mitigation (MM TRANS-1).[120] Mr. Smith explains that the MND impermissibly segments the Project's VMT impacts by splitting up the Project rather than evaluating the total daily trips for both buildings, i.e., 218 trips.[121]

Mr. Smith concludes that the Project's 218 daily trips would exceed the threshold of significance.[122] Even with the mitigation for Building B, the MND estimates that the Project would result in a combined 202 VMT per day, which still exceeds the threshold of significance.[123] Therefore, the Project as a whole would cause a significant impact requiring mitigation measures to reduce these significant VMT impacts.[124] Given that there is a fair argument based on substantial evidence that the Project may have significant transportation impacts, an EIR must be prepared that fully evaluates these impacts as well as the necessary mitigation measures to lessen these impacts. 29 CONT

Second, Mr. Smith comments that the trip generation estimates for Building B are unsupported in the MND.[125] The MND estimates that Building B would require 44 parking spaces for the office uses and as stated in the Staff Report, there would be approximately 11,000 SF of office area in Building B.[126] Mr. Smith determines that Building B's office use "is not a small ancillary use to the warehouse," and would be over 16% of Building B's floor area.[127] As such, Mr. Smith states that the office uses in Building B must be analyzed based on the trip generation category for "Office" rather than "Warehouse."[128] Mr. Smith describes

[117] MND at p. 26.
[118] *Ibid.*
[119] *Ibid.*
[120] *Ibid.*
[121] Smith Comments at p. 2.
[122] *Ibid.*
[123] MND at p. 27.
[124] Smith Comments at p. 2.
[125] *Id.* at pp. 3-4.
[126] MND at p. 27; *see also* Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 13 (November 20, 2024).
[127] Smith Comments at p. 3.
[128] *Ibid.*
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the substantial disparity between trip generation rates for "Office" and trip generation rates for "Warehouse."[129] He estimates that Building B's office uses would generate around 6-8 times more traffic than the same square footage of warehouse.[130] Accordingly, Mr. Smith concludes that utilizing the correct trip generation categories for Building B's uses would result in potentially significant VMT impacts that are not disclosed or mitigated in the MND.[131]

29 CONT

Therefore, the MND fails to fully disclose, analyze, and mitigate the full scope of the Project's potentially significant impacts on transportation. The County must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the entire Project.

E. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Agricultural Resources are Potentially Significant

The MND fails to analyze the impacts from the conversion of farmland to non-agricultural use, as required by CEQA. The MND explains that "[a]ccording to Napa County GIS the property is categorized as Farmland of Local Importance. … Undeveloped lands within the boundary of the NVBPSP are designated as Farmland of Local Importance because they include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance except for irrigation."[132] Farmland of Local Importance is "land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production; but does not meet the criteria of Prime, Statewide or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county."[133]

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The MND nevertheless concludes that "[a]lthough the site, as well as other undeveloped land in the NVBPSP area, is classified as locally important, the site

[129] *Ibid.*
[130] *Ibid.*
[131] *Ibid.*
[132] MND at p. 5; *see also* California Department of Conservation, *California Important Farmland Finder*, available at: https://maps.conservation.ca.gov/DLRP/CIFF/.
[133] *Farmland of Local Importance* (2018), available at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland_of_Local_Importance_2018.pdf.
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has been designated for industrial/business park uses for over 35 years. … As development in the NVBPSP area continues, the surrounding developed parcels have been reclassified as Urban and Built-up Land. The project will not result in the conversion of existing farmland. As such, there are no significant impacts to prime farmland created by the project."[134] Despite the value of the site's agricultural lands, and to justify a less-than-significant determination, the MND relies on the fact that the conversion of the site's agricultural lands has been planned for and is therefore not significant. However, the EIR for the NVBPSP identified significant, unavoidable, and irreversible adverse impacts from the conversion of agricultural lands within the NVBPSP area because the "proposed industrial area could ultimately eliminate approximately 1,730 acres of what is presently defined as 'agricultural or open land.'"[135] Since this Project would convert Farmland of Local Importance to non-agricultural uses, CEQA mandates that the impacts of this conversion be adequately disclosed, analyzed, and mitigated.

30 CONT

VI. CONCLUSION

For the reasons discussed above, the MND for the Project is wholly inadequate under CEQA. An EIR must be circulated to provide a legally adequate analysis of, and mitigation for, all of the Project's potentially significant impacts. Until an EIR is prepared and circulated, as described herein, the Project may not lawfully be approved.

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Sincerely,

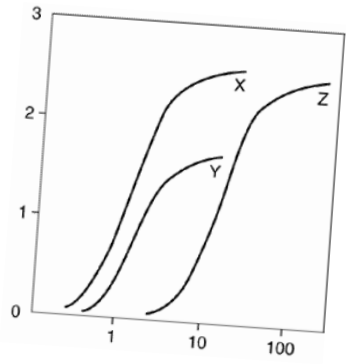
Tara C. Rengifo

Tara C. Rengifo

TCR:ljl

[134] MND at p. 5.
[135] Napa County, *Napa Valley Business Park Specific Plan & EIR* at p. 280 (Adopted July 29, 1986; amended thru October 22, 2013).
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EXHIBIT A



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November 13, 2024

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Attn: Ms. Tara Rengifo

Subject: Comment Letter on Initial Study/Mitigated Negative Declaration (IS/MND) For E&P Technology Way - Building A & B Use Permit #'sP22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Napa County, California.

Dear Mrs. Rengifo:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the IS/MND. If we do not comment on a specific item, this does not constitute acceptance of the item.

Project Description: 32

The IS/MND prepared by the County of Napa (the County) describes the Project as consisting of two separate buildings. Building A is proposed as a 143,312 square foot (SF) building with an annual wine production capacity of 450,000 gallons. The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 SF of covered outdoor work area will be located on the north side of the building. The proposal also includes 129 parking spaces and eight (8) spaces for semi-

trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court.

The winery building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full-time and 7 part time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine and juice. Wine storage (tank and barrel) and bottling will take place on a year-round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage, and bottling uses.

No retail sales or access for the general public is proposed. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

The Building B project proposes to allow warehouse uses within the proposed 66,915 SF building. The floor area ratio (FAR) after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will then off load or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side the building. The entrance driveway will be wide enough to accommodate two-way traffic. 32 CONT

Building B will be utilized primarily for warehousing/distribution with accessory office. The facility will be run by up to 30 employees. No user has yet been identified. There will be no retail sales and no access for the general public. The only signage will be to identify the building for the future tenant.

Both buildings include site-cast tilt-up concrete wall panels with a multi-color textured coating system and multiple score lines/reveals, storefront glazing systems, painted steel channel canopies, truck loading docks, grade level roll-up doors, and metal man-doors. Color choices include white, green, and grey painted stucco panels. The winery building also includes a covered outdoor work area for the crush pad in front of the loading docks.

The IS/MND does not provide sufficient information to justify the conclusion that the impacts are less than significant and no additional mitigation measures are required for the Project. The

analysis presented does not include an air quality analysis compiled in CalEEMOD as is typically performed in CEQA analyses. The County must compile the emission estimates in a meaningful manner in an environmental impact report (EIR) for the Project. 32 CONT

Specific Comments:

1. **The IS/MND Makes Assertions Regarding Greenhouse Gas (GHG) Reductions That Are Not Supported In The Applications For Building A and B. The Project's Impacts from Greenhouse Gas Emissions May be Significant and Unmitigated**

The IS/MND did not quantify the Project's GHG emissions and instead performed a qualitative analysis of the Project's impacts from GHG emissions pursuant to BAAQMD thresholds. According to the MND, "BAAQMD recommends that a land use project must include specified minimum design elements to ensure that the project is contributing its 'fair share' toward achieving the state's key climate goal of carbon neutrality by 2045." The MND at page 18 concludes that "[i]f the proposed project adheres to these relevant design standards identified by BAAQMD, the requirements of the California Building Code, and the County's conditions of project approval, impacts are considered less than significant."

The Staff Report for the Project states on page 8 that: "The applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application." 33

A review of the applications submitted for each of the buildings shows that only BMP-9 (Energy conserving lighting), BMP-14 (installation of water efficient fixtures), BMP-16 (water efficient landscaping), BMP-20 (planting of shade trees within 40 feet of the south side of the building elevation), BMP-21 (electrical vehicle charging station(s)) are checked in the applications and only these measures will be required by the Project's Conditions of Approval. Contrary to the statement in

the Staff Report, the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions.

I performed a quantitative analysis of the Project's GHG emissions using CalEEMOD. Using the default values within the CalEEMOD model I have calculated the following GHG emissions for the construction phase and the operational phase.

Phase	MT CO2eq
Construction	18.8 per annum (564/30 years)
Operational	
Mobile	222
Area	3.08
Energy	415
Water	95.6
Waste	61.7
Refrigeration	632
Total	1,447.8

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CONT

Based on my calculations, the incorporation of all of the mitigation measures identified in the Staff Report would reduce the Project's GHG mitigated emissions by 169 MT CO2eq per year or 12% of the total emissions. The results of the analysis are attached as an exhibit to this letter.

To the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR.

2. **Using The Details Outlined In The IS/MND I Have Calculated The Emissions From The Project Using CalEEMOD. Without Mitigation Emissions Of Reactive Organic Gases (ROGs) Will Exceed The BA-AQMD Significance Thresholds.**

Using the details outlined in the IS/MND I have calculated the emissions from the construction phase and operational phase using CalEEMOD. The IS/MND on page 29 states that there will be grading for construction of the bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements. The amount of soil disturbance is not detailed in the IS/MND and the emissions from the additional improvements were not included in the CalEEMOD analysis since they could not be quantified. The results of the analysis are attached as an exhibit to this letter.

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The results of the analysis show that during the construction phase of the Project (Table 2.1 of the output) emissions of Reactive Organic Gases (ROGs) will exceed the BA-AQMD significance threshold. The exceedances occur during the architectural coating phase of the Project and will reach levels of 111 lbs per day during summer months if no mitigation measure is in place. Requiring the use of architectural coating products that have VOC contents less than 50 grams per liter would reduce the ROG levels to 49.9 lbs per day, below the BA-AQMD significance threshold. The County must evaluate the impacts of the Project in an EIR

Conclusion

The facts identified and referenced in this comment letter led me to reasonably conclude that the Project could result in significant impacts if allowed to proceed. An EIR should be prepared to address these substantial concerns.

