Napa County

1195 THIRD STREET
SUITE 310
NAPA, CA 94559

Agenda

Wednesday, June 3, 2026
9:00 AM

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

Planning Commission

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

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/40034/2026-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. PUBLIC COMMENTS AND RECOMMENDATIONS

The Commission invites public 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

The Clerk of the Commission requests approval of minutes from the regular meeting held on May 20, 2026. **26-1209**

Attachments: 5-20-26 Minutes

5. AGENDA REVIEW

6. DISCLOSURES

7. PUBLIC HEARING ITEMS

A. MARK SCHRATZ / AXR NAPA VALLEY WINERY / USE PERMIT MAJOR MODIFICATION P22-00417-MOD, VARIANCE P26-00045-VAR, AND ADMINISTRATIVE VIEWSHED PERMIT P26-00044-VIEW **26-1123**

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

Request:
1) Approval of a Major Modification to Winery Use Permit Nos. P08-00099 and P04-0541 to allow construction of a new type I wine cave, conversion of the barrel storage building to a tasting room and the adjacent outdoor crush/tank pad to hospitality uses, conversion of the main residence (apartment) to winery office use, an increase in employees and visitation, an expanded marketing program, water and wastewater system improvements, a left turn lane on St. Helena Highway / Highway 29 (SR 29) and associated driveway modifications;
2) A Variance to the 600-foot winery setback from SR 29 to allow aboveground structures associated with the wastewater treatment system; and
3) an Administrative Viewshed Permit for cave portals and water and wastewater system improvements on slopes ranging from 15 to 18 percent.

The project is located on a 7.85-acre parcel zoned for Agricultural Watershed (AW) with a General Plan land use designation of Agriculture, Watershed, and Open Space (AWOS) at 3199 N. St. Helena Highway, St. Helena, CA 94574; APN: 022-080-025.

Staff Recommendation: Adopt the Initial Study/Subsequent Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program prepared for the project and approve the Use Permit Major Modification No. P22-00417, Variance No. P26-00045, and Administrative Viewshed Permit No. P26-00044, as conditioned.

Staff Contact: Hannah Spencer, Planner III;
Hannah.spencer@countyofnapa.org, (707) 253-4018

Applicant Contact: Mark Schratz, 3199 N. St. Helena Highway, St. Helena, CA 94574

Applicant Representative Contact: Jeffrey Redding, Land Use Planning Services, 2423 Renfrew Street, Napa CA 94558; jreddingaicp@comcast.net, (707) 815-0723.

Attachments:
Attachment A Recommended Findings
Attachment B Recommended Conditions of Approval and Final Agency Memos
Attachment C Subsequent IS-MND
Attachment D 2005 Adopted MND P04-0541
Attachment E 2008 Adopted MND Addendum P08-00099
Attachment F Previous Project Conditions
Attachment G Application Forms and Narratives
Attachment H Water Availability Analysis
Attachment I Wastewater Analysis
Attachment J Biological Study ECP #01-222
Attachment K Historic Resources Evaluation
Attachment L Traffic Impact Study
Attachment M Cave Portal Visibility Analysis
Attachment N Graphics
Attachment O Public Comments

8. ADMINISTRATIVE ITEMS

A. Receive an informational presentation from the Planning Division of the Planning, Building, and Environmental Services (PBES) Department and the County Fire Marshal on the application and scope of the County's Viewshed Protection Program (NCC 18.106) and Defensible Space Ordinance (NCC 8.36). **26-1204**

9. DIRECTOR OR DIRECTOR'S DESIGNEE REPORT

- DISCUSSION OF ITEMS FOR THE JUNE 17, 2026 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 5/22/26 BY 2:00 P.M. A HARDCOPY SIGNED VERSION OF THE CERTIFICATE IS ON FILE WITH THE CLERK OF THE COMMISSION AND AVAILABLE FOR PUBLIC INSPECTION.
ANGIE RAMIREZ VEGA (By e-signature)
Angie Ramirez Vega, 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:** 6/3/2026 | **File ID #:** 26-1209

TO: Napa County Planning Commission

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

REPORT BY: Angie Ramirez Vega, Clerk of the Commission

SUBJECT: Approval of Minutes

RECOMMENDATION

The Clerk of the Commission requests approval of minutes from the regular meeting held on May 20, 2026.

EXECUTIVE SUMMARY

The Clerk of the Commission requests approval of minutes from the regular meeting held on May 20, 2026.

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 May 20, 2026, meeting may vote on the minutes.

Meeting Minutes

Napa County Planning Commission

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

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

Wednesday, May 20, 2026	**9:00 AM**	**Board of Supervisors Chambers 1195 Third Street, Third Floor**

1. CALL TO ORDER / ROLL CALL

Commissioners Present: Kara Brunzell, Pete Richmond, Megan Dameron, Molly Moran Williams, Walter Brooks
Commissioners Absent: None

2. PLEDGE OF ALLEGIANCE

3. CITIZEN COMMENTS AND RECOMMENDATIONS

None

4. APPROVAL OF MINUTES

Motion by Commissioner Dameron to approve minutes for the May 6, 2026, regular meeting as presented, seconded by Commissioner Moran Williams
Vote: Carried 5-0-0
Yes: Dameron, Moran Williams, Richmond, Brunzell, Brooks
No: None
Absent: None

5. AGENDA REVIEW

Michael Parker gave the agenda review.

6. DISCLOSURES

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

7. PUBLIC HEARING ITEMS

A. SHELDON RICHARDS / PALOMA VINEYARD / USE PERMIT MAJOR MODIFICATION NO. P19-00386-MOD & EXCEPTION TO THE NAPA COUNTY ROAD & STREET STANDARD

CEQA STATUS: Consideration and possible adoption of a Mitigated Negative Declaration. According to the proposed Mitigation Negative Declaration, the proposed project would not have any potentially significant environmental impacts after implementation of mitigation measures for Biological Resources. This project is not on any lists of hazardous waste sites enumerated under Government Code Section 65962.5. (State Clearinghouse Number #2026020369)5.

REQUEST: The application was submitted to participate in the County's Code Compliance Program as described in Resolution No. 2018-164 adopted by the Napa County Board of Supervisors on December 4, 2018. The proposal is to modify an existing winery Use Permit and subsequent modifications to recognize and approve the following items that are out of compliance with the permitted entitlements: daily visitation and hours of operation for visitation. In addition, the application also seeks to expand its entitlements to construct a new hospitality building; convert an portion of the existing main residence for winery storage; change hours of operation for production activities; modify visitation; allow on-site wine consumption pursuant to Business and Professions Code Sections 23358, 23390 and 23396.5.; and, add parking. The request also includes an exception to the Napa County Road & Street Standards (RSS) for portions of the existing on-site driveway.
The project is located on an approximately 17.11-acre site within the AW (Agricultural Watershed) zoning district with a General Plan land use designation of AWOS (Agriculture, Watershed, and Open Space) at 4013 Spring Mountain Road, St. Helena, CA 94574; APN: 022-150-008.

STAFF RECOMMENDATION: Adopt the Mitigated Negative Declaration and approve the Use Permit Modification and Exception to the Napa County Road & Street Standards (RSS) subject to the recommended conditions of approval.

STAFF CONTACT: Sean Trippi, Supervising Planner, (707) 299-1353 or sean.trippi@countyofnapa.org

APPLICANT CONTACT: Sheldon Richards, Paloma Vineyard, 4013 Spring Mountain Road, St. Helena CA 94574 (707) 963-7504, info@palomavineyard.com

APPLICANT REPRESENTATIVE: Scott Greenwood-Meinert, Coblentz Patch Duffy & Bass, LLP., (415) 772-5741, sgreenwood-meinert@coblentzlaw.com

CONTINUED FROM THE MARCH 18, 2026, PLANNING COMMISSION HEARING

Chair Brunzell opened public comment, receiving none, she closed public comment.
Motion by Commissioner Dameron to Adopt the Mitigated Negative Declaration based on Findings 1-7 in Attachment A; 2. Approve the Exception to the Road and Street Standards, based on recommended Findings 8 & 9 in Attachment A and subject to the recommended Conditions of Approval in Attachment B; and, 3.Approve Use Permit Modification No. P19-00386-MOD, based on Revised Recommended Findings 10-14 in Attachment A and subject to the Revised Recommended Conditions of Approval in Attachment B; seconded by Commissioner Moran Williams.
Vote: Carried 5-0-0
Yes: Dameron, Moran Williams, Brooks, Richmond, Brunzell
No: None
Absent: None

8. ADMINISTRATIVE ITEMS – NONE

9. DIRECTOR OR DIRECTOR'S DESIGNEE REPORT
DISCUSSION OF ITEMS FOR THE ***MAY 20, 2026, REGULAR MEETING***
Michael Parker discussed potential items for the June 3, 2026, meeting.
BOARD OF SUPERVISORS ACTIONS
Michael Parker reported on project actions.
OTHER DEPARTMENT ACTIVITIES - None
CODE COMPLIANCE REPORT
Michael Parker reported on project actions.
ZONING ADMINISTRATOR ACTIONS- None
OTHER PENDING PROJECT'S STATUS - None

10. COMMISSIONER COMMENTS / COMMITTEE REPORTS
Commissioner Moran Williams reported on the Wildlife Conservation Commission.

11. ADJOURNMENT
Meeting adjourned at 9:18 am

_____
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:** 6/3/2026 | **File ID #:** 26-1123

TO: Napa County Planning Commission

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

REPORT BY: Hannah Spencer, Planner III

SUBJECT: AXR Napa Valley Winery Use Permit Major Modification (P22-00417-MOD), Variance (P26-00045-VAR), and Administrative Viewshed Permit (P26-00044-VIEW)

RECOMMENDATION

MARK SCHRATZ / AXR NAPA VALLEY WINERY / USE PERMIT MAJOR MODIFICATION P22-00417-MOD, VARIANCE P26-00045-VAR, AND ADMINISTRATIVE VIEWSHED PERMIT P26-00044-VIEW

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

Request:

1) Approval of a Major Modification to Winery Use Permit Nos. P08-00099 and P04-0541 to allow construction of a new type I wine cave, conversion of the barrel storage building to a tasting room and the adjacent outdoor crush/tank pad to hospitality uses, conversion of the main residence (apartment) to winery office use, an increase in employees and visitation, an expanded marketing program, water and wastewater system improvements, a left turn lane on St. Helena Highway / Highway 29 (SR 29) and associated driveway modifications;

2) A Variance to the 600-foot winery setback from SR 29 to allow aboveground structures associated with the wastewater treatment system; and

3) an Administrative Viewshed Permit for cave portals and water and wastewater system

improvements on slopes ranging from 15 to 18 percent.

The project is located on a 7.85-acre parcel zoned for Agricultural Watershed (AW) with a General Plan land use designation of Agriculture, Watershed, and Open Space (AWOS) at 3199 N. St. Helena Highway, St. Helena, CA 94574; APN: 022-080-025.

Staff Recommendation: Adopt the Initial Study/Subsequent Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program prepared for the project and approve the Use Permit Major Modification No. P22-00417, Variance No. P26-00045, and Administrative Viewshed Permit No. P26-00044, as conditioned.

Staff Contact: Hannah Spencer, Planner III; Hannah.spencer@countyofnapa.org, (707) 253-4018

Applicant Contact: Mark Schratz, 3199 N. St. Helena Highway, St. Helena, CA 94574

Applicant Representative Contact: Jeffrey Redding, Land Use Planning Services, 2423 Renfrew Street, Napa CA 94558; jreddingaicp@comcast.net, (707) 815-0723.

EXECUTIVE SUMMARY

Proposed Actions:

That the Planning Commission:

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

2. Approve the Variance request (P26-00045-VAR) based on recommended Findings 8-12 in Attachment A, and subject to the recommended Conditions of Approval in Attachment B;

3. Approve the Administrative Viewshed Permit request (P26-00044-VIEW) based on recommended Findings 13-19 in Attachment A, and subject to the recommended Conditions of Approval in Attachment B;

4. Approve the Use Permit Major Modification (P22-00417-MOD) based on recommended Findings 20-24 in Attachment A, and subject to the recommended Conditions of Approval in Attachment B.

Discussion:

The Use Permit Major Modification request (P22-00417) seeks approval for several site enhancements and an expansion in visitation and marketing activities while maintaining the winery's existing wine production capacity (20,000 gallons per year). Primary requests include the construction of a new Type 1 production cave with three portals and the conversion of the existing barrel storage building (and outdoor crush pad) into tasting and hospitality space. Additionally, the applicant proposes converting the main residence (apartment) to office use and establishing on-premises consumption per Business and Professions Code sections 23358, 23390 and 23396.5. To support increased staffing, visitation, and marketing events, the project includes upgrades to water and wastewater systems, driveway improvements, and a new northbound left-turn lane on SR 29. Finally, the application seeks to legalize several site modifications completed by previous ownership without the required use permit modification approvals.

The project is estimated to increase water demands by 0.11+/- acre-feet per year (AFY) resulting in a maximum of 2.82+/- AFY, or approximately 47% of the parcel's estimated yearly groundwater recharge total of 6.42 AFY as detailed in the Water Availability Analysis prepared by EBA Engineering. Sanitary wastewater would be disposed of onsite in an existing conventional septic system. Winery process wastewater disposal would be accommodated through a new wastewater treatment system as detailed in the Water Feasibility Study prepared by Summit Engineering Inc. Due to winery setback and slope limitations, the request includes a Variance application (P26-00045) to allow aboveground wastewater tanks and/or a treatment unit in the 600-foot setback from SR 29, as well as an Administrative Viewshed Permit application (P26-00044) for constructing cave portals and water and wastewater system improvements on slopes ranging from 15 to 18 percent.

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 and associated visitation and marketing activities are conditionally permitted uses within the Agricultural Watershed (AW) zoning district. The project is on a 7.85-acre parcel located within one (1) mile of 13 existing wineries. The site contains a Local Historic Landmark ("Hirsch residence") and was originally approved for a small winery in 2005 via zoning exceptions to winery setbacks and minimum parcel size for pre-prohibition wineries. The project is designed to avoid sensitive habitats and minimize impacts to historic resources and public views from SR 29. Recommended mitigation measures require pre-construction surveys for northern spotted owls, nesting birds, and bats. Visual impacts will be managed through oak tree preservation, replanting, structural screening and exterior building material/color requirements. Cultural and tribal resources will be protected by adhering to federal and county standards in coordination with qualified professionals and a tribal monitoring agreement. Transportation impacts will be significantly reduced

through compliance with the Napa County Road and Street Standards and construction of a new left turn lane. The applicant must also participate in a groundwater demand management program to ensure local water resources will be protected.

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 Subsequent Mitigated Negative Declaration. According to the proposed Subsequent 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: Aesthetics, Biological Resources, Cultural Resources, Transportation and Tribal Cultural Resources. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

BACKGROUND AND DISCUSSION

Owner/Applicant: Mark Schratz, 3199 N. St. Helena Highway, St. Helena, CA 94574

Representative: Jeffrey Redding, Land Use Planning Services, 2423 Renfrew Street, Napa CA 94558; jreddingaicp@comcast.net, (707) 815-0723.

Zoning: Agricultural Watershed (AW)

General Plan Designation: Agriculture, Watershed and Open Space (AWOS)

Parcel Size: 7.85 acres

Application Filed: December 22, 2022

Resubmittals Received: April 21, 2023, December 20, 2023, April 3, 2024, August 5, 2024, April 7, 2025, July 28, 2025, November 15, 2025

Application Deemed Complete: November 24, 2025

Courtesy Notice Sent: January 31, 2023

State Clearinghouse Number: 2026040915

Existing Development: The 7.85-acre parcel has over 500 feet of frontage along SR 29, with access provided by an existing looped driveway featuring separate ingress and egress points. Bea Lane, a private paved road, bisects the northwestern corner of the property; consequently, the entire parcel is subject to established winery road setbacks from both thoroughfares. Current onsite land uses include a 3.5-acre vineyard (planted in early 2000s) and the historic August Hirsch residence/winery (re-established in 2005) with an attached apartment (main residence) totaling 6,702 square feet in size, a 1,492 square foot barrel storage building with a 1,204 square foot outdoor crush pad, and

three legal nonconforming cottages (recognized by File No. 00516-CLN). Parking is comprised of four residential spaces alongside 22 winery-specific spaces (21 standard, one accessible). Of the three existing water supply wells, one currently serves the entire site, while the remaining two are inactive. All sanitary and process water is currently disposed of via a comingled wastewater treatment system and conventional leachfield. The Winery operates daily with four employees, offering tastings by appointment and hosting up to 12 marketing events annually.

Adjacent General Plan Designation / Zoning / Land Use: Surrounding land uses include vineyard and forest/open space interspersed with residences and wineries. The two closest neighboring residences are within 200 feet of the project site.

Surrounding Land Uses:

- North: A residential parcel zoned AW with AWOS General Plan Designation.
- East: A vineyard parcel zoned AP with AWOS and AR General Plan Designations.
- South: Two parcels with residences, vineyards and forested land, zoned AW with AWOS General Plan Designation.
- West: A parcel with a residence, vineyard, and forested land zoned AW with AWOS General Plan Designation.

Nearby Wineries located within one (1) mile of the project: Metzger Vineyards, Brasswood Napa Valley, Ehlers Estate Winery, Sodhani Winery, Trinchero Napa Valley, Sabina Vineyards, Freemark Abbey, Berman Family Winery, El Molino Winery, Grace Family Winery, Allora Winery, Turley Wine Cellars, and Duckhorn Vineyards.

Request: AXR Napa Valley Winery requests a Major Use Permit Modification to File No. P08-00099-MOD and P04-0541 to allow for the following:

- **New Production Cave -** Construct a new 17,190+/- square foot Type I production cave and three portals; with 11,993+/- square feet for barrel storage and 5,197+/- square feet for crush pad, tank farm and related wine production uses.
- **Existing Barrel Storage Building -** Convert the existing 1,492 square foot barrel storage building to a tasting room and the adjacent 1,204 square foot outdoor crush/tank pad to tasting and hospitality uses.
- **Existing Winery Building (historic Hirsch residence) -** Maintain winery storage/production uses in the cellar (2,555 square feet of production) and reconfigure the main level to convert the entire floor (4,147 square feet- includes attached residence) to accessory uses (tasting rooms, offices, restrooms, breakrooms, etc.).
- **Water Systems and Storage -** Use existing well and storage tanks, and install a new public water system, fire pump house, and five replacement 10,500-gallon water tanks for fire protection.
- **Wastewater Systems -** Use the existing domestic septic system to serve employees and guests and install a separate process wastewater treatment system.
- **Parking -** Formalize the previous parking lot expansion to include 17 standard and one accessible space, while removing five existing spaces for the cave portal access road. Daily operations will be supported by these stalls, while medium and large events will utilize valet services, onsite overflow, and employee shuttles.
- **Driveway/Internal Circulation -** Upgrade existing driveway to comply with Napa County Road

and Street Standards (NCRSS) and construct a new road connecting the existing interior access road to the new cave portals.

- **New Left Turn Lane -** Widen SR 29 to accommodate a new left-turn lane and remove up to six oak trees from the Caltrans right-of-way.
- **Production Volume -** Maintain the existing permitted production capacity of 20,000 gallons per year.
- **Landscaping -** Use existing landscaping and install new screening vegetation for cave portals #2 and #3.
- **Employees -** Increase current staffing from 4 employees to the following totals:
  - Weekdays: 6 full-time employees during harvest; 4 full-time employees outside of harvest; and 2 part-time employees year-round.
  - Weekends: 12 full-time employees and 5 part-time employees year-round.
- **Hours of Operation -**
  - Maintain existing production hours of 8:00 a.m. to 6:00 p.m., seven days a week.
  - Modify visitation hours to 10:00 a.m. to 6:00 p.m. (including retail), seven days a week.
  - Maintain marketing event hours of 10:00 a.m. to 10:00 p.m. and clarify quiet clean-up to complete by 11:00 p.m. and all events to avoid the peak traffic hours which are considered to be from 4:00 p.m. - 5:00 p.m. on weekdays and 2:00 p.m. - 3:00 p.m. on weekends.
- **Visitation and Marketing -**
  - Increase daily visitation to 60 people per day during harvest, except from December 1 to March 31 visitation will reduce to 40 people per day.
  - Establish on-premises consumption of wine (Business and Professions Code sections 23358, 23390 and 23396.5).
  - Provide pre-packaged food service for daily visitors and catered food service for marketing events (no commercial food facility proposed).
  - Increase the number of annual marketing events from 12 to 31 per year as follows:
    - Twenty-four (24) events with 25 guests, occurring twice per month (tours/tastings limited to 35 visitors on event days)
    - Four (4) events with 75 guests (tours/tasting closed on event days)
    - Three (3) events with 150 guests (tours/tasting closed on event days)

Variance:
As the entire parcel is encumbered by overlapping winery setbacks, the project includes a request for a variance to allow the new winery process wastewater treatment system in the highway setback, approximately 415 feet from SR-29 (where 600 feet is required). Aboveground structures associated with this system include two 5,000-gallon tanks and/or a 900 square foot treatment unit (see further discussion in Section VII. below).

Viewshed Protection Program:
The project also includes a request for a viewshed permit to allow cave portals and structures associated with water and wastewater systems on slopes ranging from 15 to 18 percent in locations partially visible from SR-29, a County-designated Viewshed Road.

Zoning Setbacks: Excepting the winery setbacks required under Sec. 18.104.230(A), all existing and proposed project structures meet required road and yard setbacks listed under Sec. 18.112 and

18.104.010.

- Side and Rear Property Line setbacks: 20 feet
- Existing and Proposed setbacks: All existing and proposed winery structures exceed 20 feet from side and rear property lines.

- Winery - Highway Setback: 600 feet from centerline of SR 29
- Existing and Proposed setbacks: The existing winery and barrel storage buildings are 218 feet and 467 feet from the centerline of SR 29, respectively. Proposed cave portals* and the wastewater treatment system are 400 to 567 feet from the centerline of SR 29.

- Winery - Private Road Setback: 300 feet from centerline of Bea Lane
- Existing and Proposed setbacks: The existing winery and barrel storage buildings are 200 feet and 30 feet from the centerline of Bea Lane, respectively. Proposed cave portals* are 100 to 300+ feet from the centerline of Bea Lane. The proposed wastewater treatment system is 400+ feet from the centerline of Bea Lane.

**Per Sec. 18.104.230(A), Cave portals that are not visible from the road are permitted within winery setbacks. As discussed further below, proposed cave portals will be fully screened from view from roadways due to existing topography, structures, vegetation, and new landscaping.*

Parcel History: The project site is the former August Hirsch Winery (main residence, cellar, and barn) built in the late 1800's. From 1930 to 1950 the Hirsch residence and cottages were used as a restaurant and lodging resort facility historically known as, "The Madrones". In 2005, the Planning Commission adopted a Mitigated Negative Declaration (SCH No. 2005082087) and approved Use Permit File No. P04-0541 for "V Madrone Cellars" which re-established the pre-prohibition winery within the historic Hirsch residence, cellar, and barn and converted their uses to winery operations as allowed under Sec. 18.104.245 (exceptions for pre-prohibition wineries). The 2005 Use Permit approved the following:

- 20,000-gallon maximum annual wine production capacity.
- Use of the Hirsch residence for office, conference, shipping/receiving, equipment and dry storage, employee break room, and lobby uses (2,547 square feet).
- Use of the Hirsch residence cellar and basement for barrel, bottle and bulk storage (2,555 square feet).
- Relocation and conversion of the 798 square foot historic barn and attached 136 square foot outbuilding to barrel storage, storage, and restroom use.
- Conversion of the 425 square foot unenclosed outbuilding to covered work areas.
- Construction of a new 1,204 square foot outdoor tank and crush pad behind the Hirsch residence.
- 15 parking spaces.
- Two full-time and two part-time employees.
- Hours of operation - seven (7) days a week from 8:00 a.m. to 6:00 p.m. for production; 8:00 a.m. to 4:00 p.m. for visitation (retail until 4:30 p.m.); and 10:00 a.m. to 10:00 p.m. for events provided they are scheduled outside of peak traffic hours.
- By-appointment only tours and tastings for 20 people per day and 12 annual marketing events with attendance ranging from 20 to 75 people.

The 2005 Use Permit conditions of approval required the owner to designate the attached second unit as the main residence and complete various site improvements and protection measures for historic resources onsite. These measures included installation of a left-turn lane for ingress and egress to the winery on Highway 29, and listing the historic structures on the California Register or National Register.

In 2007, the Planning Commission designated the historic Hirsch residence and site as a Napa County Local Landmark under File No. P07-00656 (Napa County Landmark ID#141202). Two cottages, a historic rock wall and cistern, and a redwood grove and oak trees were included in the local landmark designation as contributing accessory structures and landscape features. On May 7, 2008, the Planning Commission adopted an Addendum to the 2005 Mitigated Negative Declaration (SCH No. 2005082087) and approved a use permit modification (P08-00099) for the following requests:

- Substitute the original left-turn lane condition of approval requirement with an equivalent "No Left Turn" arrangement as accepted by Caltrans. This included the elimination of two non-historic cottages (Buildings #5 and 6), installation of two "No Left Turn" signs at the winery driveway, and other driveway changes to make turning left in and out of the project difficult.
- Modify a use permit condition to reflect that the local landmark designation completed in 2007 met the intent of the original use permit's requirement to list the Hirsch residence and barn on the California Register or National Register.
- Convert the agricultural barn and outbuildings into a single, slightly larger Winery Barrel Storage building of 1,492 square feet in size.
- Allow the proposed 1,204 square foot outdoor tank/crush pad to be built behind the barrel storage building instead of next to the Hirsch residence/winery.

Since 2013, the property has been subject to a Mills Act Historical Preservation Agreement to ensure the preservation of the Hirsch residence and the cottages in exchange for a reduced property tax assessment (File No. P12-00417).

The current owners, Silverado Trail Wine Partners IV, LLC, acquired the property in 2017 and subsequently rebranded the facility as V Madrone Cellars. Under previous ownership, the parking lot was expanded and reconfigured to provide 22 standard spaces and one accessible space; modifications were also made to the winery's main floor.

Code Compliance History: There are no open or pending code violations on the subject property.

Discussion Points:

Setting

Located about 1.3 miles north of the City of St. Helena, the project site sits on a northeast-facing slope at the edge of the valley floor. Elevations range from 300 to 350 feet above mean sea level, with the terrain steepening as it moves west from SR 29. The property and surrounding area feature a mix of vineyards, landscaped areas, and forests of Douglas-fir, Ponderosa pine, and oak woodland. Hirch Creek, a designated significant stream, flows east along the northern project parcel boundary toward the Napa River. The creek contains substantial riparian cover though portions of the stream bank within vicinity of the project have been modified over time. As a designated Local Historic Landmark, the project parcel is entirely encumbered by overlapping winery setbacks.

Winery Characteristics

As discussed above, this Major Use Permit Modification seeks approval for several site enhancements and an expansion in visitation and marketing activities while maintaining the winery's existing wine production capacity (20,000 gallons per year). Primary requests include the construction of a new Type 1 production cave with three portals and the conversion of the existing barrel storage building (and outdoor crush pad) into tasting and hospitality space. Additionally, the applicant proposes converting the main residence (apartment) to office use and establishing on-premises consumption per Business and Professions Code sections 23358, 23390 and 23396.5. To support increased staffing, visitation, and marketing events, the project includes upgrades to water and wastewater systems, driveway improvements, and a new northbound left-turn lane on SR 29. Finally, the request seeks to formalize various site modifications completed by previous ownership.

Overall, the project proposes grading/excavation of a net 14,150+/- cubic yards and adding 11,484+/- square feet of impervious surface area on the project parcel. The project increases winery coverage from 0.80 acres to 1.14 acres (10% to 14.5% of the parcel) and the winery development area from 0.10 acres to 0.12 acres. Winery production space will increase from 5,851+/- square feet to 19,745 square feet and accessory use space from 1,947+/- square feet to 5,639 square feet (includes the existing 1,600 square foot attached apartment), resulting in a 28.5% accessory use to production use ratio. Previously approved uses and proposed modifications are summarized below.

Production Capacity:

- **Approved:** 20,000 gallons per year.
- **Proposed:** No change.

Winery Production Space:

- **Approved:** 5,851 square feet consisting of the barrel storage building (1,492 square feet), outdoor tank/crush pad (1,204 square feet), and the winery's cellar (2,555 square feet) and main floor (600+/- square feet. (*Note: Square footages are based on floor plans approved under Use Permit Modification P08-00099*.)
- **Existing:** 5,251+/- square feet consisting of the barrel storage building (1,492 square feet), outdoor tank/crush pad (1,204 square feet), and the winery's cellar (2,555 square feet).
- **Proposed:** 19,745 square feet consisting of new type I wine cave (17,190 square feet) and continued use of the winery's cellar (2,555 square feet).

Winery Accessory Uses:

- **Approved:** 1,947+/- square feet on the winery's main floor.
- **Existing:** 2,547 square feet on the winery's main floor.
- **Proposed:** 5,639 square feet consisting of a tasting room/hospitality building (1,492 square feet - formerly barrel storage) and the entire main floor of the winery (4,147 square feet - includes former production and residential spaces).

Commercial Kitchen:

- **Approved:** None.
- **Proposed:** No change.

Employees:

- **Approved:** 2 full-time and 2 part-time year-round
- **Proposed:** Weekdays - 6 full-time employees during harvest, 4 full-time employees outside of

harvest, and 2 part-time employees year-round. Weekends - 12 full-time employees and 5 part -time employees year-round.

Visitation:

- **Approved:** 20 people per day with an average of 90 per week.
- **Proposed:** 60 people per day with an average of 420 per week (reduced to 40 per day and 280 per week December - March). Includes establishing three outdoor areas (located at the "Northern Outdoor Tasting Area" east of the Hospitality Building; at the "Hospitality Patio" and at the "Southern Outdoor Tasting Area" located south of the Hospitality Building) for on-premises consumption of wine per Business and Professions Code sections 23358, 23390 and 23396.5.

Marketing Program:

- **Approved:** 12 events - six with 75 people and six with 20 people.
- **Proposed:** 31 events ranging in size from 25 to 150 guests, as follows -
  - 24 events with 25 guests, occurring twice per month (tours/tastings limited to 35 visitors on event days)
  - Four (4) events with 75 guests (tours/tastings closed on event days)
  - Three (3) events with 150 guests (tours/tastings closed on event days)

Hours of Operation:

- **Production - Approved:** 8:00 a.m. - 6:00 p.m., seven days a week.
- **Production - Proposed:** No Change.

- **Visitation - Approved:** By-appointment only tours and tastings from 8:00 a.m. to 4:00 p.m. with retail open until 4:30 p.m., seven days a week.
- **Visitation - Proposed:** By-appointment only tours and tastings from 10:00 a.m. to 6:00 p.m., seven days a week

- **Marketing Events - Approved:** 10:00 a.m. to 3:00 p.m. and 5:00 p.m. to 10:00 p.m. on weekdays; 10:00 a.m. to 2:00 p.m. and 5:00 p.m. to 10:00 p.m. on weekends.
- **Marketing Events - Proposed:** 10:00 a.m. to 10:00 p.m. with quiet clean-up completing by 11:00 p.m. All events to avoid the peak traffic hours which are considered to be from 4:00 p.m. - 5:00 p.m. on weekdays and 2:00 p.m. - 3:00 p.m. on weekends.

Parking:

- **Approved:** 15 spaces
- **Existing:** 22 standard spaces, 1 accessible space
- **Proposed:** 17 standard spaces, 1 accessible space, onsite unimproved overflow event parking accommodating up to 37 vehicles.

Pre-prohibition "Ghost" Wineries

In 2002, the Board of Supervisors adopted the original "Ghost Winery Ordinance," (Ordinance No. 1198) allowing exceptions to setback and parcel size requirements to facilitate the reestablishment of pre-prohibition wineries (codified under Sec. 18.104.245). The Ordinance was later amended to allow a reduced minimum parcel size-from five acres to two-for 'ghost wineries', provided they meet all environmental standards. While a 2002 report on file identifies 85 extant historic wineries throughout

the unincorporated and incorporated areas of Napa County, staff believe the potential for reestablishing pre-prohibition wineries on substandard parcels remains limited as the majority of these sites are located on parcels greater than 10 acres. *(Note: See 'Extant Historic Winery Buildings in Napa County' by Meg Scantlebury, Architectural Historian, on file under #P09-00171 and #P09-00344-ZOA. This report may not reflect current conditions or provide an exhaustive inventory).*

As discussed above, the Planning Commission determined the subject 7.85-acre parcel and the original winery use permit (requested by V Madrone Cellars) met criteria for utilizing pre-prohibition winery exceptions to minimum parcel size and winery setbacks. The proposed Use Permit Major Modification request is consistent with Sec. 18.104.245 in that the winery does not exceed the maximum 20,000-gallon production limit and the historic Hirsch residence building will continue to be used for production activities. There are no proposed changes that would otherwise conflict with the pre-prohibition “ghost” winery ordinance

Traffic / Access

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. 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 and is presumed to have a less than significant impact for Vehicle Miles Travelled (VMT). Based on the Trip Generation worksheet, the project’s proposed increase in employees, visitation and marketing events would result in a maximum of 62 new Weekday Daily Trips and 82 new Weekend Daily Trips. Due to the relatively low number of new daily trips, the project is presumed to have a less-than-significant impact for VMT. Although the estimated trip generation does not exceed 110 net new daily trips, the project was required to prepare a full Traffic Impact Study under the previously adopted TIS Guidelines.

According to the Traffic Impact Study prepared by GHD Inc. on December 12, 2025 (TIS), any driveway along SR 29 with an Average Annual Daily trip over 20 would require a left turn lane. As the project is estimated to generate a total of 116 daily trips at the south driveway, installation of the proposed northbound left-turn lane is required. The TIS finds that installation of the left-turn lane and associated driveway signage will ensure the safety of turning movements onto the site and maintain the existing flow of traffic so that the traffic flow is not impeded. Additionally, the TIS finds that Caltrans’ sight distance recommendations will be met for the SR 29 speed limit and measured vehicle speeds.

The proposed design plans were accepted by Caltrans and Napa County’s Engineering Division and Department of Public Works. Final plans will be reviewed and approved by the Department of Public Works and Caltrans thereby ensuring compliance with NCRSS and Highway Design Manual Standards. Recommended Mitigation Measure TRANS-1 requires completion of the left-turn lane before increasing daily site trips while standard Conditions of Approval require marketing activities to continue avoiding the peak hours. The winery will also be required to implement a VMT/Travel Demand Transportation reduction plan further reducing trips to the site.