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Sincerely,



Wine Warehouse Detailed Report

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6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339

Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622

Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134

Architectural	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935

Unrefrigerated Warehouse-No	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9

Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394

Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

1201

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 me

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00
Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9

Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934
Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248

Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3
Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6

1212

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3
English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
Operations: Vehicle Data	per IS/MND

Wine Warehouse Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Mit.	50.1	50.1	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
% Reduced	55%	55%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Mit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Mit.	3.29	3.20	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Mit.	0.60	0.58	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	50.1	50.1	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	3.29	3.20	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	0.60	0.58	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505

Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959

Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415

Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143

Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.97

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.9	49.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34

Architectural	2.73	2.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888

Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935

Unrefrigerated	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9

Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4

Unrefrig Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7

Unrefrigerated	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coating	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00

Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9
Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934

Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248
Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3

Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3
English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
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Wine Warehouse Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Wine Warehouse
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	Napa County PBES
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	38.4
Location	Morris Ct & Technology Way, California 94558, USA
County	Napa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	801
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	143	1000sqft	13.2	143,312	—	—	—	Building A

Unrefrigerated Warehouse-No Rail	66.9	1000sqft	6.87	66,915	—	—	—	Building B
Parking Lot	129	Space	1.16	0.00	—	—	—	Parking Lot For Building A
Parking Lot	82.0	Space	0.74	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Energy	E-1	Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-A	Establish Onsite Renewable Energy Systems: Generic
Water	W-5	Design Water-Efficient Landscapes

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111	111	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
Mit.	50.1	50.1	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
% Reduced	55%	55%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
Mit.	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.63	6.54	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
Mit.	3.29	3.20	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.19	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
Mit.	0.60	0.58	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
% Reduced	50%	51%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	111	111	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	6.63	6.54	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	1.21	1.19	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.81	1.52	12.0	17.6	0.03	0.44	0.97	1.42	0.41	0.24	0.65	—	4,093	4,093	0.15	0.19	5.72	4,159
2026	50.1	50.1	11.3	17.3	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,063	4,063	0.15	0.19	5.34	4,128

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.89	3.28	29.8	29.1	0.06	1.23	9.37	10.6	1.14	3.69	4.83	—	6,761	6,761	0.27	0.19	0.15	6,785
2026	1.72	1.44	11.5	16.9	0.03	0.39	0.97	1.36	0.36	0.24	0.60	—	4,013	4,013	0.15	0.19	0.14	4,073
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.65	1.38	11.7	14.3	0.03	0.46	2.13	2.59	0.42	0.76	1.18	—	3,369	3,369	0.13	0.11	1.40	3,408
2026	3.29	3.20	3.64	5.37	0.01	0.13	0.28	0.41	0.12	0.07	0.19	—	1,229	1,229	0.05	0.05	0.67	1,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.25	2.14	2.62	< 0.005	0.08	0.39	0.47	0.08	0.14	0.22	—	558	558	0.02	0.02	0.23	564
2026	0.60	0.58	0.66	0.98	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	203	203	0.01	0.01	0.11	206

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Mit.	7.83	7.62	1.30	17.4	0.02	0.05	1.59	1.63	0.04	0.40	0.44	200	3,605	3,805	20.5	0.35	3,827	8,249
% Reduced	< 0.5%	< 0.5%	3%	< 0.5%	—	7%	—	< 0.5%	8%	—	1%	—	22%	21%	1%	5%	—	11%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Mit.	6.17	6.07	1.39	8.00	0.02	0.03	1.59	1.62	0.03	0.40	0.43	200	3,474	3,674	20.5	0.36	3,820	8,113
% Reduced	< 0.5%	< 0.5%	3%	< 0.5%	—	10%	—	< 0.5%	11%	—	1%	—	23%	22%	1%	5%	—	11%

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Mit.	6.66	6.53	1.02	9.99	0.01	0.03	1.11	1.14	0.03	0.28	0.31	200	2,979	3,178	20.5	0.33	3,822	7,610
% Reduced	< 0.5%	< 0.5%	4%	< 0.5%	—	9%	—	< 0.5%	10%	—	1%	—	25%	24%	1%	5%	—	12%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429
Mit.	1.22	1.19	0.19	1.82	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	493	526	3.40	0.05	633	1,260
% Reduced	< 0.5%	< 0.5%	4%	< 0.5%	2%	9%	—	< 0.5%	10%	—	1%	—	25%	24%	1%	5%	—	12%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Mit.	—	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.84	7.62	1.35	17.4	0.02	0.05	1.59	1.64	0.04	0.40	0.45	200	4,618	4,817	20.7	0.37	3,827	9,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.44	8.04	0.02	0.03	1.59	1.62	0.03	0.40	0.44	200	4,487	4,686	20.7	0.38	3,820	9,135
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,482	2,482	0.39	0.04	—	2,505
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.67	6.53	1.07	10.0	0.01	0.04	1.11	1.14	0.03	0.28	0.31	200	3,991	4,191	20.7	0.34	3,822	8,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	411	411	0.06	0.01	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.83	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	661	694	3.42	0.06	633	1,429

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Area	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	7.83	7.62	1.30	17.4	0.02	0.05	1.59	1.63	0.04	0.40	0.44	200	3,605	3,805	20.5	0.35	3,827	8,249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Area	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.17	6.07	1.39	8.00	0.02	0.03	1.59	1.62	0.03	0.40	0.43	200	3,474	3,674	20.5	0.36	3,820	8,113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.67	0.84	5.37	0.01	0.01	1.11	1.12	0.01	0.28	0.29	—	1,314	1,314	0.06	0.07	2.41	1,339
Area	5.91	5.85	0.04	4.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.5	18.5	< 0.005	< 0.005	—	18.6
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,470	1,470	0.23	0.03	—	1,483
Water	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Waste	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	6.66	6.53	1.02	9.99	0.01	0.03	1.11	1.14	0.03	0.28	0.31	200	2,979	3,178	20.5	0.33	3,822	7,610
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222
Area	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	243	243	0.04	< 0.005	—	246
Water	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6
Waste	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	1.22	1.19	0.19	1.82	< 0.005	0.01	0.20	0.21	0.01	0.05	0.06	33.1	493	526	3.40	0.05	633	1,260

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.12	4.89	0.01	0.21	—	0.21	0.20	—	0.20	—	1,139	1,139	0.05	0.01	—	1,143
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.63	0.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	189	189	0.01	< 0.005	—	189
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.2	28.2	< 0.005	< 0.005	0.05	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.66	4.66	< 0.005	< 0.005	0.01	4.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.73	0.61	5.68	7.09	0.01	0.23	—	0.23	0.22	—	0.22	—	1,304	1,304	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.04	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	216	216	0.01	< 0.005	—	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.25	4.08	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	766	766	0.02	0.03	3.25	779
Vendor	0.07	0.04	1.30	0.51	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	929	929	0.04	0.14	2.47	975
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.33	3.70	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	714	714	0.02	0.03	0.08	724
Vendor	0.07	0.03	1.38	0.53	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	930	930	0.04	0.14	0.06	973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.19	0.16	1.93	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	392	392	0.01	0.02	0.76	398
Vendor	0.04	0.02	0.74	0.28	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	506	506	0.02	0.08	0.58	530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.9	64.9	< 0.005	< 0.005	0.13	65.9
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	83.7	83.7	< 0.005	0.01	0.10	87.7

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.76	3.63	0.01	0.11	—	0.11	0.10	—	0.10	—	671	671	0.03	0.01	—	673
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.50	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.24	3.81	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	752	752	0.02	0.03	3.00	764
Vendor	0.07	0.03	1.24	0.49	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	2.35	959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.30	3.45	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	701	701	0.02	0.03	0.08	711
Vendor	0.07	0.03	1.31	0.50	0.01	0.01	0.24	0.26	0.01	0.07	0.08	—	914	914	0.04	0.14	0.06	957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	0.93	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	0.01	0.01	0.36	201
Vendor	0.02	0.01	0.36	0.14	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	256	256	0.01	0.04	0.28	268
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.8	32.8	< 0.005	< 0.005	0.06	33.3
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.05	44.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.65	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.51	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	111	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	6.07	6.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.9	49.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	2.73	2.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22

Architectural Coating	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	150	150	< 0.005	0.01	0.60	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.51	0.47	0.52	3.87	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	917	917	0.04	0.04	3.73	935
Unrefrigerated Warehouse-No Rail	0.56	0.52	0.57	4.24	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	1,005	1,005	0.04	0.05	4.09	1,024
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.08	0.99	1.08	8.11	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,922	1,922	0.08	0.09	7.82	1,959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	0.50	0.45	0.60	3.76	0.01	0.01	0.76	0.77	0.01	0.19	0.20	—	872	872	0.04	0.05	0.10	888
Unrefrigerated Warehouse-No Rail	0.54	0.50	0.65	4.12	0.01	0.01	0.83	0.84	0.01	0.21	0.22	—	956	956	0.05	0.05	0.11	973
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.04	0.95	1.25	7.88	0.02	0.02	1.59	1.61	0.02	0.40	0.42	—	1,828	1,828	0.09	0.10	0.20	1,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.06	0.06	0.07	0.47	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	104	104	< 0.005	0.01	0.19	106
Unrefrigerated Warehouse-No Rail	0.07	0.06	0.08	0.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	114	114	0.01	0.01	0.21	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.15	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	218	218	0.01	0.01	0.40	222

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refriger Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,843	1,843	0.30	0.04	—	1,861
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	378	378	0.06	0.01	—	382
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,262	2,262	0.37	0.04	—	2,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.05	0.01	—	308
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	62.5	62.5	0.01	< 0.005	—	63.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	374	374	0.06	0.01	—	378

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	907	907	0.15	0.02	—	916
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	353	353	0.06	0.01	—	356
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,301	1,301	0.21	0.03	—	1,313
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	907	907	0.15	0.02	—	916
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	353	353	0.06	0.01	—	356

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	0.01	< 0.005	—	40.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,301	1,301	0.21	0.03	—	1,313
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	150	150	0.02	< 0.005	—	152
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.4	58.4	0.01	< 0.005	—	59.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.70	6.70	< 0.005	< 0.005	—	6.77
Total	—	—	—	—	—	—	—	—	—	—	—	—	215	215	0.03	< 0.005	—	217

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.5	92.5	0.01	< 0.005	—	92.7
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	221	221	0.02	< 0.005	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.6	36.6	< 0.005	< 0.005	—	36.7

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.1	89.1	0.01	< 0.005	—	89.3
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.3	80.3	0.01	< 0.005	—	80.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.1	89.1	0.01	< 0.005	—	89.3
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.3	80.3	0.01	< 0.005	—	80.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.8	14.8	< 0.005	< 0.005	—	14.8
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08
Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.63	1.50	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Total	6.74	6.61	0.08	9.14	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.51	4.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	5.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.82	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

Total	1.08	1.07	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.07	3.07	< 0.005	< 0.005	—	3.08

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	63.5	120	183	6.53	0.16	—	394
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.7	56.0	85.7	3.05	0.07	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	93.2	176	269	9.58	0.23	—	577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.5	19.9	30.4	1.08	0.03	—	65.2
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.91	9.27	14.2	0.50	0.01	—	30.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	29.1	44.6	1.59	0.04	—	95.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.6	0.00	72.6	7.26	0.00	—	254
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	33.9	0.00	33.9	3.39	0.00	—	119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	107	0.00	107	10.6	0.00	—	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	0.00	12.0	1.20	0.00	—	42.1
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.61	0.00	5.61	0.56	0.00	—	19.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.6	0.00	17.6	1.76	0.00	—	61.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,819	3,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	632	632

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2025	3/28/2025	5.00	63.0	—
Building Construction	Building Construction	3/29/2025	5/23/2026	5.00	300	—
Paving	Paving	5/24/2026	6/21/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	6/22/2026	7/20/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45

Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—

Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	88.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	34.5	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.7	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	315,341	105,114	4,963

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Grading	—	—	189	0.00	—
Paving	0.00	0.00	0.00	0.00	1.90

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.16	100%
Parking Lot	0.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	104	0.00	0.00	27,115	1,064	0.00	0.00	277,441
Unrefrigerated Warehouse-No Rail	114	0.00	0.00	29,720	1,166	0.00	0.00	304,104
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	315,341	105,114	4,963

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,298,193	204	0.0330	0.0040	288,569
Unrefrigerated Warehouse-No Rail	676,021	204	0.0330	0.0040	400,564
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	1,623,703	204	0.0330	0.0040	278,014
Unrefrigerated Warehouse-No Rail	630,961	204	0.0330	0.0040	250,539
Parking Lot	44,302	204	0.0330	0.0040	0.00
Parking Lot	28,161	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	33,140,900	0.00
Unrefrigerated Warehouse-No Rail	15,474,094	0.00
Parking Lot	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	135	—
Unrefrigerated Warehouse-No Rail	62.9	—
Parking Lot	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	5.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	35.7
AQ-DPM	23.4
Drinking Water	69.2
Lead Risk Housing	55.8
Pesticides	66.2
Toxic Releases	61.2
Traffic	83.3
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	0.00
Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	23.9
Solid Waste	83.9
Sensitive Population	—
Asthma	71.9
Cardio-vascular	67.0
Low Birth Weights	51.0
Socioeconomic Factor Indicators	—
Education	62.0
Housing	12.0
Linguistic	39.2
Poverty	33.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	80.85461311
Employed	75.23418452
Median HI	74.554087
Education	—
Bachelor's or higher	69.35711536
High school enrollment	100
Preschool enrollment	12.62671628
Transportation	—
Auto Access	83.51084306
Active commuting	27.38354934
Social	—
2-parent households	62.7229565
Voting	57.75696138
Neighborhood	—
Alcohol availability	76.10676248
Park access	56.71756705
Retail density	24.22687027
Supermarket access	27.9481586
Tree canopy	22.44321827
Housing	—
Homeownership	87.02681894
Housing habitability	96.41986398
Low-inc homeowner severe housing cost burden	70.11420506
Low-inc renter severe housing cost burden	97.06146542
Uncrowded housing	60.05389452
Health Outcomes	—

Insured adults	79.19928141
Arthritis	0.0
Asthma ER Admissions	56.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	25.5
Cognitively Disabled	20.1
Physically Disabled	17.3
Heart Attack ER Admissions	55.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	43.5
Children	32.5
Elderly	69.3

English Speaking	60.5
Foreign-born	72.3
Outdoor Workers	52.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	45.1
Traffic Access	23.0
Other Indices	—
Hardship	34.8
Other Decision Support	—
2016 Voting	51.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	73.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

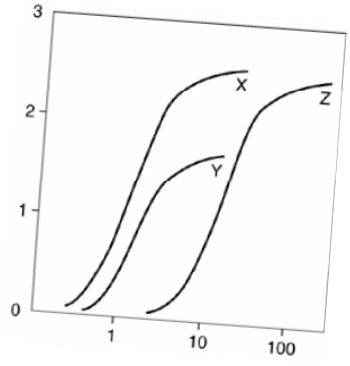
Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per project description of Building A and B
Construction: Construction Phases	Per model
Operations: Vehicle Data	per IS/MND



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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment.*

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

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Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

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Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

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Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

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EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

15 November 2024

RE: E&P Technology Way - Building A & B

Dear Ms. Rengifo,

I write to comment on potentially significant impacts to biological resources from the proposed E&P Technology Way - Building A & B, which I understand would add one 143,312 sf warehouse and a 13,000 sf outbuilding, and another 66,915 sf warehouse for a total 223,227 sf, along with 211 total parking spaces and spaces for eight semi-trailers located on Technology Way in the Napa Valley Business Park Specific Plan area, County of Napa, California. I comment on the characterization of the existing environmental setting and on the analyses of impacts to biological resources in FirstCarbon Solutions (2024) and the County's Initial Study/Mitigated Negative Declaration (IS/MND). 36

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached. 37

EXISTING ENVIRONMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the wildlife community, key ecological relationships, and known and ongoing threats to special-status species. A reasonably accurate characterization of the environmental setting can provide the baseline against which to analyze potential project impacts. For this reason, characterization of the environmental setting, including its regional setting, is one of the CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, this first step remains incomplete and misleading. 38

Environmental Setting informed by Field Surveys

To the CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources. 39

The IS/MND (p. 10) reports that "The Biological Resources Analysis was prepared by FCS in January 2024 (updated February 2024) to determine if any biological resources were *potentially present*…" (emphasis added) But this reporting is misleading. FirstCarbon Solutions (2024) had a biologist survey the project site on 8 December 2022 to record "the location and identity of all plant and animal species *encountered*." (emphasis added) FirstCarbon Solutions' statement of objectives differs from the objective claimed in the IS/MND. A reconnaissance survey cannot achieve the objective claimed in the IS/MND. 40

The reconnaissance survey began at 11:00 hours, but FirstCarbon Solutions (2024) did not report how long the survey lasted. Without knowing how long the survey lasted, the survey result cannot be fully interpreted. Survey duration imparts a large influence over which species are detected and how many species are detected. 41

The 11:00 start time would have had the effect of limiting the number of species detected. I have found that a late morning start time detects 34% fewer species than an early morning start time (Figure 1). 42

FirstCarbon Solutions (2024) detected 13 taxa of vertebrate wildlife, four (31%) of which the biologist was unable to identify to species. For comparison, I have detected 69 species of vertebrate wildlife in only 8.56 hours of visual-scan surveys at three locations within 700 m of the project site (Tables 1 and 2). Thirteen of these species were special-status species. At a cluster of three other project sites that I surveyed 4,345 m (2.7 miles) south-southeast of the project site, I or one or more of three consulting firms detected 44 species of vertebrate wildlife, including nine special-status species (Table 3). Inclusive of the findings from these surveys, I am aware of 113 species of vertebrate wildlife, including 22 special-status species within only 2.7 miles of the project site. Again, FirstCarbon Solutions (2024) detected only 13 taxa of vertebrate wildlife, or only 11% of the number of species known to the local project area by professional biologists. FirstCarbon Solutions' (2024) reconnaissance survey effort was grossly deficient, and its results ill-suited for characterizing the existing environmental setting. 43

FirstCarbon Solutions (2024) failed to implement the CDFW (2018) survey guidelines for rare plants. FirstCarbon Solutions (2024) should have disclosed that the guidelines were available and should have been implemented. 44

Figure 1. *Numbers of vertebrate wildlife species detected in visual-scan surveys as proportions of the maximum number detected among 5 surveys per project site, and as a function of start time during the day. The red symbols represent the Greentree project site in Vacaville, and the blue symbols represent the Kassis site in Rancho Cordova, spring and summer 2022.*

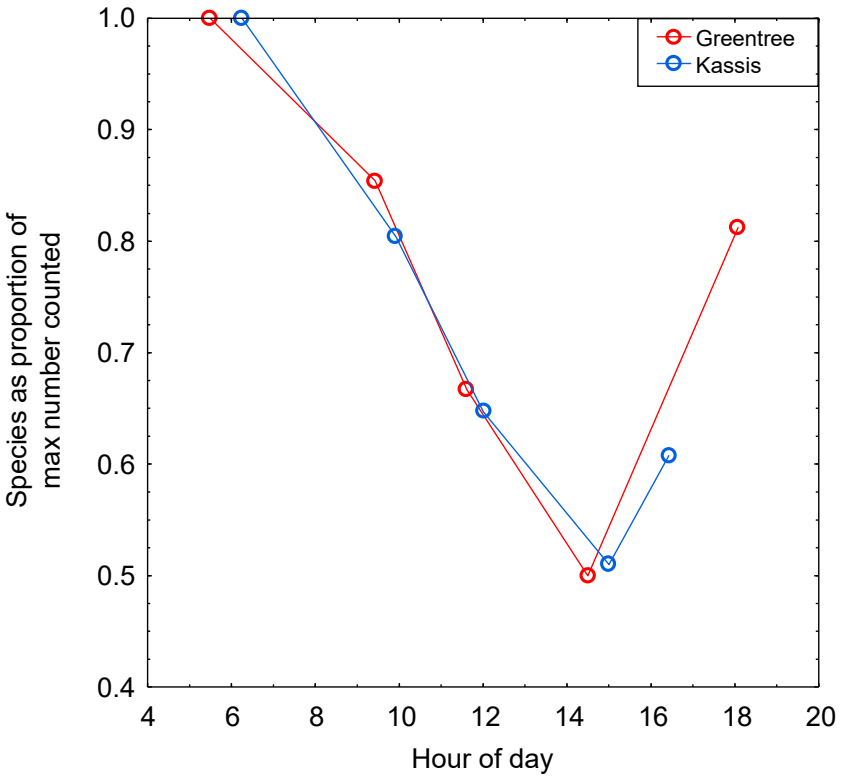


Table 1. *Species of wildlife I observed during 3.9 hours of survey at a site 1,380 m north-northeast of the project site on 9 May 2024, and during 3.08 hours at a site 1,100 m north of the project site on 15 July 2018 and 16 July.*

Common name	***Species name***	**Status[1]**	**Notes**
Western fence lizard	*Sceloporus occidentalis*		
Canada goose	*Branta canadensis*		Pair nesting
Mallard	*Anas platyrhynchos*		Flew to land at wastewater ponds
California quail	*Callipepla californica*		
Rock pigeon	*Columba livia*	Non-native	
Band-tailed pigeon	*Patagioenas fasciata*		Flock flew over
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	
Mourning dove	*Zenaida macroura*		
White-throated swift	*Aeronautes saxatalis*		
Anna's hummingbird	*Calypte anna*		
American coot	*Fulica americana*		
Wild turkey	*Meleagris gallopavo*	Re-introduced	
Killdeer	*Charadrius vociferus*		
Greater yellowlegs	*Tringa melanoleuca*		
Bonaparte's gull	*Chroicocephalus philadelphia*		
California gull	*Larus californicus*	BCC, TWL	

Common name	***Species name***	**Status[1]**	**Notes**
Herring gull	*Larus argentatus*		
Forster's tern	*Sterna forstreri*		
Great egret	*Ardea alba*		Flyover
Double-crested cormorant	*Nannopterum auritum*	TWL	
Turkey vulture	*Cathartes aura*	BOP	
White-tailed kite	*Elanus leucurus*	CFP, BOP	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	Harassed turkey vulture, likely to defend nest
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Chased nesting RTHA
Red-tailed hawk	*Buteo jamaicensis*	BOP	Nest with at least 2 chicks
Swainson's hawk	*Buteo swainsoni*	CT, BOP	
Belted kingfisher	*Ceryle alcyon*		
American kestrel	*Falco sparverius*	BOP	
Western kingbird	*Tyrannus verticalis*		Nest in Eucalyptus
Black phoebe	*Sayornis nigricans*		
Say's phoebe	*Sayornis saya*		
California scrub-jay	*Aphelocoma californica*		Nesting
American crow	*Corvus brachyrhynchos*		
Common raven	*Corvus corax*		
Tree swallow	*Tachycineta bicolor*		Nesting
Northern rough-winged swallow	*Stelgidopteryx serripennis*		
Barn swallow	*Hirundo rustica*		
Cliff swallow	*Petrochelidon pyrrhonota*		
Oak titmouse	*Baeolophus inornatus*	BCC	
Bushtit	*Psaltriparus minimus*		
Northern mockingbird	*Mimus polyglottos*		
European starling	*Sturnus vulgaris*	Non-native	
Western bluebird	*Sialia mexicana*		
Hermit thrush	*Catharus guttatus*		
American robin	*Turdus migratorius*		
Spotted towhee	*Pipilo maculatus*		
Purple finch	*Haemorhous purpureus*		
House finch	*Haemorphous mexicanus*		
Lesser goldfinch	*Spinus psaltria*		Collecting nest material
American goldfinch	*Spinus tristis*		
Samuel's song sparrow	*Melospiza melodia samuelis*	SSC3	
California towhee	*Melozone crissalis*		
Bullock's oriole	*Icterus bullockii*		
Red-winged blackbird	*Agelaius phoeniceus*		Nesting

Common name	*Species name*	Status[1]	Notes
Brown-headed cowbird	*Molothrus ater*		
Brewer's blackbird	*Euphagus cyanocephalus*		
Great-tailed grackle	*Quiscalus mexicanus*		Fledglings
Western tanager	*Piranga ludoviciana*		
Black-headed grosbeak	*Pheucticus melanocephalus*		
Black-tailed jackrabbit	*Lepus californicus*		
Botta's pocket gopher	*Thomomys bottae*		
California vole	*Microtus californicus*		
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*		

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Table 2. *Species of wildlife I observed during an evening visit* from 17:15 to 18:50 hours *on 21 April 2018 at the site of the proposed Napa Airport Corporate Center, 2,200 m south of the project site. Blue-highlighted species are those I did not detect in survey results listed in Table 1.*

Species	*Scientific name*	Status[1]
Great blue heron	*Ardea herodias*	
Great egret	*Casmerodius albus*	
Canada goose	*Branta canadensis*	
Mallard	*Anas platyrhynchos*	
Gadwall	*Anas strepera*	
Killdeer	*Charadrius vociferus*	
Greater yellowlegs	*Tringa melanoleuca*	
Turkey vulture	*Cathartes aura*	BOP
Cooper's hawk	*Accipiter cooperi*	BOP, TWL
Red-tailed hawk	*Buteo jamaicensis*	BOP
Red-shouldered hawk	*Buteo lineatus*	BOP
White-tailed kite	*Elanus leucurus*	CFP, TWL
American kestrel	*Falco sparverius*	BOP
Mourning dove	*Zenaida macroura*	
Rock pigeon	*Columba livea*	Non-native
Eurasian collared-dove	*Streptopelia decaocto*	Non-native
Black phoebe	*Sayornis nigricans*	
Barn swallow	*Hirundo rustica*	
Northern rough-winged swallow	*Stelgidopteryx serripennis*	
Cliff swallow	*Hirundo pyrrhonota*	
Common raven	*Corvus corax*	
American crow	*Corvus brachyrhynchos*	

Species	***Scientific name***	**Status**[1]
American robin	*Turdus migratorius*	
Northern mockingbird	*Mimus polyglottos*	
European starling	*Sturnus vulgaris*	Non-native
White-crowned sparrow	*Zonotrichia leucophrys*	
Western meadowlark	*Sturnella neglecta*	
Red-winged blackbird	*Agelaius phoeniceus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
Brown-headed cowbird	*Molothrus ater*	
American goldfinch	*Carduelis tristis*	
House finch	*Carpodacus mexicanus*	
Pocket gopher	*Thomomys bottae*	
Black-tailed jackrabbit	*Lepus californicus*	
Coyote	*Canis latrans*	
Western fence lizard	*Sceloporus occidentalis*	

[1] Listed as BOP = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), TWL = Taxa to Watch List (Shuford and Gardali 2008).