Parking

As proposed, the winery would have 17 standard parking spaces and one space designated for ADA drivers. Up to 10 employees are anticipated to be onsite at any one time and visitors to the Winery will continue to be by-appointment only. As such, typical operations would include up to 60 visitors arriving in potentially 24 vehicles per day in a staggered arrangement so that there should never be

more than seven (7) guest vehicles at the site at any one time. Occasionally, visitors could arrive in a higher-occupancy vehicle such as an SUV, minivan or smaller shuttle bus. During medium and large marketing events, the winery proposes to shuttle all employees from offsite parking locations while using the existing 17 parking spaces for guests and accommodating the remaining parking demand (up to 37 guest vehicles) in unimproved overflow parking areas as shown on the Event Parking Plan prepared by Summit Engineering, Inc., dated November 14, 2025 (see Graphics Attachment N). To address noise concerns (discussed further below), the Conditions of Approval prohibit the use of the overflow parking area located adjacent to the 'Northern Outdoor Tasting Area'. The applicant is required to submit an updated event-specific parking plan, which may incorporate additional shuttle services. All event parking plans remain subject to Fire Marshal review to ensure emergency access is maintained.

Noise

The project would result in a temporary increase in noise levels during grading and construction activities and the intermittent increase of ambient noise resulting from increased visitation and marketing activities. The nearest non-project related residences are located about 150 feet to the southeast (from new cave portals) and 80 feet to the north (from new outdoor tasting and on-site consumption areas). Due to the orientation of existing buildings, existing vegetation, as well as ambient noise levels from SR 29, the potential for the creation of significant noise from increased employee counts, visitation, and marketing events is significantly reduced. Further, all existing outdoor production activities will be moved inside the new wine cave and noise resulting from winery truck traffic will remain unchanged. Standard project conditions of approval will continue to reduce noise impacts to neighbors by prohibiting outdoor amplified music and requiring marketing events to finish by 10:00 p.m., with quiet cleanup ending by 11:00 p.m. Furthermore, to ensure compliance with daytime noise standards at the closest residence to the north, recommended Conditions of Approval include: limiting the 'Northern Outdoor Tasting Area' to 30 people at any time; requiring all doors and windows of the Hospitality building to remain closed during marketing events with amplified music; and prohibiting overflow event parking adjacent to the Northern Outdoor Tasting Area.

Since the original use permit was approved and built out (circa 2013), the existing facility has generated noise from winery production, visitation and marketing activities with no formal complaints received from neighbors (per County Code Enforcement records). Continuing enforcement of Napa County's Noise Ordinance by the Division of Environmental Health and the Napa County Sheriff, including the prohibition against outdoor amplified music, should further ensure that the proposed changes to visitation and marketing events do not create a significant noise impact.

Viewshed Protection Program / SR 29 Scenic Corridor

All new structures are proposed in the rear portion of the property, over 400 feet from SR 29 (a designated viewshed road), and on slopes that do not exceed 18 percent. New structures will be substantially screened by a combination of existing topography, existing vegetation, and new landscaping, including nine (9) new 24-inch box 'Swan Hill' multi-trunk olive trees measuring 20-feet wide by 20-feet high. As proposed, the project has been designed in substantial conformance with the County's viewshed protection manual because it would avoid grading on slopes more than 30% and is not sited near a ridgeline. By using existing structures and access features, minimizing alteration of existing contours, and preserving the vineyard and forested areas on the property, the project preserves views of hillsides and does not result in substantial changes to the natural landforms and topography of the site.

To accommodate sight distance requirements for existing access and road widening for the new left turn lane, the project would result in removal of up to six oak trees from the Caltrans SR 29 right-of-way consisting of five (5) White Oaks and one (1) Blue Oak ranging in size from seven (7) inches DBH to 24 inches DBH. Although there is no locally adopted Corridor Protection Program for SR 29, the highway is still considered as part of the scenic highway system due to its eligibility status, and therefore efforts should still be made to protect its scenic qualities. By requiring replacement trees or preservation of existing oak trees onsite through Mitigation Measure VIS-1, the project would reduce impacts to the scenic quality of the SR 29 corridor. Compliance with the County's Sign Ordinance provides additional protection by enforcing standards that preserve the natural beauty and environment of unincorporated Napa County.

Cultural Resources

Since 2007, the project site-comprising the historic August Hirsch residence, cellar, and barn built in 1883-has been a designated County Local Landmark (Landmark ID #141202). Two 19th-century cottages, rock wall ("Ehlers Lane Rock Wall"), cistern, redwood grove, and oak trees are considered contributing accessory structures and landscape features to the site's historic resource. The site is also subject to a Mills Act Historical Preservation Agreement recorded under Official Record No. 2013 -0032878. The proposed project will result in partial removal of Ehlers Lane Rock Wall to allow for road widening improvements along SR 29. No other exterior alterations to historic structures or contributing accessory features are proposed.

In August 2025, Evans & De Shazo, Inc. prepared an updated Historic Resources Evaluation of the property and proposed improvements (2025 HRE). The 2025 HRE determined that the project meets the Standards for Rehabilitation and supports the continuation designation of the property as eligible for the Mills Act. Mitigation Measure CUL-1 requires all site work, rehabilitation, or modifications to the site, including the rock wall and stone pillars, to comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and Napa County's Landmark Preservation Ordinance. Additionally, a condition of approval has been incorporated into the project to ensure the local Landmark designation listing is updated to reflect the existing setting as recommended in the 2025 HRE.

Biological Resources

Primary vegetation onsite and, in the area, includes vineyard and landscaping, Douglas-fir and Ponderosa pine forest, as well as mixed oak woodland. Hirsch Creek, an intermittent blue-line stream, flows easterly through the northern border of the parcel. According to the Napa County GIS Environmental Maps (CNDDB layer), the property is within range of three Northern Spotted Owl (NSO) activity sites.

The project utilizes an existing winery and residential building complex consisting of two winery buildings, fire pump houses and water tanks, three residential cottages, and associated graveled roads, pathways, and landscaping. The proposed locations for the new cave portals, fire pump house, replacement water tanks and winery process wastewater treatment system are all within disturbed areas of the property containing a combination of dirt roads and graveled areas, landscaped areas, and vineyard. All construction and outdoor hospitality areas are outside of sensitive habitats, including the Hirsch Creek stream setbacks. No wetlands, vernal pools or other hydrological features were observed within the development area or are mapped by Napa County GIS Environmental Maps. Trees proposed for removal are located immediately adjacent to SR 29 and consist of five (5) White Oaks and one (1) Blue Oak ranging in size from seven (7) inches DBH to

24 inches DBH.

Although the project utilizes a developed landscape, there is still potential for the project's construction phase to pose a disturbance to NSO, as well as nesting raptors and other native birds and roosting bats. To mitigate any potentially significant impacts to owls, Mitigation Measure BIO-1 requires NSO surveys and coordination with the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFW) as needed, prior to any on site construction activities and vegetation removal that would occur during the NSO nesting season. To address potential impacts to other protected wildlife, Mitigation Measures BIO-2 and BIO-3 require pre-construction nesting bird and raptor surveys and bat habitat assessments. Since the trees proposed for removal are outside of mapped oak woodlands, forests, and riparian woodland, the vegetation canopy cover retention and removal mitigation requirements under Conservation Regulations do not apply.

Water Availability Analysis

A Water Availability Analysis (WAA) was prepared by EBA Engineering on July 25, 2024. As directed by the County's WAA Guidance Document dated May 2015 and the Interim Standards, the report includes Tier 1 calculations for the existing and proposed water uses, a groundwater recharge analysis, a Tier 2 well and spring interference analysis, and a Tier 3 groundwater/surface water interaction analysis. Details on the Tier 1, 2 and 3 analyses are provided below.

Background:

This summary accounts for project site modifications since the original 2004 winery use permit (#P04-0541) and the applicant's withdrawal of the request to increase annual wine production from 20,000 to 35,000 gallons. Technical reports predating this withdrawal-including the WAA-still contain data regarding the proposed increase. Additionally, the WAA (Exhibit E) utilizes the 2004 baseline water demands; however, following the 2008 removal of two cottages, current water demands are assumed to be lower than this 2004 baseline. Additional site changes include a minor 0.2-acre vineyard expansion.

There are three existing water supply wells on the property, one of which currently supplies all water use onsite. The other two wells are no longer in use. Of these two, one is proposed to be destroyed via a well demolition permit and the other well is proposed to remain as a potential backup well or be destroyed. Per Engineering Division Conditions of Approval, a backup well is allowed pursuant to Napa County Code 13.12.460(B), however it cannot be used for the project without first submitting a Tier 2 and Tier 3 analysis to the PBES Engineering Division for review. A fourth well on the property was destroyed in 2007. The property also has a historic spring water right that is no longer in use (located offsite, within Hirsch Creek).

Summary of wells and springs:

- Project Well - Located in southwestern portion of the property and supplies all water uses onsite. The well has a completed depth of 699 feet, an annular seal of 62 feet, and a 6-inch casing. At the time of completion in 2018, the well yielded 125 gallons per minute during a 2 hour air lift pump test. Permit #E18-00508; State Permit WCR e0367373.
- Proposed Backup Well - Located near SR 29. Engineering Division Conditions of Approval require a Tier 2 and Tier 3 Analysis prior to utilizing this well for the project.
- Well to be Destroyed - Located in winery building complex. Engineering Division Conditions of Approval require a well destruction permit.
- Destroyed Well - Located adjacent to barrel storage building. Destroyed in 2007 under permit

#E07-00318.

- Historic Spring - Located on the adjacent parcel at 3131 St. Helena Hwy. N.; approximately 600 feet west of the project well within Hirsch Creek. No longer in use.

Tier 1 (Water Use / Parcel Specific Recharge Analysis:
The Tier 1 analysis refers to the 2004 WAA baseline for existing water demands and considers existing uses onsite to include residential, winery uses (production, visitation, marketing), vineyard, and landscaping. As mentioned previously, the property's current water demands are estimated to be lower than the 2004 WAA as two of the cottages were removed in 2008 through the winery's use permit modification process. The summary provided below summarizes the existing and proposed total groundwater usage based on a combination of information presented in the WAA, revisions made to AXR Winery's use permit application, and permit history/County records.

The project proposes to change existing water use demands by 1) converting an existing 2-bedroom residence to winery office use; 2) increasing the number of winery employees and visitation as well as marketing event size and frequency; and 3) planting olive trees and manzanita shrubs for cave portal screening. No changes are proposed to the existing three residential cottages nor the previously approved wine production volume.

Water Usage Assumptions:
Residents (three 2-bedroom residences, one 1-bedroom residence):

- Existing: 7 residents based on bedrooms
- Proposed: 5 residents based on bedrooms
- Units: 150 gallons of water per resident per day

Landscaping:

- Existing: Domestic and Winery Landscaping throughout property
- Proposed: Cave portal screening vegetation consisting of 9 olive trees and approximately 2,000 square feet of manzanita shrubs
- Units: 0.5 AFY of water per 100,000 gallons of wine produced for winery landscaping; 2.5 gallons of water per olive tree per week, and 0.1 AFY of water per 2,000 square feet of shrubs

Vineyard:

- Existing: 3.5+/- acres
- Proposed: Removal of 0.18+/- acres of vineyard
- Units: 0.24 AFY of water per acre of vineyard

Wine Production:

- Existing: 20,000 gallons per year
- Proposed: no change
- Units: 6 gallons of water per gallon of wine produced (industry standard)

Employees:

- Existing: 2 full-time and 2 part-time employees
- Proposed: 12 full-time (7 days per week average) and 5 part-time employees (2 days per week average)
- Units: 15 gallons of water per employee per day

Visitation:

- Existing: 20 people per day
- Proposed: 60 people per day
- Units: 3 gallons of water per person per day

Marketing Events:

- Existing: 570 event guests per year
- Proposed: 1,350 event guests per year
- Units: 15 gallons of water per event guest

Existing and Proposed Groundwater Usage:

Residents:

- Existing: 1.1761 AFY (383,250 gal.)
- Proposed: 0.8401 AFY (273,750 gal.)
- Difference: -0.336 AFY (-109,500 gal.)
- *Note: This estimate includes the existing main residence and proposed conversion to winery office use. The WAA inadvertently omitted the existing 2-bedroom main residence that is attached to the winery.*

Landscaping:

- Existing: 0.175 AFY (57,023 gal.)
- Proposed: 0.278 AFY (90,586 gal.)
- Difference: +0.103 AFY (+33,563 gal.)
- *Note: This estimate includes the project's proposed cave portal screening vegetation. Water use assumptions are based on typical gallonage for olive trees and the County's WAA Guidelines. The WAA assumes no changes to landscaping; however, the applicant modified the application to include nine (9) 24-inch box 'Swan Hill' olive trees and 15-gallon manzanitas 'sunset' shrubs (estimated to cover approx. 2,000 square feet).*

Vineyard:

- Existing: 0.85 AFY (276,973 gal.)
- Proposed: 0.85 AFY (276,973 gal.)
- Difference: No change
- *Note: The WAA finds that the 2004 WAA estimate of 0.85 AFY for the vineyard remains valid for the existing vineyard. Since approval of the 2004 WAA, the vineyard was expanded by approximately 0.2 acres in size, from 3.3-acres to approximately 3.5 acres. Applying 0.85 AFY to a 3.5-acre vineyard results in approx. 0.24 AFY of groundwater used per acre of vineyard, which is within the County's WAA Guidelines range of 0.2 AFY to 0.5 AFY.*

Wine Production:

- Existing: 0.368 AFY (120,000 gal.)
- Proposed: 0.368 AFY (120,000 gal.)
- Difference: No change
- *Note: This estimate reflects no change in existing production as requested in the applicant's modified proposal statement submitted in December 2025. The WAA predates this modification and as such, still contains information/analyses of increased wine production.*

Employees:

- Existing Full-Time: 0.0336 AFY (10,950 gal.)
- Proposed Full-Time: 0.2016 AFY (65,700 gal.)
- Existing Part-Time: 0.0095 AFY (3,120 gal.)
- Proposed Part-Time: 0.0239 AFY (7,800 gal.)
- Difference: +0.1824 AFY (+59,430 gal.)

Visitation:

- Existing: 0.0672 AFY (21,900 gal.)
- Proposed: 0.2016 AFY (65,700 gal.)
- Difference: +0.1344 AFY (+43,800 gal.)

Marketing Events:

- Existing: 0.0262 AFY (8,550 gal.)
- Proposed: 0.0621 AFY (20,250 gal.)
- Difference: +0.0359 AFY (+11,700 gal.)
- *Note: This estimate is conservative as it does not reflect the proposed tasting room closures/reduced service on event days. During 25-person events, tasting room visitation will be limited to 35 people, thereby not exceeding 60 people per day. On days with larger events, the tasting room will be closed.*

GROUNDWATER USAGE TOTAL:

Existing: 2.7056 AFY . Note: This estimate does not include water demands for Cottage #5 and Cottage #6 as these cottages were removed in 2008 (Demo Permit #B8-00562). The WAA relies on the 2004 WAA baseline for existing total water demands which was estimated to be 3.62 AFY prior to demolition of the cottages.

Proposed: 2.8253 AFY

Difference: +0.1197 AFY

Parcel Specific Recharge: The project well is approximately 650 feet west of the Napa Valley Subbasin (GSA). As the entire project parcel is outside of the GSA, a parcel specific recharge calculation was prepared. In calculating the recharge for the 7.85-acre parcel, the project WAA quantifies the amount of average annual rainfall infiltrating to the underlying aquifer based on the average rainfall data collected from 2012 to 2021 provided by the Oregon State University PRISM Climate Group (34.35 inches per year), estimated losses to runoff, and estimated losses to evapotranspiration. The WAA estimates the recharge rate for this 7.85-acre property to be 28.6% (or 0.8 AFY per acre of land), resulting in a total annual recharge rate of 6.42 AFY for the property. Based on the project's estimated groundwater demand of approximately 2.82 AFY, the WAA finds that the total project groundwater usage equates to approximately 47% of the water available for recharge and therefore passes the Tier 1 screening criteria.

Tier 2 (Well and Spring Interference Analysis): The latest Interim Napa County Well Permit Standards and WAA Requirements require an interference analysis for any proposed increase in groundwater use occurring from project wells within 500 feet of any offsite well or 1,500 feet from any off site spring. The nearest offsite well (WCR 119541) is approximately 345 feet east of the project well and

was used in the WAA's Tier 2 analysis in accordance with County Guidelines. The WAA finds that the total project estimated groundwater demand (approximately 2.82 AFY) is equivalent to a maximum daily water demand of approximately 6,278 Gallons Per Day (GPD). (*Note: The WAA prepared by EBA Engineering Inc. (Attachment H) analyzes an increase in wine production from 20,000 to 35,000 gallons per year and omits the project's proposed screening vegetation. As mentioned in the proposed Subsequent Mitigated Negative Declaration (Attachment C), the project no longer proposes to increase wine production. Additionally, new landscaping is required to screen cave portals from public views. By removing the wine production increase (15,000 gallons of wine), the maximum daily water demand for winery process water is estimated to be 5,785 GPD (a 493 GPD decrease). By adding the proposed screening vegetation, the maximum daily water demand for landscaping is estimated to be 248 GPD (a 92 GPD increase). These adjustments demonstrate the project's total maximum daily water demand can be lowered to 5,877 GPD; however, to assess potential worst-case impacts, this study utilizes the more conservative estimate of 6,278 GPD.*)

According to the WAA, the pumping duration required to meet the maximum daily water demand was estimated based on an average corrected yield (42 GPM) from the data collected from the WCRs of water supply wells located in close proximity to the project site. At an average conservative pumping rate of 42 GPM, approximately 149 minutes (approximately 2.5 hours) of pumping is required to reach the maximum daily water demand.

Well Interference: Based on the aquifer characteristics described in the WAA and the pumping duration required to meet the proposed project maximum daily water demand (149 minutes), the distance-drawdown model used in the WAA predicts approximately ten feet of drawdown at a distance of 22 feet, and zero drawdown at 50 feet from the project well. According to Table 2B of the WAA Guidance document and Napa County Well Permit Standards - Applicability Tables, any neighboring well(s) (≤6-inch diameter casing) within 500 feet of a project well, screened within the same aquifer as the project well, must have an estimated drawdown of 10 feet or less. The WAA demonstrates that the project well must be located no less than approximately 22 feet from any nearby groundwater well(s) to be in conformance with Napa County Guidelines. The project well is over 300 feet from the nearest well, thereby passing the Tier 2 well interference screening criteria.

Spring Interference: Four or more springs are within 1,500 feet of the project well with the closest spring located approximately 600 feet west of the project well, within Hirsch Creek. According to the WAA, the project property has a historical water right to this spring. The WAA finds that, given the lack of stream depletion in Hirsch Creek as a result of pumping from the project well for the proposed project (discussed further in the Tier 3 analysis below), no spring interference is anticipated for any natural spring in the area. The WAA further concludes that there is no drawdown from pumping the project well at a distance of 155 feet which correlates with no anticipated spring interference, thereby passing the Tier 2 spring interference screening criteria.

Tier 3 (Groundwater/Surface Water Interaction): 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.

The latest Interim Napa County Well Permit Standards and WAA Requirements require an analysis of potential groundwater to surface water interaction for new, altered, or increased groundwater use occurring from project wells within 1,500 feet of any County identified Significant Stream inside the Napa River Watershed. As discussed above, the project well is approximately 400 feet from Hirsch

Creek, the nearest Significant Stream. The WAA includes a stream interference analysis which finds that drawdown from the pumping of the project well should not extend past a linear distance of 155 feet when pumping at a rate of 42 GPM for approximately one day. The streamflow depletion model used in the WAA does not indicate stream depletion at a distance of 400 feet from the project well to Hirsch Creek.

Since the project well is within 1,500 feet of a designated significant stream, Napa County has conditioned the project to limit the project to 2.82 AFY that may be pumped from the project well at a maximum rate of 42 gallons per minute, which aligns with the project's WAA and satisfies the County's Public Trust duties. See Conditions of Approval 4.20(c) and 6.15(e).

Wastewater System

A Wastewater Feasibility Study, dated April 2024, was prepared by Summit Engineering Inc. which concludes the existing wastewater treatment system will provide sufficient capacity for disposal of the anticipated sanitary sewage flows from the proposed number of employees, guests, and existing residents. To accommodate the proposed larger events and avoid excessive loading on this domestic wastewater system, Conditions of Approval require the winery to provide portable restroom facilities for the 75-person and 150-person events.

To accommodate the ongoing wine production of 20,000 gallons per year, a new process wastewater treatment system is proposed to be installed onsite. As described in the Wastewater Feasibility Study, the new system would include a new gravity collection system with screens on floor drains for solids removal in any new production areas, a process wastewater pump station (if needed to transfer process water from the collection system to the treatment system), and treatment and disposal through one of the following alternatives: treatment through a new package treatment system and disposal via a new subsurface drip disposal system (Option 1); treatment through a new package treatment system, storage of treated process water, and reuse for vineyard irrigation (Option 2); or hold and haul (Option 3). Per Napa County guidelines, a Registered Civil Engineer, Registered Environmental Health Specialist, or Licensed Contractor will provide ongoing monitoring and evaluation of the selected system. The Division of Environmental Health reviewed this report and concurred with its findings, conditioning that the selected design and plans shall be designed by a licensed Civil Engineer or Registered Environmental Health Specialist and approved by the Division of Environmental Health.

Water System

Based on the proposed uses, the onsite water system will be classified as a new public water system per the State of California Drinking Water Requirements. Typical infrastructure required for a public water system includes, but is not limited to, a well with a minimum 50-foot annular seal, water storage tanks that meet design and construction standards, UV light treatment (usually located in a pumphouse), and water lines that meet setbacks. As mentioned previously, the existing project well has a 62-foot annular seal and is proposed to be used for the public water system serving the project. Prior to occupancy, the owner/permittee is required to submit a technical report completed by a licensed engineer with experience in designing water systems. The technical report must be submitted to the Regional Water Quality Control Board prior to beginning any water-related improvements. Additionally, the owner/permittee must obtain an annual operating permit for the water system from County Environmental Health and comply with all required monitoring and reporting.

Green House Gas Emissions

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 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 are evaluated per the BAAQMD recommended minimum design elements.

The project will be required, through Conditions of Approval, to meet relevant design standards identified by BAAQMD, including prohibiting the use of natural gas appliances or plumbing and compliance with the California Building Code Title 24 standards. Additionally, Conditions of Approval require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application which include exceeding Title 24 energy efficiency standards and building to CALGREEN Tier 1, utilizing energy conserving lighting, providing bicycle incentives, implementing low-impact development principles and practices, installing an electric vehicle charging station, and limiting the amount of grading and tree removal.

The project's proposed tree removal would result in a loss of carbon sequestration capacity for the site- approximately 0.15 acres of native oak canopy. To ensure consistency with County carbon sequestration policies under General Plan Policy CON-65(e), staff recommend incorporating Conditions of Approval that require the applicant to implement vegetation protection fencing during construction and a tree replacement/retention plan per Mitigation Measure VIS-1.

Grape Sourcing

The Use Permit Modification request does not change the permitted maximum production capacity of 20,000 gallons of wine. The 3.5+/- acres of on-site vineyards and other local Napa County vineyards will continue to provide a source for grapes for wine production. The applicant has signed the County's 75 Percent Grape Source Agreement.

Variance Request

The project includes a request for a Variance to allow construction of an aboveground winery process wastewater treatment system within the established 600-foot winery road setback from SR 29. Aboveground components of the process wastewater system include two 5,000-gallon tanks and/or a 900 square foot treatment unit that may range from 5 to 10 feet in height. Existing buildings within the setback include the main winery building (historic Hirsch residence), located 218+/- feet from SR 29, and the barrel storage building, located 30+/- feet from Bea Lane. The new winery process wastewater treatment system will be constructed approximately 415 feet from SR 29 and over 400 feet from Bea Lane, in a previously disturbed area next to the site's vineyards. The proposed structures will be substantially screened from view from the highway due to a combination of topography, existing and proposed vegetation, the neighbor's residence, and by using non-reflective, earthtone exterior materials and colors. According to the 2025 HRE, the project will not diminish the historic integrity of the property.

The project includes Cave Portals within the 300-foot and 600-foot winery setbacks however per Sec. 18.104.230, cave portals that are not visible from the road are exempt from winery setbacks. As the

proposed cave portals will be fully screened from view from all roadways, they are not included in this Variance request.

Staff supports the applicant's request for a variance. The variance will allow the existing winery to modernize its winery process wastewater treatment system while expanding its marketing and hospitality uses consistent with the site's zoning and General Plan land use designations. It is not physically possible to construct new winery structures outside the required 300-foot and 600-foot winery road setbacks due to the size and shape of the parcel. Although the parcel is a designated Historic Napa County Landmark, the site's historic structures are not eligible for listing on the California or National Register and consequently new standalone structures do not qualify for the reduced setbacks listed in Sec. 18.104.235. Furthermore, historic preservation requirements and Environmental Health setbacks prevent the expansion of existing buildings for wastewater treatment systems.

As required by State and local statute, the granting of this variance would not confer a special privilege as the Commission has previously granted variances to allow the construction of wineries, including accessory facilities, within roadway setbacks on properties with the same zoning and similar property characteristics. There is nothing included in the variance proposal that would result in a measurable impact on the public health, safety, or welfare of the County of Napa. Construction of the aboveground wastewater treatment system would be subject to County Codes and regulations including but not limited to California building codes, fire department requirements, and water and wastewater requirements. The granting of the variance to the winery road setback will not adversely affect the health or safety of persons residing or working in the neighborhood of the property. The proposed structures would be located in a previously disturbed area that will be substantially screened from view from SR 29. Various County departments have reviewed the project and commented regarding water, wastewater disposal, access, building permits, and fire protection. Conditions are recommended which will incorporate these comments into the project to assure protection of public health and safety.

Public Comments: Two neighbors commented on the project expressing their support for the requested modification. No other public comments have been received as of the date of this staff report.

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 A 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 an existing 20,000-gallon per year winery to expand by constructing wine caves for production use, converting existing production and residential spaces to accessory uses, and by increasing related tours and tastings and the marketing program to allow up to 60 guests per day, seven days per week and up to 31 events per year. The requested Use Permit Major Modification would increase water demands, increase vehicle trips and miles travelled, and wastewater generation at the property, in addition to increasing winery development area from 0.10 acres to 0.12 acres. The Variance request meets the provision of Code Section 18.128.060 and new construction would be compliant with Napa County

zoning code regulations for winery developments, including minimum setbacks from property lines, maximum lot coverage, and maximum building height. With implementation of mitigation measures pertaining to aesthetics, cultural, biological, transportation and tribal cultural 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 and Variance, 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 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 Final Agency Memos
C - AXR Initial Study/ Subsequent Mitigated Negative Declaration
D - 2005 Adopted MND for Original Use Permit P04-0541
E - 2008 Adopted MND Addendum for Use Permit Modification P08-00099
F - Previous Project Conditions
G - Use Permit, Variance, and Viewshed Applications and Narratives
H - Water Availability Analysis
I - Wastewater Analysis
J - Biological Study (prepared for Erosion Control Plan #01-222)

K - Historic Resources Evaluation
L - Traffic Impact Study
M - Cave Portal Visibility Analysis
N - Graphics (Proposed Project Plans, Formerly Approved 2008 Project Plans)
O - Public Comments

“A”

Recommended Findings

PLANNING COMMISSION HEARING – JUNE 3, 2026
RECOMMENDED FINDINGS

AXR WINERY NAPA VALLEY WINERY
USE PERMIT MODIFICATION (P22-00417-MOD), VARIANCE (P26-00045-VAR), AND VIEWSHED (P26-00044-VIEW)
3199 ST. HELENA HIGHWAY, ST. HELENA, CA 94574
APN 022-080-025

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, visual, transportation, tribal and cultural resources 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 Clerk 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.

VARIANCE:

The following findings must be made in order for the Commission to grant a Variance pursuant to County Code § 18.128.060.

8. That the procedural requirements set forth have been met.

Analysis: An application and required processing fees have been submitted for a variance accompanied with a statement from the applicant outlining the reasons for the request. Site plans depicting the location of the project and elevation drawings showing the existing and proposed structures have been submitted as required by Napa County Code (NCC) §18.128.020. According to NCC § 18.128.040, the applicant shall bear the burden of proof in establishing facts supporting the applicant's eligibility for grant of variance while also providing other appropriate information, including graphic depictions necessary to show the grounds for granting of a variance. As such the applicant has submitted a narrative with responses to the required findings and the appropriate information needed to support approval of a variance. Noticing and public hearing requirements have been met. The hearing notice was posted on April 30, 2026, and copies were forwarded to property owners within 1,000 feet of the project parcels and all other interested parties.

9. Special circumstances exist applicable to the property, including size, shape, topography, location or surroundings, because of which strict application of the zoning district regulations deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

Analysis: The project includes a request for a Variance to allow construction of an aboveground winery process wastewater treatment system within the established 600-foot winery road setback from St. Helena Highway / Highway 29 (SR 29). This Variance is requested in tandem with the Use Permit request to modify the AXR Napa Valley Winery (formerly "V Madrone Cellars") use permit to allow the construction of new wine caves, associated wastewater treatment systems and water storage, and an increase in the number of employees, visitation, and marketing events. As shown on the AXR Napa Valley Winery Variance Application – the parcel is 7.85 acres in size and configured in such a way that no portion falls outside of the required 300-foot setback from Bea Lane (private) and 600-foot setback from SR 29. Existing buildings within the setback include the main winery building (historic Hirsch residence), located 218+/- feet from SR 29, and the barrel storage building, located 30+/- feet from Bea Lane. The new winery process wastewater treatment system will be constructed approximately 415 feet from SR 29 and over 400 feet from Bea Lane. The proposed wine cave portals are also within winery setbacks but meet visibility exception criteria in Sec. 18.104.230 of the Zoning Code.

As discussed below, the AXR Napa Valley Winery parcel is unique in that the entire parcel is encumbered by overlapping winery road setbacks and it contains the historic Hirsch residence (pre-prohibition winery) known as Napa County Historic Landmark ID #141202.

Special Circumstances

In 2005, the 7.85-acre substandard parcel was approved to re-establish a 20,000 gallon per year pre-prohibition winery in historic structures that do not meet setbacks as allowed under Sec. 18.104.245 – Exceptions to winery setback and minimum parcel size for pre-prohibition wineries. Per Sec. 8.104.230.B, building additions to legally established wineries are allowed within the required setbacks without a variance provided that the new structure is attached to the original structure and is not any closer to a winery setback roadway. If a winery parcel contains historic structures, new detached structures may encroach 300 feet into the highway setback provided all required findings in Sec. 18.104.235 are met. New structures that do not meet these exception criteria are subject to winery road setbacks.

In this case, the applicant requests to install winery accessory structures associated with a new process wastewater treatment system. Aboveground components of the system include two 5,000-gallon tanks and/or a 900 square foot treatment unit that may range from 5 to 10 feet in height. The project results in separating the existing comingled wastewater treatment system to accommodate permitted wine production levels while increasing sanitary sewage flows for winery employees, visitation, and event guests. As can be seen from the Variance Exhibit provided in Attachment O, it is not physically possible to construct new winery structures outside the required 300-foot and 600-foot winery road setbacks due to the size and shape of the parcel, unlike most surrounding parcels where the size and shape do not inhibit location of winery structures outside the required setbacks. The proposed structures will be constructed in the southwestern corner of the property, approximately 415 feet from SR 29, in a previously disturbed area adjacent to the onsite vineyard. The proposed structures will be substantially screened from view from the highway due to a combination of topography, existing and proposed vegetation, the neighbor's residence, and by using non-reflective, earthtone exterior materials and colors. According to the Historic Resource Evaluation prepared by Evans & De Shazo, Inc., dated August 2025, the project will not diminish the historic integrity of the property. Per Mitigation Measure CUL-1, all site work, rehabilitation, and modifications to the site must comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and Napa County's Landmark Preservation Ordinance.

Unnecessary Hardship

Meeting the setbacks presents a practical difficulty as the property is encumbered by overlapping winery setbacks and the applicant does not own adjacent parcels. Although the parcel is a designated Historic Napa County Landmark, the site's historic structures are not eligible for listing on the California or National Register and consequently do not qualify for reduced setbacks allowed under 18.104.235. Additionally, historic preservation requirements and Environmental Health setbacks prevent the expansion of existing buildings for wastewater treatment systems.

Summit Engineering Inc., evaluated the feasibility of undergrounding two hold and haul tanks (Option 3 of the project's Wastewater Feasibility Study) and estimated $80,000 would be added to the construction costs for a project that already faces significant costs, including a new left-turn lane at an estimated cost of over $1,000,000, archaeological monitoring, water system conversion, fire protection, and the construction of historian-approved caves. Requiring the undergrounding of the entire wastewater system to meet setbacks, when landscaping and exterior materials can provide sufficient visual screening, would impose an unnecessary hardship on the landowner.

As the subject parcel cannot physically accommodate the imposed winery road setbacks for new aboveground structures, the strict application of the setbacks would deprive the applicant of privileges enjoyed by other properties in the vicinity and under identical zoning classification.

10. Grant of the variance is necessary for the preservation and enjoyment of substantial property rights.

Analysis: This finding requires the applicant to demonstrate that granting of the variance is necessary for the preservation and enjoyment of substantial property rights generally enjoyed by other property in the same zone and vicinity but will be denied to the applicant's parcel due to special circumstances of the property and unnecessary hardship. This is generally referred to as the "parity" prong. The property is located within the AW zoning district in which wineries and winery expansions are permitted upon approval of a use permit. In 2005, the property was approved for a 20,000 gallon per year winery within the winery road setbacks as allowed under Sec. 18.104.245 – Exceptions to winery setback and minimum parcel size for pre-prohibition wineries. Approval of the variance will allow the existing winery to modernize its winery process wastewater treatment system while expanding its marketing and hospitality uses consistent with the site's zoning and General Plan land use designations. Strict application of the setbacks results in a practical hardship and a financial hardship which will restrict the ability to obtain a use permit and ultimately modernize the facility's wastewater treatment systems and expand winery hospitality

uses. Granting of the variance will bring the parcel into "parity" with other properties zoned AW that have been granted use permits for winery expansion.

The grant of this variance will not confer a special privilege to the applicant as the Commission has previously granted variances to allow the construction of wineries, including accessory facilities, within roadway setbacks on properties with the same zoning and similar property characteristics. These include, but are not limited to, two wineries within approximately one mile of the site- Brasswood Napa Valley and William Cole Winery. Brasswood Napa Valley (formerly Cairdean Winery) was approved on a larger parcel with frontage on SR 29 and obtained a variance to the 600-foot highway setback due to steep topographic conditions and natural features on the property. William Cole Winery was approved to re-establish a pre-prohibition winery in the 600-foot highway setback on a parcel similar of size to AXR Napa Valley Winery as allowed under Sec. 18.104.245. Subsequently, William Cole Winery obtained a variance to expand into an existing barn 280 feet from the highway as there was no alternative location on the site where the variance would not be necessary. Other nearby wineries located in the 600-foot SR 29 setback and in the same zoning district include Morlet Family Estate (pre-prohibition winery re-established under Sec. 18.104.245) and pre-WDO facilities that were not limited by winery setbacks.