Table 3. *Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse*, during an *offsite visit during my 2021 survey that includes a walk along Napa River and Bay Trails just south and west of the project site, during surveys conducted by myself (KSS), Monk & Associates (M&A), Pinecrest Research Corp, (PRC), and FirstCarbon Solutions (FCS). These surveys were completed only 4,345 m south-southeast of the E & P Technology Way project site. Blue-highlighted species are those I did not detect in survey results listed in Tables 1 and 2.*

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
Sierran treefrog	*Pseudacris sierra*		X		X	X		
Western fence lizard	*Sceloporus occidentalis*					X		
Canada goose	*Branta canadensis*		X			X	X	X
Northern shoveler	*Anas clypeata*				X			
Mallard	*Anas platyrhynchos*		X				X	X
California quail	*Callipepla californica*		X			X		
Wild turkey	*Meleagris gallopavo*	Non-native				X	X	
Pied-billed grebe	*Podilymbus podiceps*				X			
Ring-necked pheasant	*Phasianus colchicus*	Non-native				X		
Mourning dove	*Zenaida macroura*		X		X	X	X	X
Eurasian collared-dove	*Streptopelia decaocto*	Non-native	X			X		
Black-chinned hummingbird	*Archilochus alexandri*		X					
Anna's hummingbird	*Calypte anna*		X	X	X	X	X	X
Allen's hummingbird	*Selasphorus sasin*	BCC					X	
Virginia rail	*Rallus limicola*					X		
American coot	*Fulica americana*				X		X	X
Black-necked stilt	*Himantopus mexicanus*				X			
American avocet	*Recurvirostra americanus*				X			
Killdeer	*Charadrius vociferus*						X	
Long-billed dowitcher	*Limnodromus scolopaceus*				X			
Least sandpiper	*Caladris minutilla*				X			
Ring-billed gull	*Larus delawarensis*		X		X			

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
California gull	*Larus californicus*	BCC, TWL					X	X
Herring gull	*Larus argentatus*		X		X			
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC					X	X
Great blue heron	*Ardea herodias*					X	X	X
Turkey vulture	*Cathartes aura*	BOP			X	X	X	X
Osprey	*Pandion haliaetus*	TWL, BOP				X	X	
White-tailed kite	*Elanus leucurus*	CFP, BOP				X	X	X
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	X		X			
Cooper's hawk	*Accipiter cooperii*	WL, BOP	X					
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP	X					
Red-shouldered hawk	*Buteo lineatus*	BOP			X	X	X	X
Red-tailed hawk	*Buteo jamaicensis*	BOP	X	X	X	X	X	
Barn owl	*Tyto alba*	BOP				X		
Great horned owl	*Bubo virginianus*	BOP	X					
Belted kingfisher	*Ceryle alcyon*					X		
Nuttall's woodpecker	*Picoides nuttallii*	BCC	X		X	X	X	X
Northern flicker	*Colaptes auratus*		X	X	X	X	X	X
American kestrel	*Falco sparverius*	BOP	X		X	X		
Peregrine falcon	*Falco peregrinus*	BOP			X		X	
Black phoebe	*Sayornis nigricans*		X		X	X	X	X
Say's phoebe	*Sayornis saya*		X		X	X		
California scrub-jay	*Aphelocoma californica*		X			X	X	X
American crow	*Corvus brachyrhynchos*		X	X		X	X	X
Common raven	*Corvus corax*		X		X	X	X	X
Hutton's vireo	*Vireo huttoni*		X					
Chestnut-backed chickadee	*Poecile rufescens*					X	X	X
Tree swallow	*Tachycineta bicolor*					X	X	X

Species	***Scientific name***	**Status[1]**	**KSS 2019**	**KSS 2021**	**KSS offsite 2019, 2021**	**M&A 2006-2019**	**PRC 2023**	**FCS 2023**
Northern rough-winged swallow	*Stelgidopteryx serripennis*		X					
Violet-green swallow	*Tachycineta thalassina*						X	
Barn swallow	*Hirundo rustica*		X			X		
Cliff swallow	*Petrochelidon pyrrhonota*					X	X	X
Bushtit	*Psatriparus minimus*		X	X		X		
Wrentit	*Chamaea fasciata*	BCC				X		
Ruby-crowned kinglet	*Regulus calendula*					X	X	X
Cedar waxwing	*Bombycilla cedrorum*						X	X
Brown creeper	*Certhia americana*					X	X	
Rock wren	*Salpinctes obsoletus*						X	X
Bewick's wren	*Thryomanes bewickii*					X	X	X
House wren	*Troglodytes aedon*		X				X	X
Marsh wren	*Cistothorus palustris*				X	X		
Northern mockingbird	*Mimus polyglottos*		X		X	X	X	
European starling	*Sturnus vulgaris*	Non-native	X	X	X	X	X	X
Western bluebird	*Sialia mexicana*		X			X	X	X
Hermit thrush	*Catharus guttatus*						X	X
American robin	*Turdus migratorius*					X	X	X
House sparrow	*Passer domesticus*	Non-native				X	X	
American pipit	*Anthus rubescens*						X	
House finch	*Carpodacus mexicanus*		X		X	X	X	X
Purple finch	*Haemorhous purpureus*						X	X
Lesser goldfinch	*Carduelis psaltria*				X	X	X	X
American goldfinch	*Carduelis tristis*		X				X	X
Fox sparrow	*Passerella iliaca*				X		X	X
Dark-eyed junco	*Junco hyemalis*		X	X	X	X	X	X
White-crowned sparrow	*Zonotrichia leucophrys*		X		X	X	X	X
Golden-crowned sparrow	*Zonotrichia atricapilla*		X		X		X	X

Species	*Scientific name*	Status[1]	KSS 2019	KSS 2021	KSS offsite 2019, 2021	M&A 2006-2019	PRC 2023	FCS 2023
Savannah sparrow	*Passerculus sandwichensis*					X		
Song sparrow	*Melospiza melodia*				X	X	X	X
Lincoln's sparrow	*Melospiza lincolnii*				X			
California towhee	*Pipilo crissalis*		X		X		X	X
Spotted towhee	*Pipilo maculatus*					X		
Western meadowlark	*Sturnella neglecta*		X					
Bullock's oriole	*Icterus bullockii*	BCC				X		
Red-winged blackbird	*Agelaius phoeniceus*		X		X	X	X	X
Brown-headed cowbird	*Molothrus ater*				X	X	X	X
Brewer's blackbird	*Euphagus cyanocephalus*		X		X	X	X	
Yellow-rumped warbler	*Setophaga coronata*		X	X	X	X	X	X
Black-tailed jackrabbit	*Lepus californicus*					X	X	X
Botta's pocket gopher	*Thomomys bottae*				X			
Western gray squirrel	*Sciurus griseus*					X		
California ground squirrel	*Otospermophilus beecheyi*				X	X		
Raccoon	*Procyon lotor*			X				
Coyote	*Canis latrans*					X		
House cat	*Felis catus*					X	X	X
Mule deer	*Odocoileus hemionus*						X	X
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*					X		
California vole	*Microtus californicus*						X	X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

No surveys were performed for bats, nor were any live-trapping surveys performed for small mammals. With a single survey completed in December, no survey effort was made for reptiles. 45

FirstCarbon Solutions (2024) is also inconsistent with its analysis. It reports on the one hand, "…the Sheehy Creek riparian corridor … provide[s] high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County." And on the other hand, it reports "The project area does not contain significant natural biological communities or habitat for special-status species due to the history of disking and lack of vegetation present currently … Therefore, impacts to sensitive upland terrestrial biological communities in the footprint of the proposed development would not be anticipated." The Sheehy Creek riparian corridor is the foundation of a natural biological community (Ohmart 1994, Ballard et al. 2004, Andy 2020), and such communities do not function at anywhere close to full potential in isolation from neighboring uplands such as occur on the project site (Lee and Rotenberry 2015). 46

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths. 47

FirstCarbon Solutions (2024) does not report having reviewed eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, FirstCarbon Solutions (2024) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species, but it did so within an unreported distance from the project site. I could not determine whether the query was to the project site, to the USGS Quad inclusive of the site, or within one or more Quads surrounding the Quad inclusive of the site. It is impossible to fully interpret the results of the CNDDB query without knowing the locations on and around the project site that were reviewed on the database. 48

Moreover, by relying on the CNDDB query, FirstCarbon Solutions (2024) screens out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting (see the differences in species analyzed by myself and FirstCArbon Solutions in Table 4). The CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by the CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" FirstCarbon Solutions (2024) misuses the CNDDB. 49

The CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to the CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to the CNDDB. Furthermore, the CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to the CNDDB than were species assigned special status since the inception of the CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to the CNDDB, the CNDDB cannot provide the basis for estimating occurrence likelihoods, either. 50

In my assessment based on database reviews and site visits, 125 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 4). Of these species, eight were recorded on or just next to the project site, and another 46 (37%) species have been documented within 1.5 miles of the site ('Very close'), another 25 (20%) within 1.5 and 4 miles ('Nearby'), and another 41 (33%) within 4 to 30 miles ('In region'). Nearly two-thirds (63%) of the species in Table 4 below have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife, and it carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in FirstCarbon Solutions (2024). 51

FirstCarbon Solutions (2024) analyzes only 51 (41%) of the special-status species in Table 4 for occurrence potential, having omitted from its analysis 74 (59%) of the special-status species in Table 4. Of the species omitted from FirstCarbon Solutions's (2024) analysis, four have been recorded on the project site, 32 have been recorded within 1.5 miles of the site, 18 have been recorded between 1.5 and 4 miles of the site, and 20 have been recorded between 4 and 30 miles of the site. Of the 51 species analyzed for occurrence likelihood by FirstCarbon Solutions (2024), FirstCarbon Solutions (2024) determines only eight to have potential to occur, and six of these determined to have low potential. Of the seven special-status species determined to have low potential, three have been recorded within 1.5 miles of the project site. Of the 31 special-status species determined to have very low occurrence potential, three have been documented on the project site, eight have been recorded within 1.5 miles of the site, and three have been recorded between 1.5 and 4 miles of the site. Of the 13 special-status species FirstCarbon Solutions (2024) determines to have no potential for occurrence, one has been documented on the project site, two within 1.5 miles, and three between 1.5 and 4 miles from the site. On the whole, FirstCarbon Solutions (2024) analyses of occurrence likelihoods are inaccurate and fail to serve as a baseline for performing impacts analysis. 52