As referenced above, several properties in the County under similar or identical zoning classification enjoy permitted wineries (and subsequent expansions) within the setback. Thus, in addition to avoiding unnecessary hardship to the applicant, approval of the requested variance will allow the applicant to achieve parity with other properties. Furthermore, if the landowner cannot construct an aboveground process wastewater treatment system in the winery setback, there is no other physical location for aboveground structures available on the property, and the landowner would be deprived of substantial property rights as a result.

11. Grant of the variance will not adversely affect the public health, safety or welfare of the County of Napa.

Analysis: The intent of the 600-foot winery setback is to avoid impacts to views and noise of a winery on major thoroughfares and neighbors and preserve the rural character of Napa County.

The requested variance will not adversely affect public health, safety and welfare as discussed further below.

- The wastewater treatment system will be 415 feet from the highway (where 600 feet is required) and screened from view from vehicles driving along SR 29 due to existing and proposed vegetation, its location behind the neighbor's residence, and use of non-reflective, earthtone exterior colors and materials. This design

provides screening and viewshed protections consistent with the intent and spirit of the setback regulations described in the Napa County Winery Definition Ordinance (WDO) and Code Section 18.104.230.

- The wastewater treatment system will be constructed in an area already disturbed by vineyard activities. No trees will be removed and all sensitive habitats in the vicinity will be protected.

- This proposal will not result in the potential for creation of significant noise. The proposed structures will be sized for treating/disposing of 20,000 gallons of wine per year, which is considered a small winery. The nearest offsite residence located 200+/- feet to the east will be shielded by approximately 100 feet of existing mature vineyard and new landscaping via required Conditions of Approval. Additionally, potential noise levels are expected to be minimal due to the site's ongoing vineyard and winery activities, as well as ambient noise levels from the highway. Standard project Conditions of Approval further reduce noise impacts to neighbors by requiring compliance with Napa County's Noise Ordinance.

- The project is required to minimize nighttime light disruption and visual glare by using shielded exterior light fixtures and directing them downwards as specified in the County's standard Conditions of Approval.

- Construction activities must adhere to best management practices for dust control as specified in the County's standard conditions of approval.

Furthermore, various County departments have reviewed the Project and commented regarding water, wastewater disposal, access, building permits, and fire protection. Given that recommended conditions of approval and mitigation measures are incorporated, the project will not adversely affect the public health, safety or welfare of the County of Napa.

12. Grant of the variance in the case of other groundwater basins, or areas which do not overlay an identified groundwater basin, where grant of the variance cannot satisfy the criteria specified for approval or waiver of a groundwater permit under Section 13.15.070 or 13.15.080, substantial evidence has not been presented demonstrating that grant of the variance might cause a significant adverse effect on any underlying groundwater basin or area which does not overlay an identified groundwater basin.

Analysis: The project is located on a 7.85-acre hillside parcel, adjacent to the Napa Valley Floor and outside of a groundwater deficient area. Water Availability Analysis was prepared (EBA Engineering) and submitted with the application utilizing the Napa County's Water Availability Analysis (WAA) Guidance Document (Adopted May 12,

2015) and 2024 Interim Guidelines. The analysis concluded that a Groundwater Recharge Rate of 6.42 acre-feet per year (AFY) has been identified for the parcel. The projected water demand for the parcel would increase by approximately 0.1197 AFY, bringing the total water demand to 2.8 AFY[1]. Project Conditions of Approval require the applicant to participate in a groundwater demand management program to cap groundwater pumping at 42 gallons per minute and a maximum of 2.8 AFY for the entire parcel. Thus, the project would not increase groundwater extraction beyond the yearly maximum estimated groundwater recharge of 6.42 AFY and 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.

VIEWSHED PROTECTION PROGRAM:

The following findings must be made to approve a project applicable to the Viewshed Protection Program – Administrative Review requirements pursuant to Napa County Code (NCC) Section 18.106.040(C):

13. The highest point of the proposed structure is located more than twenty-five vertical feet below a major or minor ridgeline.

Analysis: The development area is more than 900 feet below the minor ridgeline west of the site on slopes ranging from 5+/- to 18+/- percent.

14. The project as designed and sited meets all of the following standards and substantially conforms to the Design Manual:

a. The maximum floor area, including all floors, of the main residence or agricultural structure is four thousand square feet or less and the maximum floor area, including all floors, for accessory structures are a combined total of two thousand five hundred square feet or less,

b. The height of the structure is twenty-four feet or less as measured from finished grade along fifty percent or more of the longest wall as viewed from any designated public road,

c. The improvement(s), including any required earthmoving or grading associated with the structure shall minimize removal of existing vegetation with emphasis on preserving mature trees. If the improvements require the removal of any tree with a diameter of six inches or greater, a detailed landscaping plan shall be prepared showing the location and replacement of trees and vegetation in a manner which

[1] 2.8+/- AFY is staff's adjusted estimate for proposed water demands which considers the following project changes: no increase in wine production, conversion of the main residence, and new screening vegetation.

screens the improvements from substantial views from designated public roads and provides for defensible space in conformance with state law,

d. A significant portion of natural on-site vegetation has been retained to naturally screen the project from views of designated public roads,

e. Landscaping will be installed and designed to screen the project from substantial views from designated public roads,

f. The project lighting, including site lighting, has been designed to minimize off-site visibility and glare,

g. The exterior color treatment of the structure will blend with the color of surrounding vegetation and landforms,

h. Exterior windows and trim are nonreflective, and

i. Roof angles and composition are designed to conform to existing landforms and landscape

Analysis: As designed, the proposed structures do not result in tree removal or exceed 4,000 square feet in size. All new structures will comply with the 24-foot height limit- cave portals will be 13-feet, 8-inches in height, new tanks will be 8 to 15 feet in height, and a wastewater treatment unit typically ranges between 5 to 10 feet in height. All proposed new structures on slopes of 15% or higher will be screened adequately from views on viewshed roads by retaining existing trees and most of the vineyard onsite and installing new screening landscaping at each structure and the parcel's frontage. Conditions of Approval require the project minimizes off-site visibility and glare, and utilizes non-reflective, earthtone colors and textures to blend with the background. With the incorporation of the submitted landscape plan designed for vegetative screening of more than 51 percent of the proposed structures and Conditions of Approval, the design will minimize adverse effects on views from designated public roads.

15. If the structure is an addition to an existing residence or an agricultural structure, the total floor area, including all floors shall not exceed four thousand square feet. If the addition pertains to an accessory structure, the total floor area, including all floors, shall not exceed a combined total of two thousand five hundred square feet.

Analysis: No additions are proposed to existing buildings.

16. The project as sited and designed shall be in substantial compliance with the Design Manual to reduce its visual impact on the views of major and minor ridgelines as viewed from any designated public road and unique topographic or geologic features as viewed from any county road. The following landforms will be considered to be unique topographic or geologic features for the purposes of this subsection: Mt. St. Helena, Stag's Leap, Calistoga Palisades, Round Hill, Mt. George and Mt. St. John.

Analysis: The proposed structures are more than 900 feet below the minor ridgeline west of the project property. Therefore, as designed, the proposed project and associated improvements substantially conform to the County's Design Manual and thereby reduce visual impacts on ridgelines. No unique topographic or geologic features are applicable to this subject site.

17. Involves the grading of less than one and one-half acres of land.

Analysis: The project would result in disturbance of less than 0.5 acres of land to construct the new wine cave access road, portals, and water and wastewater system improvements. The siting and design of site improvements do not involve significant grading nor alteration of natural landforms and topography. All new structures on slopes exceeding 15 percent slope will be screened from view from the designated viewshed road (SR 29).

18. Future structures, including roads, driveways, wastewater disposal systems, and necessary earthmoving to construct project improvements shall be located to avoid environmentally sensitive areas as defined by Section 18.08.270 of the code.

Analysis: All proposed structures and driveways are outside of environmentally sensitive areas. Tree removal is limited to six oak trees from the SR 29 Caltrans right-of-way, in an area mapped as Agriculture according to Napa County GIS Environmental Sensitivity Maps (Vegetation Layer). Conditions of Approval require replacement trees along the property's frontage or a deed restriction preserving existing oak woodland onsite. All construction on the parcel utilizes areas previously disturbed by the existing winery and vineyard activities and will comply with stream setbacks.

19. A detailed landscape plan prepared by a qualified landscape professional shall be prepared which incorporates the criteria set forth in the Design Manual for review and approval by the director.

Analysis: The landscaping plan ("Cave Portal Visibility Analysis") prepared by Studio 1515 Landscape Architecture, dated March 7, 2024, demonstrates cave portals will be 100 percent screened from view from the designated viewshed road due to a combination of existing topography and vineyard, and installation of new screening vegetation. The landscaping plan proposes manzanita shrubs around cave portals and nine (9) 24-inch box 'Swan Hill' multi-trunk olive trees at the property's frontage. Conditions of Approval require a detailed landscape plan prepared by a qualified landscape professional consistent with the Design Manual for the cave portals as well as all structures associated with new water and wastewater systems.

USE PERMIT:

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

20. The Commission has the power to issue a use permit under the zoning regulations in effect as applied to the property;

Analysis: The project is consistent with Agricultural Watershed (AW) 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 18.20.030) are permitted in an AW zoned district with an approved use permit. 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.

21. The procedural requirements set forth in Chapter 18.124 of Napa County Code have been met;

Analysis: The use permit application has been appropriately filed, noticed, and public hearing requirements 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 April 30, 2026, and copies of the notice were forwarded to property owners within 1,000 feet of the Property and other interested parties. The public comment period ran from April 30, 2026, to June 2, 2026.

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

Analysis: Granting the Use Permit for the project as proposed and conditioned will not adversely affect health, safety or welfare of the County. Affected County divisions and departments have reviewed the project and commented regarding the proposed site access, grading, drainage, water and wastewater treatment systems, parking, building permits, and fire protection. Conditions are recommended which will incorporate these comments into the project to assure the protection of the public health, safety, and welfare.

23. The proposed winery use complies with the applicable provisions of Napa County Code and is consistent with the policies and standards of the Napa County General Plan;

Analysis: Compliance with the Zoning Ordinance

The project is consistent with the AW 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 18.20.030) are permitted in the AW zoning district subject to an approved use permit. The proposed project will comply with the

development standards of the AW District and winery coverage area identified in Section 18.104.220. The project requests a Variance from the 600-foot winery setbacks prescribed in Section 18.104.230.A.1. (Refer to Variance Findings provided above) 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 as conditioned, the requested Use Permit Modification is consistent with the overall goals and objectives of the General Plan (2008). The General Plan land use designation for the subject parcel is Agriculture, Watershed and Open Space (AWOS).

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 continued 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 winery expansion, the requested Use Permit Modification 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 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-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 [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

24. 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. The project is located on a 7.85-acre hillside parcel, adjacent to the Napa Valley Floor and outside of the GSA. The project well is approximately 345 feet from the nearest offsite well, 600 feet from a spring, and 400 feet from a designated significant stream (Hirsch Creek); therefore, a Tier 2 and Tier 3 analysis were completed. Based on the submitted Water Availability Analysis (WAA) by EBA Engineering Inc., the parcel has an estimated groundwater recharge of 6.42 acre-feet per year (AFY). Water Demand Calculations evaluated for the project indicate the water demand for existing uses on the property as 2.7+/- AFY[2] which includes an existing 20,000-gallon winery with visitation and marketing events, four dwellings (three cottages and one apartment), a 3.5+/- acre vineyard, and landscaping. The proposed groundwater demand would increase to approximately 2.8 AFY[3] to accommodate the requested increase in employees, visitation, and marketing events, as well as new screening landscaping. One existing dwelling (apartment) will be converted to winery office use and approximately 8,000 square feet of vineyard will be removed to accommodate a new wine cave access road. The WAA determined that pumping from the project well at 42 gallons per minute and for a total of 2.82+/- AFY will not interfere substantially with groundwater recharge and that there is no drawdown from pumping the project well at a distance of 155 feet, which correlates with no anticipated well or spring interference, nor groundwater/surface water interaction with Hirsch Creek.

Project Conditions of Approval require the applicant to participate in a groundwater demand management program to limit the project to 3.0 AFY that may be pumped from the project well at a maximum rate of 42 gallons per minute, which aligns with the project's WAA and satisfies the County's Public Trust duties. Thus, 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 is well below the estimated water availability acre feet per year for the parcel, the requested Use Permit 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

[2] 2.7+/- AFY is staff's adjusted estimate for existing water demands which considers that Cottage #5 and Cottage #6 are no longer existing on the property.

[3] 2.8+/- AFY is staff's adjusted estimate for proposed water demands which considers the following: no increase in wine production, conversion of the main residence, and new screening vegetation.

agricultural and related purposes. The project will not require a new water system or other improvements and will not have a negative impact on local groundwater.

“B”

Recommended Conditions of Approval and Final Agency Approval Memos

PLANNING COMMISSION HEARING – JUNE 3, 2026
RECOMMENDED CONDITIONS OF APPROVAL

AXR WINERY NAPA VALLEY WINERY
USE PERMIT MODIFICATION (P22-00417-MOD), VARIANCE (P26-00045-VAR), AND VIEWSHED (P26-00044-VIEW)
3199 ST. HELENA HIGHWAY, ST. HELENA, CA 94574
APN 022-080-025

This permit encompasses and shall be limited to the project commonly known as **AXR Napa Valley Winery**, located at **3199 St. Helena Highway**. 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

This permit encompasses and replaces the terms of Use Permit Modification No. P08-00099 (formerly "V Madrone Cellars") and shall be limited to:

1.1 Approval of a Variance to Napa County Code Section 18.104.230(A)(1) to allow an aboveground winery process wastewater treatment system in the required 600-foot winery setback from Highway 29, located a minimum of 415+/- feet from the centerline of Highway 29.

1.2 Approval of a Viewshed Permit to allow construction of three wine cave portals, water storage and an aboveground winery process wastewater treatment system on slopes ranging from approximately 15 to 18 percent.

1.3 Approval to modify an existing 20,000 gallon per year winery, previously approved under Use Permit P04-0541, as modified by Use Permit P08-00099, to allow the following:

a. Construction of a new 17,190+/- square foot Type I production cave with three portals; with 11,993+/- square feet for barrel storage and 5,197+/- square feet for crush pad, tank farm and related wine production uses.
b. Construction of a new fire pump house and installation of five replacement 10,500-gallon water tanks for fire protection.
c. Conversion of the existing 1,492 square foot barrel storage building to a tasting room and the adjacent 1,204 square foot outdoor crush/tank pad to tasting and hospitality uses.
d. Winery (historic Hirsch residence) - maintain winery storage/production uses in the winery cellar (2,555 square feet) and reconfigure the main level to convert the entire floor (4,147 square feet- includes attached residence) to accessory uses as shown on floor plans prepared by Signum Architecture, LLP, dated November 14, 2025 – Plan Sheets A2.00 and A2.01.
e. Visitation, tours and tasting, retail wine sales, and a marketing plan as set forth in Conditions of Approval (COAs) Nos. 4.1 through 4.3 below.
f. On-premises consumption of wine (Business and Professions Code Sections 23358, 23390 and 23396.5) as set forth in COA No. 4.4 below.
g. Increase in the number of employees to:
    - Weekdays: 6 full-time employees during harvest; 4 full-time employees outside of harvest; and 2 part-time employees year-round.
    - Weekends: 12 full-time employees and 5 part-time employees year-round.
h. Use of 17 existing standard parking spaces and one (1) existing accessible space for daily operations. Valet parking and onsite overflow parking areas (unimproved) to be utilized during events.
i. Modification of the existing wastewater treatment system to serve all domestic winery and residential uses.
j. Installation of a new, separate wastewater treatment system for treatment of winery process wastewater.
k. Installation of a public water system to serve all domestic uses.
l. Winery driveway upgrades to meet Napa County Roads and Street Standards and construction of a new interior road for cave portal access.
m. Construction of a new left-turn lane on Highway 29 at the winery's south driveway.
n. Pre-packaged food service for daily visitors and catered food service for marketing events (no commercial food facility proposed).
o. Installation of new screening vegetation for Cave Portals #2 and #3.

p. Removal of up to six (6) oak trees from the Caltrans Highway 29 right-of-way: four White Oaks ranging from seven inches in diameter at breast height (DBH) to 18 inches DBH; and one Blue Oak 24 inches DBH.

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: 60 (reduced to 40 from December 1 to March 31).
    - Tours and Tastings/Visitation limited to 35 people per day on days with Small Events.
    - Tours and Tastings/Visitation closed on days with Medium and Large Events.
c. Maximum number of persons per week: 420 (reduced to 280 from December 1 to March 31).
d. Hours of visitation: 10:00 a.m. to 6:00 p.m.

"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 between 4:00 p.m. to 6:00 p.m. on weekdays.

A logbook (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 Events**
   1. Frequency: 24 times per year (twice per month)
   2. Maximum number of persons: 25
   3. Tours and Tastings/Visitation limited to 35 people on Small Event Days.
   4. Time of Day: 10:00 a.m. to 10:00 p.m. with quite clean-up by 11:00 p.m.
      - Events to avoid the peak traffic hours which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends.

b. **Medium Events**
   1. Frequency: 4 times per year
   2. Maximum number of persons: 75
   3. Tours and Tastings/Visitation closed on Medium Event Days.
   4. Time of Day: 10:00 a.m. to 10:00 p.m. with quite clean-up by 11:00 p.m.
      - Events to avoid the peak traffic hours which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends).
   5. Shuttle services shall be provided for employees.
   6. Shuttle services shall be provided for event guests unless an event parking plan is approved by the Fire Marshal.
   7. See Conditions of Approval Nos. 4.20 (e) and (g) for overflow event parking limitations.
   8. Portable restroom facilities shall be used to avoid excessive loading on the domestic wastewater system.

c. **Large Events**
   1. Frequency: 3 times per year
   2. Maximum number of persons: 150
   3. Tours and Tastings/Visitation closed on Large Event Days.
   4. Time of Day: 10:00 a.m. to 10:00 p.m. with quite clean-up by 11:00 p.m.
      - Events to avoid the peak traffic hours which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends.
   5. Shuttle services shall be provided for employees.
   6. Shuttle services shall be provided for event guests unless an event parking plan is approved by the Fire Marshal.

7. See Conditions of Approval Nos. 4.20 (e) and (g) for overflow event parking limitations.
8. Portable restroom facilities shall be used to avoid excessive loading on the domestic wastewater system.

"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, excluding quiet clean-up, 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 outdoor tasting areas as identified on the "Proposed Site Plan" plan sheet G0.02P of the architectural plan set prepared by Signum Architecture, LLP, dated November 14, 2025. 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

Unless specifically authorized by this permit or a previously approved permit, the existing single-family residences (three cottages) shall not be used for commercial purposes or in conjunction with the operation and/or visitation/marketing program for the winery. If the residences are rented, they shall only be rented for periods of 30 days or more, pursuant to the County Code.

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 logbooks, 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

This condition is implemented by the Planning, Building and Environmental Services Department:

The permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data will be provided to the County, if the PBES Director determines that substantial evidence[1] indicates that water usage at the winery is affecting, or would potentially affect, groundwater supplies or nearby wells. If data indicates the need for additional monitoring, and if the applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

In order to support the County's groundwater monitoring program, well monitoring data as discussed above will be provided to the County if the Director of PBES determines that such data could be useful in supporting the County's groundwater monitoring program. The project well will be made available for inclusion in the groundwater monitoring network if the Director of PBES determines that the well could be useful in supporting the program.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Use Permit would significantly affect the groundwater basin, the PBES Director shall be

[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.

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.

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. on weekdays). 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 Division WAA Technical Adequacy Memo and operational conditions as stated in their Memorandum dated August 22, 2025.

b. Environmental Health Division operational conditions as stated in their Memorandum dated May 6, 2024.

c. Building Division operational conditions as stated in their Memorandum dated January 31, 2023.

d. Department of Public Works operational conditions as stated in their Memorandum dated August 27, 2025.

e. Fire Department operational conditions as stated in their Memorandum dated May 24, 2023.

f. California Department of Transportation operational conditions as stated in their letters (emails) dated January 12, 2026 and December 5, 2024.

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 VIS-1, BIO-1 through BIO-3, CUL-1, TRANS-1 and TCR-1 as listed in COA No. 6.12 below.

4.20 OTHER CONDITIONS APPLICABLE TO THE OPERATIONAL ASPECTS OF THE PROJECT

a. This Use Permit Modification does not change the preapproved wine production levels (20,000 gallons per year) nor the preapproved hours of operation for wine production (8:00 a.m. to 6:00 p.m., seven days a week).

b. 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.

c. Groundwater Management – The project well (WCR e0367373) shall be limited to 2.82-acre feet of groundwater per year for all water consuming activities on the project parcel (winery, residences, vineyard). A

Groundwater Demand Management Program shall be developed and implemented for the property as outlined in COA 6.15(e) below.

In the event that changed circumstances or significant new information provide substantial evidence[2]2that 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.

d. Landscaping and screening vegetation shall be maintained to ensure that Cave Portals #2 and #3 cannot be viewed from Highway 29.

e. Further encroachment into stream setbacks, including new event overflow parking, is prohibited unless permitted by Section 18.108.025.E or exempt under Section 18.108.050 of the Napa County Code. Setback exceptions are subject to Section 18.108.040. Additionally, new parking areas must remain outside the outermost dripline of native trees.

f. Properties located within unincorporated Napa County and zoned Agricultural Preserve or Agricultural Watershed shall not be used for the winery's offsite parking demands.

g. Noise Ordinance Compliance: To ensure ongoing compliance with the County Noise Ordinance, the permittee shall adhere to the following requirements:

    i. **Capacity Limits:** Occupancy of the northern outdoor tasting area (east of the Hospitality building) is limited to a maximum of 30 persons at any time.
    ii. **Acoustic Containment:** All doors and windows of the Hospitality building shall remain closed during marketing events involving amplified music.

[2] 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.

iii. **Parking Restrictions:** Overflow event parking is prohibited adjacent to the northern outdoor tasting area.

Any changes to these noise-related restrictions require a modification to the use permit.

h. The winery shall implement the following Transportation Demand Management Plan:

Visitor Tours and Tastings/Marketing Events:

- When making appointments for all guests and visitors, indicate the existing Caltrans access restrictions at the SR 29--AXR Napa Valley north project driveway (right-turn outbound only) with inbound flow only at the south project driveway. Refer them to Winery's website for directions and instructions.

Shuttles, Hire Car, Limousines

- To the maximum extent possible, shuttle and other high occupancy vehicles shall transport guests to marketing events or tours and tastings for groups of 25 persons or more, with all vehicles parking on-site in designated areas. During medium and large events, shuttle services shall be provided for employees.

Employees:

- Staggered/Flextime employee work hours: The winery will make efforts to have employees who do not live on-site arrive and/or depart the premises outside of the peak commute periods which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends. For example, wine production employees would be encouraged to arrive prior to 7:00 a.m. and to depart before 3:00 p.m. (before 12:00 p.m. on the weekends). The exception would be during the crush/harvest season. Employees working in the visitor serving capacities would be encouraged to arrive after 9:00 a.m. and depart after 6:00 p.m. (after 4:00 p.m. on weekends);
- Carpool/Vanpool (Bay Area Commuter Benefits Program): Winery enrolls in program and notifies employees and subsidizes carpooling activities per program details;
- Provide and Maintain Bicycle Racks for Employees/Visitors: Provide and maintain bicycle racks for use by employees/visitors. Provide other resources associated with bicycle uses;

- Delivery Off-Peak Scheduling: The Winery will endeavor to schedule deliveries during off-peak commute times which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends.

General:

- Ride Share/Car Free Operations: The winery will make efforts to encourage ride shares and "car free" tourism as described in the program of the Napa Valley Destination Council and Napa Valley Transportation Agency.
- Napa Valley Forward Program: The Winery can enter into an agreement with the agency's designated commuting hub platform to provide information to the Winery's traffic reduction efforts.

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 Division WAA Technical Adequacy Memo and operational conditions as stated in their Memorandum dated August 22, 2025.

b. Environmental Health Division operational conditions as stated in their Memorandum dated May 6, 2024.

c. Building Division operational conditions as stated in their Memorandum dated January 31, 2023.

d. Department of Public Works operational conditions as stated in their Memorandum dated August 27, 2025.

e. Fire Department operational conditions as stated in their Memorandum dated May 24, 2023.

f. California Department of Transportation operational conditions as stated in their letters (emails) dated January 12, 2026 and December 5, 2024.

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

All permitted work performed on any historic resources shall follow the latest edition of the Secretary of the Interior's Standards for Historic Preservation and Guidelines for Treatment of Historic Properties (Standards). Written verification that such work meets the Standards shall be submitted by a qualified historic architect for review and approval by the PBES Department prior to issuance of any grading or building permit.

6.10 DEMOLITION ACTIVITIES **[RESERVED]**

6.11 VIEWSHED – EXECUTION OF USE RESTRICTION

The property owner shall execute and record in the County Recorder's office a use restriction, in a form approved by County Counsel, requiring the building exteriors, cave portals, process wastewater treatment system structures/tanks, fire pump house, water tanks and existing and proposed covering vegetation, as well as any equivalent level of replacement vegetation to be maintained by the owner or the owner's successor so as to maintain conformance with the County Code.

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. **MM VIS-1:** Prior to issuance of building permits, the owner/permittee shall submit a tree replanting plan, prepared by a certified arborist and subject to Planning Division approval, that includes replanting of at least six native oak trees (or other appropriate native species) to replace those removed. All replacement trees shall be a minimum size of 15-gallons and must be monitored for a minimum survivability period of five years. Any replacement trees that fail to survive during this period shall be replaced in-kind by the applicant. Alternatively, the owner/permittee may identify and permanently preserve the equivalent amount (or more) of native tree canopy through deed restriction or other means of permanent protection in a form approved by County Counsel.

   Method of Monitoring: The owner/permittee shall schedule a site inspection with the Planning Division and/or submit documentation verifying that replacement trees have been installed, or that the deed restriction has been recorded, prior to final occupancy of building permits. The owner/permittee shall provide copies of the annual monitoring results to the Planning Division, while monitoring is in effect.

   Responsible Agency: Planning, Building & Environmental Services

b. **Mitigation Measure BIO-1 (Pre-construction NSO nesting surveys):** The owner/permittee shall implement the following measures to minimize potential impacts to Northern Spotted Owls (NSO):

   A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall provide an assessment of potential NSO nesting habitat within the Project site and a 0.25-mile radius and obtain CDFW's written acceptance of the assessment.

   Alternatively, if the assessment is not completed, or if it concludes that NSO nesting habitat is present, then no Project activities within 0.25 miles of potential NSO nesting habitat shall occur between February 1 and July 31 unless a qualified biologist approved in writing by CDFW conducts NSO surveys following the U.S. Fish and Wildlife Service (USFWS) *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*, dated (revised) January 9, 2012, available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83977&inline.

Surveys shall be conducted in accordance with Section 9 of the survey protocol, Surveys for Disturbance-Only Projects. If breeding NSO are detected during surveys, CDFW shall be immediately notified and a 0.25-mile no-disturbance buffer zone shall be implemented around the nest until the end of the breeding season, or a qualified biologist determines that the nest is no longer active in consultation with CDFW, unless otherwise approved in writing by CDFW. The Project shall obtain CDFW's written acceptance of the qualified biologist and survey report prior to Project construction occurring between February 1 and July 31 each year.

Alternate buffer zones may be proposed to CDFW after conducting an auditory and visual disturbance analysis following the USFWS guidance, *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*, dated October 1, 2020. Alternative buffers must be approved in writing by CDFW.

If take of northern spotted owl cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP, and also consult with USFWS pursuant to the federal ESA.

Method of Monitoring: The above measure applies to ground disturbing activities and associated building and grading permits with NSO survey recommendations to be implemented in conjunction with all construction and vegetation removal activities. Prior to the commencement of vegetation removal and earthmoving activities, the Owner/Permittee shall provide copies of required surveys and CDFW approval(s) and/or related CDFW correspondence to the Planning Division.

Responsible Agency: Planning, Building & Environmental Services & CDFW

c. **Mitigation Measure BIO-2 (Pre-construction surveys for nesting birds and raptors):** 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 shall 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 and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Responsible Agency: Planning, Building & Environmental Services & CDFW

d. **Mitigation Measure BIO-3 (Pre-construction bat tree habitat assessment and surveys):** Prior to any tree trimming or removal, 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 or removal and 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 or removal shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be removed only:

   a) using the two-step removal 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 removal 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 removal, 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 entire tree shall be removed.

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

Responsible Agency: Planning, Building & Environmental Services & CDFW

e. **Mitigation Measure CUL-1:**
   1. Construction resulting from the project shall not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation.

2. Modifications to the rock wall are limited to modern sections and relocation of the stone pillars at the driveway entrance. The historic sections (late 19th to early 20th century) along the frontage of the property shall not be altered or removed, excepting the proposed relocation of stone pillars, to accommodate road improvements.
3. All site work, including rehabilitation, restoration, or modifications to existing structures and contributing accessory structures and landscape features shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings as well as Napa County's Landmark Preservation Ordinance (Chapter 15.52). A historic architect shall review all proposed construction plans, including modifications to the rock wall and stone pillars, for compliance with Mitigation Measure CUL-1 and his/her written report shall accompany any plans submitted for grading and building permits.

Mitigation Monitoring CUL-1: Prior to issuance of any grading or building permit for the project, the Planning Division shall review the historic architect's report and confirm the project is in compliance with Mitigation Measure CUL-1.

Responsible Agency: Planning, Building & Environmental Services

f. **Mitigation Measure TRANS-1:**
1. Prior to building permit issuance and increasing daily trips to the site as a result of the project (from all uses – employees, visitation, marketing events), a left tum lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project. Prior to the approval of any permit for construction of the project and increasing daily trips to the site, Caltrans and the Napa County Public Works Department shall verify all requirements for the left turn lane and associated driveway improvements have been completed.

Responsible Agency: California Department of Transportation and Napa County Public Works Department.

g. **MM TCR-1:** Tribal Cultural Resources

1. Prior to initial ground disturbance, the owner/permittee shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.
2. Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.
3. The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the

project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

4. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
5. The owner/permittee shall meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.

Method of Monitoring: The above measure applies to ground disturbing activities and associated building and grading permits. Prior to the commencement of vegetation removal and earthmoving activities pursuant to #P22-00417, the Owner/Permittee shall provide documentation to Napa County that they have engaged with the Middletown Rancheria to provide cultural monitors (as necessary) and that cultural sensitivity training has been provided to site workers.

Responsible Agency: Planning, Building & Environmental Services

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. In conjunction with the building permit application submittal, the permittee shall submit plans for a winery sign as required by Condition of Approval 9.2. 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.

e. Groundwater Demand Management Program:

1. The owner/permittee shall install a flow regulation device on the project well limiting the pumping capacity to not exceed 42 gallons per minute. Documentation of the installation of the flow regulation device shall be provided to the County prior to building permit final occupancy.
2. The permittee shall install a meter on the project well (WCR e0367373). The meter shall be placed in a location that will allow for the measurement of groundwater used from the project well. Prior to the issuance of building permits for the winery and associated structures, as approved under this permit, 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 project well.
3. The Plan shall identify how best available technology and best

management water conservation practices will be applied throughout the parcel.

4. 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.
5. As groundwater consuming activities 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 permit.
6. For the first twelve months of operation under this permit, the permittee shall read the meter at the beginning of each month and provide the data to the PBES Director monthly. If the water usage from the project well exceeds, or is on track to exceed, 2.82 acre-feet per year, 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 and shall be submitted to the PBES Director for review and action.
7. The permittee's well shall be included in the Napa County Groundwater Monitoring program if the County finds the well suitable.
8. At the completion of the reporting period per 6.16(a)(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 meter during regular business hours. Upon continued increases in operations approved under this permit, the PBES Director, or the Director's designated representative, has the right to revise the data submittal schedule.

f. In conjunction with building permit application submittal, the permittee shall submit for review and approval to the PBES Department proposed cave floor plans to ensure compliance with California Building and Fire Code requirements and to confirm compliance with the permitted accessory/production designated ratios pursuant to County Code Section 18.104.200 - Accessory structures related to wineries in AP/AW districts - Maximum square footage.

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 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 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 a.m. to 5 p.m.

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 VIS-1, BIO-1 through BIO-3, CUL-1, TRANS-1, and TCR-1 as listed in COA No. 6.12 above.

7.5 OTHER CONSTRUCTION CONDITIONS APPLICABLE TO THE PROJECT PROPOSAL

a. Vegetation Protection:

1. Prior to any earthmoving activities temporary construction fencing or other means of project demarcation acceptable to the County shall be placed at the limits of the project footprint. 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 winery construction and operation.

2. Trees or any other vegetation inadvertently removed as a result of the project shall be replaced onsite at a 2:1 ratio: trees shall be replaced with fifteen-gallon container size trees. For such removal a replacement plan shall be prepared for

county review and approval that includes at a minimum, the locations where replacement trees and vegetation will be planted, plant container sizes or seeding specifications, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. 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 erosion control plan.

3. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the project area.

b. Stream Protection:

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 Planning 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. 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.

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

a. The permittee shall construct a left turn lane and driveway improvements. The design of the left turn lane and driveway improvements shall be submitted to the Public Works Department for review and approval. The left turn lane and driveway improvements shall be designed in substantial conformance with the submitted site plan, and other submittal materials and shall comply with all requirements of the County Code and Napa County Road and Street Standards.

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 VIS-1, BIO-1 through BIO-3, CUL-1, TRANS-1, and TCR-1 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, the permittee shall provide evidence that the required well meter has been installed and groundwater usage monitoring has commenced as required in COA Nos.4.20(c) and 6.15(e).

b. Prior to final, Planning staff shall verify that Cave Portals #2 and #3 cannot be viewed from Highway 29.

c. Prior to final, Planning staff shall verify that any aboveground structures housing the winery wastewater treatment system utilizes earth tone exterior colors and is substantially screened from view from Highway 29.

d. Prior to final, a minimum of 10 bicycle parking spaces shall be installed onsite. Each bicycle parking space shall be not less than six feet long by

two feet wide and shall include a parking rack capable of supporting bicycles of various sizes in a vertical position. Parking racks shall be securely fastened to the ground or lot surface and be of sufficient structural strength to resist vandalism and theft. All bicycle parking spaces shall be located in a safe, secure area and, if feasible, near the entrance to the main winery building.

e. Prior to final, the permittee shall apply to PBES to designate one of the three remaining cottages as the main residence for the property.

b. Prior to final, the permittee shall remove all temporary construction fencing placed along ephemeral streams and protected oak woodland areas and other protected vegetation areas from the project site.

g. Prior to final, the permittee shall obtain approval from the Department of Planning, Building, & Environmental Services for an Agricultural Erosion Control Plan to incorporate the proposed 14,150+/- cubic yards of cave spoils into onsite vineyards.

h. Prior to final, the permittee shall apply to the Planning Division to update the Napa County Landmark Historic Listing Designation for the property.

i. Prior to obtaining final occupancy for any winery structure, the permittee shall construct the left turn lane and driveway improvements. The design of the road improvements shall be submitted to the Public Works Department and California Department of Transportation for review and approval. The road improvements shall be designed in substantial conformance with the submitted Summit Engineering, Inc. Preliminary Civil Engineering Plans, dated November 14, 2025, and Left Turn Lane Concept Plan, dated June 12, 2025, and other submittal materials and shall comply with all requirements of the County Code and Napa County Road and Street Standards.

EXHIBIT A

AXR NAPA VALLEY WINERY
USE PERMIT MODIFICATION (P22-00417-MOD), VARIANCE (P26-00045-VAR), AND VIEWSHED (P26-00044-VIEW)
3199 ST. HELENA HIGHWAY, ST. HELENA, CA 94574
APN 022-080-025-000

PREVIOUS CONDITIONS

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

A. USE PERMIT NO. P08-00099 (V MARDONE CELLARS)

1. **SCOPE**: The permit shall be limited to:
   - Wine production of no more than 20,000 gallons per year;
   - Conversion of the existing 2547 square foot main residence to office, conference, shipping/receiving, equipment and dry storage, commercial kitchen/employee break room and lobby; and 2555 square foot cellar and basement to barrel storage, bottle and bulk storage;
   - Relocation of the barn out of the stream setback (approximately 25 feet and in close proximity to its historical location);
   - Removal of that portion of the adjacent parking area within the stream setback;
   - Conversion and reconstruction pursuant to the Secretary of Interior Standards and Guidelines for the Treatment of Historic Properties of the 798 square foot barn, attached 136 square foot outbuilding and 425 square foot enclosed outbuildings totaling 1,359 square feet to a 1,492 square foot barrel storage building with a storage room and ADA restroom;
   - Conversion of 425 square feet of unenclosed outbuildings to covered outdoor work space;
   - Construction of 1204 square foot crush/fermentation tank pad;
   - Retail sales and tours & tasting by appointment only;
   - [**Superseded by Use Permit Modification No. P22-00417 COA No. 1.0:** 15 parking spaces;
   - Two full-time and two part-time employees;
   - Establish a Marketing plan as discussed below;]

- Installation of one additional water storage tank for fire protection; and
- [**Superseded by Use Permit Modification No. P22-00417 COA No. 1.0:** Completion of the "No Left Turn" alternative specified by the State Department of Transportation {Caltrans) and the Napa County Department of Public Works prior to issuance of a Temporary Certificate of Occupancy or Final Certificate of Occupancy for any permits for the structures to be used for winery operations.

The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials. It is the responsibility of the applicant to communicate the requirements of these conditions and mitigations (if any) to all designers, constructors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or changes in use shall be by the approved Use Permit modification process.]

2. HISTORICAL STRUCTURES: Prior to the issuance of any Temporary Certificate or Final Certificate of Occupancy for the barrel storage building for the project the following shall be provided:
   a. A Letter of Intent submitted to the Planning Department setting forth a timeline outlining specific steps for the timely completion of the conversion of the historic main residence to the historic winery;
   b. Verification by a qualified historic architect that the main residence is eligible for listing on the California Historic Register.
   c. A historic architect's report ·confirming the construction plans, location, materials & color are in compliance with the Secretary of Interiors Guidelines for the Treatment of Historic Properties;
   d. Written agreement from the property owner that a deed for a Notice of Use Restriction will be signed by said property owner and recorded with the Napa County Recorder's Office (prior to issuance of the Certificate of Final Occupancy of the winery / residence) stating that winery operations must occur within the converted main historic residence/winery for winery operations to continue on site and,
   e. Visitation and Marketing shall not commence until the Letter of Intent (as described in the above section 2. (a.)) is received by the Planning Department, the "No Left Turn" alternative has been completed and signed off by Caltrans, and a Final Certificate of Occupancy for the barrel storage building has been issued.

COMPLETED

3. **MARKETING:** Marketing events shall be limited as follows: [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.3:**

   a. Two auction events per year with a maximum of 75 people per event
   b. One private harvest event per year with a maximum of 75 people
   c. One special holiday event per year with a maximum of 75 people
   d. Two wine trade open house events per year with a maximum of 75 people per event
   e. Six private wine and food trade events per year with a maximum of 20 people per event

   (All marketing events shall occur between 10:00 AM - 3:00 PM and 5:00 PM - 10:00 PM Monday through Friday; and on weekends 10:00 AM - 2:00 PM and 5:00 PM - 10:00 PM.

   "Marketing of wine" means any activity of a winery identified in this paragraph which is conducted at the winery and is limited to members of the wine trade, persons who have pre-established business or personal relationships with the winery or its owners, or members of a particular group for which the activity is being conducted on a prearranged basis. Marketing of wine is limited to activities for the education and development of the persons or groups listed above with respect to wine which can be sold at the winery on a retail basis, and may include food service without charge except to the extent of cost recovery when provided in association with such education and development, but shall not include cultural and social events unrelated to such education and development. (Ord. 1104 § 11, 1996: Ord. 947 § 9 (part), 1990: prior code§ 12071). All activity, including cleanup, shall cease by 10:00 PM. Start and finish time of activities shall be scheduled to minimize vehicles arriving or leaving between 3:00 PM and 5:00 PM weekdays and 2:00 PM and 5:00 PM weekends.]

4. **TOURS AND TASTING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.2:**

   Tours and tastings are limited to a maximum of 20 persons/day with an average of 90 persons/week. "Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to members of the wine trade, persons invited by a winery who have pre-established business or personal relationships with the winery or its owners, and persons who have made unsolicited prior appointment for tours or tastings. (Ord. 947 §9(part), 1990: prior code §12070). Tours and tasting shall complete by 4:00 PM. Retail sale of wines shall complete by 4:30 PM and shall be limited to those wines set forth in Napa County Code Sec. 18.16.030(G)(5)(c). A log book (or similar record) shall be

maintained which documents the number of visitors to the winery, and the dates of their visit. This record of visitors shall be made available to the Department upon request.]

5. **GRAPE SOURCE:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.6:**
At least 75% of the grapes used to make the winery's still wine shall be grown within the County of Napa. The applicant shall report to the Department on an annual basis by December 31 the source of grapes verifying that 75% of the approved production is from Napa County grapes. The report shall include the Assessor's Parcel Number and the grape tonnage. The report shall be proprietary and not available to the public. For the public record, the applicant shall annually submit to the Department for the file a statement regarding compliance with the sourcing requirement and indicating the percentage of Napa County grapes utilized.]

6. **SIGNS:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 9.2:**
Prior to installation of any winery identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the Planning Department for administrative review and approval. All signs shall meet the design standards as set forth on Chapter 18.116 of the County Code. At least one sign placed and sized in a manner to inform the public must legibly include wording stating "Retail Sales and Tours & Tasting by Prior Appointment Only".]

7. **GATES/ENTRY STRUCTURES:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 9.3:**
Any gate installed at the winery entrance shall be reviewed by the Planning and Public Works Departments and the Napa County Fire Department to assure that it is designed to allow a large vehicles such as motor homes 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 according the County Code.]

8. **LIGHTING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 6.3:**
All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, and shall be the minimum necessary for security, safety, or operations and shall incorporate the use of motion detection sensors to the greatest extent practical. 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. Prior to issuance of any building permit for construction of the winery, two (2) copies of a separate detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Department review and approval.]

9. **LANDSCAPING/PARKING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.12 and 6.4:**
Two (2) copies of a detailed landscaping plan, including parking details, shall be submitted for review and approval prior to issuance of building permits. The landscaping plan shall include a revegetation planting plan for that area within the stream setback in the vicinity of the barn & parking area and include some type of barrier to protect the plantings and discourage winery use. That portion of the parking area adjacent to the barn located in the stream setback shall be removed and revegetated. In addition, that area where the two cottages will be demolished shall be subject to removal of all construction materials and revegetated. Fish & Game shall be consulted and approve the revegetation plan. The plan shall indicate the names and locations of all plant materials to be used along with the method of maintenance. Plant materials shall be purchased locally when practical. The Agricultural Commissioner's office (707-253-4357) shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.

   The location of employee and visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any). Landscaping and parking shall be completed prior to occupancy, and shall be permanently maintained in accordance with the landscaping plan.

   No trees greater than 6" BGH shall be removed, except for those identified on the submitted site plan. Any trees that are removed shall be replaced elsewhere on the property on a 2 for 1 basis of equivalent caliper. Replaced trees shall be identified on the landscaping plan. Trees to be retained shall be protected during construction.

   Evergreen screening shall be maintained between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and Highway 29 that can view them. Parking shall be limited to approved parking spaces only and shall not occur along access roads

or in other locations except during harvest or approved marketing events. In no case shall parking impede emergency vehicle access or public roads. If any event is held which will exceed the available on-site parking, the applicant shall arrange for off-site parking and shuttle service to the winery.]

10. **OUTDOOR STORAGE/SCREENING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 6.6:**
All outdoor storage of winery equipment shall be screened from the view of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No item in storage is to 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.]

11. **RENTAL/LEASING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.8:**
No winery facilities, nor portions thereof, including but not limited to offices, kitchens, barrel storage areas, and warehousing space, shall be rented, leased, nor used by entities other then the on-site winery itself, except as may be specifically authorized in this use permit or pursuant to the Temporary Events Ordinance (Section 5.36.010)]

12. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES:**
The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Departments and Agencies, including but not limited to:

Department of Environmental Management as stated in their letter of 1/19/2005

Department of Public Works as stated in their letter of 4/7/2005 (as modified in their letter of March 31. 2008)

County Fire Department as stated in their letter of 1/7/2005 Building Division as stated in their letter of 1/4/05

Department of Transportation as stated in their letter of 6/22/05 (as modified in their letter of December 28, 2007.)

COMPLETED

13. **SPOILS:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 9.7:**

All spoils generated by construction of the project facilities shall be disposed of per Public Works direction. All spoils piles shall be removed prior to occupancy.]

14. **WELLS:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.9, 4.20(c), and 6.15(e):**
The permittee may be required (at the permittee's expense) to provide well monitoring data if it is judged that water usage at the winery is, or would potentially affect groundwater supplies or nearby wells. Data requested could include, but may not be limited to, water extraction volumes and static well levels. If applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gage potential impacts on the groundwater resource utilized for the project proposed. Water usage shall be minimized by use of best available control technology and best water management conservation practices. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the use permit would significantly affect the groundwater basin, the director of environmental management shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of the permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance and protect public heath, safety, and welfare. That recommendation shall not become final unless and until the director has provided notice and the opportunity for hearing in compliance with the County Code section 13.15.070.G-K.]

15. **NOISE:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 7.3:**
Construction noise shall be minimized to the maximum extent practical and allowable under State and local safety laws. Construction equipment muffling and hours of operation shall be in compliance with County Code Chapter 8.16. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site. If project terrain or access road condition 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 between the hours of 8 AM to 5 PM. Winery equipment shall be enclosed or muffled and maintained so as not to create a noise disturbance in accordance with the Code. There shall be no amplified sound system or amplified music utilized outside of approved, enclosed winery buildings unless a special permit to that effect has been secured through the County.]

16. **DUST CONTROL:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 7.1(b):**
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. Construction activities shall not occur during windy periods.]

17. **ARCHEOLOGICAL FINDING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 7.2:**
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 Department will be contacted for further guidance, which will likely include the requirement for the applicant to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required. If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed, so that he 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 nearest tribal relatives as determined by the State Native American Heritage Commission would be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98.]

18. **TRAFFIC:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.11:**
Reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors will occur during non-peak travel times to the maximum extent possible in accordance with the approved State Department of Transportation (Caltrans) requirements for the reduction of left turn movement to the project site.]

19. **ADDRESSING:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 6.8:**
All project site addresses shall be determined by the Director, and reviewed and approved by the U.S. Post Office, prior to issuance of any building permit. The 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]

20. **DESIGNATION OF MAIN RESIDENCE FOR PARCEL:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 9.9(e):**
Upon completion of the conversion of the main historic residence to a winery / residence pursuant to this use permit approval, what was previously designated the attached second unit for the parcel shall become the designated main residence for the property.]

21. **STORM WATER CONTROL:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 7.1(d):**
For any construction activity that results in disturbance of greater than one acre of total land area, applicant shall file a Notice of Intent with the California Regional Quality Control Board (SRWQCB) prior to any grading or construction activity. All hazardous materials stored and used on-site that could cause water pollution (e.g. motor oil, cleaning chemicals, paints, 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. Parking lots shall be designed to drain through grassy swales, buffer strips, or sand filters prior to any discharge from the impervious surface into a watercourse. If any discharge of concentrated surface waters is proposed in the any 'Waters of the State," the applicant shall consult with and secure any necessary permits from the State Regional Water Quality Control Board. All trash enclosures must be covered and protected from rain, roof, and surface drainage.]

22. **INDEMNIFICATION:**
An indemnification agreement, in the form attached hereto, shall be signed and returned to the County within twenty (20) days of the granting of this approval.

23. **MONITORING COSTS:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 3.0:**
All staff costs associated with monitoring compliance with these conditions, previous permit conditions and project revisions shall be borne by the applicant and/or property owner.

Generally costs associated with planning review for building plan clearance and certification of occupancy are not to be charged per this condition. However, costs associated with conditions and mitigation measures that require monitoring outside of those two processes, 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. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time, or in accordance with the hourly consulting rate established by the Department at the time of the monitoring ($88.00/hour as of December, 2002). Violations of conditions of approval or mitigations measures caused by the applicant's contractors, employees, and guests are the responsibility of the applicant.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies are 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 it is so warranted, to commence revocation hearings in accordance with Section 18.124.120 of the County Code.]

24. **MITIGATION MEASURES:** [**Superseded by Use Permit Modification No. P22-00417 COA No. 4.19, 6.12, and 7.4:**
The applicant shall comply with all mitigation measures contained in the Mitigated Negative Declaration prepared, adopted and as amended for this project.]

A Tradition of Stewardship
A Commitment to Service

Planning, Building & Environmental Services

1195 Third Street, Suite 210
Napa, CA 94559
www.countyofnapa.org

Brian D. Bordona
Director

ARCHIVE

MEMORANDUM

8/22/25

To:	Hannah Spencer Planning Division	From:	Alexei Belov, PE, CFM Engineering Division
Date:	August 22, 2025	Re:	**P22-00417** **AXR Winery** **Technical Adequacy** **Conditions of Approval** **APN: 022-080-025-000**

The Engineering Division ("Engineering") has reviewed the Use Permit Major Modification, P22-00417, for AXR Winery located on assessor's parcel number 022-080-025. Based upon the information provided in the application, Engineering finds the application **complete** and recommends the following:

TECHNICAL ADEQUACY

1. The Engineering Division has reviewed the Water Availability Analysis (WAA) dated July 25, 2024, prepared by Matthew J. Earnshaw, PG, CEG, CHg, QSD, of EBA Engineering. The analysis has been evaluated based on information provided by the applicant, project location, and available geologic and hydrologic information and has determined the WAA to be complete and reasonable. Engineering concludes the WAA is technically adequate as it relates to Napa County's water use criteria, well and spring interference, and groundwater/surface water interaction pursuant to Napa County's WAA Guidelines, Napa Valley Subbasin Groundwater Sustainability Plan, and the Public Trust Doctrine.

RECOMMENDED APPROVAL CONDITIONS:
OPERATIONAL CHARACTERISTICS

1. Prior to enacting any of the entitlements authorized by this use permit modification, the well north of cottage #7 as identified on the Overall Site Plan sheet UP1, prepared by Summit Engineering, dated June 12, 2025, shall be properly demolished per Napa County Environmental Health requirements. A **well destruction permit** is required.

2. The well adjacent to Highway 29 identified as the abandoned well on the Overall Site Plan sheet UP1, prepared by Summit Engineering, dated June 12, 2025, shall remain as a backup well pursuant to Napa County Code 13.12.460(B), however, shall not be used for the project without first submitting an updated Tier 2 and Tier 3 analysis to the PBES Engineering Division for review.

3. The facility is designated as a discharger that discharges stormwater associated with industrial activity to Water 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 provisions 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.

PREREQUISITES FOR ISSUANCE OF PERMITS

4. Any roadway, access driveway, and parking areas, proposed new or reconstructed shall meet the requirements as outlined in the latest edition of the Napa County Road and Street Standards for Commercial development at the time of Building Permit Submittal. The property owner shall obtain a **grading permit** for all proposed roadway improvements.

SITE IMPROVEMENTS

5. 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.

6. 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.

7. Proposed drainage for the development shall be shown on the improvement plans and shall be accomplished to avoid the diversion or concentration of storm water runoff onto adjacent properties. Plan shall also indicate the path and changes in runoff.

8. **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.

9. **Prior to issuance of a development permit**, as determined by the area of new or replaced impervious surfaces, the owner shall prepare and/or update a Regulated Project 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.

10. 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.

CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS:

11. All earth disturbing activities shall include measures to prevent erosion, sediment, and waste materials from leaving the site and entering waterways both during and after construction in conformance with Napa County Stormwater Ordinance 1400 and the latest adopted state regulations. Best Management Practices (BMPs) shall also be implemented to minimize dust at all times.

12. 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.

13. All trash enclosures must be covered and protected from rain, roof, and graded to preclude surface runon.

POST-CONSTRUCTION RUNOFF MANAGEMENT REQUIREMENTS:

14. Refuse areas shall be covered, graded, and paved to prevent run-on and runoff. Drains within a refuse area shall be connected to the sanitary waste system.

15. All roofs, gutters, and/or downspouts shall discharge to landscaping or other pervious surface designed and maintained appropriately to prevent soil erosion.

16. Processing areas, including but not limited to wine grape crushing/pressing, juice fermentation, blending and fining, filtration and bottling, shall be paved and performed indoors or under approved cover.

PREREQUISITES FOR FINAL CERTIFICATION OF OCCUPANCY

17. All necessary access, road, and parking improvements shall be constructed prior to Final Occupancy.

18. Site shall be completely stabilized to the satisfaction of the County Engineer prior to Final Occupancy.

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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Planning, Building & Environmental Services

1195 Third Street, Suite 210
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www.countyofnapa.org

Brian D Bordona
Director

ARCHIVE

MEMORANDUM

To:	Kelli Cahill, Project Planner	From:	Maureen S. Bown, Senior Environmental Health
Date:	May 6, 2024	Re:	AXR Napa Valley Winery Assessor Parcel # 022-080-025-000 Permit # P22-00417

This Division has reviewed an application requesting approval for a major modification and related improvements as described and depicted in application materials. This Division has no objection to approval of the application with the following conditions of approval:

Prior to issuance of building permits:

1. Plans for the proposed improvements to the existing sanitary and process wastewater treatment systems, as described in the Onsite Wastewater Disposal Feasibility Study dated April 2024 shall be designed by a licensed Civil Engineer or Registered Environmental Health Specialist and submitted for review accompanied by complete design criteria based upon local conditions and plan check fee. No building clearance (or issuance of a building permit) for any structure that generates wastewater to be disposed of by this system will be approved until such plans are approved by this Division.

2. Permits to modify the existing sanitary waste system and construct the process water treatment system, as proposed, must be secured from this Division prior to approval of a building clearance (or issuance of a building permit) for any structure that generates wastewater to be disposed of by these systems.

3. If any food or beverage facilities are included in the project, plan review and approval shall be obtained from this Division prior to issuance of any building permits. An annual food permit will be required.

4. The existing well must be properly protected from potential contamination. If the existing well(s) is to be destroyed, a well destruction permit must be obtained from this Division by a licensed well driller. If this well is not destroyed, it must be properly protected, and an approved backflow prevention device installed according to the Water System's specifications.

5. The water supply and related components must comply with the California Safe Drinking Water Act and Related Laws. This will require plan review and approval prior to approval of building

permits. The technical report must be completed by a licensed engineer with experience in designing water systems. The preliminary technical report must be submitted to the Regional Water Quality Control Board staff a minimum of six (6) months prior to beginning any water-related improvement in accordance with the California Health and Safety Code, Section 116527. Prior to occupancy, the owner must apply for and obtain an annual operating permit for the water system from this Division. The applicant must comply with all required monitoring and reporting.

6. Adequate area must be provided for collection of recyclables and compostables. 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.

Prior to granting final occupancy:

7. The applicant shall enroll for coverage under the State Water Resources Control Board General Waste Discharge Requirements for Winery Process Water by submitting the Notice of Intent, Technical Report and Application to the San Francisco Regional Water Quality Control Board or Napa County for the winery process water treatment system.

8. Annual alternative sewage treatment system monitoring permit(s) must be obtained for the sanitary wastewater subsurface drip onsite wastewater treatment system prior to issuance of a final on the project if required.

9. 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 wastes generated during project development, unless applicant transports 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.

Upon final occupancy and thereafter:

10. Proposed food service for marketing events will be catered, as described in the Onsite Wastewater Disposal Feasibility Study; therefore, all catered food must be prepared offsite and served by a Napa County permitted caterer. If the caterer selected does not possess a valid Napa County Permit to operate, refer the business to this Division for assistance in obtaining the required permit prior to providing any food service.

11. A commercial food facility is not included in this project. Food offered at tasting visitors must be prepackaged, non-potentially hazardous and comply with the California Retail Food Code.

12. The employee break room is approved for employee use only. Any food preparation for guests is prohibited in an employee break room. If the proposed break room includes components typical of a commercial kitchen facility the applicant will be required to redesign the break room or apply for a use permit modification for approval of a commercial kitchen meeting all applicable requirements.

13. The applicant shall provide portable toilet facilities for guest use during events of 75 persons or more as indicated in the septic feasibility report/use permit application. The portable toilet facilities must be pumped by a Napa County permitted pumping company.

14. 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.

15. The use of the absorption field/drain field area and reserve area shall be restricted to activities which will not contribute to compaction of the soil with consequent reduction in soil aeration. Activities which must be avoided in the area of the septic system and reserve include equipment storage, traffic, parking, pavement, livestock, etc.

16. All solid waste shall be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

17. All diatomaceous earth/bentonite must be disposed of in an approved manner. If the proposed septic system is an alternative sewage treatment system the plan submitted for review and approval must address bentonite disposal.

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Brian Bordona
Interim Director

MEMORANDUM

To:	Kelli Cahill, Planner III	From:	Stacie Gutierrez, Plans & Permitting Supervisor, Building Division
Date:	January 31, 2023	Re:	AXR Winery Use Permit Modification P22-00417

The Building Division is not reviewing this project for compliance with the California Building Standards Codes at this time; the Building Division is reviewing the proposed Planning entitlements only. The Building Division has no issues or concerns with the approval of the Use Permit; it is a Planning entitlement and does not in itself authorize any construction activities. Separate building permits shall be required.

The plans provided for the application do not provide enough information in sufficient detail to determine all code requirements. A complete and thorough plan review will be performed at the time an application is made for the required building, plumbing, mechanical, and electrical and any other construction permits required by other Napa County Agencies. The following comments are provided to make the applicant aware of what codes the applicant will be required to comply with, as well as issues that may need to be addressed prior/during the building permit application and review process.

1. In accordance with the California Building Code, Chapter 1, Division 1, Section 1.1.9, which states, "**only those standards approved by the California Building Standards Commission that are effective at the time of application for a building permit is submitted shall apply to the plans and specifications for, and to the construction under that permit**". The codes adopted at this time are 2022 California Building Standards Codes, Title 24, part 2, Building volumes 1 & 2, part 3 Electrical, part 4 Mechanical, part 5 Plumbing, part 6 Energy, part 9 Fire, and part 11 Green Buildings.

2. 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 will be required from the Napa County Building Division prior to the removal. Please note the applicant will be required to provide a "J" number from the Bay Area Quality Management District at the time the applicant applies for a demolition permit if applicable.

3. The site and associated buildings are required to be accessible to persons with disabilities. This includes, but not limited to, a van accessible parking stall, accessible path of travel from the parking stall to all buildings and areas on the site that are available to employees and the public. At the time of Permit Submittal your design professional shall submit plans for egress and accessibility for review.

4. The increase in occupant load will require a revised egress plan demonstrating compliance with Chapter 10 of the California Building Code.

5. Be sure to work with your design professional regarding cave design and egress from the caves, that will be reviewed for code compliance during the building permit phase.

6. Outdoor assembly use areas are required to be accessible per scoping requirements found in Chapter 11B of the California Building Code. Increase in parking spaces will trigger additional accessible parking spaces.

7. If your marketing plan is proposing events please be aware that no events will be allowed in portions of the building that are not permitted under the Assembly occupancy requirements, this includes fermentation and barrel rooms. Please keep this in mind when you planning your footprint and applying for the building permits

8. **In accordance with the California Building Code no change shall be made in the use or occupancy of an existing building unless the building is made to comply with the requirements of the California Building Code as for a new building.**

9. Issues of compliance with the California Building Code, Title 24, will be addressed during the building permit application, review and approval process. If the applicant has any questions please have the applicant give me a call at (707) 299-1337.

10. **All plans and documents for commercial projects are required by California Law to be prepared and coordinated under the direction of a California Licensed Design Professional, such as an Architect and/or Engineer in accordance with California Business and Professions Code Chapter 3, and the California Building Code, Chapter 1.**

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Department of Public Works

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Fax: (707) 253-4627

Steven Lederer
Director

M E M O R A N D U M

To:	PBES Staff	From:	Ahsan Kazmi, P. E. Senior Traffic Engineer
Date:	April 23, 2025	Re:	AXR Napa Valley, P22-00417 **Conditions of Approval**

This memorandum has been prepared at the request of Planning, Building, and Environmental Services (PBES) staff to assess the application and materials related to the Modification Use Permit for the AXR Napa Valley project, located at 3199 St. Helena Highway (SR 29), Napa County, CA (APN 022-080-025). The purpose of this memorandum is to evaluate whether the project adequately addresses the transportation-related issues.

In preparing this memorandum, the following documents were reviewed:

- Left turn lane concept plan prepared by Summit Engineering dated April 3, 2025.
- email from Jason Flowers, Summit Engineering to DPW/PBES Staff dated April 9, 2025.
- Traffic Impact Study Draft Report dated June 12, 2024 prepared by GHD.
- Response to Comments Memorandum dated June 11, 2024 prepared by GHD.
- Amended Conditions of Approval P08-00099 dated May 7, 2008 prepared by County of Napa.
- Letter regarding Encroachment Permit 0406-6MC2098 dated December 28, 2007 prepared by Caltrans Deputy District Director Sean Nozzari.

After a thorough evaluation of the aforementioned documents, the Department of Public Works has outlined the following **Conditions of Approval**, each of which **shall** be fully met prior to the **issuance of Occupancy and Building Permits:**

1. **Left Turn Lane Required**

Prior to the establishment of a visitation and employee program generating a traffic volume of 20 or more round trips per day through the project driveway (including all uses), the permittee shall construct a left turn lane from SR 29 to the project's southern driveway. The final design of the left turn lane must be submitted to both Caltrans and the Napa County Public Works Department for review and approval. Improvement plans must be prepared by a Registered Civil Engineer, in accordance with the Caltrans Highway Design Manual (current online edition) or Napa County Road & Street Standards (current edition). Additional right-of-way dedication, if necessary, shall be completed before the issuance of any encroachment permits from the Department of Public Works. The left turn lane shall be designed in substantial conformance with the submitted site plan and other related materials.

2. Project Northern Driveway

The northern driveway shall be converted to right-turn-in and right-turn-out movements. Access to the public right-of-way must conform to the latest edition of the Caltrans Highway Design Manual. The driveway shall include STOP sign and STOP pavement marking at the entry to SR 29.

3. Landscaping Maintenance

Landscaping adjacent to the project driveway must be designed and maintained to avoid interference with sight lines necessary for safe stopping distance on the public right-of-way. No objects wider than 18 inches or taller than 30 inches (except for street trees and traffic control devices) may be placed in these areas. Street trees should be deciduous, and any branches lower than 6 feet in height should be pruned once the trees are established.

4. On Street Parking

Parking within the public right-of-way on SR 29 and along the project frontage is prohibited at all times.

5. Encroachment Permit Requirement

An encroachment permit, including the required fee and a proposed traffic control plan, will be necessary for the construction of the left-turn lane improvements. Please contact both Caltrans and Napa County Roads for further coordination. More information on this is available on our website:
http://www.countyofnapa.org/publicworks/roads/

Please contact Ahsan Kazmi at **syedahsan.kazmi@countyofnapa.org** or call (707) 259-8370 if you have questions or need additional information.

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Napa County Fire Department
Fire Marshal's Office
Hall of Justice, 2nd Floor
1125 3rd Street
Napa, CA 94559

Office: (707) 299-1464

Jake White
Fire Marshal

Napa County Fire Department
Conditions of Approval

TO:	Planning Department	**DATE:**	5/24/2023
FROM:	Jason Downs, Deputy Fire Marshal	**PERMIT #**	P22-00417
SUBJECT:	AXR Napa Valley Winery	**APN:**	022-080-025-000

The Napa County Fire Marshal's Office has reviewed the submittal package for the above-proposed project. 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 2022 California Fire Code Section 105 are proposed, separate permits will be required prior to Building Permit issuance for:

    1. Automatic fire-extinguishing systems
    2. Emergency responder radio coverage systems
    3. Fire alarm and detection systems and related equipment
    4. 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 to within 150 feet of any exterior portion of the buildings as measured by an approved route around the exterior of the building or facility.

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Jake White
Fire Marshal

Napa County Fire Department
Conditions of Approval

7. Roadways shall be a minimum of 20 feet in width with a 2-foot shoulder and 15-foot vertical clearance.

8. Turnouts shall be a minimum of 12 feet in width, 30 feet in length, and 25-foot taper on each end.

9. Turnarounds are required on driveways and dead-end roadways.

10. Grades for all roadways and driveways shall not exceed 16 percent.

11. Roadway radius shall not have an inside radius of less 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.

12. 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.

13. 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.

14. 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.

15. 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.

16. 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

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Conditions of Approval

17. 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.

18. 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.

19. Provide 100 feet of defensible space around all structures.

20. Provide 10 feet of defensible space for fire hazard reduction on both sides of all roadways of the facility.

21. Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based on the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.

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 at www.countyofnapa.org/firemarshal.

Please contact me at (707) 299-1467 or by email at jason.downs@countyofnapa.org with any questions or concerns.

From: Chen, Luana@DOT <Luana.Chen@dot.ca.gov> **On Behalf Of** LDR D4@DOT
Sent: Monday, January 12, 2026 12:37 PM
To: Spencer, Hannah <hannah.spencer@countyofnapa.org>
Subject: RE: AXR Napa Valley - Caltrans Comments

[External Email - Use Caution] ARCHIVE

Hello Hannah,

Thank you for the opportunity to review the updated traffic impact study (TIS) for the AXR Napa Valley Winery project. Please see Caltrans comments below.

Highway Operations
Per TIS Section 7.1.1 and Figure 7.1: Section 7.1.1, "The south project driveway will be signed for 'Do Not Enter' for internal traffic flow with signs facing west towards the main Winery on-site building to prevent outbound flow." This sign does not appear to be on any of the figures in the TIS. Please ensure the plans depict this "Do Not Enter" sign for preventing outbound flow from the project site onto SR 29.

Design
The proposed design as presented in Figure 7.1 of the December 2025 TIS still contains several features that do not meet Caltrans Highway Design Manual (HDM) standards. This is unchanged from the previous submittal. For instance: left turn lane shall be 12' per HDM 405.2(2)(a) and shoulder widths shall be 8' per HDM 307.2. There may be others.

Features that do not meet the HDM standards will require preparation and approval of a Design Standard Decision Document (DSDD) to document and provide justification for nonstandard features (refer to September 8, 2025 comments). The 5' shoulder at the creek/bike path may possibly be justified due to environmental impacts, but there is no apparent reason to not construct the turn lane to 12' width. DSDDs are to be submitted when requesting Encroachment Permit with final project plans for Caltrans review and approval. Please find a template for the DSDD attached for your convenience.

We appreciate the continued opportunity to review materials for this project. Please let me know if you have any questions.

Kind regards,
Luana Chen
Associate Transportation Planner
Local Development Review
LDR-D4@dot.ca.gov

Caltrans Bay Area

From: Ayon, Llisel@DOT <Llisel.Ayon@dot.ca.gov>
Sent: Thursday, December 5, 2024 4:08 PM
To: Cahill, Kelli <Kelli.Cahill@countyofnapa.org>
Subject: AXR Napa Valley - Caltrans Comments

[External Email - Use Caution]

Hi Kelli,

I reached out to our highway operations and traffic safety teams regarding the previous encroachment permit and left-turn prohibition for this project site. Please see their comments below and let me know if you have any questions.

Highway Operations
The 2007 encroachment permit includes an attachment for the left-turn warrants based on the proposed trip generation at that time; the left-turn lane was warranted in 2004. The draft TIS should include a more recent study for the left-turn warrant based on the proposed project's trip generation.

The TIS recommends including a dedicated right-turn lane at Westbound (WB) Lodi Lane; however, this proposal may require a receiving lane on Northbound (NB) State Route (SR) 29. Plans for the proposed restriping of WB Lodi Lane should be submitted for review and concurrence by Caltrans Office of Traffic Safety. Lastly, the TIS references an approved increase in traffic growth for St. Helena highway, please confirm what agency approval was obtained.

Traffic Safety

Caltrans cannot confirm whether the existing condition plus project impacts would trigger a left turn warrant. The consultant/project developer is responsible for drafting a traffic study report with this analysis and providing it for Caltrans to review.

Per the draft TIS regarding the projects North & South Driveway access, "Southbound (SB) vehicles on SR 29 can turn right at this driveway to ingress the site. Outbound vehicles from the driveway are allowed to turn left or right (northbound or southbound) onto SR 29." Caltrans 2007 approved encroachment-permit (#04-06 6MC 2098) records indicate that it was agreed to restrict the winery's 2-driveways, one to enter and the other to exit to right-turns only. No left turn-in or left-out is allowed while exiting. (See attached Striping & Signage Plan sheet CT1 copy from 2007 / Driveway Access Improvement V Madrone Winery). Please revise the AXR N&S driveway access description in the 2024 TIS draft accordingly.

The winery driveways existing agreed entry/exit signage on SR 29, via google-earth review, indicates that the second north-driveway R5-1/Do Not Enter sign facing SB SR 29 traffic is potentially missing. Please confirm, and if missing, consider reinstalling this signage (See attached Striping & Signage Plan sheet CT1 copy from 2007 / Driveway Access Improvement V Madrone Winery).

Encroachment Permit
If the County decides to add a right turn pocket on WB Lodi Lane at the SR 29 intersection an Encroachment Permit is needed from Caltrans to perform any work within Caltrans Right-of-Way (ROW).