Table 4. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where "Very close" indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and "in range" means the species' geographic range overlaps the site.*

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Conservancy fairy shrimp	*Branchinecta conservatio*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	None	In region
California freshwater shrimp	*Syncaris pacifica*	FE, CE	None	In region
Monarch	*Danaus plexippus*	FC	Very low	Nearby
Marin Elfin butterfly	*Callophrys mossii marinensis*	SSC	Very low	In region
Obscure bumble bee	*Bombus caliginosus*	SSC	Low	In region
Crotch's bumble bee	*Bombus crotchii*	CCE	Medium	Nearby
Western bumble bee	*Bombus occidentalis*	CCE	Low	In range
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	Very low	In region
California giant salamander	*Dicamptodon ensatus*	SSC	Very low	In region
Red-bellied newt	*Taricha rivularis*	SSC	None	In region
Foothill yellow-legged frog	*Rana boylii*	CT, SSC	Low	In region
California red-legged frog	*Rana draytonii*	FT, SSC	Low	In region
Western pond turtle	*Emys marmorata*	SSC	None	Nearby
Brant	*Branta bernicla*	SSC2		Nearby
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		Very close
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE	Very low	In region
Black swift	*Cypseloides niger*	SSC3, BCC	None	Nearby
Vaux's swift	*Chaetura vauxi*	SSC2		Very close
Calliope hummingbird	*Selasphorus calliope*	BCC		Nearby
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*	FE, CE, CFP	None	Nearby
Yellow rail	*Coturnicops noveboracensis*	BCC, SSC	None	In region
Black oystercatcher	*Haematopus bachmani*	BCC		In region
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		Nearby
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC	None	In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Black turnstone	*Arenaria melanocephala*	BCC		Nearby
Red knot (Pacific)	*Calidris canutus*	BCC		Nearby
Pectoral sandpiper	*Calidris melanotos*	BCC		Nearby
Short-billed dowitcher	*Limnodromus griseus*	BCC		Very close
Wandering tattler	*Tringa incana*	BCC		Nearby
Lesser yellowlegs	*Tringa flavipes*	BCC		Very close
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, TWL		Very close
California least tern	*Sternula antillarum browni*	FE, CE, CFP		Nearby
Black tern	*Chlidonias niger*	SSC2, BCC		Nearby
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Nearby
Brandt's cormorant	*Urile penicillatus*	BCC		In region
Double-crested cormorant	*Phalacrocorax auritus*	WL		Very close
American white pelican	*Pelacanus erythrorhynchos*	SSC1		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
California brown pelican	*Pelecanus occidentalis californicus*	FP		Nearby
Least bittern	*Ixobrychus exilis*	SSC2		In region
White-faced ibis	*Plegadis chihi*	WL		Very close
Turkey vulture	*Cathartes aura*	BOP		On site
Osprey	*Pandion haliaetus*	WL, BOP	Very low	Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP	Very low	On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL	Low	Very close
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	Low	Very close
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP	Very low	On site
Cooper's hawk	*Accipiter cooperii*	WL, BOP	None	On site
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP	Very low	Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP	Very low	On site
Red-tailed hawk	*Buteo jamaicensis*	BOP		On site
Ferruginous hawk	*Buteo regalis*	WL, BOP	Low	Very close
Rough-legged hawk	*Buteo lagopus*	BOP		Very close
American barn owl	*Tyto furcata*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Nearby
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP, CCE	Very low	Very close - CNDDB
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Northern saw-whet owl	*Aegolius acadicus*	BOP		Nearby
Northern pygmy-owl	*Glaucidium gnoma*	BOP		Nearby
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		Very close

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Peregrine falcon	*Falco peregrinus*	BOP	Very low	Very close
Prairie falcon	*Falco mexicanus*	WL, BOP	Very low	Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Nearby
Willow flycatcher	*Empidonax trailii*	CE		Very close
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		In region
Loggerhead shrike	*Lanius ludovicianus*	SSC2		On site
Yellow-billed magpie	*Pica nuttalli*	BCC		In region
Oak titmouse	*Baeolophus inornatus*	BCC		Very close
California horned lark	*Eremophila alpestris actia*	WL	None	Very close
Bank swallow	*Riparia riparia*	CT	None	Very close
Purple martin	*Progne subis*	SSC2	Very low	Very close
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2	Very low	Nearby
Samuel's song sparrow	*Melospiza melodia samuelis*	BCC, SSC	Very low	Very close
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Bell's sparrow	*Amphispiza b. belli*	WL		Nearby
Yellow-breasted chat	*Icteria virens*	SSC3	Very low	Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Very close
Bullock's oriole	*Icterus bullockii*	BCC		Very close
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Very low	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3, BCC	Very low	In range
Yellow warbler	*Setophaga petechia*	SSC2	Very low	Very close
Summer tanager	*Piranga rubra*	SSC1		Nearby
Little brown bat	*Myotis lucifugus*	WBWG: M		In region

Common name	***Species name***	**Status[1]**	**IS/MND occurrence potential**	**Data base records, Site visits**
Yuma myotis	*Myotis yumanensis*	WBWG: LM	Very low	In region
Long-eared myotis	*Myotis evotis*	WBWG: M	Very low	In region
Fringed myotis	*Myotis thysanodes*	WBWG: H	Very low	In range
Long-legged myotis	*Myotis volans*	WBWG: H	Very low	In range
Canyon bat	*Parastrellus hesperus*	WBWG: M		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG: M	Very low	In region
Hoary bat	*Lasiurus cinereus*	WBWG: M	Very low	In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG: H	Very low	In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG: H	Very low	In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG: H	Very low	In region
Big free-tailed bat	*Nyctinomops macrotis*	SSC, WBWG: MH	Very low	In range
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE, FP	None	In region
American badger	*Taxidea taxus*	SSC	None	In region
Mountain lion	*Puma concolor*	SA		In region

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

The occurrence likelihood analyses of FirstCarbon Solutions (2024) include too many errors and omissions:

- Western yellow-billed cuckoo is not only Endangered under CESA, but also Threatened under FESA;
- Bald eagle is not a California Species of Special Concern, but is listed as Endangered under CESA and protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code;
- Golden eagle is not a California Species of Special Concern, but is also California Fully Protected, protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code, and is on California's Watch List;
- Northern harrier is not listed as Threatened under FESA and CESA;
- Ferruginous hawk is not a California Species of Special Concern, but is protected by California's Birds of Prey Code, and is on California's Watch List;
- Burrowing owl is no longer just a California Species of Special Concern, but is now a Candidate for listing as Threatened or Endangered under CESA;
- Peregrine falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code; 53
- Prairie falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code and is on California's Watch List;
- The horned larks that occur in the Napa area are not the subspecies referred to as California horned lark, and the subspecies that is referred to as California horned lark is not a California Species of Special Concern;
- Bank swallow is not listed as Endangered in either the FESA or CESA, but rather as Threatened under CESA;
- Purple martin is not listed as Endangered in either the FESA or CESA, but rather as a California Species of Special Concern priority level 2;
- Tricolored blackbird is not only a California Species of Special Concern, but is also listed as Threatened under CESA and a USFWS Bird of Conservation Concern;
- Long-eared myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;

- Fringed myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;
- Long-legged myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;
- Silver-haired bat is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;
- Hoary bat is not a California Species of Special Concern, but it is designated by the Western Bat Working Group as moderate conservation concern.

53 CONT

FirstCarbon Solutions (2024) also does not give valid reasons for why each of the special-status species it analyses should be determined to have no potential or low potential for occurrence. A frequent explanation is that the project site provides foraging habitat but no nesting habitat; however, this explanation introduces a contrived bifurcation of habitat that lacks scientific foundation. No animals can successfully breed without finding sufficient forage during the breeding and non-breeding seasons, and that also goes for winter migrants such as ferruginous hawk and merlin.

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Another frequent explanation is that the project site fails to provide some habitat feature that FirstCarbon Solutions (2024) claims the species must have in order to survive. FirstCarbon Solutions (2024) describes the habitat of each species to be unrealistically narrow, and in so doing fails to cite sources in support of its habitat descriptions. For example, FirstCarbon Solutions (2024) explains that American badgers required "Open grassland habitats with plenty of prey," and then claims that no suitable habitat occurs in the project area. It is unclear what "plenty of prey" means, or from where how this notion came about, but I have found American badgers in many environments such as grasslands, savannas, oak woodlands, conifer forests, chaparral, and on agricultural landscapes. FirstCarbon Solutions (2024) points out that the nearest record is two miles from the project site, insinuating that two miles is too far from the site to consider the occurrence of badgers as likely. Two miles is a trivial distance to American badgers, as it is about a fifth the distance foraging badger can cover in a night.

55

In another example, the occurrence likelihood of bald eagle is reportedly very low because "No suitable nesting or foraging habitat exists in the project area," as according to FirstCarbon Solutions (2024: App. B), the species "Nests in forests, forages over lakes and streams." I observed bald eagles at a research site for nearly 10 years. Bald eagles are not limited to forests for nesting, nor do they only forage over lakes and streams. In fact, they hunt ground squirrels and other mammals and birds on annual grasslands and other environments. I observed a bald eagle only 2.7 miles from the project site (Photos 1 and 2). A bald eagle only 2.7 miles from the project site is essentially at the project site. Bald eagles fly 2.7 miles in about five minutes.

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The same determination based on the same reasoning is applied to peregrine falcon in FirstCarbon Solutions (2024). But again, I saw a peregrine falcon only 2.7 miles from the project site. The determination of very low likelihood of occurrence is inaccurate.

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Photos 1 and 2. *A juvenile bald eagle flew along the eucalyptus trees only 2.7 miles south-southeast of the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area that winter.*





In another example, FirstCarbon solutions (2024: App. B) determines pond turtle to have no occurrence potential on the project site. This determination is inaccurate. Pond turtles occur in streams, and they nest on adjacent upland environments. 58

There are many other examples of occurrence likelihood determinations that are inaccurate and poorly founded, but I want to focus on two more examples – the burrowing owl and Swainson's hawk. FirstCarbon solutions (2024: App. B) determines the occurrence likelihood of burrowing owl to be very low. No reason for this determination is provided other than the insinuation that the disturbed nature of the site would discourage burrowing owls. However, burrowing owls are well known to occur on disturbed soils (e.g., Smallwood and Morrison 2018). Furthermore, an occurrence record exists only 0.15 miles (240 m) from the project site. An occurrence record this close is essentially on the project site, because burrowing owls typically forage out to 400 m from their burrows. Regardless of whether one considers the occurrence record on site, even the determination of a very low occurrence likelihood -- which I dispute – warrants the implementation of the CDFW (2012) survey protocol. 59

There are three types of surveys recommended and described in the CDFW's (2012) survey and mitigation guidelines: (1) Habitat assessment, (2) Detection surveys, and (3) Preconstruction survey. The habitat assessment is intended to evaluate the likelihood that the site supports burrowing owls, and to decide whether detection surveys should be performed. The detection surveys, otherwise described as either breeding-season or non-breeding-season surveys, are intended to detect whether the site truly supports burrowing owls, and if so where and how many. The preconstruction survey, otherwise known as a take-avoidance survey, is intended to determine whether burrowing owls immigrated to the site since completion of the detection survey, or returned to the site since passive or active relocations were performed as mitigation. The three types of survey carry distinct but inter-related purposes, and they are to be completed in chronological order. 60

The first two types of survey support impacts analysis, whereas the third type of survey is a mitigation measure. Burrowing owls can be determined absent based on evidence derived from the habitat assessment or evidence derived from the detection survey, but only if the surveys achieved the minimum standards of CDFW (2012). Whereas an absence determination naturally follows from the negative findings of properly performed detection surveys, the following three questions drawn from CDFW (2012) must be answered negatively to determine absence based on the habitat assessment, which thus far is the only type of survey completed for burrowing owls at the project site: 61

A) Are there occurrence records nearby the project site?
B) Is the site's vegetation cover and height typical of where burrowing owls are found?
C) Are there fossorial mammals present which typically construct burrows useable by burrowing owls, or are there surrogate cavities that can serve as nest sites?