The Office of Encroachment Permit requires 100% complete design plans and supporting documents to review and circulate the permit application package. The review and approval of encroachment projects is managed through the Encroachment Permits Office Process (EPOP) or the Project Delivery Quality Management Assessment Process (QMAP), depending on project scope, complexity, and completeness of the application. Please use the following resources to determine the appropriate review process:

TR-0416 Applicant's Checklist (*link*)
Flowchart, Figure 1.2 in Chapter 100 – The Permit Function, Caltrans Encroachment Permit Manual (*link*)

The permit approval may take 30 days to 6 months or more depending on the project scope, size, complexity, completeness, compliance with policies and quality of the permit package submitted. Projects requiring exceptions to design standards or external agency approvals may need more time to process.

To obtain more information and download the permit application, please visit Caltrans Encroachment Permits (*link*). When the applicant is ready to pursue a Caltrans encroachment permit, please contact D4Permits@dot.ca.gov to initiate the process.

Thanks,

Llisel Ayon
Associate Transportation Planner
Caltrans, District 4 | Local Development Review
Cell: (510) 506-6184

“C”

Initial Study / Subsequent Mitigated Negative Declaration

Planning, Building & Environmental Services

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Brian D. Bordona
Director

Initial Study Checklist/Mitigated Negative Declaration

(form updated January 2019)

Pursuant to Section 15162 of the State CEQA Guidelines, this proposed Initial Study/Subsequent Mitigated Negative Declaration, the original 2005 Mitigated Negative Declaration adopted for Use Permit File No. P04-0541, and the 2008 Addendum adopted for Use Permit Modification File No. P08-00099, constitute the environmental review conducted by Napa County as lead agency for the proposed project described below.

1. **Project Title:** AXR Napa Valley Winery - Major Use Permit Modification (File No. P22-00417), Variance (File No. P26-00045), and Viewshed (File No. P26-00044)

2. **Property Owner:** Silverado Trail Wine Partners IV, LLC; P.O. Box 292, St. Helena CA, 94574

3. **County Contact Permits, Phone Number and email:** Hannah Spencer, Planner III; (707) 253-4018, Hannah.spencer@countyofnapa.org

4. **Project Location and Assessor's Parcel Number (APN):**
   - 3199 N. St. Helena Highway (SR 29), St. Helena, CA 94574; APN 022-080-025
   - Section 22, Township 08 North, Range 06 West, Mt. Diablo Principal Meridian
   - Latitude 38°31'49.1"N / Longitude 122°30'17.1"W

5. **Project Sponsor's name and address:** Land Use Planning Services, Attn: Jeff Redding; 2423 Renfrew Street, Napa, CA 94558

6. **General Plan description:** Agriculture, Watershed and Open Space (AWOS)

7. **Zoning:** Agricultural Watershed (AW)

8. **Background/Project History:** The project site is the former August Hirsch Winery (main residence, cellar, and barn) built in the late 1800's. From 1930 to 1950 the Hirsch residence and cottages were used as a restaurant and lodging resort facility historically known as, "The Madrones". Between 2001 and 2003, the previous owner converted the property's abandoned walnut orchard of approximately 3 acres to vineyard (#01222-ECPA and #03100-ECPA). During this time, the owner also obtained legal nonconforming certificates for the property's residential structures that were constructed in 1928 or earlier in accordance with Sec.

18.132.050(C) of the Napa County Code (#00516-CLN). These structures included a second unit attached to the Hirsch residence and five cottages (Buildings #4-8). Other nonconforming residential structures on the property were determined to be unpermitted and were eventually demolished.

In 2005, the Planning Commission adopted a Mitigated Negative Declaration (SCH No. 2005082087) and approved Use Permit File No. P04-0541 for "V Madrone Cellars" which re-established the historic pre-prohibition winery within the Hirsch residence, cellar, and barn and converted their uses to winery operations as allowed under Sec. 18.104.245 (exceptions for pre-prohibition wineries). The 2005 Use Permit approved the following:

- 20,000-gallon maximum annual wine production capacity.
- Use of the Hirsch residence as office, conference, shipping/receiving, equipment and dry storage, employee break room, and lobby uses (2,547 square feet).
- Use of the Hirsch residence cellar and basement as barrel, bottle and bulk storage (2,555 square feet).
- Relocation and conversion of the 798 square foot historic barn and attached 136 square foot outbuilding to barrel storage, storage, and restroom use.
- Conversion of the 425 square foot unenclosed outbuilding to covered work areas.
- Construction of a new 1,204 square foot outdoor tank and crush pad behind the Hirsch residence.
- 15 parking spaces.
- Two full-time and two part-time employees.
- Hours of operation - seven (7) days a week from 8:00 a.m. to 6:00 p.m. for production; 8:00 a.m. to 4:00 p.m. for visitation (retail until 4:30 p.m.); and 10:00 a.m. to 10:00 p.m. for events provided they are scheduled outside of peak traffic hours.
- By-appointment only tours and tastings for 20 people per day (with an average of 90 per week) and 12 annual marketing events with attendance ranging from 20 to 75 people.

The 2005 Use Permit Conditions of Approval required the owner to designate the attached second unit as the main residence and complete various site improvements and protection measures for historic resources onsite. These measures included installation of a left-turn lane for ingress and egress to the winery on Highway 29, and listing the historic structures on the California Register or National Register.

In 2007, the Planning Commission designated the historic Hirsch residence and site as a Napa County Local Landmark (#P07-00656). Two cottages, a historic rock wall and cistern, and a redwood grove and oak trees were included in the local landmark designation as contributing

accessory structures and landscape features. In 2008, the owners applied for a modification to the winery use permit under File No. P08-00099 to allow for changes to the site plan and previous Conditions of Approval. On May 7, 2008, the Planning Commission adopted an Addendum to the 2005 Mitigated Negative Declaration (SCH No. 2005-082087) and approved the use permit modification for the following requests:

- Substitute the original left-turn lane condition of approval requirement with an equivalent "No Left Turn" arrangement as accepted by Caltrans. This included the elimination of two non-historic cottages (Buildings #5 and 6), installation of two "No Left Turn" signs at the winery driveway, and other driveway changes to make turning left in and out of the project difficult.
- Modify a use permit condition to reflect that the local landmark designation completed in 2007 met the intent of the original use permit's requirement to list the Hirsch residence and barn on the California Register or National Register.
- Convert the agricultural barn and outbuildings into a single, slightly larger Winery Barrel Storage building of 1,492 square feet in size.
- Allow the proposed 1,204 square foot outdoor tank/crush pad to be built behind the barrel storage building instead of next to the Hirsch residence/winery.

No changes were made to the previously approved wine production capacity, employee count, visitation, marketing, parking, or hours of operation. Years later, the Board of Supervisors approved the property for a Mills Act Historical Preservation Agreement (#P12-00417) to ensure the preservation of the Hirsch residence and the cottages in exchange for a reduced property tax assessment. The Mills Act contract recorded on November 26, 2013 (Official Record No. 2013-0032878) and has a rolling 10-year term that automatically renews each year unless non-renewed.

The current owners, Silverado Trail Wine Partners IV, LLC, acquired the property in 2017 and subsequently rebranded the facility as V Madrone Cellars. Under previous ownership, the parking lot was expanded and reconfigured to provide 22 standard spaces and one accessible space; modifications were also made to the winery's main floor.

Silverado Trail Wine Partners IV, LLC submitted the subject Use Permit Modification application (File No. P22-00417). Although the application initially sought to increase annual production from 20,000 to 35,000 gallons, the applicant withdrew that request in December 2025. Consequently, this Initial Study does not analyze changes to the winery's existing production capacity.

To date, two public comments have been received in support of the project, with no other comments submitted prior to the publication of this initial study.

9. **Description of Project:** Request for a Winery Use Permit Major Modification to File No. P08-00099-MOD and P04-0541 to allow the following:

- **New Production Cave -** Construct a new 17,190+/- square foot Type I production cave and three portals; with 11,993+/- square feet for barrel storage and 5,197+/- square feet for crush pad, tank farm and related wine production uses.
- **Existing Barrel Storage Building -** Convert the existing 1,492 square foot barrel storage building to a tasting room and the adjacent 1,204 square foot outdoor crush/tank pad to tasting and hospitality uses.
- **Existing Winery Building (historic Hirsch residence) -** Maintain winery storage/production uses in the cellar (2,555 square feet of production) and reconfigure the main level to convert the entire floor (4,147 square feet- includes attached 2-bedroom residence) to accessory uses (tasting rooms, offices, restrooms, breakrooms, etc.).
- **Water Systems and Storage -** Use existing well and storage tanks, and install a new public water system, fire pump house, and five replacement 10,500-gallon water tanks for fire protection.
- **Wastewater Systems -** Use the existing domestic septic system to serve employees and guests and install a separate process wastewater treatment system.
- **Parking -** Formalize the previous parking lot expansion to include 17 standard and one accessible space, while removing five existing spaces for the cave portal access road. Daily operations will be supported by these stalls, while medium and large events will utilize valet services, onsite overflow, and employee shuttles.
- **Driveway/Internal Circulation -** Upgrade existing driveway to comply with Napa County Road and Street Standards (NCRSS) and construct a new road connecting the existing interior access road to the new cave portals.
- **New Left Turn Lane -** Widen SR 29 to accommodate a new left-turn lane and remove up to six oak trees from the Caltrans right-of-way.
- **Production Volume -** Maintain the existing permitted production capacity of 20,000 gallons per year.
- **Landscaping -** Use existing landscaping and install new screening vegetation for cave portals #2 and #3.
- **Employees -** Increase the number of employees to the following:
    - Weekdays: 6 full-time employees during harvest; 4 full-time employees outside of harvest; and 2 part-time employees year-round.

    - Weekends: 12 full-time employees and 5 part-time employees year-round.
- **Hours of Operation -**
    - Maintain existing production hours of 8:00 a.m. to 6:00 p.m., seven days a week.
    - Modify visitation hours to 10:00 a.m. to 6:00 p.m. (including retail), seven days a week.
    - Maintain marketing event hours of 10:00 a.m. to 10:00 p.m. and clarify quiet clean-up to complete by 11:00 p.m. and all events to avoid the peak traffic hours which are considered to be from 4:00 p.m. – 5:00 p.m. on weekdays and 2:00 p.m. – 3:00 p.m. on weekends.
- **Visitation and Marketing -**
    - Increase daily visitation to 60 people per day during harvest, except from December 1 to March 31 visitation will reduce to 40 people per day.
    - Establish on-premises consumption of wine (Business and Professions Code sections 23358, 23390 and 23396.5) in three outdoor areas (north and south of hospitality building and the attached patio).
    - Provide pre-packaged food service for daily visitors and catered food service for marketing events (no commercial food facility proposed).
    - Increase the number of annual marketing events from 12 to 31 per year as follows:
        - Twenty-four (24) events with 25 guests, occurring twice per month (tours/tastings limited to 35 visitors on event days)
        - Four (4) events per year with 75 guests (tours/tasting closed on event days)
        - Three (3) events per year with 150 guests (tours/tasting closed on event days)

The project proposes 14,150 cubic yards of net grading and the addition of 11,484 square feet of impervious surface area (winery coverage). Consequently, winery coverage would expand from 0.80 to 1.14 acres, while the winery development area (employee-exclusive footprint) would increase from 0.10 to 0.12 acres.

Variance Request:
As the entire parcel is encumbered by overlapping setbacks (300 feet from Bea Lane and 600 feet from SR 29), there is no alternative location to construct new aboveground winery accessory structures. Therefore, the project includes a variance to the 600-foot highway setback to allow the new winery process wastewater treatment system within 415+/- feet from St. Helena Highway/State Route 29 (SR-29). Aboveground structures associated with this system include two 5,000-gallon tanks and/or a 900 square foot treatment unit (see further discussion in Section VII. below). Standard Conditions of Approval for the project require that

the proposed structures are substantially screened by vegetation and use of non-reflective, earth tone exterior materials and colors.

Viewshed Permit Request:
The project also includes a viewshed permit to allow the cave portals and structures associated with water and wastewater systems on slopes ranging from 15% to 18% in locations that are visible from SR-29, a County-designated Viewshed Road. As mentioned above, standard Conditions of Approval for the project require structures are substantially screened by vegetation and use of non-reflective, earth tone exterior materials and colors.

10. **Describe the environmental setting and surrounding land uses.** The 7.85-acre project parcel is located about 1.3 miles north of the City of St. Helena and has over 500 feet of frontage along State Highway 29, a designated viewshed road. Access to the property is provided via an existing looped driveway with separate ingress and egress points. Bea Lane, a private paved road, crosses through the northwestern corner of the property. As such, the entire project property is within the established winery road setbacks from Highway 29 and Bea Lane. Existing land uses onsite consist of a 3.5+/- acre vineyard, a historic 20,000-gallon pre-prohibition winery that was reestablished through a 2005 use permit (currently AXR Napa Valley winery), an attached apartment (currently the main residence), a barrel storage building with an outdoor tank/crush pad, three legal nonconforming cottages (dwelling units), four parking spaces used by residents, and 22 standard parking spaces and one accessible space used by ongoing winery operations. As discussed above, AXR Napa Valley winery operates seven days a week with four employees, offers daily tastings and tours by appointment, and hosts up to 12 marketing events per year.

    Surrounding land uses include vineyard to the south and east across Highway 29, forest/open space to the west and northwest, wineries (Metzger Vineyards, Brasswood Napa Valley, Ehlers Estate Winery), and scattered residences. The two closest neighboring residences are within 200 feet of the winery.

    The project parcel is located on the edge of the valley floor and a northeastern facing wooded hill. Slopes gradually increase from gentle to steep as you head west (approximately 6% to over 50%), with elevation ranging from 300-350+/- feet above mean sea level (above msl). County GIS Environmental Maps show the site is composed predominantly of Perkins Gravelly Loam (168) and Boomer Gravelly Loam (109). Primary vegetation cover onsite and, in the area, includes vineyard and landscaping, Douglas-fir and Ponderosa pine forest, as well as oak woodland. According to the Napa County GIS Environmental Maps (CNDDB layer), the site is within range of Northern Spotted Owl. Additionally, the site is designated as a Napa County

Landmark and is located within an archaeologically sensitive area (CA-Nap-360). An archeological report prepared for development of the vineyard in 2002 surveyed the entire site. Obsidian flake scatters were encountered and monitoring during construction activities has been required for both the vineyard and winery development projects.

Hirsch Creek, a designated significant stream, flows easterly through the northern border of the parcel, onto the adjacent northern parcel, and ultimately to the Napa River. The creek contains substantial riparian cover though portions of the stream bank within vicinity of the project have been modified over time.

There are three existing water supply wells on the property, one of which currently supplies all water use onsite (constructed in 2018 under #E18-00508). The other two wells are no longer in use. Of these two, one well is proposed to be destroyed via a well demolition permit and the other well (located near Highway 29) is proposed to remain as a potential backup well or be destroyed. A fourth well on the property was destroyed in 2007 as documented under #E07-00318. The site also contains a historic spring that is no longer in use (located within Hirsch Creek). A 2004 baseline water demand for the site's agricultural and residential water usage is documented in the Water Availability Analysis (WAA) prepared for the original winery use permit (#P04-0541) which reflected 3.62-acre feet of groundwater per year (AFY). Since 2004, two cottages have been removed, and the original 3.3+/- acre vineyard expanded to 3.5+/- acres in size.

11. Other agencies whose approval is required.

The project would also require various ministerial approvals by the County, including but not limited to building permits, grading permits, waste disposal permits, water supply permits, and an encroachment permit, in addition to meeting CalFire standards. Permits are required by the California Department of Transportation, the Department of Alcoholic Beverage Control, Alcohol and Tobacco Tax and Trade Bureau, the San Francisco Regional Water Quality Control Board, and the Division of Drinking Water.

Responsible (R) and Trustee (T) Agencies

- California Department of Transportation (R)
- Alcoholic Beverage Control (R)
- San Francisco Regional Water Quality Control Board (R)
- California State Water Resources Control Board – Division of Drinking Water (R)

Other Agencies Contacted

- Middletown Rancheria

- Mishewal Wappo Tribe of Alexander Valley
- Yocha Dehe Wintun Nation

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.?

    Notice of the proposed project was sent certified mail to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 12, 2025. The County received a response letter from the Yocha Dehe Wintun Nation on June 12, 2025 (Identification Number YD-050122025-02) indicating that the project area was not within their aboriginal territories. On September 29, 2025, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation. On September 29, 2025, the County also sent consultation closure notices to the Middletown Rancheria and to the Mishewal Wappo Tribe of Alexander Valley because no request for consultation was received, and more than 30 days had elapsed since the County's consultation invitation was provided. Subsequently, the County coordinated with Middletown Rancheria during meetings held in October 2025 and January 2026. The County agreed to incorporate additional mitigation measures for the protection of tribal cultural resources in response to new information and concerns raised by the Middletown Rancheria. This is discussed in detail in **Section XVIII (Tribal Cultural Resources).**

    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, 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 and filed by the applicant in conjunction with #P22-00417, #P26-00045, and #P26-00044 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 on the County's website at: Current Projects Explorer | Napa County, CA (countyofnapa.org)

- 2005 Adopted MND for VMadrone Cellars (#P04-0541-UP), SCH No. 2005-082087 **(Exhibit A)**
- 2008 Adopted Addendum for V Madrone Cellars / Tilley Winery (#P08-00099) **(Exhibit B)**
- Signum Architecture, LLP, November 14, 2025, AXR Napa Valley Architectural Plans **(Exhibit C)**
- Summit Engineering Inc., November 14, 2025, Preliminary Civil Engineering Plans **(Exhibit D)**
- Studio 1515 Landscape Architecture, March 7, 2024, Cave Portal Visibility Analysis **(Exhibit E)**
- Summit Engineering, Inc., April 2024, Wastewater Feasibility Study **(Exhibit F)**
- EBA Engineering, July 25, 2024, Water Availability Analysis **(Exhibit G)**
- GHD Inc., December 12, 2025, Traffic Study Report **(Exhibit H)**
- Summit Engineering, Inc., June 12, 2025, Left Turn Lane Concept Plan **(Exhibit I)**
- Summit Engineering, Inc., November 14, 2025 Event Guest Parking Plan **(Exhibit J)**
- Evans & De Shazo, Inc., August 9, 2025, A Historic Resource Evaluation, Local Assessment, and Secretary of the Interior's Standards for the Treatment of Historic Properties Review **(Exhibit K)**
- Stephen P. Rae of MUSCI, April 20, 2002, Biological Resources Reconnaissance Report Special Status Plant Report Chris Tilley Vineyard Conversion (prepared for #01222-ECPA) **(Exhibit L)**
- Archeological Resource Service, January 25, 2002, A Cultural Resources Evaluation of the 8-acre Vineyard Lot Within Property at 3199 St. Helena Highway North, Napa County, California (prepared for #01222-ECPA) **(Confidential)**
- Site inspections conducted by Napa County Planning Division staff (Kelli Cahill, Planner III, April 2024; Hannah Spencer, Planner III, January 2026)
- Napa County Geographic Information Systems (GIS) Environmental Maps/Layers.
- Napa County Permit History Records for 3199 N St. Helena Hwy, St. Helena, CA 94574; APN 022-080-025.

ENVIRONMENTAL FINDING:

On the basis of this initial evaluation, 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 SUBSEQUENT MITIGATED NEGATIVE DECLARATION will be prepared.

Hannah Spencer
_____ April 20, 2026 _____

Signature Date

Name: Hannah Spencer, Planner III
Napa County Planning, Building, and Environmental Services Department (PBES)

EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts of this project based on the criteria set forth in the State CEQA Guidelines and the County's implementing ordinances and guidelines. For each item, one of four responses is given:

- **No Impact:** The project would not have the impact described. The project may have a beneficial effect, but there is no potential for the project to create or add increment to the impact described.
- **Less Than Significant Impact:** The project would have the impact described, but the impact would not be significant. Mitigation is not required, although the project applicant may choose to modify the project to avoid the impacts.
- **Less Than Significant with Mitigation Incorporation:** The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.
- **Potentially Significant Impact:** The project would have the impact described, and the impact could be significant. The impact cannot be reduced to less than significant by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The Initial Study includes a discussion of the potential impacts and identifies mitigation measures to substantially reduce those impacts to a level of

insignificance where feasible. All references and sources used in this Initial Study are listed above and are incorporated herein by reference.

Mark Schratz, on behalf of Silverado Trail Wine Partners IV, LLC, has agreed to accept all mitigation measures listed in this Initial Study as Conditions of Approval for the proposed project, and to obtain all necessary permits, notify all contractors, agents and employees involved in project implementation and any new owners should the property be transferred to ensure compliance with the mitigation measures.

1. AESTHETICS:

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

Discussion:
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, the project parcel is located on the edge of the valley floor and a northeastern facing wooded hill. Slopes gradually increase from gentle to steep as you head west (approximately 6% to over 50%), with elevation ranging from 300-350+/- feet above mean sea level (above msl). Primary vegetation cover onsite and, in the area, includes vineyard and landscaping, Douglas-fir and Ponderosa pine forest, as well as oak woodland. The project parcel is accessed from and borders Saint Helena Highway (SR 29) - a County designated Viewshed Road. Development visible from designated viewshed roads are subject to the Napa County Viewshed Protection Program (discussed further below). Saint Helena Highway/State Route 29 is also an "eligible State Scenic Highway" according to California State Scenic Highway System Map. Within vicinity of the project site is California Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park; yet the project is not visible from these trail systems or park roads.

Napa County Viewshed Protection Program:
According to NCC §18.106.010(A), a primary purpose of the Napa County Viewshed Protection Program is to provide hillside development standards to minimize the impact of man-made structures and grading on views of existing landforms, unique geologic features, existing landscape features and open space as seen from designated public roads within the county. These standards include the protection of "substantial views" where 51 percent or more of the area facing the designated viewshed road can be seen, while NCC §18.106.030(A) states that the Viewshed Protection Program shall apply to all new structures located on slopes of 15% or more.

The project utilizes an existing historic winery building and accessory structures. No exterior building modifications are proposed to existing structures. See below for further discussion on historic resources. New structures associated with the project are related to the wine cave, water storage, and wastewater treatment systems. All new structures are proposed in the rear portion of the property, over 400 feet from the designated viewshed road, and will be substantially screened by a combination of existing topography and vegetation and new landscaping. New screening trees will be planted along

the southeastern property frontage, consisting of nine (9) 24-inch box 'Swan Hill' multi-trunk olive trees measuring 20-feet wide by 20-feet high. As proposed, the project has been designed in substantial conformance with the County's viewshed protection manual because it would avoid grading on slopes more than 30% and is not sited near a ridgeline. Additionally, new structures are proposed in previously disturbed areas, within dirt roads and the vineyard. As a result, no trees are proposed for removal to accommodate new structures. By using existing structures and access features, minimizing alteration of existing contours, and preserving the vineyard and forested areas on the property, the project preserves views of hillsides and does not result in substantial changes to the natural landforms and topography of the site.

Viewshed assessment for new structures:

- The new fire pump house will be located on slopes less than 10%, in an area that is screened by existing structures and vegetation and as such, is not subject to the viewshed protection program.
- The replacement water storage tanks will be installed on and adjacent to the existing water tank pad. One of the five tanks may require leveling of an existing dirt road that exceeds 15% slope, however, this location is not visible from SR 29 due to surrounding topography and vegetation. Standard Conditions of Approval require that the landowner utilize earth tone and non-reflective materials and colors and that existing screening vegetation is maintained.
- The proposed cave portals are 13-feet, 8-inches tall. Cave Portal #1 is proposed on an approximate 16% slope, 567 feet from SR 29; and Cave Portals #2 and #3 are proposed on slopes averaging 18%, approximately 400 feet from SR 29. As demonstrated in the visibility analysis (Exhibit E), existing topography, trees and vineyard, as well as new landscaping would provide screening for all three cave portals from view from SR 29 and Bea Lane. As such, the proposed cave portals are also exempt from meeting the 300-foot and 600-foot County winery road setbacks (NCC § 18.104.230). Standard Conditions of Approval further reduce impacts to public views by requiring that these new structures utilize earth tone and non-reflective materials and colors, and that landscaping be installed and maintained as proposed. All exterior lighting will be designed to minimize nighttime light disruption and visual glare (see discussion under d. below).
- The proposed winery process wastewater system will be installed on an approximate 17% slope, at the edge of the vineyard in the southwest corner of the property. Adequate screening will be achieved from a combination of existing topography, vegetation, the neighbor's residence, and installation of new landscaping along the property's frontage. Standard Conditions of Approval further reduce impacts to public views by requiring that these new structures utilize earth tone and non-reflective materials and colors, and that landscaping be installed and maintained as

proposed.

Standard Conditions of Approval require that the landowner execute and record in the County Recorder's office a use restriction, in a form approved by County Counsel, to ensure building exteriors and existing and proposed screening vegetation be maintained by the owner or the owner's successors so as to "prevent the project from being viewed from any designated public road" in perpetuity pursuant to NCC §18.106.050(C). By incorporating standard Conditions of Approval, impacts to public views from SR 29 would be less than significant.

SR 29 Scenic Corridor:
To accommodate sight distance requirements for existing access and road widening for the new left turn lane, the project would result in removal of up to five (5) White Oak trees and one (1) Blue Oak tree ranging in size from seven (7) inches in diameter at breast height (DBH) to 24 inches DBH. Two of the oak trees proposed for removal are located just outside the property line of the project parcel; the remaining four trees are outside neighboring parcels to the south: 3169 N. St. Helena Highway (APN 022-080-013) and 3131 N. St. Helena Highway (APN 022-070-032). All six trees proposed for removal are within the Caltrans SR 29 right-of-way. Although there is no locally adopted Corridor Protection Program for SR 29, efforts should still be made to protect its scenic qualities as the highway remains an "eligible State Scenic Highway" which is considered as part of the scenic highway system. By requiring replacement trees or preservation of existing oak trees onsite through **Mitigation Measure VIS-1** below, the project would reduce impacts to the scenic quality of the SR 29 corridor. Preservation of the scenic quality of this corridor would also be achieved through Napa County's Viewshed Protection Program and related standard Conditions of Approval. Additionally, future signage for the property will continue to be regulated by the County's Sign Ordinance which includes standards designed to prevent impacts to the natural beauty and environment, and preserve and improve the appearance of the unincorporated areas of Napa County. As such, impacts to scenic quality of the SR 29 corridor would be less than significant.

Local Landmark Program:
The project site has been designated as a Napa County Local Landmark since 2007 (Landmark ID #141202) and is encumbered by a Mills Act Historical Preservation Agreement. The August Hirsch main residence, cellar, and barn were originally constructed in 1883. Two 19th-century cottages, rock wall ("Ehlers Lane Rock Wall" originally documented by Caltrans, P-28-000955), cistern, redwood grove, and oak trees onsite were considered contributing accessory structures and landscape features. The project would result in partial removal of Ehlers Lane Rock Wall to allow for road widening improvements along SR 29. No other exterior alterations to historic structures or contributing accessory features are proposed.

In August 2025, Evans & De Shazo, Inc. prepared an updated Historic Resources Evaluation of the property and proposed improvements (2025 HRE). The 2025 HRE determined that the existing structures and landscaping features were not eligible for individual listing on the California Register of Historic Resources (CPHR). Although the Property has been altered since the Historic Landmark designation in 2007 (prior to the current ownership), the 1883 house appears intact from when it was listed in 2007 and therefore remains eligible for Historic Landmark Designation. The 2025 HRE also notes that ca. 2009, the County approved the demolition of the 1883 barn and sections of the rock wall were replaced as well as elements of the landscape that were given landmark status. However, as the 1883 house (Hirsch Residence, now the AXR winery building) is currently listed as a Napa County Historic Landmark, the AXR winery building is considered a Historical Resource.

The 2025 HRE reviewed the proposed project improvements in accordance with the Secretary of Interior Standards for Rehabilitation Review and determined the project meets the Standards for Rehabilitation. **Mitigation Measure CUL-1** ensures impacts to the Local Historic Landmark will be significantly reduced as discussed further under Section 5 (Cultural Resources).

The project is consistent with the County General Plan and typical of land uses in the surrounding area, which consists of other scattered vineyards, wineries and rural residences, and forest land. For the reasons described above, the project would not result in substantial damage to scenic resources or historic resources, nor would the project substantially degrade the visual character or quality of the site and its surroundings. Additionally, there are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. By incorporating **Mitigation Measure VIS-1** below, the proposed project would have a less-than-significant impact on a scenic vista and scenic resources.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures:

Mitigation Measure VIS-1: Prior to issuance of building permits, the owner/permittee shall submit a tree replanting plan, prepared by a certified arborist or other qualified professional and subject to Planning Division approval, that includes replanting of at least six native oak trees (or other appropriate native species) to replace those removed. All replacement trees shall be a minimum size of 15-gallons and must be monitored for a minimum survivability period of five years. Any replacement trees that fail to survive during this period shall be replaced in-kind by the applicant. Alternatively, the owner/permittee may identify and permanently preserve the equivalent amount (or more) of native tree canopy through deed restriction or other means of permanent protection in a form approved by County Counsel.

Method of Monitoring: The owner/permittee shall schedule a site inspection with the Planning Division and/or submit documentation verifying that replacement trees have been installed, or that the deed restriction has been recorded, prior to final occupancy of building permits. The owner/permittee shall provide copies of the annual monitoring results to the Planning Division, while monitoring is in effect.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Discussion: See response to Subsection 1(a) above.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure VIS-1.

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?

Discussion: See response to Subsection 1(a) above.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure VIS-1.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime view in the area?

Discussion: The proposed new winery facility may result in the use of additional lighting that may have the potential to impact nighttime views. Pursuant to standard Napa County Conditions of Approval for wineries, outdoor lighting for the winery is required to be shielded and directed downwards, with only low-level lighting allowed in parking areas. As designed and operating subject to the County's standard condition of approval noted below, the project would 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, therefore the project would not have a significant impact resulting from new sources of glare.

6.15(g) COLORS

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; or colors required by the Secretary of Interior's Standards for Treatment of Historic Properties; or natural earth tone building materials. 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

2. AGRICULTURE AND FOREST RESOURCES[1]:

Would the project:

[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

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Discussion: The 7.85-acre AXR Winery property contains approximately 3.5 acres of vineyard. According to the Napa County Important Farmlands Map of 2020 prepared by the California Department of Conservation District, Division of Land Resource Protection, approximately 3.3 acres of the property is mapped as designated Prime Farmland and 0.9 acres as Unique Farmland. The California Department of Conservation's "Important Farmland Categories"[2] define 'Prime Farmland' as farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. 'Unique Farmland' is defined as farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

The project is estimated to result in conversion of approximately 8,000 sq ft (0.18 acres) of the onsite vineyard in areas that are mapped as Prime and Unique Farmland. Converting approximately 0.18 acres of designated farmland (4% of the site's vineyard) to develop wine caves and associated access is not considered a significant loss of land devoted to agricultural production. The primary use of the

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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.

[2] California Department of Conservation, "Important Farmland Categories," Farmland Mapping and Monitoring Program, accessed February 10, 2026, https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx

site (approximately 3.5 acres) will continue to be devoted to an actively farmed vineyard. Additionally, the proposed wine cave and access road are agricultural support uses to the onsite vineyard operation and other local vineyard operations in Napa County. The proposed project is consistent with the Agricultural Preservation and Land Use policies of the Napa County General Plan and the site's zoning designation of Agricultural Watershed. No change in the land use or zoning is proposed. No impact would occur.

Significance Level: No impact.

Mitigation Measures: None required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

Discussion: The project parcel has an Agriculture, Watershed and Open Space (AWOS) General Plan designation and is Zoned AW (Agricultural Watershed) which allows wineries upon the granting of a use permit. Napa County's 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. As such, the proposed winery project does not conflict with existing zoning for agricultural uses. Additionally, the project parcel is not encumbered by a Williamson Act contract No impact would occur.

Significance Level: No Impact.

Mitigation Measures: None required.

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)?

Discussion: 'Forest Land' is defined in California Public Resource Code Section 12220(g) as "land that can support 10% 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." According to Napa County GIS Sensitivity Layers (Vegetation Map), the property contains approximately 3.5 acres of mapped Douglas fir forest and mixed oak woodland. As discussed previously, the project utilizes existing structures and access features. To accommodate wine cave construction and access, approximately 0.18 acres of vineyard would be removed. To allow for SR 29 road widening, up to six oak trees are proposed for removal from along the property's frontage, outside of any mapped forest land. No other trees are proposed for removal; thus, the project would not result in conversion of forest land.

Additionally, the project site is zoned as AW and is not zoned as forest land as defined in Public Resource Code Section 12220(g), timberland as defined in Public Resource Code Section 4526, or a Timberland Production Zone (TPZ) as defined in Government Code Section 51104(g). No impacts will occur.

Significance Level: No impact.

Mitigation Measures: None required.

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?

Discussion: See response to Subsection 2(c) above.

Significance Level: No impact.

Mitigation Measures: None required.

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 or conversion of forest land to non- forest use?

Discussion: See response to 2(a) above.

Significance Level: No impact.

Mitigation Measures: None required.

3. AIR QUALITY:

Background information[3]:
On June 2, 2010, the Bay Area Air Quality Management District's (BAAQMD) (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

[3] CEQA Thresholds and Guidelines Update (baaqmd.gov): https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

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.

The Air District 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.

See Section 8 (Greenhouse Gas Emissions) for the greenhouse gas (GHG) emissions disclosure and impact assessment.

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:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Discussion: 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 2022. 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 2022. Given the size of the entire project, which is approximately 17,200 square feet of new floor area dedicated to production uses and conversion of approximately 1,492 square feet of production space to tasting/hospitality uses and 1,600 square feet of residential use to winery office

use, compared to the BAAD's screening criterion of 998,000 square feet (general light industry) and 105,000 square feet (high quality restaurant) 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: See response to Subsection 3(a) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Discussion: 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), wineries, and two state parks. The closest school (St Helena Unified – Robert Louis Stevenson Intermediate) is over two (2) linear miles to the south of the project site in St. Helena. The closest residence to proposed construction activities (wine cave and access road) is about 150 feet from the project site to the southeast. The City of St. Helena is approximately one (1) mile south 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 2 miles from the closest school and one (1) mile from the nearest residential community (City of St. Helena), providing dilution of pollutants and odors. However, proposed construction activities for the wine cave and access road are in proximity to sensitive receptors (neighboring residences). 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 Approval, construction-related impacts are considered less than significant.

7.1 SITE IMPROVEMENTS

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.*

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 project proposes to move the majority of wine production activities into the new wine caves while maintaining the current permitted production volume of 20,000 gallons per year. Construction-phase pollutants to neighboring residences 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Discussion: See response to Subsection3(c) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

4. BIOLOGICAL RESOURCES:

Would the project:

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 U.S. Fish and Wildlife Service?

Discussion: As previously discussed, the project parcel is located on the edge of the valley floor and a northeastern facing wooded hill. Slopes gradually increase from gentle to steep as you head west (approximately 6% to over 50%), with elevation ranging from 300-350+/- feet above mean sea level (above msl). County GIS Environmental Maps show the site is composed predominantly of Perkins Gravelly Loam (168) and Boomer Gravelly Loam (109). Primary vegetation cover onsite and, in the area, includes vineyard and landscaping, Douglas-fir and Ponderosa pine forest, as well as mixed oak woodland. Hirsch Creek flows easterly through the northern border of the parcel, onto the adjacent northern parcel, and ultimately to the Napa River. The creek contains substantial riparian cover though portions of the stream bank within vicinity of the project have been modified over time. The existing winery and residential building complex are within portions of the property that are mapped as Douglas fir forest and mixed oak woodland. According to the Napa County GIS Environmental Maps (CNDDB layer), the property is within range of Northern Spotted Owl activity sites.

The project utilizes an existing winery and residential building complex consisting of two winery buildings, pump houses and water tanks, three residential cottages, and associated graveled roads, pathways, and landscaping. The proposed locations for the new cave portals, fire pump house, replacement water tanks and winery process wastewater treatment system are within disturbed areas of the property that contain dirt roads and graveled areas, landscaped areas, and vineyard. All new structures are proposed outside of the Hirsch Creek stream setbacks and riparian areas. No trees are proposed for removal to accommodate the new winery structures; however, up to six oak trees would be removed from the SR 29 right-of-way to accommodate road widening for a new left turn lane. Trees in the SR 29 right-of-way consist of five (5) White Oak trees and one (1) Blue Oak tree ranging in size from seven (7) inches DBH to 24 inches DBH.

In 2002, MUSCI conducted a biological reconnaissance of the property to establish the property's vineyard (Exhibit L). MUSCI did not identify any known candidate, sensitive, or special status species as occurring within the project boundary. The 2005 MND included a discussion of biological resources

and found that since the 2005 Use Permit project proposed to utilize existing structures and develop a small outdoor fermentation pad adjacent to the main residence, impact of the development on the existing open space would be minimal. No mitigation was required.

Special Status Plants and Wildlife:
According to the Napa County GIS Environmental Maps (CNDDB layer), the project site is not within range of any documented occurrences of special status plants. The nearest documented occurrences of special status plants (within one-mile of the site) consist of Narrow-anthered brodiaea (approx. 0.25 miles to the west and 0.36 miles to the south), Sebastopol meadowfoam (approx. 0.4 miles to the north), Calistoga ceanothus (0.6 miles to the south), Napa false indigo and Clara Hunt's milk-vetch (0.75 miles to the northwest). The 2002 MUSCI report found that the project area and the immediate contiguous area already dedicated to residential use (now winery and residential), contained no unique or unusual habitat that could support special status plants which have been reported elsewhere in the County. As discussed above, the project utilizes areas of the property that are actively managed in vineyard, winery, and residential uses. All proposed new structures are located outside of the 55-foot to 65-foot setbacks along Hirsch Creek, consistent with Napa County's Conservation Regulations. No wetlands, vernal pools or other hydrological features were observed within the development area or are mapped by Napa County GIS Environmental Maps. For these reasons, the project has a low potential to support occurrences of any special-status plant species found within the area. Impacts would be less than significant.

According to the Napa County GIS Environmental Maps (CNDDB layer), the project site is within range of Northen Spotted Owl habitat – specifically activity center sites #NAP0001, NAP0005, and NAP0033. The California Department of Fish and Wildlife's "Spotted Owl Observations Database"[4], describes spotted owls as being characterized as central-place foragers, where individuals forage over a wide area and subsequently return to a nest or roost location that is often centrally-located within the home range. Activity centers are a location or point within the core use area that represent this central location. Nest sites are typically used to identify activity centers, or in cases where nests have not been identified, breeding season roost sites or areas of concentrated nighttime detections may be used to identify activity centers. According to the U.S. Department of the Interiors Draft Revised 2010 Northern Spotted Owl Recovery Plan[5], spotted owls generally rely on older forested habitats because such

[4] California Department of Fish and Wildlife, "Spotted Owl Observations Database – Frequently Asked Questions", accessed February 10, 2026, https://wildlife.ca.gov/Data/CNDDB/Spotted-Owl-FAQ

[5] U.S. Fish and Wildlife Service. (2010). *Draft revised recovery plan for the northern spotted owl (Strix occidentalis caurina)*. U.S. Department of the Interior

forests contain the structures and characteristics required for nesting, roosting, and foraging. Features that support nesting and roosting typically include a moderate-to-high forest canopy closure; a multi-layered, multi-species forest canopy with large overstory trees; a high incidence of large trees with various deformities (large cavities, broken tops, mistletoe infections, and other evidence of decadence); large snags; large accumulations of fallen trees and other woody debris on the ground; and sufficient open space below the forest canopy for spotted owls to fly. Foraging habitat generally has attributes similar to nesting and roosting habitat, but may also include areas with less structural diversity and lower canopy cover.

The nearest documented occurrences of other special status wildlife (within one-mile of the site) consist of Fringed myotis (approx. 0.7 miles to the north) and Steelhead – central California coast (approx. 1.0 mile from to the south). As described in the 2002 MUSCI report and 2005 MND, the management history of the project property has resulted in a significantly disturbed site which exhibits little natural biological habitat features. There are no unique or special status animals known on the site. Additionally, no disturbance, modifications or grading is proposed in proximity to Hirsch Creek and as discussed in the project Water Availability Analysis (Exhibit G), pumping from the project well is not expected to contribute to streamflow depletion in Hirsch Creek.

- Northern Spotted Owl:
  The 2002 MUSCI report determined that the northern spotted owl (NSO) has little likelihood of using the project area due to the lack of potential habitat. Since preparation of the 2002 report, the property has been managed for a combination of vineyard, residential, winery and tasting room uses. The project will continue to use the existing developed landscape and limit tree removal to six white and blue oak trees located in a highly disturbed area between the vineyard and SR 29, ranging in size from seven (7) inches DBH to 24 inches DBH. However, due to the proximity of the NSO activity centers and adjacent forested land to the west, noise generated during the project's cave excavation/construction phase has the potential to pose a disturbance to NSO. To mitigate any potentially significant impacts to owls, Mitigation Measure BIO-1 requires NSO surveys and coordination with CDFW and USFW as needed, prior to any on site construction activities and vegetation removal that would occur during the NSO nesting season: February 1 to July 31.

- Nesting Birds/Raptors and Roosting Bats:
  Although the project utilizes a developed landscape, there is still potential for nesting raptors and other native birds, as well as roosting bats in the oak trees, mixed oak woodland, and Douglas fir forest on the property. All nesting native bird species are protected from harm under the Migratory Bird Treaty Act of 1918 (MBTA). Proposed tree and vegetation removal and the temporary and intermittent increases in noise levels due to project construction may cause

nest abandonment and death of young or loss of reproductive potential at active nests that could be located near project activities, resulting in potentially significant indirect and cumulative impacts to migratory birds and raptors. Implementation of Mitigation Measure BIO-2 will require preconstruction surveys for nesting birds and raptors and coordination with CDFW as needed. Additionally, roosting bats are protected from harassment under California Fish and Game Code §4150 and regulations regarding non-game animals. In an abundance of caution, in order to mitigate any potentially significant impacts to bat species, Mitigation Measure BIO-3 requires bat habitat assessments and coordination with CDFW as needed, to reduce this impact to less than significant level.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures:

Mitigation Measure BIO-1 (Pre-construction NSO nesting surveys): The owner/permittee shall implement the following measures to minimize potential impacts to Northern Spotted Owls (NSO): A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall provide an assessment of potential NSO nesting habitat within the Project site and a 0.25-mile radius and obtain CDFW's written acceptance of the assessment.

Alternatively, if the assessment is not completed, or if it concludes that NSO nesting habitat is present, then no Project activities within 0.25 miles of potential NSO nesting habitat shall occur between February 1 and July 31 unless a qualified biologist approved in writing by CDFW conducts NSO surveys following the U.S. Fish and Wildlife Service (USFWS) Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, dated (revised) January 9, 2012, available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83977&inline. Surveys shall be conducted in accordance with Section 9 of the survey protocol, Surveys for Disturbance-Only Projects. If breeding NSO are detected during surveys, CDFW shall be immediately notified and a 0.25-mile no-disturbance buffer zone shall be implemented around the nest until the end of the breeding season, or a qualified biologist determines that the nest is no longer active in consultation with CDFW, unless otherwise approved in writing by CDFW. The Project shall obtain CDFW's written acceptance of the qualified biologist and survey report prior to Project construction occurring between February 1 and July 31 each year.

Alternate buffer zones may be proposed to CDFW after conducting an auditory and visual disturbance analysis following the USFWS guidance, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, dated October 1, 2020. Alternative buffers must be approved in writing by CDFW.

If take of northern spotted owl cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP, and also consult with USFWS pursuant to the federal ESA.

Method of Monitoring: The above measure applies to ground disturbing activities and associated building and grading permits with NSO survey recommendations to be implemented in conjunction with all construction and vegetation removal activities. Prior to the commencement of vegetation removal and earthmoving activities, the Owner/Permittee shall provide copies of required surveys and CDFW approval(s) and/or related CDFW correspondence to the Planning Division.

Mitigation Measure BIO-2 (Pre-construction surveys for nesting birds and raptors): 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 Conservation 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 Conservation 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 shall 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-3 (Pre-construction bat tree habitat assessment and surveys): Prior to any tree trimming or removal, 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 or removal and 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 or removal shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be removed only: a) using the two-step removal 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 removal 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 removal, 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 entire tree 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.

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?

Discussion: As mentioned above, the property contains a variety of sensitive biotic communities which consist of Douglas fir forest (coniferous forest) and mixed oak woodland. These forested areas are

mostly disturbed by the property's existing winery and residential structures, associated pathways and landscaping, and graveled and paved roads. Hirsch Creek, a seasonal blue line stream, borders the northern portion of the project property and ultimately flows into the Napa River. Hirsch Creek and ephemeral streams onsite are all considered sensitive natural resources under Section 404/401 of the CWA and Section 1602 of the CFGC. These streams are mapped as USGS steams and therefore meet the Napa County stream definition pursuant to NCC Section 18.108.025. The Napa County General Plan Conservation Element's Policy CON-17 requires that the County preserve and protect sensitive biotic communities. As such, the project has been designed to avoid Hirsch Creek (discussed further below) and all remaining undisturbed Douglas fir forest and oak woodland on the property. Proposed tree removal is limited to the SR 29 right-of-way, outside of these sensitive biotic communities.
The project would not result in significant impacts to riparian habitat or on-site streams or tributaries as there is no proposed removal of riparian habitat or new ground disturbing activities within the designated Hirsch Creek 55-foot and 65-foot stream setbacks (Napa County Conservation Regulations - Code Section 18.108.025(B) General provisions – Intermittent/perennial streams). Per the Napa County Conservation Regulations, streams with a slope from top of bank ranging between 5-15% receive a 55-foot to 65-foot setback. As mentioned above, Hirsch Creek contains substantial riparian cover though portions of the stream bank within vicinity of the project have been modified over time. Portions of existing buildings, internal roads and landscaping are partially within the designated setback. These include Cottage #4 and its associated parking and landscaped areas which pre-date Napa County's Conservation Regulations. Also, partially within the setbacks are the barrel storage building, attached crush pad, and an internal road which were all approved in the original 2005 use permit. The 2005 MND included a discussion on riparian habitat and stream setbacks and required the historic barn, previously located within 20 feet from top of bank, to be demolished and rebuilt outside of stream backs applicable at the time. The barn was demolished in 2007 and was rebuilt in its current footprint several years later as a barrel storage barn through the prior use permits. Per the Conservation Regulations, legally constructed uses and structures, as well as existing landscaping, are allowed to be maintained within designated stream setbacks.

The project proposes to relocate wine production activities to the new caves and use the barrel storage barn and adjacent patio for hospitality uses, including outdoor tasting and AB 2004 onsite consumption use. No exterior modifications are proposed to this existing building and patio to accommodate the change in use. Another AB 2004 onsite consumption area is proposed within the existing landscaped area located in the stream setback, next to the driveway. As stated above, the project does not propose any new structures or new ground disturbance within stream setbacks and therefore is consistent with the Napa County Conservation Regulations which prohibits construction of main or accessory structures, earthmoving activity, grading or removal of vegetation or agricultural uses of land as defined by Section 18.08.040.

Further, the project utilizes existing structures and their adjacent patios, driveways and parking areas which will minimize the overall grading and disturbance activities on the property. Proposed grading activities onsite are limited to constructing the wine cave, associated access road, and improvements to the property's driveway entrance and SR 29 road widening. These activities require coverage under the National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges associated with a Construction Activity (General Permit) and a Storm water Pollution Prevention Plan (SWPPP). Adherence to the design criteria of these policies and Napa County's Grading Regulations ensure all work will include extensive erosion control measures in order to avoid erosion and the potential for transport of sediments to Hirsch Creek. Project design and standard Conditions of Approval prevent stream encroachment, ensuring that impacts on riparian habitats and sensitive communities remain less than significant.

According to the 2002 MUSCI report, County GIS layers, and staff inspection of the site, the project development area does not contain vernal pools, wetlands, or seasonal wetlands. Therefore, no impacts to vernal pools or wetlands are expected.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: See response to Subsection 4(b) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: The Napa County Baseline Data Report emphasizes preservation of wildlife corridors and prevention of habitat fragmentation. According to the Napa County of Environmental Mapping (GIS CNDDB layer) and the 2002 MUSCI report, there are no wildlife corridors on the parcel. The 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. The site is currently developed with residential, winery, and vineyard uses on a 7.85-acre parcel within 600-feet of SR 29. The proposed improvements would

occur on, or adjacent to, previously disturbed areas of the property. As such, the proposed project would result in a less than significant impact on wildlife movement.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Discussion: Based on the property zoning of Agricultural Watershed (AW) the project is subject to the vegetation canopy cover retention and removal mitigation requirements pursuant to the Conservation Regulations Napa County Code Section (NCC) 18.108.020. This section requires 70% retention of the vegetation canopy cover on the parcel (or contiguous parcels under common ownership), and that any vegetation canopy cover removed as part of the project be mitigated at a 3:1 ratio (by acreage) via preservation or restoration, and permanently preserved through deed restriction or other means acceptable to the County. Vegetation canopy cover subject to NCC Section 18.108.020 is defined as "the biotic communities classified as oak woodland, riparian oak woodland, or coniferous forest based on the current Manual of California Vegetation (MCV) and as described in the Napa County Baseline Data Report (2005 or as amended)." As discussed above, the project would result in the removal of six (6) oak trees consisting of six white and blue oak trees ranging in size from seven (7) inches DBH to 24 inches DBH; however, all six trees are within the SR 29 right-of-way, immediately adjacent to the highway in areas mapped as "Agriculture" per Napa County Environmental Mapping (GIS vegetation layer - based on the Manual of California Vegetation classification system and updated versions/information). Because the oak trees proposed for removal are not within areas classified as oak woodland, riparian oak woodland, or coniferous forest, the project does not trigger Napa County's Conservation Regulations' canopy retention mitigation requirements.

Significance Level: No Impact.

Mitigation Measures: None required.

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 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.

Significance Level: No Impact.

Mitigation Measures: None required.

5. CULTURAL RESOURCES:

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?

Discussion: The project site is the former August Hirsch Winery, built in 1883. In 2005, the Napa County Planning Commission granted a Use Permit to re-establish a winery facility within the historic, 19th century residence, cellar and barn. The main residence is a historic structure constructed in 1883 by August Hirsch. The barn was built in the 1890's and was demolished/reconstructed outside of stream setbacks in accordance with the 2005 Use Permit Conditions of Approval and Secretary of the Interior Standards. In 2007, the Planning Commission designated the 1883 house, barn, two 19th-century cottages, a rock wall ("Ehlers Lane Rock Wall" originally documented by Caltrans, P-28-000955), a cistern, redwood grove, and oak trees onsite a Local Historic Landmark (Landmark ID #141202). Several years later, the landowner entered the property into a Mills Act Historical Preservation Agreement with Napa County to ensure the preservation of the Hirsch residence and the cottages in exchange for a reduced property tax assessment. Though historic and of local significance, neither the residence nor the contributing accessory structures and landscape features on the property are designated on the California Register of Historic Resources or the National Register of Historic Places. The 2005 MND (Exhibit A) included a discussion of historic resources and found that while the property was not eligible for the California or National Register based on the criterion, the main residence and barn retained historical integrity and local significance. To ensure that the 2005 Use Permit project did not result in any significant impacts to historic resources, mitigation measures were adopted to prohibit alterations/removal of the rock wall along the property's frontage, including the stone pillars, and for any further alterations and restoration of the property to comply with the Secretary of the Interior Standards.

Subsequently, the owners applied for a modification to the winery use permit (P08-00099) to allow for changes to the site plan and previous Conditions of Approval/Mitigation Measures. On May 7, 2008, the Planning Commission adopted an Addendum to the 2005 MND (Exhibit B) and approved the modification request for the following changes: substitute the original left-turn lane requirement with an equivalent "No Left Turn" arrangement as accepted by Caltrans (resulting in no changes to the rock wall); modify a condition to reflect that the 2007 Local Landmark Designation met the intent of the

original use permit's requirement to list the Hirsch residence and barn on the California Register or National Register (while still requiring verification of eligibility for listing); convert the agricultural barn and outbuildings into a single, slightly larger Winery Barrel Storage building; and allow the outdoor tank/crush pad to be built behind the Winery Barrel Storage building instead of next to the Hirsch residence/winery. Previous Conditions of Approval/Mitigation Measures related to historic structures are provided below.

2005 Adopted MND for P04-0541 - Cultural Resources Mitigation Measure:

- *"All site work, including rehabilitation, restoration, or modification of the main residence and bam shall Comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. An historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.*
- *The stone wall, including the pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.*
- *A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological film and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities."*

2008 Adopted MND Addendum for P08-00099: The MND Addendum resulted in amended Conditions of Approval and removal of the above listed Cultural Resources Mitigation Measure from the project's Mitigation Measure Monitoring and Reporting Program. Amended Conditions of Approval included the following:

- Conditions of Approval Section "1. SCOPE" modified to include: *"Conversion and reconstruction pursuant to the Secretary of Interior Standards and Guidelines for the Treatment of Historic Properties of the 798 square foot barn, attached 136 square foot outbuilding and 425 square foot enclosed outbuildings totaling 1,359 square feet to a 1,492 square foot barrel storage building with a storage room and ADA restroom."*

- Conditions of Approval Section "2. HISTORICAL STRUCTURES:" modified to state: *"Prior to the issuance of any Temporary Certificate or Final Certificate of Occupancy for the barrel storage building for the project the following shall be provided:*
  a. *A letter of Intent submitted to the Planning Department setting forth a timeline outlining specific steps for the timely completion of the conversion of the historic main residence to the historic winery;*

b. *Verification by a qualified historic architect that the main residence is eligible for listing on the California Historic Register; A historic architect's report confirming the construction plans, location, materials & color are in compliance with the Secretary of Interiors Guidelines for the Treatment of Historic Properties;*
d. *Written agreement from the property owner that a deed for a Notice of Use Restriction will be signed by said property owner and recorded with the Napa County Recorder's Office (prior to issuance of the Certificate of Final Occupancy of the winery / residence) stating that winery operations must occur within the converted main historic residence/winery for winery operations to continue on site and,*
e. *Visitation and Marketing shall not commence until the Letter of Intent (as described in the above section 2. (a.)) is received by the Planning Department, the "No Left Turn" alternative has been completed and signed off by Caltrans, and a Final Certificate of Occupancy for the barrel storage building has been issued."*

The proposed Use Permit Modification project does not change the winery building (1883 Hirsch residence) or barrel storage building exteriors, however, the Left Turn Lane improvements on SR 29 would result in partial removal of Ehlers Lane Rock Wall (contributing landscape feature) and relocation of stone pillars at the driveway entrance. Additionally, minor alterations to existing structures may be necessary to comply with the Building Code, such as for meeting any applicable accessibility and fire safety requirements. In August 2025, Evans & De Shazo, Inc. reviewed the proposed project and prepared an updated Historic Resources Evaluation of the historic structures and contributing accessory structures and landscape features on the property (Exhibit K). The 2025 Historic Resources Evaluation (2025 HRE) updated documentation and completed a California Register of Historic Resources (CRHR) evaluation to determine if there are any CRHR eligible resources within the Property, as well as an updated local assessment to determine the status of the built environment resources within the 2007 Historic Landmark Designation. The methods used to complete the CRHR evaluation and local assessment included extensive research and an intensive level historic architectural survey conducted by EDS Principal Architectural Historian Stacey De Shazo, M.A., and Nicole Wyton, M.S., who exceed the Secretary of the Interior's qualification standards in Architectural History and History, and researcher Bee Thao, M.A.

As discussed in the 2025 HRE, the primary contributing elements of the Historic Landmark include the 1883 house and cellar (AXR Winery building), and the 1883 barn (no longer extant, replaced), and the secondary contributing elements consist of two 19th-century cottages (extant[6]), the rock wall

[6] The 2025 Historic Resources Evaluation prepared by Evans & De Shazo, Inc. (Attachment K) mistakenly lists these two historic cottages as 'no longer extant'. Per County building permit and

(altered), cistern (no longer extant), redwood grove (extant), and oak trees (extant). None of the existing structures and landscaping features were determined to be eligible for individual listing on the CPHR. For a property to qualify for listing in the CRHR, it must possess significance under one of the four criteria and have historical integrity. The 2025 HRE did not complete a CPHR integrity analysis as the property did not meet any of the four CRHR criteria.

The 2025 HRE finds that although the Property has been altered since the Historic Landmark designation in 2007 (prior to the current ownership), the 1883 house appears intact from when it was listed in 2007 and therefore remains eligible for Historic Landmark Designation. However, it should be noted ca. 2009, the County approved the demolition of the 1883 barn (reconstructed as part of P04-0541 and P08-00099), and sections of the rock wall were replaced. As the 1883 house is currently listed as a Napa County Historic Landmark, this building is considered a Historical Resource under the CEQA.

According to the Secretary of Interior Standards for Rehabilitation, "some exterior and interior alterations to a historic building are generally needed as part of a Rehabilitation project to ensure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include changes to the site or setting, such as the selective removal of buildings or other features of the building site or setting that are intrusive, not character-defining or outside the building's period of significance. (2025 HRE)"

Secretary of Interior Standards for Rehabilitation Review:
The 2025 HRE reviewed the proposed project in accordance with the Secretary of Interior Standards for Rehabilitation Review to assess potential impacts on the Historic Landmark. The proposed project was determined to meet the Standards for Rehabilitation based on findings summarized below:
The Project includes the construction of new wine caves, which are located away from the historic resources that characterize the property. The caves or access road, which will not be visible from the street view, will not alter or diminish the historic integrity of the Property.

- The rock wall section (proposed for removal) is modern, and the removal or reconstruction, if rebuilt later, would not impact the integrity of the Historic Landmark Designation.

Landmark records, and staff inspection of the site, the two ca. 19th-century cottages remain on the property. As discussed in the Background/Project History and Transportation sections of this initial study, two non-historic cottages (#5 and #6) were demolished per requirements of use permit modification file no. P08-00099.

- The Project does not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation.
- The project utilizes materials and construction techniques that are modern and are thus easily distinguishable from the historic materials.

In summary, the Property, including the 1883 house, historic sections of the rock wall (late 19th to early 20th century), and elements of the landscape, including the redwood and oak trees, are present and remain eligible as a Napa County Historic Landmark. As such, the property continues to be a Historical Resource under CEQA, though some of the buildings and elements of the Property within the Historic Landmark listing are no longer present. The 2025 HRE's Standards review determined that the proposed Project meets the Standards for Rehabilitation and supports the continuing designation of the Property as eligible for the Mills Act.

To ensure impacts to the Local Historic Landmark are significantly reduced, all site work, rehabilitation, or modifications to the site, including the rock wall and stone pillars, shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and Napa County's Landmark Preservation Ordinance in accordance with Mitigation Measure CUL-1 below. Additionally, a Condition of Approval has been incorporated into the project to ensure the local Landmark designation listing is updated to reflect the existing setting as recommended in the 2025 HRE. Lastly, the proposed project does not conflict with the property's Mills Act Agreement recorded under Official Record No. 2013-0032878. During the term of the Mills Act Agreement, the owner is required to preserve and maintain the main residence and cottages and land as a qualified historic property, in such a condition that it continues to meet the standards for a qualified historic property.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures:

Mitigation Measure CUL-1:

1. Construction resulting from the project shall not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation.
2. Modifications to the rock wall are limited to modern sections and relocation of the stone pillars at the driveway entrance. The historic sections (late 19th to early 20th century) along the frontage of the property shall not be altered or removed, excepting the proposed relocation of stone pillars, to accommodate road improvements.

3. All site work, including rehabilitation, restoration, or modifications to existing structures and contributing accessory structures and landscape features shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings as well as Napa County's Landmark Preservation Ordinance (Chapter 15.52). A historic architect shall review all proposed construction plans, including modifications to the rock wall and stone pillars, for compliance with Mitigation Measure CUL-1 and his/her written report shall accompany any plans submitted for grading and building permits.

Mitigation Monitoring CUL-1: Prior to issuance of any grading or building permit for the project, the Planning Division shall review the historic architect's report and confirm the project is in compliance with Mitigation Measure CUL-1.

Mitigation Measure TCR-1: See Section 18 Tribal Cultural Resources

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Discussion: The subject property is located in an archaeologically sensitive area (CA-Nap-360). An archaeological evaluation prepared by Archaeological Resource Service, dated January 25, 2002 (*CONFIDENTIAL*) was completed in conjunction with the development of the on-site vineyard permitted through Erosion Control Permits #01222-ECPA and #03100-ECPA. Scatters of obsidian flakes were encountered. The 2005 MND (Exhibit A) included a discussion of archaeological resources and required mitigation measures requiring monitoring for archaeological resources during ground disturbing activities.

On May 12, 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 on June 12, 2025, confirming the project is not within their aboriginal territories and declined to comment on the project. The County sent consultation closure notices to the Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on September 29, 2025, because no request for consultation was received, and more than 30 days had elapsed since the County's consultation invitation was provided. Subsequently, the County coordinated with Middletown Rancheria during meetings held in October 2025 and January 2026. The County agreed to incorporate **Mitigation Measure TCR-1** to protect archaeological and tribal cultural resources in response to new information and concerns raised by the Middletown Rancheria. See Section 18 (Tribal Cultural Resources) for further discussion.

As the project proposes ground disturbance, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, the proposed project would be subject to the standard Conditions of Approval identified below to protect cultural resources that may be discovered accidentally:

> *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.*

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure TCR-1

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Discussion: No human remains have been encountered on the property and 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. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

6. ENERGY:

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources during project construction or operation?

Discussion: 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Discussion: 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.

Significance Level: No impact.

Mitigation Measures: None required.

7. GEOLOGY AND SOILS:

Would the project:

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.

Discussion: There are no known active faults that run beneath the project site on the most recent Alquist-Priolo Earthquake Fault Zoning Map. According to Napa County GIS Environmental Maps (Fault layers), the project is over 10 miles from the two nearest Alquist-Priolo Earthquake fault zones (West Napa and Green Valley faults). Construction of new structures and change in use of the existing structures will need to comply with standard County building permit policies which require geotechnical reports and appropriate structural design considerations as a part of the building permit application. Geotechnical reports are prepared by a California licensed geotechnical engineer and include recommendations for appropriate setback widths from fault traces that may exist on a property. As such, impacts would be reduced to a less than significant level.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

ii. Strong seismic ground shaking?

Discussion: All areas of the Bay Area are subject to strong seismic ground shaking. Construction of the project 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

iii. Seismic-related ground failure, including liquefaction?

Discussion: No subsurface conditions have been identified on the project site that indicated a susceptibility to seismic-related ground failure or liquefaction. The project site is identified as having a very low liquefaction potential according to the Napa County Environmental Resource Maps (liquefaction layers), compliance with the latest edition of the California Building Code for seismic stability would result in less than significant impacts.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

iv. Landslides?

Discussion: According to the Napa County GIS Environmental Maps (Landslides line, polygon, and geology layers), the project site is not in proximity to any landslide areas. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Result in substantial soil erosion or the loss of topsoil?

Discussion: The total proposed grading for development of the proposed wine cave, access road, and accessory structures (water tank replacement, fire pump house, wastewater disposal system) is estimated to be less than 14,150 cubic yards. Based upon the Soil Survey of Napa County, Ca prepared by the United States Department of Agriculture (USDA) the soils are composed of Perkins Gravelly Loam (168) and Boomer Gravelly Loam (109). Soils from the Perkins Gravelly Loam series (2-5 percent slope) consist of gently sloping soil on old terraces and alluvial plains, runoff is slow and erosion hazard is slight. Soils from the Boomer Gravelly Loam series (30- 0 percent slope) consist of steep soil on uplands, runoff is rapid and erosion hazard is moderate.

All on site civil improvements are required to 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: As discussed above, the project parcel is composed predominantly of Perkins Gravelly Loam (168) and Boomer Gravelly Loam (109). Soils from the Perkins Gravelly Loam series consist of gently sloping soils on old terraces and alluvial plains. Runoff is slow and erosion hazard is slight. Soils from the Boomer Gravelly Loam series consist of steep soils on uplands. Runoff is rapid and erosion hazard is moderate. The 2005 MND included a discussion on soil stability and determined that there is no presence of any landslides or soil creep areas on or within proximity of the project site. There are no

areas of critical concern or areas with serious erosion potential present. Additionally, the 2005 MND found that the soils onsite were not considered to be expansive.

Prior to issuance of project related grading and building permits, a geotechnical report must be submitted for review and acceptance by the Building Division. Requirements to obtain building permits for new structures and change in occupancy will ensure the project complies with the latest edition of the California Building Code; and that any potential instability related to construction of the project will be addressed so that no on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse occurs. Additionally, proposed earthwork will be designed in accordance with Engineering Division Conditions of Approval to ensure that grading and construction activities do not create unstable slopes. Erosion control measures would be implemented in accordance with the Napa Countywide Stormwater Pollution Prevention Program which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite. Thus, potential impacts relating to soil stability will be addressed through appropriate structural design and construction standards and as a result, will be reduced to less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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.

Discussion: See response to Subsection 7(c) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: A Wastewater Feasibility Study, dated April 2024, was prepared by Summit Engineering Inc. (Exhibit F), which outlines the required wastewater system to meet the needs of the proposed winery production, employees, visitation, and marketing programs. Note: In December 2025, the applicant withdrew their request to increase the annual production volume, however technical reports

predating this change, including the wastewater feasibility study, still contain information/analyses of a 35,000-gallon winery.

Currently, AXR Winery's sanitary sewage (employees, visitors, residents) and winery process wastewater is combined in a 1,500-gallon pump tank prior to being pumped to a conventional leachfield for disposal. The existing process wastewater treatment system is sized for a capacity of 1,000 gallons per day (GPD). The existing sanitary sewage system was designed for a flow rate of 420 GPD. The project proposes to segregate the process waste and sanitary sewage treatment systems so that process wastewater will no longer be sent to the existing wastewater treatment system. The project would result in increased sanitary sewage flow which is proposed to continue to be treated and disposed of via the existing septic/settling tanks and leachfield system. The Wastewater Feasibility Study estimates the project will generate 1,260 gallons of sanitary sewage on a weekend day with a 25-person marketing event. The current system is estimated to provide a total septic/settling tank volume of 5,700 gallons, or 4.5 days of retention time at peak flow rate on a day with a 25-guest event. The existing septic tanks are anticipated to provide sufficient capacity for the anticipated sanitary sewage flows and no additional volume is anticipated to be required. The plumbing will need to be reconfigured in some areas so that sanitary sewage flows into the tanks that are currently functioning as process wastewater settling tanks. These estimates are based on assumptions that full meals are not provided to tasting room visitors and all events are catered with all food preparation occurring offsite. To accommodate the proposed larger events and avoid excessive loading on the domestic wastewater system, Conditions of Approval require the winery to provide portable restroom facilities for the 75-person and 150-person events.

According to the Wastewater Feasibility Study, the existing disposal system includes 1,080 linear feet of conventional leach lines. There are nine 70-foot long lines and nine 50-foot long lines. The trenches are 36" deep, with 18" rock under pipe, and have an effective surface area of 4 square feet (sf)/linear foot (LF). Soils evaluation records indicate an acceptable soil depth of 72 inches; therefore the Wastewater Feasibility Study finds that the existing system provides the necessary 36" of acceptable soil below the bottom of the trench. Depending on the test pit, the soils evaluation reports a combination of silt loam with moderate to strong blocky structure and silty clay loam with moderate to strong blocky structure. An average hydraulic loading rate of 0.33 gal/sf/day was used in the system design calculations. The existing leachfield is evaluated to have a disposal capacity of 1,425 GPD and is anticipated to provide sufficient capacity for disposal of the anticipated sanitary sewage flows.
To accommodate the ongoing wine production of 20,000 gallons per year, a new process wastewater treatment system is proposed to be installed onsite. The winery is estimated to generate less than 1,200 GPD of process wastewater during peak flows (based on estimates for a 35,000-gallon wine production). As described in the Wastewater Feasibility Study, the new system would include a new

gravity collection system with screens on floor drains for solids removal in any new production areas, a process wastewater pump station (if needed to transfer process water from the collection system to the treatment system), and treatment and disposal through one of the following alternatives:

1. Treatment through a new package treatment system and disposal via a new subsurface drip disposal system.
2. Treatment through a new package treatment system, storage of treated PW, and reuse for vineyard irrigation.
3. Hold-and-haul.

The new process wastewater treatment system will be designed and installed in accordance with all necessary Napa County Planning, Building and Environmental Services (PBES) and Regional Water Quality Control Board (RWQCB) criteria and permits. It will also comply with the requirements of the State Water Resources Control Board General Waste Discharge Requirements for Winery Process Water ("General Order"). The Wastewater Feasibility Study demonstrates the site's existing soil characteristics would accommodate a peak process wastewater flow rate of 1,200 GPD and that there is sufficient space to accommodate a subsurface disposal field of approximately 3,000 square feet as well as a 200% reserve area (Option 1). The Study also demonstrates that the existing vineyard is larger than the approximate one-acre area required for the compliant land-application of treated process wastewater (Option 2). Finally, the study includes a hold-and-haul option (Option 3) which would utilize storage tanks and off-haul process wastewater to a facility such as East Bay Municipal Utility District (EBMUD) as the disposal option. The County's hold and haul guidelines require the holding tank to be sized to store seven days of peak process wastewater flow. Environmental Health Division Conditions of Approval have been included to ensure compliance with County and State requirements for disposal of wastewater, resulting in a less than significant impact.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Discussion: As discussed in the 2005 MND, no paleontological resources or unique geological features have been identified in the project area. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

8. GREENHOUSE GAS EMISSIONS:

Background information:

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)[7]. The updated thresholds 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 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.

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

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 (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 CEQA Guidelines and the LCI 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.

Would the project:

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?

Discussion: 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 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.