If the answers to these questions are compellingly negative, then detection surveys are not necessary, but they could be implemented to make certain the site is absent of

burrowing owls. If the answers to these questions are affirmative or not compellingly negative, then it should be assumed that burrowing owl habitat exists on the site until detection surveys prove otherwise. 61 CONT

The answer to question A is affirmative, as an occurrence record is located only 0.15 miles from the project site, which is essentially on the site. The answer to question B is affirmative, as the vegetation height on the project site is intentionally kept low for "weed abatement," pretty much just the way burrowing owls like it. The answer to question C is unknown, as the reconnaissance survey of 8 December 2022 was grossly deficient and it was performed at a time of year when ground squirrels are least abundant and least active. I have seen ground squirrels near the project site, thereby indicating a higher likelihood of burrowing owl presence. With two of the three answers solidly affirmative, and answer to the third likely affirmative, burrowing owl habitat needs to be assumed on the site, followed by detection surveys consistent with CDFW (2012). Considering that a listing petition has been submitted to the California Fish and Game Commission in response to an ongoing rapid decline of burrowing owls across California (Miller 2024), and considering that CDFW (2024) endorsed consideration of the listing petition and the Commission voted unanimously to protect western burrowing owls throughout California as a "candidate" species under CESA on October 10, 2024, it is my opinion that the proposed project would result in potentially significant adverse impacts to burrowing owls unless breeding-season detection surveys are implemented to the standards of CDFW (2012). 62

Lastly in terms of examples, FirstCarbon Solutions (2024: App. B) determines the occurrence likelihood of Swainson's hawk to be very low. Having researched Swainson's hawks over many years (Smallwood 1995), it is my opinion that FirstCarbon Solutions' habitat description is inaccurate. Swainson's hawks forage over many more vegetation covers that grassland (Smallwood 1995). Moreover, Swainson's hawks forage over disturbed ground, especially while the ground is undergoing disturbance (Smallwood 1995). FirstCarbon Solutions' is also at odds with its reporting that the nearest Swainson's hawk occurrence record is a mere 0.25 miles from the project site. In flight time, 0.25 miles is a matter of seconds before the Swainson's hawk is over the project site. 63

At p. 9, the IS/MND attempts to defend the County's failure to implement the Swainson's hawk detection survey protocol as unnecessary: "This recovery success and expansion of SWHA range has been well-documented in other environmental documents from projects in the region, which have not been required to provide SWHA mitigation for foraging habitat." However, I have read some of the other environmental documents from projects in the region, and the analysis in these documents lack a quantitative basis for the claim that Swainson's hawks have been expanding in the project area. In fact, with all the new warehouses and other structures that have been recently added to the landscape, the notion that Swainson's hawks have expanded in the area is hard to believe; Swainson's hawks do not find forage on rooftops and blacktops. 64

The IS/MND (p. 9) attempts another approach to downplay the County's failure to implement the appropriate survey and mitigation guidelines, "While Swainson's hawk's 65

nests are protected, foraging habitat mitigation has generally not been required in the business park area." However, this excuse is only an admission that the County has so far failed to comply with the CEQA by not implementing the CDFW (2000) survey and mitigation guidelines.

65 CONT

Finally, the IS/MND (p 9) attempts to downplay potential impacts to Swainson's hawks by claiming that the loss of 23.66 acres of foraging habitat would take only 0.16% of potential foraging habitat. I have to assume that the 0.16% figure would apply to an average Swainson's hawk home range, as otherwise it makes no sense. If this is so, then the 0.16% of foraging habitat that is lost is the 0.16% that makes the difference between persistence and extirpation, then the 0.16% would be of critical importance. The IS/MND goes on to speculate wildly that there exists plenty of habitat of better quality located elsewhere. The Swainson's hawks at issue are those that occur at the project site, and not somewhere else. The IS/MND's speculations do not qualify as a serious analysis of potential impacts.

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POTENTIALLY SIGNIFICANT BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss and wildlife-automobile collision mortality, discussed below.

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HABITAT LOSS

FirstCarbon Solutions (2024) found that the proposed project will result in the loss of non-native, grassland and ruderal habitats, but the MND (p. 10) explains that the project site is previously disturbed, located within an existing industrial/business park, and there is "No evidence of wildlife corridors, raptor nests, wildlife dens, burrows or other unique or sensitive biological habitats or resources are located on site." The MND (p. 10) therefore concludes that there would not be significant impacts to wildlife or other sensitive habitat.

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The proposed project would result in potentially significant adverse biological impacts. Noriko Smallwood and I measured the impacts of habitat loss to wildlife caused by mitigated development projects, such as by industrial warehouses. We revisited 80 sites of proposed projects that we had originally surveyed in support of comments on CEQA review documents (Smallwood and Smallwood 2023). We revisited the sites to repeat the survey methods at the same time of year, the same start time in the day, and the same methods and survey duration to measure the effects of mitigated development on wildlife. We structured the experiment in a before-after, control-impact experimental design, as some of the sites had been developed since our initial survey and some had remained undeveloped. We found that mitigated development resulted in a 66% loss of

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species on site, and 48% loss of species in the project area. Counts of vertebrate animals declined 90%. “Development impacts measured by the mean number of species detected per survey were greatest for amphibians (-100%), followed by mammals (-86%), grassland birds (-75%), raptors (-53%), special-status species (-49%), all birds as a group (-48%), non-native birds (-44%), and synanthropic birds (-28%). Our results indicated that urban development substantially reduced vertebrate species richness and numerical abundance, even after richness and abundance had likely already been depleted by the cumulative effects of loss, fragmentation, and degradation of habitat in the urbanizing environment,” and despite the mitigation measures per existing policies and regulations. We also specifically tested for the effects of projects to wildlife in neighboring habitats, and we found significant decreases in species richness and overall abundance in those areas as well. 69 CONT

Habitat loss not only results in the immediate numerical decline of wildlife, but it also results in permanent loss of productive capacity. Habitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small (Smallwood 2015). In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere. 70

Several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, I surveyed various patches of vegetation cover in northern California throughout the breeding seasons of 2023 and 2024. I surveyed a 1.32-acre patch of riparian forest in Rancho Cordova where I estimated 28.79 nests/acre, a 2.95-acre patch of grassland/wetland adjacent to riparian forest east of Davis, where I estimated 5.08 nests/acre in 2024, and a 9.42-acre patch of annually disked grassland adjacent to riparian forest in Rancho Cordova, where I estimated 5.47 nests/acre. Applying 28.79 nests/acre to the 6.13 acres of riparian, and the mean 5.275 between my grassland estimates to the 14.2 acres of the project site covered by periodically disked grassland would predict an annual average 251 nest sites on the project site. Assuming 1.39 broods per nest site, which is the average among 322 North American bird species I asked Noriko Smallwood to review, then I predict the project would cost California 349 nest attempts/year. 71

The loss of 251 nest sites and 349 nest attempts per year would qualify as significant impacts that have not been analyzed in the IS/MND. But the impacts would not end with the immediate loss of nest sites. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young’s (1948) study was 2.9. Assuming Young’s (1948) study site typifies bird productivity, the project would prevent the production of 41 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number 72

of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 1,113 birds per year denied to California. 72 CONT

Most if not all the estimated 1,113 birds that annually could be lost to the project are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act, both of which most strongly protect breeding migratory birds. It is my opinion that the proposed project would result in potentially significant adverse biological impacts. 73

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 3—5), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally. 74



Photo 3. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*



Photo 4. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*



Photo 5. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 9,462 animals killed by traffic on the road. This fatality number projected over 1.25 years and 2.5 miles of road translates to 3,028 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 188,191 animals killed per 100 km of road per year, or 22 times that of Loss et al.'s (2014) upper bound estimate and 53 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife. 75

Special-status species that could suffer project-generated, traffic-collision mortality in the areas surrounding the project site include California tiger salamander, California red-legged frog, American badger, among many others listed in Table 4. 76

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,028 animals killed per mile along a county road in Contra Costa County. The estimated numbers of fatalities were 1.75% birds, 26.4% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 67.4% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 4.4% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009) study, hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates. 77

Predicting project-generated traffic impacts to wildlife

The IS/MND predicts 1,227 daily VMT for the winery and 1,345 daily VMT for the warehouse, which projected to a year predicts 938,780 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 9,462 wildlife fatalities, or 2,351 vehicle miles per fatality. This rate divided into the predicted annual VMT would predict 399 vertebrate wildlife fatalities per year. 78

Based on my analysis, the project-generated traffic may cause substantial, significant impacts to wildlife. The IS/MND does not analyze this potential impact, nor does it propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. 79

MITIGATION

Mitigation Measure BIO-1: *Install silt fencing along the Conservation Easement boundary to the riparian corridor*.

Should the project go forward, the silt fencing would need to be placed farther from the riparian corridor than the depicted in the IS/MND. According to Semlitsch and Bodie (2003), “Core terrestrial habitat [from aquatic habitat] ranged from 159 to 290 m for amphibians and from 127 to 289 m for reptiles from the edge of the aquatic site." To avoid direct impacts to terrestrial wildlife along the riparian corridor, I recommend the silt fence be placed 300 feet from the southern edge of the top of bank of Sheehy Creek. 80

Mitigation Measure BIO-2: *Implement CDFW (2018) as a preconstruction survey for rare plants.*

This measure misrepresents CDFW (2018) as a preconstruction survey rather than as a reconnaissance survey. The CDFW (2018) rare plant survey guidelines are intended to support the preparation of the CEQA review document. Implementation of CDFW (2018) would not qualify as a legitimate mitigation measure, as it was never intended to serve as a mitigation measure. 81

Mitigation Measure BIO-3: *Implement preconstruction survey for nesting birds, and if nests are found, a biologist shall establish buffers to construction activities.*

If the project goes forward, preconstruction surveys for nesting birds should be performed. However, the survey would not detect all of the available nests, nor would it prevent the loss of productive capacity I predict above under Habitat Loss. 82

Furthermore, the language of this mitigation allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable. 82 CONT

Mitigation Measure BIO-6: *Implement CDFW (2012) habitat assessment and surveys for wintering burrowing owls.*

This measure makes little sense, and as written would not be consistent with CDFW (2012). A habitat assessment has already been completed, and the findings already warrant detection surveys. The detection surveys that are needed are breeding-season surveys consistent with CDFW's (2012) protocol. These surveys are intended to be completed prior to the issuance of the CEQA review document, not afterwards. The habitat assessment and detection surveys are not intended to be mitigation measures, as clearly stated in CDFW (2012). 83

The burrowing owl has been designated a Candidate for listing as Threatened or Endangered under CESA. No take of burrowing owls is allowed. Detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey.

Mitigation Measure BIO-8: *Install exclusion fencing during the wet season.*

Should the project go forward, exclusion fencing should be installed and monitored for integrity over the winter months, but passage would need to be accommodated from the project site toward Sheehy Creek, and prevented from Sheehy Creek toward the project site. Unless this one-way passage is enabled, the amphibians the fencing is installed to protect would instead trap the amphibians on the project site. Even if the fencing would prevent some amphibians from being crushed by heavy machinery, it would not avoid the loss of habitat along with the productive capacity of that habitat. The measure would not avoid a substantial, highly significant impact to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted. 84

Thank you for your attention,

Shawn Smallwood

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Shawn Smallwood, Ph.D.

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Curriculum Vitae

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Born May 3, 1963 in Sacramento, California. Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 480 professional publications, including:
- 83 peer reviewed publications
- 24 in non-reviewed proceedings
- 371 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC

reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD’s program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their

conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS

analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the

County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

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Comments on Environmental Documents

I was retained or commissioned to comment on environmental planning and review documents, including:

- The Villages of Lakeview EIR (2017; 28 pp);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4 pp);
- San Gorgonio Crossings EIR (2017; 22 pp);
- Replies to responses on Jupiter Project IS and MND (2017; 12 pp);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12 pp);
- Central SoMa Plan DEIR (2017; 14 pp);
- Colony Commerce Center Specific Plan DEIR (2016; 16 pp);
- Fairway Trails Improvements MND (2016; 13 pp);
- Review of Avian-Solar Science Plan (2016; 28 pp);
- Replies to responses on Initial Study for Pyramid Asphalt (2016; 5 pp);
- Initial Study for Pyramid Asphalt (2016; 4 pp);
- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14 pp);
- Santa Anita Warehouse IS and MND (2016; 12 pp);
- CapRock Distribution Center III DEIR (2016: 12 pp);
- Orange Show Logistics Center Initial Study and MND (2016; 9 pp);
- City of Palmdale Oasis Medical Village Project IS and MND (2016; 7 pp);
- Comments on proposed rule for incidental eagle take (2016, 49 pp);
- Grapevine Specific and Community Plan FEIR (2016; 25 pp);
- Grapevine Specific and Community Plan DEIR (2016; 15 pp);
- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study (2016; 6 pp);
- Tri-City Industrial Complex Initial Study (2016; 5 pp);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02 (2016; 12 pp);
- Kimball Business Park DEIR (2016; 10 pp);
- Jupiter Project IS and MND (2016; 9 pp);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18 pp);
- Palo Verde Mesa Solar Project Draft Environmental Impact Report (2016; 27 pp);

- Reply Witness Statement on Fairview Wind Project, Ontario, Canada (2016; 14 pp);
- Fairview Wind Project, Ontario, Canada (2016; 41 pp);
- Supplementary Reply Witness Statement Amherst Island Wind Farm, Ontario (2015, 38 pp);
- Witness Statement on Amherst Island Wind Farm, Ontario (2015, 31 pp);
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- Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 10 pp);
- Witness Statement on White Pines Wind Farm, Ontario (2015, 9 pp);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9 pp);
- Replies to comments 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015; 28 pp);
- Sierra Lakes Commerce Center Project DEIR (2015, 9 pp);
- Columbia Business Center MND (2015; 8 pp);
- West Valley Logistics Center Specific Plan DEIR (2015, 10 pp);
- World Logistic Center Specific Plan FEIR (2015, 12 pp);
- Bay Delta Conservation Plan EIR/EIS (2014, 21 pp);
- Addison Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Addison Wind Energy Project DEIR (2014, 15 pp);
- Addison and Rising Tree Wind Energy Project FEIR (2014, 12 pp);
- Alta East Wind Energy Project FEIS (2013, 23 pp);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16 pp);
- Clearwater and Yakima Solar Projects DEIR (2013, 9 pp);
- Cuyama Solar Project DEIR (2014, 19 pp);
- Draft Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49 pp);
- Kingbird Solar Photovoltaic Project EIR (2013, 19 pp);
- Lucerne Valley Solar Project Initial Study & Mitigated Negative Declaration (2013, 12 pp);
- Palen Solar Electric Generating System Final Staff Assessment of California Energy Commission, (2014, 20 pp);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9 pp);
- Rising Tree Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Rising Tree Wind Energy Project DEIR (2014, 15 pp);
- Soitec Solar Development Project Draft PEIR (2014, 18 pp);
- Comment on the Biological Opinion (08ESMF-00-2012-F-0387) of Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3 pp);
- West Antelope Solar Energy Project Initial Study and Negative Declaration (2013, 18 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28 pp);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10 pp);
- Declaration on Tule Wind project FEIR/FEIS (2013; 24 pp);
- Sunlight Partners LANDPRO Solar Project Mitigated Negative Declaration (2013; 11 pp);
- Declaration in opposition to BLM fracking (2013; 5 pp);
- Rosamond Solar Project Addendum EIR (2013; 13 pp);
- Pioneer Green Solar Project EIR (2013; 13 pp);
- Reply to Staff Responses to Comments on Soccer Center Solar Project Mitigated Negative

Declaration (2013; 6 pp);
- Soccer Center Solar Project Mitigated Negative Declaration (2013; 10 pp);
- Plainview Solar Works Mitigated Negative Declaration (2013; 10 pp);
- Reply to the County Staff's Responses on comments to Imperial Valley Solar Company 2 Project (2013; 10 pp);
- Imperial Valley Solar Company 2 Project (2013; 13 pp);
- FRV Orion Solar Project DEIR (PP12232) (2013; 9 pp);
- Casa Diablo IV Geothermal Development Project (3013; 6 pp);
- Reply to Staff Responses to Comments on Casa Diablo IV Geothermal Development Project (2013; 8 pp);
- FEIS prepared for Alta East Wind Project (2013; 23 pp);
- Metropolitan Air Park DEIR, City of San Diego (2013;);
- Davidon Homes Tentative Subdivision Map and Rezoning Project DEIR (2013; 9 pp);
- Analysis of Biological Assessment of Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10 pp);
- Declaration on Campo Verde Solar project FEIR (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8 pp);
- Declaration on North Steens Transmission Line FEIS (2012; 62 pp);
- City of Lancaster Revised Initial Study for Conditional Use Permits 12-08 and 12-09, Summer Solar and Springtime Solar Projects (2012; 8 pp);
- J&J Ranch, 24 Adobe Lane Environmental Review (2012; 14 pp);
- Reply to the County Staff's Responses on comments to Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 8 pp);
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- Desert Harvest Solar Project EIS (2012; 15 pp);
- Solar Gen 2 Array Project DEIR (2012; 16 pp);
- Ocotillo Sol Project EIS (2012; 4 pp);
- Beacon Photovoltaic Project DEIR (2012; 5 pp);
- Declaration on Initial Study and Proposed Negative Declaration for the Butte Water District 2012 Water Transfer Program (2012; 11 pp);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16 pp);
- City of Elk Grove Sphere of Influence EIR (2011; 28 pp);
- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);
- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge & Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of

Intervenors Friends of the Columbia Gorge & Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);

- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);
- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009: 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);
- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- County of Placer's Categorical Exemption of Hilton Manor Project (2009; 9 pp);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9 pp);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);
- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008: 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008: 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008: 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed

Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);

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- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21 pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);
- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed

species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);
- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176): 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Skyranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9 pp).

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12 pp);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8 pp);
- Draft Program Level EIR for Covell Village (2005; 19 pp);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping document (2003: 7 pp.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7 pp);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8 pp.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35 pp.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2 pp.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7 pp.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10 pp.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7 pp.);

- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10 pp);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 pp + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian

fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind

power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa

Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association,

Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

“No Surprises” -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.
- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.
- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	**Journal**
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Wildlife Society Bulletin	Peer J
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

Representative Clients/Funders

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Track surveys in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Monitoring & habitat restoration
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Numerical & behavioral surveys
Swainson's hawk	*Buteo swainsoni*	Numerical & behavioral surveys
Northern harrier	*Circus cyaeneus*	Numerical & behavioral surveys
White-tailed kite	*Elanus leucurus*	Numerical & behavioral surveys
Loggerhead shrike	*Lanius ludovicianus*	Large area surveys
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Numerical & behavioral surveys
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Monitored success of relocation and habitat restoration
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

EXHIBIT C

SMITH ENGINEERING & MANAGEMENT

November 12, 2024

Ms. Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Subject: E & P Technology **Way – Building A & B** ISMND
P24006

Dear Ms. Rengifo:

Per your request, I reviewed the Draft Initial Study Mitigated Negative Declaration (the "ISMND") for the E & P Technology Way – Building A & B Project (the "Project") in the County of Napa (the "County"). My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto. 85

My comments follow.

The Transportation Section of the ISMND Evaluates the VMT of the Two Components of the Project Independently of One Another. This Is a Project Segmentation or Piecemealing That Is Improper Under CEQA.

The ISMND at pages 1 and 2 identifies the proposed development as a single project comprised of 2 components, a winery ("Building A") and a warehouse ("Building B"). Moreover, the air quality and public health analysis in the MND at pages 7-8 estimates "the project is anticipated to generate 218 total weekday trips. However, the Transportation Section, at page 26, does not consider the VMT of the Project as a whole as required by CEQA. Instead, it independently

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evaluates the winery in Building A as having an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months. Based on the trip calculations for Building A alone, the MND states no further VMT analysis is required under the OPR guidance "that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact."

The MND at page 27 determines that the Building B warehouse would generate 114 trips per day, which would exceed the 110 trip threshold, and requires the implementation of a Transportation Demand Management Plan (MM TRANS-1). Segmenting the transportation analysis for Building A from Building B is clear piecemealing and violates CEQA. Building A and Building B, i.e., the Project as a whole, would have an estimated 218 daily trips, which is well more than the 110 daily trip maximum for presumption of a less than significant VMT impact. The Project's impact on VMT must be analyzed for the whole of the action and since the Project as a whole would exceed the threshold, there would be a significant and unavoidable impact on VMT. Mitigation measure(s) are necessary to reduce these significant impacts on VMT for the Project to less than significant levels.

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CONT

Omissions in the Project Description

The Project Description lacks information about the number and frequency of clients that will visit Building A. The ISMND states at page 2 that no retail sales or access for the general public is proposed. However, the ISMND does state at page 2 that "Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers."

The ISMND provides no information about how frequently such gatherings would occur and the numbers of attendees. Due to these omissions in the Project Description, the transportation analysis provides no information about the traffic and VMT associated with such meetings. The Project's Transportation Impact Study at page 7 explains that the anticipated trip generation for Building A was estimated using the Napa County Winery Trip Generation Worksheet. Appendix C to the study includes this worksheet, which puts zero as the maximum daily visitation during the harvest and non-harvest seasons. Only full-time and part-time employees are considered in the trip generation analysis for Building A even though the MND acknowledges that there will be client meetings at the facility during operations. The Project Description must be revised to include information about how frequently such gatherings would occur and the numbers of attendees and the Project's VMT analysis must be revised accordingly.

The Trip Generation Estimates for Building B are Unsupported

For Building B (the warehouse), where a staff of 30 employees is indicated, 82 parking spaces are to be provided. The staff report at page 7 states that 38 of the 82 to be provided are "for the warehouse" and 44 are "for the office". An estimated 11,000 square feet of office space 9the square footage that would typically be needed to support 44 office workers) in Building B is over 16 percent of the building's floor area and thus the office component is not a small ancillary use to the warehouse.

The office uses in Building B should have been analyzed using *Trip Generation, 11th Edition* Land Use Category 710 "Office" instead of Land Use Category 150 "Warehouse". That authoritative reference source indicates office use generates 10.84 trips per thousand square feet daily, 1.52 trips per thousand in the AM peak hour and 1.44 trips per thousand in the PM peak hour whereas warehouse use generates only 1.71 trips per thousand square feet daily, 0.19 per thousand in the AM peak and 0.18 trips per thousand in the PM peak, In other words, depending on the time period under consideration, office use generates between 6 and 8 times more traffic than the same square footage of warehouse. Had the analysis considered an office component, both the trip totals and the VMT generation of Building B would be significantly increased. These impacts are undisclosed and unmitigated in the MND.