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 use of existing structures and the construction of approximately 17,200 square feet of new floor area dedicated to production uses (wine cave) and related access roads and driveway 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 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 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 17. (Transportation), the County maintains TIS Guidelines that include VMT analysis requirements for projects based on trip generation. According to the Traffic Impact Study prepared by GHD Inc. in December 2025 (Exhibit H), the project would generate less than 110 net new daily passenger vehicle and truck trips and is presumed to have a less-than-significant impact for VMT according to the LCI Technical Advisory and Napa County TIS Guidelines. However, the Traffic Impact Study recommends a Transportation Demand Management Plan to reduce the demand of vehicles to/from the site consistent with County General Plan policies and guidelines. See Section 17 (Transportation) for further discussion.

According to the checked Voluntary Best Management Practices Measures submitted with the project application, the applicant plans to implement the following GHG reduction strategies: exceed Title 24 energy efficiency standards and build to CALGREEN Tier 1, utilize energy conserving lighting, provide bicycle incentives, install water efficient fixtures, implement low-impact development principles and practices, comply with the Water Efficient Landscape Ordinance, install an electric vehicle charging

station, and limit the amount of grading and tree removal. GHG reduction strategies that are already being implemented on the property include composting 75% of food and garden material, recycling 75% of all waste, and utilizing electric vehicles in the winery's fleet. A condition of approval will be included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application.

The proposed tree removal is subject to GHG analysis required by General Plan Policy CON-65(e), as the proposed total tree removal would result in a loss of carbon sequestration capacity of the site. Tree removal associated with the project includes removal of up to five (5) White Oak trees and one (1) Blue Oak tree ranging in size from seven (7) inches in diameter at breast height (DBH) to 24 inches DBH from the Caltrans right-of-way, which collectively amounts to approximately 0.15 acres of canopy. Implementing Mitigation Measure VIS-1 (canopy retention) and standard tree protection conditions reduces the impacts of tree removal to a less-than-significant level.

By adhering to these relevant design standards identified by BAAD, the requirements of the California Building Code, and Conditions of Approval, the project would be consistent with the State's long-term climate goals of being carbon neutral by 2045. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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: See response to Subsection 8(a) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

9. HAZARDS AND HAZARDOUS MATERIALS:

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Discussion: 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: 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 environment. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Discussion: 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 (St Helena Unified – Robert Louis Stevenson Intermediate) is over 2 miles south of the project site in St. Helena. No impacts would occur.

Significance Level: No impact.

Mitigation Measures: None required.

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?

Discussion: 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.

Significance Level: No impact.

Mitigation Measures: None required.

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?

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

Significance Level: No impact.

Mitigation Measures: None required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Discussion: 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 modifications to the use permit. Proposed modifications to the driveway entrances will meet Napa County and California Department of Transportation (Caltrans) standards. The proposed winery modifications would not obstruct an emergency response or evacuation plan. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wild-land fires?

Discussion: The project is within the Moderate and High Fire Hazard Severity Zones and abuts the 2020 Glass Fire perimeter. Although the project would increase employees and visitation for by appointment tours and tastings, as well as the size and frequency of marketing events, resulting in a larger amount of people on site; the project will be designed to comply with applicable State and County Fire Codes. These include but are not limited to, a minimum 100-foot defensible space around all structures and a minimum 10-foot defensible space on both sides of the driveway, fire sprinklers in buildings, emergency vehicle access, and adequate on-site water supply dedicated to fire-fighting. The project also includes upgrading the existing driveway entrance to improve access and meet the Napa County Road and Street Standards (NCRSS) and California Fire Safe Regulations (FSR). Proposed access improvements aid in the safe ingress and egress of visitors and emergency personnel to and from the site. By requiring strict adherence to County Building and Fire Codes, and State Fire Safe Regulations, potential impacts would be reduced to less than significant. See Section 20 (Wildfire) for additional detail.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

10. HYDROLOGY AND WATER QUALITY:

Background information:
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.

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 outside GSA Subbasin/Hillside.

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 WAA guidance[8] 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 County's 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."[9]

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.

Would the project:

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[8] The County's Water Availability Guidelines (adopted May 2015)

[9] 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.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Discussion: As discussed in Section 7 (Geology and Soils) the project would not violate any water quality standards or waste discharge requirements. The project proposes to segregate the existing process waste and sanitary sewage treatment systems so that process wastewater will no longer be sent to the existing wastewater treatment system. A Wastewater Feasibility Study, dated April 2024, was prepared by Summit Engineering Inc. (Exhibit F) which concludes the existing wastewater treatment system will provide sufficient capacity for disposal of the anticipated sanitary sewage flows from the proposed number of employees, guests, and existing residents. To accommodate the proposed larger events and avoid excessive loading on this domestic wastewater system, Conditions of Approval require the winery to provide portable restroom facilities for the 75-person and 150-person events.

To accommodate the ongoing wine production of 20,000 gallons per year, a new process wastewater treatment system is proposed to be installed onsite. As described in the Wastewater Feasibility Study, the new system would include a new gravity collection system with screens on floor drains for solids removal in any new production areas, a process wastewater pump station (if needed to transfer process water from the collection system to the treatment system), and treatment and disposal through one of the following alternatives: treatment through a new package treatment system and disposal via a new subsurface drip disposal system (Option 1); treatment through a new package treatment system, storage of treated process water, and reuse for vineyard irrigation (Option 2); or hold-and-haul (Option 3). See Section 7 (Geology and Soils) and Exhibit F for additional detail.
The new process wastewater treatment system will be designed and installed in accordance with all necessary Napa County Planning, Building and Environmental Services (PBES) and Regional Water Quality Control Board (RWQCB) criteria and permits. The facility will also have to enroll for coverage under of the State Water Resources Control Board General Waste Discharge Requirements for Winery Process Water ("General Order") 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. Impacts would be less than significant. 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Discussion: A Water Availability Analysis (WAA) was prepared by EBA Engineering on July 25, 2024 (Exhibit E). As directed by the County's WAA Guidance Document dated May 2015 and the Interim Standards, the report includes Tier 1 calculations for the existing and proposed water uses, a groundwater recharge analysis, a Tier 2 well and spring interference analysis, and a Tier 3 groundwater/surface water interaction analysis. Details on the Tier 1, 2 and 3 analyses are provided below.

Background:

This summary accounts for project site modifications since the original 2004 winery use permit (#P04-0541) and the applicant's withdrawal of the request to increase annual wine production from 20,000 to 35,000 gallons. Technical reports predating this withdrawal—including the WAA—still contain data regarding the proposed increase. Additionally, the WAA (Exhibit E) utilizes the 2004 baseline water demands; however, following the 2008 removal of two cottages, current water demands are assumed to be lower than this 2004 baseline. Additional site changes include a minor 0.2-acre vineyard expansion.

There are three existing water supply wells on the property, one of which currently supplies all water use onsite. The other two wells are no longer in use. Of these two, one is proposed to be destroyed via a well demolition permit and the other well is proposed to remain as a potential backup well or be destroyed. Per Engineering Division Conditions of Approval, a backup well is allowed pursuant to Napa County Code 13.12.460(B), however it cannot be used for the project without first submitting a Tier 2 and Tier 3 analysis to the PBES Engineering Division for review. A fourth well on the property was destroyed in 2007. The property also has a historic spring water right that is no longer in use (located offsite, within Hirsch Creek).

Summary of wells and springs on-site:

- Project Well – Located in southwestern portion of the property and supplies all water uses onsite. The well has a completed depth of 699 feet, an annular seal of 62 feet, and a 6-inch casing. At the time of completion in 2018, the well yielded 125 gallons per minute during a 2 hour air lift pump test. Permit #E18-00508; State Permit WCR e0367373.
- Proposed Backup Well - Located near SR 29. Engineering Division Conditions of Approval require a Tier 2 and Tier 3 Analysis prior to utilizing this well for the project.

- Well to be Destroyed - Located in winery building complex. Engineering Division Conditions of Approval require a well destruction permit.
- Destroyed Well – Located adjacent to barrel storage building. Destroyed in 2007 under permit #E07-00318.
- Historic Spring – Located on the adjacent parcel at 3131 St. Helena Hwy. N.; approximately 600 feet west of the project well within Hirsch Creek. No longer in use.

Tier 1 (Water Use / Parcel Specific Recharge Analysis):
The Tier 1 analysis refers to the 2004 WAA baseline for existing water demands and considers existing uses onsite to include residential, winery uses (production, visitation, marketing), vineyard, and landscaping. As mentioned previously, the property's current water demands are estimated to be lower than the 2004 WAA as two of the cottages were removed in 2008 through the winery's use permit modification process. The summary provided below summarizes the existing and proposed total groundwater usage based on a combination of information presented in the WAA, revisions made to AXR Winery's use permit application, and permit history/County records.

The project proposes to change existing water use demands by 1) converting an existing 2-bedroom residence to winery office use; 2) increasing the number of winery employees and visitation as well as marketing event size and frequency; and 3) planting olive trees and manzanita shrubs for cave portal screening. No changes are proposed to the existing three residential cottages nor the previously approved wine production volume.

Water Usage Assumptions:

Residents (three 2-bedroom residences, one 1-bedroom residence):

- Existing: 7 residents based on bedrooms
- Proposed: 5 residents based on bedrooms
- Units: 150 gallons of water per resident per day

Landscaping:

- Existing: Domestic and Winery Landscaping throughout property
- Proposed: Cave portal screening vegetation consisting of 9 olive trees and approximately 2,000 square feet of manzanita shrubs
- Units: 0.5 AFY of water per 100,000 gallons of wine produced for winery landscaping; 2.5 gallons of water per olive tree per week, and 0.1 AFY of water per 2,000 square feet of shrubs

Vineyard:

- Existing: 3.5+/- acres

- Proposed: Removal of 0.18+/- acres of vineyard
- Units: 0.24 AFY of water per acre of vineyard

Wine Production:

- Existing: 20,000 gallons per year
- Proposed: no change
- Units: 6 gallons of water per gallon of wine produced (industry standard)

Employees:

- Existing: 2 full-time and 2 part-time employees
- Proposed: 12 full-time (7 days per week average) and 5 part-time employees (2 days per week average)
- Units: 15 gallons of water per employee per day

Visitation:

- Existing: 20 people per day
- Proposed: 60 people per day
- Units: 3 gallons of water per person per day

Marketing Events:

- Existing: 570 event guests per year
- Proposed: 1,350 event guests per year
- Units: 15 gallons of water per event guest

Existing and Proposed Groundwater Usage:
Residents:

- Existing: 1.1761 AFY (383,250 gal.)
- Proposed: 0.8401 AFY (273,750 gal.)
- Difference: -0.336 AFY (-109,500 gal.)
- Note: This estimate includes the existing main residence and proposed conversion to winery office use. The WAA inadvertently omitted the existing 2-bedroom main residence that is attached to the winery.

Landscaping:

- Existing: 0.175 AFY (57,023 gal.)

- Proposed: 0.278 AFY (90,586 gal.)
- Difference: +0.103 AFY (+33,563 gal.)
- Note: This estimate includes the project's proposed cave portal screening vegetation. Water use assumptions are based on typical gallonage for olive trees and the County's WAA Guidelines. The WAA assumes no changes to landscaping; however, the applicant modified the application to include nine (9) 24-inch box 'Swan Hill' olive trees and 15-gallon manzanitas 'sunset' shrubs (estimated to cover approx. 2,000 square feet).

Vineyard:

- Existing: 0.85 AFY (276,973 gal.)
- Proposed: 0.85 AFY (276,973 gal.)
- Difference: No change
- Note: The WAA finds that the 2004 WAA estimate of 0.85 AFY for the vineyard remains valid for the existing vineyard. Since approval of the 2004 WAA, the vineyard was expanded by approximately 0.2 acres in size, from 3.3-acres to approximately 3.5 acres. Applying 0.85 AFY to a 3.5-acre vineyard results in approx. 0.24 AFY of groundwater used per acre of vineyard, which is within the County's WAA Guidelines range of 0.2 AFY to 0.5 AFY.

Wine Production:

- Existing: 0.368 AFY (120,000 gal.)
- Proposed: 0.368 AFY (120,000 gal.)
- Difference: No change
- Note: This estimate reflects no change in existing production as requested in the applicant's modified proposal statement submitted in December 2025. The WAA predates this modification and as such, still contains information/analyses of increased wine production.

Employees:

- Existing Full-Time: 0.0336 AFY (10,950 gal.)
- Proposed Full-Time: 0.2016 AFY (65,700 gal.)
- Existing Part-Time: 0.0095 AFY (3,120 gal.)
- Proposed Part-Time: 0.0239 AFY (7,800 gal.)
- Difference: +0.1824 AFY (+59,430 gal.)

Visitation:

- Existing: 0.0672 AFY (21,900 gal.)

- Proposed: 0.2016 AFY (65,700 gal.)
- Difference: +0.1344 AFY (+43,800 gal.)

Marketing Events:

- Existing: 0.0262 AFY (8,550 gal.)
- Proposed: 0.0621 AFY (20,250 gal.)
- Difference: +0.0359 AFY (+11,700 gal.)
- Note: This estimate is conservative as it does not reflect the proposed tasting room closures/reduced service on event days. During 25-person events, tasting room visitation will be limited to 35 people, thereby not exceeding 60 people per day. On days with larger events, the tasting room will be closed.

GROUNDWATER USAGE TOTAL:

Existing: 2.7056 AFY. Note: This estimate does not include water demands for Cottage #5 and Cottage #6 as these cottages were removed in 2008 (Demo Permit #B8-00562). The WAA relies on the 2004 WAA baseline for existing total water demands which was estimated to be 3.62 AFY prior to demolition of the cottages.

Proposed: 2.8253 AFY

Difference: +0.1197 AFY

Parcel Specific Recharge: The project well is approximately 650 feet west of the Napa Valley Subbasin (GSA). As the entire project parcel is outside of the GSA, a parcel specific recharge calculation was prepared. In calculating the recharge for the 7.85-acre parcel, the project WAA quantifies the amount of average annual rainfall infiltrating to the underlying aquifer based on the average rainfall data collected from 2012 to 2021 provided by the Oregon State University PRISM Climate Group (34.35 inches per year), estimated losses to runoff, and estimated losses to evapotranspiration. The WAA estimates the recharge rate for this 7.85-acre property to be 28.6% (or 0.8 AFY per acre of land), resulting in a total annual recharge rate of 6.42 AFY for the property. Based on the project's estimated groundwater demand of approximately 2.82 AFY, the WAA finds that the total project groundwater usage equates to approximately 47% of the water available for recharge and therefore passes the Tier 1 screening criteria.

Tier 2 (Well and Spring Interference Analysis):
The latest Interim Napa County Well Permit Standards and WAA Requirements require an interference analysis for any proposed increase in groundwater use occurring from project wells within 500 feet of any offsite well or 1,500 feet from any off-site spring. The nearest offsite well (WCR 119541) is

approximately 345 feet east of the project well and was used in the WAA's Tier 2 analysis in accordance with County Guidelines. The WAA finds that the total project estimated groundwater demand (approximately 2.82 AFY) is equivalent to a maximum daily water demand of approximately 6,278 GPD[10].

According to the WAA, the pumping duration required to meet the maximum daily water demand was estimated based on an average corrected yield (42 GPM) from the data collected from the WCRs of water supply wells located in close proximity to the project site. At an average conservative pumping rate of 42 GPM, approximately 149 minutes (approximately 2.5 hours) of pumping is required to reach the maximum daily water demand.

Well Interference: Based on the aquifer characteristics described in the WAA and the pumping duration required to meet the proposed project maximum daily water demand (149 minutes), the distance-drawdown model used in the WAA predicts approximately ten feet of drawdown at a distance of 22 feet, and zero drawdown at 50 feet from the project well. According to Table 2B of the WAA Guidance document and Napa County Well Permit Standards – Applicability Tables, any neighboring well(s) (≤6-inch diameter casing) within 500 feet of a project well, screened within the same aquifer as the project well, must have an estimated drawdown of 10 feet or less. The WAA demonstrates that the project well must be located no less than approximately 22 feet from any nearby groundwater well(s) to be in conformance with Napa County Guidelines. The project well is over 300 feet from the nearest well, thereby passing the Tier 2 well interference screening criteria.

Spring Interference: Four or more springs are within 1,500 feet of the project well with the closest spring located approximately 600 feet west of the project well, within Hirsch Creek. According to the WAA, the project property has a historical water right to this spring. The WAA finds that, given the lack

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[10] The WAA prepared by EBA Engineering Inc. (Exhibit G) analyzes an increase in wine production from 20,000 to 35,000 gallons per year and omits the project's proposed screening vegetation. As mentioned throughout this initial study, the project no longer proposes to increase wine production. Additionally, new landscaping is required to screen cave portals from public views. By removing the wine production increase (15,000 gallons of wine), the maximum daily water demand for winery process water is estimated to be 5,785 GPD (a 493 GPD decrease). By adding the proposed screening vegetation, the maximum daily water demand for landscaping is estimated to be 248 GPD (a 92 GPD increase). These adjustments demonstrate the project's total maximum daily water demand can be lowered to 5,877 GPD; however, to assess potential worst-case impacts, this study utilizes the more conservative estimate of 6,278 GPD.

of stream depletion in Hirsch Creek as a result of pumping from the project well for the proposed project (discussed further in the Tier 3 analysis below), no spring interference is anticipated for any natural spring in the area. The WAA further concludes that there is no drawdown from pumping the project well at a distance of 155 feet which correlates with no anticipated spring interference, thereby passing the Tier 2 spring interference screening criteria.

Tier 3 (Groundwater/Surface Water Interaction):
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. The latest Interim Napa County Well Permit Standards and WAA Requirements require an analysis of potential groundwater to surface water interaction for new, altered, or increased groundwater use occurring from project wells within 1,500 feet of any County-identified Significant Stream inside the Napa River Watershed. As discussed above, the project well is approximately 400 feet from Hirsch Creek, the nearest Significant Stream. The WAA includes a stream interference analysis which finds that drawdown from the pumping of the project well should not extend past a linear distance of 155 feet when pumping at a rate of 42 GPM for approximately one day. The streamflow depletion model used in the WAA does not indicate stream depletion at a distance of 400 feet from the project well to Hirsch Creek.

Because the project well is within 1,500 feet of a designated significant stream, Napa County has conditioned the project to limit the project to 2.82 AFY that may be pumped from the project well at a maximum rate of 42 gallons per minute, which aligns with the project's WAA and satisfies the County's Public Trust duties.

Additionally, impacts to water resources are further reduced by standard Conditions of Approval which require new landscaping exceeding 2,500 square feet complies with the County's Water Efficient Landscaping Ordinance (Chapter 18.118 of the County Code).

Based on the analysis presented in the WAA and recommended Conditions of Approval, 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.

The project, if approved, would be subject to the following Conditions of Approval:

4.9 GROUND WATER MANAGEMENT – WELLS
This condition is implemented by the Planning, Building and Environmental Services (PBES) Department:

The permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water withdrawn no less than monthly). Such data will be provided to the County, if the Director of Planning, Building, and Environmental Services (PBES Director) determines that substantial evidence[11] indicates that water usage at the project is affecting, or would potentially affect, groundwater supplies or nearby wells. If data indicates the need for additional monitoring, and if the applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

In order to support the County's groundwater monitoring program, well monitoring data as discussed above will be provided to the County if the Director PBES determines that such data could be useful in supporting the County's groundwater monitoring program. The project well will be made available for inclusion in the groundwater monitoring network if the Director of PBES determines that the well could be useful in supporting the program.

In the event that changed circumstances or significant new information provide substantial evidence[1] that the groundwater system referenced in this 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.

6.15(e) Groundwater Demand Management Program:

1. *The owner/permittee shall install a flow regulation device on the project well limiting the pumping capacity to not exceed 42 gallons per minute. Documentation of the installation of the flow regulation device shall be provided to the County prior to building permit final occupancy.*
2. *The permittee shall install a meter on the project well (WCR e0367373). The meter shall*

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[11] 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.

be placed in a location that will allow for the measurement of groundwater used from the project well. Prior to the issuance of building permits for the winery and associated structures, as approved under this permit, 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 project well.

3. *The Plan shall identify how best available technology and best management water conservation practices will be applied throughout the parcel.*
4. *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.*
5. *As groundwater consuming activities 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 permit.*
6. *For the first twelve months of operation under this permit, the permittee shall read the meter at the beginning of each month and provide the data to the PBES Director monthly. If the water usage from the project well exceeds, or is on track to exceed, 2.82 acre-feet per year, 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 and shall be submitted to the PBES Director for review and action.*
7. *The permittee's well shall be included in the Napa County Groundwater Monitoring program if the County finds the well suitable.*
8. *At the completion of the reporting period per 6.16(a)(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:*
    - *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 meter during regular business hours. Upon continued increases in operations approved under this permit, the PBES Director, or the Director's designated representative, has the right to revise the data submittal schedule.*

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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 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; or

iv. Impede or redirect flood flows?

Discussion: The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20.) 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 building 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 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 proposed project would implement standard stormwater quality treatment controls to treat runoff prior to discharge from the project site. An estimated 14,150 cubic yards of cave spoils are proposed to be disposed of in the onsite vineyard and by hauling offsite. 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 Engineering Division. 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. The parcel is not located in an area that is known to be subject to inundation by tsunamis, seiches, or mudflows. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Discussion: See response to Subsection 10(c) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Discussion: In January 2022 the Groundwater Sustainability Agency (GSA) submitted a Groundwater Sustainability Plan (GSP) to the Department of Water Resources (DWR). DWR approved the GSP on January 26, 2023 with a few minor corrective actions. The GSP must be updated every five years. The first five-year update is due to DWR in 2027. Annual reporting is required to demonstrate implementation actions and progress towards either achieving or maintaining groundwater sustainability.

As discussed above, the project is outside of the GSA and would result a total groundwater use approximately 2.82 AFY which represents less than 50% of the property's estimated total annual recharge rate. Water quality would be maintained through standard stormwater quality treatment control measures and compliance with Engineering Division Conditions of Approval. Impacts would therefore be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

11. LAND USE AND PLANNING:

Would the project:

a) Physically divide an established community?

Discussion: 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 AW (Agricultural Watershed) 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 AWOS (Agriculture, Watershed, and Open Space), 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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: See response to Subsection 11(a) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

12. MINERAL RESOURCES:

Would the project:

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?

Discussion: 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.

Significance Level: No impact.

Mitigation Measures: None required.

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: See response to 12(a) above.

Significance Level: No impact.

Mitigation Measures: None required.

13. NOISE:

Would the project result in:

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?

Discussion: The project would result in a temporary increase in noise levels during grading and construction activities for the proposed wine cave, cave portal access road, and SR 29 road widening. 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 proposed construction activities is about 150 feet from the project site to the southeast at 3169 St.

Helena Hwy (APN 022-080-013). Due to the existing vineyard management activities and winery operations, as well as the ambient noise levels from St. Helena Hwy (SR 29), construction activities are not expected to result in substantial temporary or long-term construction noise impacts. Further, construction activities would occur during the period of 7 a.m. – 7 p.m. 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."*

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 within vicinity of the project are rural residential properties, vineyards, wineries, and undeveloped parcels with forestland to the west. Of those 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.), the timeframe within which the winery would have visitation and marketing events. Noise impacts of the 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).

Noise from winery operations is generally limited and intermittent, meaning the sound level can vary during the day and over the course of the year, depending on the activities at the winery. The primary noise-generating activities are equipment associated with wineries including refrigeration equipment,

bottling equipment, barrel washing, de-stemmers and press activities occurring during the harvest crush season, delivery trucks, and other vehicles. The Napa County General Plan EIR indicates the average, or equivalent, sound level (Leq) for winery activities is 51dBA in the morning and 41dBA in the afternoon. Audibility of a new noise source and/or increase in noise levels within recognized acceptable limits are not usually considered to be significant noise impacts, but these concerns should be addressed and considered in the planning and environmental review processes.

The project proposes to relocate wine production from the barrel storage building into new wine caves. This move increases the distance from the nearest northern residence (3225 St. Helena Hwy 022-080-026) by approximately 190 feet, shifting activity from its current location 95 feet away to a total distance of 285+/- feet. Existing topography and vegetation will provide shielding between the cave portals and residences located approximately 200-220 feet to the south and southeast (3131 N. St. Helena Hwy, APN 022-070-032 and 3169 St. Helena Hwy, APN 022-080-013, respectively). Additionally, the existing winery production capacity will remain at a maximum of 20,000 gallons per year and production hours of operation will remain between 8:00 a.m. to 6:00 p.m., seven days a week (excluding harvest), which is during normal hours of human activity. Noise generated by winery production activities is limited and intermittent and will be further reduced by managing all production activities and locating mechanical equipment inside the new wine caves, excepting the preapproved storage space in the winery building. Noise resulting from winery truck traffic is expected to remain unchanged as the project does not result in increased wine production. Based on the Winery Trip Generation form included in the County's Traffic Impact Study Guidelines, truck traffic trips generated from a 20,000-gallon winery do not typically exceed more than an average of one truck trip per day during normal operations and two truck trips per day during harvest. Furthermore, no new permanent parking areas are proposed; employees will continue to park in existing parking stalls onsite. For these reasons, noise impacts resulting from relocating production activities onsite would be considered insignificant.

Other noise-generating sources include increases in staffing, visitation, and the size and frequency of marketing events, along with their associated parking demands. The project's potential noise impacts on the three nearby residences are analyzed in detail below.

Nearby noise-sensitive receptors:

- Residence to the North (3225 St. Helena Hwy): Located approximately 80 feet from the nearest proposed outdoor tasting area (northern tasting area), 95 feet from the proposed Hospitality building (currently the Barrel Storage building), 140 feet from the nearest existing parking area, and 85 feet from the nearest proposed overflow parking area.

- Residence to the South (3131 N. St. Helena Hwy): Situated approximately 270–300 feet from the proposed southern outdoor tasting area and patio (adjacent to the Hospitality building), over 300 feet from the proposed Hospitality building and northern outdoor tasting area, and 225–250 feet from the nearest existing and proposed parking areas.
- Residence to the Southeast (3169 St. Helena Hwy): Located approximately 530–550 feet from proposed outdoor tasting areas and Hospitality building, and 300-400 feet from the nearest existing and proposed parking areas.

Noise generating uses (visitation/marketing) proposed:

- **Northern Outdoor Tasting Area:** The northern outdoor tasting area (approximately 950 square feet) would accommodate daily tastings, onsite consumption, and marketing events for groups of approximately 30 people. Although it is situated nearest to the closest offsite residence (approximately 80 feet) acoustic analyses from comparable projects indicate that 30 people in raised conversation with non-amplified background music typically generate 56 dBA at a 50-foot distance. Following the 'inverse square law', where noise attenuates by 6 dBA for every doubling of distance (e.g., 56 dBA at 50 feet, 50 dBA at 100 feet, 44 dBA at 200 feet), sound levels from this northern tasting area would be expected to reduce to approximately 52 dBA at an 80-foot distance in an unobstructed environment. However, noise from this tasting area is expected to be further reduced by existing riparian vegetation along Hirsch creek, which provides a natural sound buffer, and softened by ambient traffic noise from SR 29 (estimated at 50–55 dBA based on County GIS Noise Contour layers).

  Sound levels from the northern tasting area are projected to dissipate well below the 50 dBA daytime threshold at the other nearby residences to the south and southeast due to distance (exceeding 300 feet) and buffering provided by intervening buildings, natural topography and vineyards.

  To ensure compliance with daytime noise standards, recommended Conditions of Approval limit the northern tasting area to a 30-person capacity and prohibit outdoor amplified music. Daily visitation is restricted to 6:00 p.m., while marketing events must conclude by 10:00 p.m. to facilitate quiet cleanup by 11:00 p.m.

- **Hospitality Patio and Southern Outdoor Tasting Area:** Two outdoor tasting areas are proposed: the Hospitality building's patio and an area immediately to its south. These spaces will accommodate groups for daily tastings, onsite consumption, and marketing events, and are expected to comply with the Noise Ordinance. The hospitality building provides structural shielding for the northern neighbor (approximately 130 feet away), while mature vegetation,

vineyards, and topography buffer residences to the south (over 270 feet away). Even at a maximum capacity of 150 guests (largest event proposed), generating an estimated 64 dBA at 50 feet (based on acoustic analyses from comparable projects), noise is projected to dissipate below the 50 dBA threshold before reaching any residence. As previously noted, Conditions of Approval prohibit outdoor amplified music and restrict activities to daytime hours to ensure continued compliance.

- **Hospitality Building:** The project proposes converting the existing Barrel Storage building to hospitality uses, including tastings and marketing events. The structure is approximately 95 feet from the nearest residence to the north and over 300 feet from neighbors to the south. Acoustic analyses from comparable projects indicate that typical amplified music (72 dBA at 50 feet) can be reduced by 12 dBA with open windows and doors, or 20 dBA when they remain closed. Under a worst-case scenario—a 150-guest event with doors and windows open—indoor amplified music would be expected to generate 54-55 dBA at the nearest residence in an unobstructed environment. While riparian vegetation and SR 29 traffic noise provide some buffering, amplified music could still exceed the 50 dBA daytime threshold. Accordingly, the Conditions of Approval require that the Hospitality building's doors and windows remain closed during marketing events with amplified music.

- **Parking:** Noise levels from increased vehicle traffic are not expected to rise significantly, as the existing parking lot configuration will remain unchanged except for the removal of five spaces. Furthermore, the project does not propose the use of buses (i.e. full-size tour bus, motorcoach) which generate higher decibel levels than passenger and sprinter-van style vehicles. Operational measures, such as staggered daily wine tastings and a 10:00 p.m. event cutoff, will further minimize impacts.

  Acoustic analyses from comparable projects indicate that typical parking lot activities such as engine starts, door slams and low speed vehicle movements typically produce maximum sounds levels ranging from 53 dBA (e.g. car idling) to 63 dBA (e.g. car horn) at 50 feet. Potential noise impacts resulting from parking lot activities are discussed further below.

  - The preliminary Event Parking Plan in Exhibit J proposes a new overflow area for 5–6 vehicles along the winery driveway, roughly 85 feet from the northern residence. In an unobstructed environment, noise levels at this distance are estimated at 48–58 dBA. Although riparian vegetation and SR 29 traffic provide some buffering, parking noise may still exceed the 50 dBA daytime threshold at the northern residence. Consequently, the Conditions of Approval prohibit parking in this location.

- The existing parking lot immediately behind the winery (historic Hirsch residence) is approximately 140 feet from the northern residence. In an unobstructed environment, noise levels at this distance are estimated at 44–54 dBA; however, existing riparian vegetation and ambient traffic from SR 29 (estimated at 50–55 dBA) will provide further attenuation. Although the project will increase overall site traffic, the applicant proposes reducing this specific lot from ten (10) spaces to five (5). As such, noise levels are not expected to change significantly from existing conditions. To ensure ongoing compliance with noise standards, the Conditions of Approval restrict visitation and marketing event activities to daytime hours.
- The third nearest parking area, located south of Cottage #7, provides 5–6 new overflow spaces approximately 160 feet from the northern offsite residence. In an unobstructed environment, noise levels at this distance are estimated at 43–53 dBA. However, existing riparian vegetation and ambient traffic from SR 29 (estimated at 50–55 dBA) will further attenuate these impacts. To ensure compliance with noise standards, the Conditions of Approval restrict visitation and marketing event activities to daytime hours.
- All other existing and proposed parking areas are located more than 225 feet from neighboring residences. At this distance, noise levels in an unobstructed environment are estimated at 40–50 dBA. These impacts will be further attenuated by a combination of intervening vineyards, vegetation, topography, buildings, and ambient traffic from SR 29. To ensure continued compliance with the Noise Ordinance, the Conditions of Approval restrict visitation and marketing event activities to daytime hours.

Since the original use permit was approved and built out (ca. 2013), the existing facility has generated noise from winery production, parking, visitation and marketing activities with no formal complaints received from neighbors (per County Code Enforcement records). 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 the proposed changes to visitation and marketing events do not create a significant noise impact. As discussed above, project Conditions of Approval require events and non-amplified music to finish by 10:00 p.m., with quiet cleanup finished by 11:00 p.m. in accordance with the Exterior Noise Limits Table under Section 8.16.070 of the County Code. Amplified music or sound systems would not be permitted for outdoor events as identified in Standard Condition of Approval 4.10 below. Conditions of Approval also require doors and windows of the Hospitality building remain closed during marketing events involving amplified music to ensure compliance with the County Noise Ordinance. Temporary events would be subject to County Code Chapter 5.36 which regulates proposed temporary events. The proposed project would not result in long-term significant permanent noise impacts.

"4.10 AMPLIFIED MUSIC

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

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Discussion: See response to Subsection 13(a) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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: The project site is not located within the influence area of the Napa County Airport, according to the Airport Land Use Compatibility Plan: the closest airport to the subject parcel is the Angwin Airport located over 4-miles to the northeast. No impacts would occur.

Significance Level: No impact.

Mitigation Measures: None required.

14. POPULATION AND HOUSING:

Would the project:

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)?

Discussion: 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 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. Thirteen (13) additional employees are requested as part of the project which could lead to negligible 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 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.

Additional employees and visitors to the winery could increase demand for group transportation services to the winery, though the potential for employment changes of other businesses 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Discussion: This application will displace a two-bedroom residence on the property by converting this space to winery office use. The proposed project will not displace a substantial number of people and will not necessitate the construction of replacement housing elsewhere. A less than significant impact would occur.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

15. PUBLIC SERVICES:

Would the project result in:

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?

iii. Schools?

iv. Parks?

v. Other public facilities?

Discussion: Public services are currently provided to the project site and the additional demand placed on existing services would be marginal. Fire protection measures are required as part of the development pursuant to Napa County Fire Marshal conditions and there will be no foreseeable impact to emergency response times with the adoption of standard Conditions of Approval. The Fire Department and Engineering Services Division have reviewed the application and recommend approval as conditioned. School impact mitigation fees, which assist local school districts with

capacity building measures, will be levied pursuant to building permit submittal. The proposed project will have little to no impact on public parks. 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

16. RECREATION:

Would the project:

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?

Discussion: 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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: No new public recreational amenities are proposed to be built with, or as a result of, the requested use permit 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.

Significance Level: No impact.

Mitigation Measures: None required.

17. TRANSPORATION:

Would the project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Discussion: 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 dated February 2022, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips. Prior to 2022, the County's TIS Guidelines required a Traffic Impact Study if the total net new daily trips exceeded 40 trips.
The project proposes to increase the winery's existing full-time (2) and part-time employees (2) as follows:

- Weekdays – 6 full-time employees during harvest; 4 full-time employees outside of harvest; and 2 part-time employees year-round.
- Weekends – 12 full-time employees and 5 part-time employees year-round.