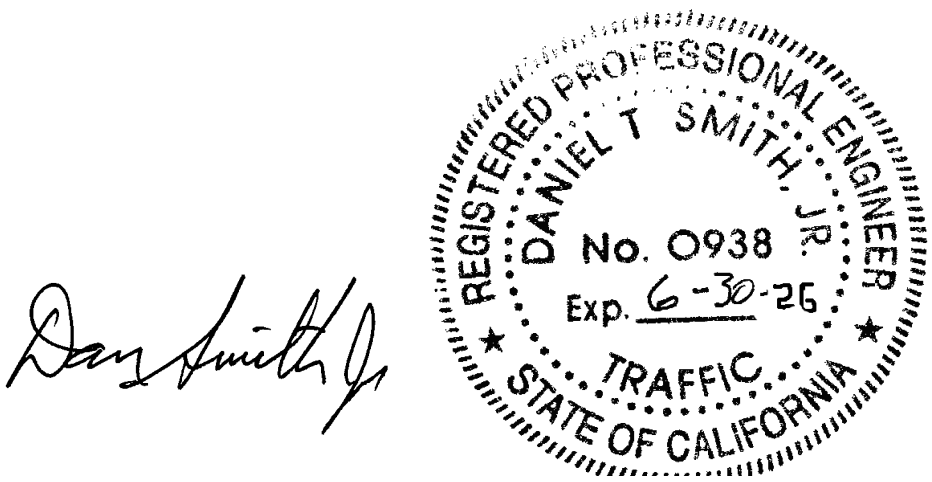
85
CONT

Conclusion

Given the above, the ISMND's transportation section is inadequate and an EIR must be prepared.

Sincerely,

Smith Engineering & Management
A California Corporation



Daniel T. Smith Jr., P.E.
President

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
California No. 938 (Traffic) Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

“R”

Staff Memo Dated November 20, 2025

E&P Technology Way – Buildings A & B Use Permits
(P22-00307 / P22-00308)
Planning Commission Hearing Date December 3, 2025

A Tradition of Stewardship
A Commitment to Service

Planning, Building & Environmental Services

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Brian D. Bordona
Director

MEMO

DATE: November 20, 2025

TO: Napa County Planning Commission

FROM: Sean Trippi, Supervising Planner

RE: E&P Technology Way Buildings A & B / Dennis Paulley / Use Permit Applications P22-00307 and P22-00308

The following are responses to the Water Audit California Letter Dated November 19, 2024,

1. FINDINGS

The project was reviewed by Airport Land Use Commission (ALUC) staff for consistency with the 1999 Airport Land Use Compatibility Plan (ALUCP) since the project was evaluated prior to the December 4, 2024, adoption of the Napa Countywide Airport Land Use Compatibility Plan. Table 3-2 of the ALUCP includes examples of normally acceptable uses as well as examples of uses not normally acceptable. Both project proposals were found to be normally acceptable within Zone D of the ALUCP. Therefore, a formal determination by the ALUC is not required because the ALUC determined that the County's General Plan and Zoning Code are consistent with the ALUCP. Further, Planning staff asked ALUC staff for a consistency determination with the 2024 Plan. ALUC staff determined the two project proposals qualify as minor land use actions per 2.1.28, which can be reviewed by the ALUC Executive Officer per 2.8.2(a) and do not need to go to the ALUC for a compatibility determination.

The IP zoning district and Napa Valley Business Park Specific Plan (NVBPSP) include provisions that the Planning Commission may allow, as part of the approval of a use permit, variations from development standards including building setbacks. The NVBPSP variation standard codified in Napa County Code (NCC) section 18.40.250 is a *separate* process than County's variance procedures in Chapter 18.128. (see Background and Discussion No. 4 of the staff report).

2. CONDITIONS OF APPROVAL ("COA") BUILDING A AND B

A separate use permit is required for each building as the buildings are proposed on different sites. Each use permit has separate conditions of approval associated with the specific request.

The proposal does not include horizontal directional drilling under Sheehy creek or any new utilities crossing the creek.

BIO mitigation measures in Conditions of Approval 6.15 and 7.4 include PBES and CDFW as responsible agencies where applicable.

The agenda packet for the November 20, 2024, Planning Commission meeting was published on Friday May 8, 2024, with the staff report and all supporting documentation and review agency comments. Comments received prior to publication were attached and included in the agenda packet. At the time of publication, no public comments had been received. Comments from CDFW were received on November 15, 2024. Comments

received after Agenda publication were forwarded to the Planning Commission prior to the meeting and included the comments received from CDFW, Water Audit California, and Adams, Broadwell, Joseph and Cardozo. No other public or agency comments were received.

The Initial Study/Mitigated Negative Declaration (IS/MND) has been revised to incorporate CDFWs comments.

3. WATER AND SEWER

All three parcels comprising the two project sites are undeveloped and do not use potable water. Water will-serve letters have been issued by the City of American for both sites. Any previously issued will-serve letters would have expired and are not germane.

An application for a well permit (E07-00683) was submitted on September 20, 2007, and completed/inspected on September 24, 2007. The APN on the permit application was 057-250-031; however, the well was constructed on APN 057-250-030. The applicant has confirmed that there is a capped six-inch plastic (pvc) riser that was constructed on APN 057-250-030 near the east property line shared with APN 057-250-031. The well was never put into production and will be destroyed prior to development on the site (see Environmental Health's conditions of approval).

An application for a use permit (P07-00864) for wine production facility on AP 057-250-030 was filed on December 14, 2007, and subsequently withdrawn on August 21, 2001. The City of American Canyon issued a will-serve letter for water service on March 29, 2007, which was valid for two years from the date of issuance, and has since expired.

4. INITIAL STUDY

The Initial Study/Mitigated Negative Declaration (IS/MND) was submitted to the State Clearinghouse (SCH) and posted on October 18, 2024 (SCH confirmation number 2024100855). As noted above, CDFW submitted comments on November 15, 2024, which have been incorporated into the revised IS/MND. A Notice of Determination will be filed after a project has been approved.

5. APPLICATION

Water Audit California is correct that both the Major Modification Box and the Use Permit Box were checked. However, the applications were clearly processed, assessed, as well as publicly noticed and described in the Initial Study/Mitigated Negative Declaration (MND) and staff report as use permits.

Furthermore, the Planning Departments Use Permit application is for both new use permits and major modifications, and as such, is labeled as 'Use Permit/Major Modification Application'. Given this, the applicant may have thought they were required to select both Use Permit and Major Modification since that is the title on the County's application form. All required and necessary application submittal materials were received.

The applicant's Civil Engineer collected record plans and conducted a field survey and verified that there are existing sewer, water and storm drain utilities within Technology Way and Morris Court. The master plan for recycled water obtained by the Civil Engineer showed an existing 6" recycled water line on the south side of Technology Way and a 4" stub on the north side at the east end of the project site. The plans show the extension to the 4" recycled water to serve the project. These existing utility lines are shown on the Utility Plans prepared by the Civil Engineer.

6. STORMWATER

While the existing trail may create a natural setback for proposed construction along Sheehy creek, Sheehy creek has a 35-foot setback measured from the top of bank on both sides of the creek. The setback is shown on project plans in the Graphics attached to the staff report. (Attachment K). The setback is also shown on the Final Maps for the Napa Valley Gateway subdivision and is further described in the Easement Deed for Habitat Conservation and open space access.

7. BIOLOGICAL

The Biological Resources Assessment includes several exhibits. Exhibit 2 shows the project site on a USGS base map which includes Suscol, Sheehy and Fagan creeks. It should be noted that the USGS map shows the original alignment of Sheehy creek.

The County GIS mapping system includes numerous layers to help inform staff and the public of a property's characteristics. The Vegetation layer would indicate the potential plant and tree types that may be present on a site and the surrounding area including vegetation that may be indicative of wetlands. The Wetland and Vernal Pools layer shows areas where wetlands or vernal pools have been identified in Napa County. This is not meant to be an exhaustive list. It is not related to the National Wetlands Inventory (NWI). The NWI layer represents the extent, approximate location, and type of wetlands, surface waters and deepwater habitats in Napa County. Both the Vegetation and NWI layers are based on aerial imagery and not site-specific investigation. Review of these and other layers in the County GIS mapping system would be used to determine if a Biological Resources Assessment would be required as is the case here.

The United States Environmental Protection Agency defines wetlands as areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

The hydrology indicators described above are considered to be "primary indicators", any one of which is sufficient evidence that wetland hydrology is present when combined with a hydrophytic plant community and hydric soils.

The three-tier wetland delineation criteria used by the U.S. Army Corps of Engineers (USACE) to determine the presence of a wetland would include saturated soils and/or standing water, hydrophytic plans, and hydric soils. The Biological Resources Assessment prepared by First Carbon Solutions assessed the site for potential wetlands. Based on their investigation, the site lacks USACE wetland criteria and concluded that there are no potentially jurisdictional wetlands in the project's development area.

8. GEOLOGICAL

The civil plans note existing easements and infrastructure in the area of Sheehy Creek. But no new utility crossings are proposed at Sheehy for this project. As noted in the staff report, Initial Study/Mitigated Negative Declaration, and other support documents, Sheehy creek was realigned to its present location in approximately 2003-2004. The original location was then back filled. No filling, cutting, or relocation of Sheehy creek is proposed with this project.

9. TRAFFIC

The Project Statement for Building A indicated that the winery expects to have 16 full-time and 7 part-time employees for most of the year. During harvest the winery would have 35 total employees. The Executive Summary of the Traffic Impact Study (Attachment G) reiterates these numbers and further breaks down harvest employees to 25 full-time and 10 part-time. There is, however, a Winery Trip Generation Worksheet in the Application Submittal Materials for Building A (Attachment E) that breaks down harvest employees as 28 full-time and 7 part-time. This page has been left in the packet materials but has been labeled "superseded."

10. GRAPHICS

Attachment K includes graphics prepared by staff as well as the plan set submitted by the applicant. The project APN's are listed on the graphics prepared by staff and on the cover sheet of the plan sets for Buildings A and B.

11. PARCEL REPORT

As noted in the staff report and the conditions of approval for Building B, APN's 057-250-031 and -032 will be combined prior to issuance of a building permit (see Recommendation section and condition of approval 6.16(a) in Attachment C).

12. WATER BOARDS

The link provided under this comment is to the Napa County Stream Maintenance Manual (Manual) that was prepared for the Napa County Flood Control and Water Conservation District in January 2019. The Manual refers to the portion of Sheehy creek from North Kelly Road west to Highway 29 as defined on Pdf page 177 of the report and depicted on the map on pdf page 179. The portion of Sheehy creek abutting the project site is not included in this Manual.

The Napa County Flood Control and Water Conservation District (District) has maintenance responsibilities for flood control channels that the District owns in fee title, as well as other channels for which the District has a maintenance agreement or easement. The District is also responsible for operating and maintaining elements of the Flood Protection Project. The location and ownership type for District maintained channels are presented in the Manual. As noted above, the portion of Sheely creek abutting the project site is not a District maintained channel.

13. THE PUBLIC TRUST

Under the public trust doctrine (the Doctrine), Napa County has an affirmative duty to take the public trust into account in the planning and allocation of trust resources, and to protect public trust uses whenever feasible. The Doctrine applies if extraction of groundwater adversely impacts a navigable waterway to which the public trust doctrine applies. In Napa County, the Napa River is the navigable waterway protected by the public trust doctrine. An analysis of impacts to trust resources is triggered by whether the groundwater extraction (whether new or the continued extraction or a reduction over existing extraction levels) is hydrologically connected to a navigable waterway or non-navigable tributaries of those waters. The analysis
begins and ends with whether the proposed project harms a navigable waterway and thereby violates the public trust.

Public trust does not apply in this case as the project does not propose to use or extract groundwater from the project site. The City of American Canyon has prepared a water supply report and a water will-serve letter indicating there is sufficient water for the proposed project. These documents are part of the project packet and were available to the public. Furthermore, they have been incorporated as conditions of approval.

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Planning Commission | **Agenda Date:** 12/3/2025 | **File ID #:** 25-1885

TO: Napa County Planning Commission

FROM: Brian D. Bordona, Director Planning, Building and Environmental Services

REPORT BY: Michael Parker, Planning Manager

SUBJECT: Presentation on Historic Preservation

RECOMMENDATION

Staff requests the Planning Commission receive a presentation on Historic Preservation from Christine Madrid French, Executive Director of Napa County Landmarks, and Kara Brunzell, Architectural Historian and Principal of Brunzell Historical.

EXECUTIVE SUMMARY

Not applicable.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

BACKGROUND AND DISCUSSION

Not applicable.