Additionally, visitation would increase by 40 guests per day during harvest, from 20 visitors to 60 visitors for a maximum of 420 guests per week. Outside of harvest, daily visitation would increase by 20 guests per day to a maximum of 40 visitors, resulting in 280 guests per week. Finally, the requested marketing activities would include 31 annual events (ranging in size from 25 – 150 guests) with a total annual attendance of 1,350 guests. Based on the County's Trip Generation worksheet, the winery currently generates an average of 18 (non-harvest) to 28 (harvest) Weekday Daily Trips and 25 (non-harvest) to 27 (harvest) Weekend Daily Trips. Per the Trip Generation worksheet[12], the proposed increase in employees, visitation and marketing events would result in a maximum of 62 new Weekday Daily Trips and 82 new Weekend Daily Trips. Although the estimated trip generation does not exceed 110 net new daily trips, the project was required to prepare a full Traffic Impact Study under the previously adopted TIS Guidelines.

Project History:

[12] On February 25, 2026, the applicant shifted the schedule to increase weekend employee trips and reduce weekday trips. Despite these changes, the GHD, Inc. Traffic Impact Study (Exhibit H) remains conservative, as its analysis is based on a higher total trip volume than what is currently proposed.

As discussed previously, the Planning Commission adopted an MND for the original 2005 winery use permit. The 2005 MND (Exhibit B). At that time a left turn lane on SR 29 was required. Subsequently, the requirement for a left turn lane was replaced with an equivalent "No Left Turn" arrangement as accepted by Caltrans. The "No Left Turn" arrangement was approved under Caltrans encroachment-permit #04-06 6MC 2098 which resulted in elimination of two non-historic cottages (to reduce trips), installation of two "No Left Turn" signs at the winery driveway, and other driveway changes to make turning left in and out of the project difficult. Thus, the winery's two driveways are currently restricted to one for entering and the other for exiting, with only right-turns on SR 29 allowed. The winery commenced operations between 2010 and 2013 after fulfilling all mitigation measures and Conditions of Approval regarding SR 29 access from the 2008 use permit modification.

Proposed Project/Traffic Impact Study:
According to the updated Traffic Impact Study prepared by GHD Inc. on December 12, 2025 (Exhibit H), the proposed project would generate up to 92 net new daily passenger vehicle and truck trips[13]. The Traffic Impact Study (TIS) found that all four SR 29 study intersections (Bale Lane, AXR Napa Valley north and south driveways, and Lodi Lane) experience accident rates slightly lower than the State average for similar facilities based on the number of "rear-end" and "broadside" accidents. According to the TIS, a five-year collision analysis conducted for the segment of State Route 29 adjacent to proposed project driveways indicates that there is not a vehicle collision issue associated with vehicle access to/from the highway. The roadway segment collision analysis evaluated SR 29 1,000 feet north and south of the AXR Napa Valley driveways. None of the four study intersections qualify for the peak hour signal warrant under any "with project" scenarios including Existing, Near-Term, and Cumulative Year 2040 conditions. With proposed project traffic, the study intersections would remain unchanged from "No Project" levels under Existing, Near- Term, and Cumulative Year 2040 conditions.

To reduce the demand of vehicles to/from the site consistent with Napa County General Plan policies, the VMT/Travel Demand Transportation reduction plan proposed by GHD Inc. has been incorporated into project Conditions of Approval. To improve overall project circulation improvements, the project proposes a new northbound left-turn lane on St. Helena Highway to serve the winery's south driveway entrance. The TIS finds that significant improvements in intersection Level of Service (LOS) and safety

[13] The GHD, Inc. Traffic Impact Study (Exhibit H) assumes an increase in wine production (to 35,000 gallons) and more part-time employees than currently proposed. In contrast, this project maintains production at 20,000 gallons and limits weekday part-time staff to five. While removing these extra trips would reduce the total net daily trips from 92 to 82, this initial study utilizes the more conservative 92-trip estimate to assess the potential worst-case impact.

at the project's south driveway would be realized due to the proposed construction of the northbound left-turn on SR 29.

To meet current County and State standards, the project will result in widening of the existing driveway and construction of a new northbound left-turn lane on SR 29 at the winery's south driveway entrance. The updated left turn lane warrant analysis for the project utilized 2023 Caltrans traffic flow volumes for State Route 29[14] which report 15,700 Average Annual Daily Trips. The TIS finds that, based on the "Left Turn Lane Warrant Graph" in the County's TIS Guidelines, any driveway along SR 29 with an Average Annual Daily trip over 20 would require a left turn lane. As the project is estimated to generate 92 new daily trips at the south driveway, installation of the proposed northbound left-turn lane is required. To accommodate the new left turn lane, SR 29 will need to be widened which will cause removal of non-historic portions of the rock wall and up to six (6) oak trees from the existing right-of-way (see Sections V. Cultural Resources, I. Aesthetics and IV. Biological Resources for further discussion on rock wall and tree removal). Approximately 10 feet of the SR 29 right-of-way would expand into the project parcel.

Proposed signage for the site will direct inbound vehicles to the south driveway, circulate and/or park on the site, then exit outbound from the north project driveway thus limiting the south project driveway to inbound access only for northbound left-turns and southbound right-turns. The north project driveway will be limited to outbound access only for eastbound right-turn movements from the site (south on SR 29). The south project driveway will be signed for outbound flow "Do Not Enter" for internal traffic flow with sign(s) facing west towards the main Winery on-site building to prevent outbound flow. For the north project driveway, current driveway signage and limited vehicle access (right-turns-only) outbound would remain unchanged from existing conditions. The north project driveway is currently signed for "No Left-Turn" and "Do Not Enter" for vehicles on SR 29. In addition, outbound motorists are instructed for "Right-Turns Only".

The TIS prepared by GHD Inc. demonstrates that Caltrans' sight distance recommendations will be met for the SR 29 speed limit and measured vehicle speeds. Additionally, GHD Inc. finds that the project design as proposed will result in the following benefits:

1. Disperse project-generated daily and peak hour vehicle trips;

[14] The Left-Turn Lane Warrant Analysis is based on State Route 29 traffic volumes as shown on the Left Turn Lane Warrant Graph and subsequent Tables in Appendix F of the Traffic Impact Study prepared by GHD, Inc. (Exhibit H). Note: This study contains several typos that refer to "Deer Park Road" instead of "State Route 29" (see pages 5 and 29; and Appendix F page 2).

2. Improve vehicle safety and access at the south project driveway for northbound left-turn movements from the primary access highway (SR 29) by providing a dedicated left-turn lane;
3. Provide more uniform one-way traffic flow within the project site with clear inbound/outbound directions

To reduce traffic impacts to a less-than-significant level, Mitigation Measure TRANS-1 requires completion of the left-turn lane before increasing daily site trips. Installation of the left-turn lane will ensure the safety of turning movements onto the site and maintain the existing flow of traffic so that the traffic flow is not impeded. Standard Conditions of Approval for the project also require daily visitation and marketing activities to continue avoiding the peak hours, and for the winery to implement the recommended VMT/Travel Demand Transportation reduction plan. As such, the previously adopted mitigation measures pertaining to peak hour trips will be addressed by Mitigation Measure TRANS-1 and standard Conditions of Approval.

Internal circulation changes to the site include removal of five parking spaces to accommodate construction of a new access road connecting the driveway to cave portals #2 and #3. Access to cave portal #1 requires a short extension of the internal road adjacent to cottage #8, by approximately 75 feet. Winery guests can continue to be picked-up/dropped off from the driveway area in front of the main Winery building, but no vehicle parking is allowed in this area. Vehicle parking is provided off the north project driveway as well as between the two Winery buildings. See discussion in e) below for additional details on parking.

The Napa Countywide Bicycle Plan has been completed and adopted by the Napa Valley Transportation Authority (NVTA) and the County. The plan encourages new developments to incorporate bicycle friendly designs. St. Helena Highway is proposed as a Class II bike lane past the proposed project site therefore some visitors are expected to arrive by bicycle to access the proposed project. The project would provide bicycle racks for visitors in accordance with General Plan policies, as conditioned.

Caltrans reviewed the proposed project site plans, driveway improvements, and the left turn lane concept plan and recommended the project be conditioned to 1) ensure the driveway entrance and left turn lane design complies with current Highway Design Manual Standards, 2) vehicles are prevented from exiting the property via the south driveway, and 3) that an Encroachment Permit is obtained prior to any work within the Caltrans right-of-way. Any proposed features that do not meet the Highway Design Manual standards will require preparation and Caltrans approval of a Design Standards Decision Document to be submitted concurrently with the Encroachment Permit application package. The proposed design plans were also reviewed by the Engineering Division and

Department of Public Works and determined to meet County Road and Street standards, as conditioned. Final plans will be reviewed and approved by the Department of Public Works in coordination with Caltrans. Prior to the establishment of a visitation and employee program generating a traffic volume of 20 or more round trips per day through the project driveway (including all uses), recommended Conditions of Approval require the landowner/permittee to construct the left turn as proposed.

In summary, the project has been reviewed by Caltrans, Public Works, and the Napa County Fire Department and Engineering Services Division and found acceptable, as conditioned. As proposed, the project would not conflict with any plans, ordinances or policies addressing the circulation system. All designs will comply with the County and State standards for safe access into and throughout the site. The project would not substantially increase hazards due to design features. Impacts would be less than significant.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures:

Mitigation Measure TRANS-1: Prior to building permit issuance and increasing daily trips to the site as a result of the project (from all uses – employees, visitation, marketing events), a left tum lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations.

Method of Monitoring: The above measures shall be incorporated as Conditions of Approval of the project (if approved). Prior to the approval of any permit for construction of the project and increasing daily trips to the site, Caltrans and the Napa County Public Works Department shall verify all requirements for the left turn lane and associated driveway improvements have been completed.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Discussion: 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 TIS Guidelines 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. According to the Traffic Impact Study (Exhibit H), the project is estimated to generate less than 110 net new daily passenger vehicle and truck trips and is presumed to have a less-than-significant impact for VMT according to the LCI Technical Advisory and Napa County TIS Guidelines. The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

c) Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Discussion: See response to Subsection 17(a) above.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure TRANS-1.

d) Result in inadequate emergency access?

Discussion: See response to Subsection 17(a) above.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure TRANS-1.

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: 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 project was analyzed to determine whether the proposed parking supply would be sufficient for the anticipated daily demand during harvest and marketing event conditions. The existing parking supply consists of one space for each residential cottage (three spaces); and 22 standard spaces and one existing accessible space for winery uses. Five (5) parking spaces will be removed to construct the cave access road, resulting in a total of 17 standard parking spaces (and one accessible space) available for daily winery and tasting room operations. To accommodate larger events, the project proposes use of unimproved overflow event parking and shuttling services for employees. Proposed parking management strategies are summarized below.

- Daily Visitation and Employee Parking: Visitors to the Winery will continue to be by-appointment only. As such, typical operations would include up to 60 visitors arriving in potentially 24 vehicles (based on 2.6 people per vehicle calculation) in a staggered arrangement so that there should never be more than seven (7) guest vehicles at the site at any one time. Occasionally, visitors could arrive in a higher-occupancy vehicle such as an SUV, minivan or smaller shuttle bus. The project anticipates up to 10 employees onsite at any one time; regardless, the winery will manage the availability of parking spaces based on the number of visitors per appointment and employee shift scheduling.

- Marketing Events: The project anticipates requiring the maximum number of employees (17) to support the largest marketing events. To accommodate this parking demand the winery proposes to shuttle all employees from offsite parking locations, use the existing 17 parking spaces for event guests, and accommodate the remaining parking demand of 37 guest vehicles (based on 2.8 people per vehicle calculation) via valet parking in unimproved overflow parking areas located along internal roads on the property, as shown on the Event Parking Plan

prepared by Summit Engineering, Inc., dated November 14, 2025 (Exhibit J). To address noise concerns, the Conditions of Approval prohibit the use of the northern parking area shown in Exhibit J, located adjacent to the northern outdoor tasting area. The applicant is required to submit an updated event-specific parking plan, which may incorporate additional shuttle services. All event parking plans remain subject to Fire Marshal review to ensure emergency access is maintained.

Furthermore, Conditions of Approval require the winery to implement the proposed Transportation Demand Management Plan to reduce the demand of vehicles to/from the site consistent with County policies and guidelines. There would be no conflicts with General Plan Policy CIR-14 the project has demonstrated there is adequate onsite parking through the use of the above-described parking management strategies.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

18. 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:

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:

Discussion: As discussed in Section 5 (Cultural Resources) above, the site was re-evaluated in 2025 and determined not to be eligible for listing in the California Register of Historical Resources. However, the 1883 house, historic sections of the rock wall (late 19th to early 20th century), and elements of the landscape, including the redwood and oak trees, are present and remain eligible as a Napa County Historic Landmark (designated in 2007). To ensure impacts to the Local Historic Landmark are significantly reduced, all site work, rehabilitation, or modifications to the site, including the rock wall, shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and Napa County's Landmark Preservation Ordinance in accordance with Mitigation Measure CUL-1.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure CUL-1.

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: On May 12, 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. Staff received a response from the Yocha Dehe Wintun Nation on June 12, 2025, confirming the project is not within their aboriginal territories. On September 29, 2025, the County sent consultation closure notices to the Middletown Rancheria and to the Mishewal Wappo Tribe of Alexander Valley because no request for consultation was received, and more than 30 days had elapsed since the County's consultation invitation was provided. Subsequently, the County received new information and concerns raised by Middletown Rancheria. In response, the County incorporated additional mitigation measures for the protection of tribal cultural resources as discussed further below.

On October 28, 2025, Middletown Rancheria of Pomo Indians of California ("Middletown Rancheria") concluded the project site is in Middletown Rancheria's Area of Concern. The County met with Middletown Rancheria in October 2025 and, after conducting a follow-up inspection of the site on January 14, 2026, determined the project site and its surrounding area is a site of cultural, historical, and religious significance for the Tribe. The project was determined to have the possibility of unearthing tribal cultural resources which include, but are not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes or objects with cultural values to the Middletown Rancheria during ground disturbance activities. As such, **Mitigation Measure TCR-1** has been incorporated into the Project to ensure the preservation or mitigation of significant impacts to tribal cultural resources. Additionally, would be subject to the standard Conditions of Approval identified in Section V. (Cultural Resources) above to protect cultural resources that may be discovered accidentally.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures:

Due to the possibility of unearthing tribal cultural resources which include, but is not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes or objects with cultural values to the Middletown Rancheria ("Tribe"), during ground disturbance

activities, the following mitigation measures shall be incorporated into the Project for preservation or mitigation of significant impacts to tribal cultural resources.

Mitigation Measure TCR-1: Tribal Cultural Resources

1. Prior to initial ground disturbance, the owner/permittee shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.
2. Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.
3. The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

4. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
5. The owner/permittee shall meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.

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. Prior to the commencement of vegetation removal and earthmoving activities pursuant to #P22-00417, the Owner/Permittee shall provide documentation to the Napa County Planning Division that they have established a monitoring agreement with the Middletown Rancheria and have provided Project details to the Tribe including, but not limited to, the scope of work, dates and timelines of any Project activities, and that that cultural sensitivity training has been provided to site workers.

19. UTILITIES AND SERVICE SYSTEMS:

Would the project:

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?

Discussion: As discussed in detail in Section 7 (Geology and Soils), a Wastewater Feasibility Study, dated April 2024, was prepared by Summit Engineering Inc. (Exhibit D) which outlines the required wastewater system to meet the needs of the proposed project. The existing wastewater treatment system will provide sufficient capacity for disposal of the anticipated sanitary sewage flows from the proposed number of employees, guests, and existing residents. A new process wastewater treatment system is proposed including treatment and disposal through one of the following alternatives: treatment through a new package treatment system and disposal via a new subsurface drip disposal system (Option 1); treatment through a new package treatment system, storage of treated process water, and reuse for vineyard irrigation (Option 2); or hold-and-haul (Option 3). The process wastewater treatment 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, 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.

Based on the proposed uses, the onsite water system will be classified as a new public water system per the State of California Drinking Water Requirements. Typical infrastructure required for a public water system includes, but is not limited to, a well with a minimum 50-foot annular seal, water storage tanks that meet design and construction standards, UV light treatment (usually located in a pumphouse), and water lines that meet setbacks. As mentioned previously, the existing project well has a 62-foot annular seal and is proposed to be used for the public water system serving the project. Prior to occupancy, the owner/permittee is required to submit a technical report completed by a licensed engineer with experience in designing water systems. The technical report must be submitted to the Regional Water Quality Control Board prior to beginning any water-related improvements. Additionally, the owner/permittee must obtain an annual operating permit for the water system from County Environmental Health and comply with all required monitoring and reporting. Impacts would be less than significant.

Stormwater drainage would be managed through the Napa Countywide Stormwater Pollution Prevention Program Erosion and Sediment Control Plan Guidance. 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 Engineering Division. Through compliance with County code impacts are less than significant.

The project does not require the construction of new or expanded electric power, natural gas, or telecommunications facilities. Impacts are expected to be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Discussion: As discussed in Section 10 (Hydrology and Water Quality) a Water Availability Analysis was prepared by EBA Engineering Inc. on July 25, 2024 (Exhibit E). The report includes calculations for the existing and proposed water uses and a groundwater recharge analysis. Based on the review of the WAA, the application and County records, the existing water use associated with the winery, residential, landscaping, and vineyard use is estimated to be 2.82 AFY. The project proposes to convert one 2-bedroom residence to winery office use and increase employees, visitation, and marketing event frequency and size, and install screening vegetation. These proposed operational changes are estimated to result in an increase in groundwater use by approximately 0.1197 AFY. Due to the parcel location outside of the GSA boundary, a parcel-specific recharge calculation was prepared. In calculating the recharge for the 7.85-acre parcel, the project WAA quantifies the amount of average annual rainfall infiltrating to the underlying aquifer based on the average rainfall date collected from 2012 to 2021 provided by the Oregon State University PRISM Climate Group (34.35 inches), estimated losses to runoff, and estimated losses to evapotranspiration. EBA Engineering Inc. calculated groundwater recharge rate for this property is 0.80 acre-feet of water per acre of land (or 28.6%), resulting in a total annual recharge rate of 6.42 AFY for the property which equates to approximately 47% of the water available for recharge. Additionally, Napa County has conditioned the project to limit the project to 2.82 AFY that may be pumped from the project well to align with the WAA findings and ensure that the project does not result in potentially significant impacts to groundwater availability.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

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

Significance Level: No impact.

Mitigation Measures: None required.

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?

Discussion: According to the Napa County Baseline Data Report, all of the solid waste landfills where Napa County's waste is disposed of 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Discussion: See response to Section 19(d) above.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

20. WILDFIRE:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Discussion: There are no proposed project features that would substantially impair an adopted emergency response plan or emergency evacuation plan. The existing driveway will be designed and improved to meet the Napa County Road and Street Standards (RSS) and California Board of Forestry and Fire Protection State Minimum Fire Safe Regulations (FSR). Access onto and throughout the parcel includes design components to accommodate fire and emergency apparatus. The Fire Marshal's office has reviewed the plans, which demonstrate that the project would have adequate emergency access to the proposed project. The new wine caves and converted residence would be equipped with

sprinklers and fire suppression equipment as required by the CA Building Code. No impacts would occur.

Significance Level: No impact.

Mitigation Measures: None required.

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?

Discussion: Wildfire risk is dependent upon existing environmental conditions, including but not limited to the amount of vegetation present, topography, and climate. The proposed project is in a flatter, developed area of a 7.85-acre property located on the edge of the valley floor with direct access from SR 29. The site contains level to steep slopes surrounded by vineyards, residential, and winery uses, as well as Douglas-fir forest and oak woodland. The proposed development areas contain slopes ranging from 6% to 18% in areas of the property either planted in vineyard or adjacent to existing winery buildings and associated roads and landscaped areas. According to Napa County GIS Environmental Maps (Hazards and emergencies layer), the project is in within the Moderate and High Fire Hazard Severity Zones and in the State Responsibility (SRA) district. The proposed wine caves and associated road improvements would not result in a physical modification to the slope of the area, changes to prevailing winds, or alter other factors that would likely exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. As discussed above in Section IX. (Hazards and Hazardous Materials), projects located in High Fire Severity Zones are required by State and County Code to establish and maintain defensible space and all construction must comply with County Fire Code, including but not limited to, installing fire sprinklers in buildings, providing emergency vehicle access, and maintaining a dedicated fire-fighting water supply on-site, all of which would reduce the potential hazard of wildfires. The proposed driveway and wine cave access road improvements will improve access, provide fire truck hammerhead turnaround areas and meet County standards and California Fire Safe Regulations (FSR), thereby aiding the safe ingress and egress of visitors and emergency personnel to and from the site. Impacts of the project would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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?

Discussion: As mentioned above, the existing driveway and new wine cave access road will be improved/constructed to meet County RSS and State FSR. Proposed utility improvements will be undergrounded, and the wine caves will contain fire suppression infrastructure, including fire sprinklers and dedicated water storage. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to development, and the risk would be temporary due to the limited duration of construction. Operation and maintenance activities would be similar to activities already occurring onsite and properties in the area. This development is not considered a type of improvement that exacerbates wildfire risk or significant environmental risk. Impacts will be less than significant

Significance Level: Less than significant impact.

Mitigation Measures: None required.

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: The physical improvements are in an area of the site which is already developed, disturbed or planted in vines. The proposed earthwork will be designed in accordance with Engineering Division Conditions of Approval to ensure that grading and construction activities do not create unstable slopes. Erosion control measures would be implemented in accordance with the Napa Countywide Stormwater Pollution Prevention Program which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite. By incorporating Building and Engineering Division Conditions of Approval, the project would not physically alter the site in a way which would expose people or structure to risks such as downstream or downslope flooding or landslides resulting from runoff, post-fire instability or drainage changes. Impacts would be less than significant.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

21. MANDATORY FINDINGS OF SIGNIFICANCE:

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?

Discussion: The project does not 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 or substantially reduce the number or restrict the range of a rare or endangered plant or animal species. Mitigation Measure **VIS-1** requires the project preserve the scenic quality of the SR 29 corridor through replanting or preserving oak trees onsite. Mitigation Measures **BIO-1, BIO-2**, and **BIO-3** require the applicant to obtain preconstruction surveys for northern spotted owl, nesting birds and raptors, and bats to minimize impacts associated with construction related activities to northern spotted owl, nesting birds and raptors, and bat species. Through implementation of the aforementioned Mitigation Measures, the project is anticipated to result in less than significant impacts to special status plant and animal species. Additionally, the project does not have the potential to eliminate important examples of the major periods of California's history or prehistory. As discussed in Section V. Cultural Resources, Mitigation Measure **CUL-1** ensures construction resulting from the project does not include any exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation. Prior to building permit issuance, the applicant is required to submit a report from a historic architect verifying construction complies with the Secretary of Interior's Standards for the Treatment of Historic Properties and Napa County's Landmark Preservation Ordinance. As discussed in Section 18 (Tribal Cultural Resources), the project has the possibility of unearthing tribal cultural resources during ground disturbance activities. Mitigation Measure **TCR-1** and the County's standard Archeological Finding Condition of Approval have been incorporated into the Project to ensure the preservation or mitigation of significant impacts to tribal cultural resources and prehistoric cultural resources that could be uncovered during ground disturbing activities.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measures VIS-1, BIO-1, BIO-2, BIO-3, CUL-1, and TCR-1.

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)?

Discussion: 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. By incorporating Mitigation Measure **TRANS-1** and standard Conditions, a new left turn lane as well as driveway and signage improvements will be installed to improve traffic safety and access to/from the site. 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, VMT/Transportation Demand Reduction strategies, and standard Conditions of Approval. The applicant intends to implement a number of greenhouse gas reduction strategies, including but not limited to, exceeding Title 24 energy efficiency standards, installing water efficient fixtures and energy conserving lighting, employing low-impact development practices, providing bicycle incentives, and installing an electric vehicle charging station. Section 10 (Hydrology) includes details on the Water Availability Analysis which demonstrates that the project well, as conditioned, will be limited to 2.82 acre feet of groundwater per year (equivalent to approximately 47% of the property's annual recharge rate) to ensure there are no impacts to groundwater availability. For these reasons, potential cumulative impacts would be less than significant.

Significance Level: Less than significant with mitigation incorporation.

Mitigation Measures: See Mitigation Measure TRANS-1.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion: All potential impacts identified in this Subsequent Mitigated Negative Declaration are less than significant with the exception of Aesthetics, Biological Resources, Cultural Resources, Transportation, and Tribal Cultural 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.

Significance Level: Less than significant impact.

Mitigation Measures: None required.

PROJECT REVISION STATEMENT

AXR WINERY NAPA VALLEY WINERY
USE PERMIT MODIFICATION (P22-00417-MOD), VARIANCE (P26-00045-VAR), AND VIEWSHED (P26-00044-VIEW)

I hereby revise the AXR Napa Valley Winery Use Permit (P22-00417-UP), Variance (P26-00045-VAR), and Viewshed Permit (P26-00044-VIEW), application for a major modification to an existing 20,000-gallon winery on a 7.85-acre parcel located at 3199 St. Helena Highway, St. Helena (APN 022-080-025), to include the following seven (7) mitigation measures specified below:

MITIGATION MEASURES:

Mitigation Measure VIS-1: Prior to issuance of building permits, the owner/permittee shall submit a tree replanting plan, prepared by a certified arborist or other qualified professional and subject to Planning Division approval, that includes replanting of at least six native oak trees (or other appropriate native species) to replace those removed. All replacement trees shall be a minimum size of 15-gallons and must be monitored for a minimum survivability period of five years. Any replacement trees that fail to survive during this period shall be replaced in-kind by the applicant. Alternatively, the owner/permittee may identify and permanently preserve the equivalent amount (or more) of native tree canopy through deed restriction or other means of permanent protection in a form approved by County Counsel.

Method of Monitoring: The owner/permittee shall schedule a site inspection with the Planning Division and/or submit documentation verifying that replacement trees have been installed, or that the deed restriction has been recorded, prior to final occupancy of building permits. The owner/permittee shall provide copies of the annual monitoring results to the Planning Division, while monitoring is in effect.

Mitigation Measure BIO-1 (Pre-construction NSO nesting surveys): The owner/permittee shall implement the following measures to minimize potential impacts to Northern Spotted Owls (NSO):

A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall provide an assessment of potential NSO nesting habitat within the Project site and a 0.25-mile radius and obtain CDFW's written acceptance of the assessment.

Alternatively, if the assessment is not completed, or if it concludes that NSO nesting habitat is present, then no Project activities within 0.25 miles of potential NSO nesting habitat shall occur between February 1 and July 31 unless a qualified biologist approved in writing by CDFW conducts NSO surveys following the U.S. Fish and Wildlife Service (USFWS) *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*, dated (revised) January 9, 2012, available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83977&inline. Surveys shall be conducted in accordance with Section 9 of the survey protocol, Surveys for Disturbance-Only

Projects. If breeding NSO are detected during surveys, CDFW shall be immediately notified and a 0.25-mile no-disturbance buffer zone shall be implemented around the nest until the end of the breeding season, or a qualified biologist determines that the nest is no longer active in consultation with CDFW, unless otherwise approved in writing by CDFW. The Project shall obtain CDFW's written acceptance of the qualified biologist and survey report prior to Project construction occurring between February 1 and July 31 each year.

Alternate buffer zones may be proposed to CDFW after conducting an auditory and visual disturbance analysis following the USFWS guidance, *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*, dated October 1, 2020. Alternative buffers must be approved in writing by CDFW.

If take of northern spotted owl cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP, and also consult with USFWS pursuant to the federal ESA.

Method of Monitoring: The above measure applies to ground disturbing activities and associated building and grading permits with NSO survey recommendations to be implemented in conjunction with all construction and vegetation removal activities. Prior to the commencement of vegetation removal and earthmoving activities, the Owner/Permittee shall provide copies of required surveys and CDFW approval(s) and/or related CDFW correspondence to the Planning Division.

Mitigation Measure BIO-2 (Pre-construction surveys for nesting birds and raptors): 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 Conservation 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 Conservation 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 shall 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 and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Mitigation Measure BIO-3 (Pre-construction bat tree habitat assessment and surveys): Prior to any tree trimming or removal, 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 or removal and 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 or removal shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be removed only:

a) using the two-step removal 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 removal 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 removal, 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 entire tree shall be removed.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the

project and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Mitigation Measure CUL-1:

1. Construction resulting from the project shall not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation.
2. Modifications to the rock wall are limited to modern sections and relocation of the stone pillars at the driveway entrance. The historic sections (late 19th to early 20th century) along the frontage of the property shall not be altered or removed, excepting the proposed relocation of stone pillars, to accommodate road improvements.
3. All site work, including rehabilitation, restoration, or modifications to existing structures and contributing accessory structures and landscape features shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings as well as Napa County's Landmark Preservation Ordinance (Chapter 15.52). A historic architect shall review all proposed construction plans, including modifications to the rock wall and stone pillars, for compliance with Mitigation Measure CUL-1 and his/her written report shall accompany any plans submitted for grading and building permits.

Mitigation Monitoring CUL-1: Prior to issuance of any grading or building permit for the project, the Planning Division shall review the historic architect's report and confirm the project is in compliance with Mitigation Measure CUL-1.

Mitigation Measure TRANS-1:

Prior to building permit issuance and increasing daily trips to the site as a result of the project (from all uses - employees, visitation, marketing events), a left tum lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations.

Method of Monitoring: The above measures shall be incorporated as conditions of approval of the project. Prior to the approval of any permit for construction of the project and increasing daily trips to the site, Caltrans and the Napa County Public Works Department shall verify all requirements for the left turn lane and associated driveway improvements have been completed.

Mitigation Measure TCR-1: Tribal Cultural Resources

1. Prior to initial ground disturbance, the owner/permittee shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.
2. Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching,

foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.

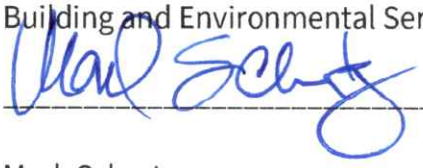
3. The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.
4. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
5. The owner/permittee shall meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with

appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.

Method of Monitoring: The above measure applies to ground disturbing activities and associated building and grading permits. Prior to the commencement of vegetation removal and earthmoving activities pursuant to #P22-00417, the Owner/Permittee shall provide documentation to Napa County that they have engaged with the Middletown Rancheria to provide cultural monitors (as necessary) and that cultural sensitivity training has been provided to site workers.

The Property Owners (Silverado Trail Wine Partners IV, LLC) further commit themselves and successors-in-interest to (a) inform any future purchasers of the property of the above commitments; (b) include in all property leases a provision that informs the lessee of these restrictions and binds them to adhere to them, and (c) inform in writing all persons doing work on this property of these limitations.

The Property Owners (Silverado Trail Wine Partners IV, LLC), understand and explicitly agree that with regards to all California Environmental Quality Act and Permit Streamlining Act (Government Code Sections 63920-63962) deadlines, this revised application will be treated as a new project. The new date on which said application will be considered complete is the date on which an executed copy of this project revision statement is received by the Napa County Department of Planning, Building and Environmental Services.



04-20-2026

Mark Schratz
On behalf of Silverado Trail Wine Partners IV, LLC

Date

Planning, Building & Environmental Services

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Brian D. Bordona
Director

AXR Napa Valley Winery - Major Use Permit Modification (File No. P22-00417), Variance (File No. P26-00045), and Viewshed (File No. P26-00044)

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure VIS-1:

Prior to issuance of building permits, the owner/permittee shall submit a tree replanting plan, prepared by a certified arborist or other qualified professional and subject to Planning Division approval, that includes replanting of at least six native oak trees (or other appropriate native species) to replace those removed. All replacement trees shall be a minimum size of 15-gallons and must be monitored for a minimum survivability period of five years. Any replacement trees that fail to survive during this period shall be replaced in-kind by the applicant. Alternatively, the owner/permittee may identify and permanently preserve the equivalent amount (or more) of native tree canopy through deed restriction or other means of permanent protection in a form approved by County Counsel.

Monitoring and Reporting Actions and Schedule:
The owner/permittee shall schedule a site inspection with the Planning Division and/or submit documentation verifying that replacement trees have been installed, or that the deed restriction has been recorded, prior to final occupancy of building permits. The owner/permittee shall provide copies of the annual monitoring results to the Planning Division, while monitoring is in effect.

Implementation: P*
Monitoring: PD*
Reporting and Date of Compliance / Completion: PC* Date: _____

Mitigation Measure BIO-1 (Pre-construction NSO nesting surveys):

The owner/permittee shall implement the following measures to minimize potential impacts to Northern Spotted Owls (NSO):

A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall provide an assessment of potential NSO nesting habitat within the Project site and a 0.25-mile radius and obtain CDFW's written acceptance of the assessment.

Alternatively, if the assessment is not completed, or if it concludes that NSO nesting habitat is present, then no Project activities within 0.25 miles of potential NSO nesting habitat shall occur between February 1 and July 31 unless a qualified biologist approved in writing by CDFW conducts NSO surveys following the U.S. Fish and Wildlife Service (USFWS) Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, dated (revised) January 9, 2012, available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83977&inline. Surveys shall be conducted in accordance with Section 9 of the survey protocol, Surveys for Disturbance-Only Projects. If breeding NSO are detected during surveys, CDFW shall be immediately notified and a 0.25-mile no-disturbance buffer zone shall be implemented around the nest until the end of the breeding season, or a qualified biologist determines that the nest is no longer active in consultation with CDFW, unless otherwise approved in writing by CDFW. The Project shall obtain CDFW's written acceptance of the qualified biologist and survey report prior to Project construction occurring between February 1 and July 31 each year.

Alternate buffer zones may be proposed to CDFW after conducting an auditory and visual disturbance analysis following the USFWS guidance, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, dated October 1, 2020. Alternative buffers must be approved in writing by CDFW.

If take of northern spotted owl cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP, and also consult with USFWS pursuant to the federal ESA.

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PC = Prior to Project Commencement CPI = Construction Period Inspections FI = Final Inspection OG = Ongoing PI= Prior to Installation of infrastructure (i.e. trellis and irrigation) and planting.

Monitoring and Reporting Actions and Schedule:
The above measure applies to ground disturbing activities and associated building and grading permits with NSO survey recommendations to be implemented in conjunction with all construction and vegetation removal activities. Prior to the commencement of vegetation removal and earthmoving activities, the Owner/Permittee shall provide copies of required surveys and CDFW approval(s) and/or related CDFW correspondence to the Planning Division.

Implementation: P*
Monitoring: PD* DFW*
Reporting and Date of Compliance / Completion: PC* Date: _____

Mitigation Measure BIO-2 (Pre-construction surveys for nesting birds and raptors):

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 Conservation 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

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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.

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 shall undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

Monitoring and Reporting Actions and Schedule:
The above measures shall be incorporated as conditions of approval of the project and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Implementation: P*
Monitoring: PD* DFW*
Reporting and Date of Compliance / Completion: PC* Date: _____

Mitigation Measure BIO-3 (Pre-construction bat tree habitat assessment and surveys):

Prior to any tree trimming or removal, 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 or removal and 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 or removal shall not proceed without approval in writing from CDFW. If the presence of bats is presumed or documented, trees may be removed only:

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a) using the two-step removal 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 removal 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 removal, 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 entire tree shall be removed.

Monitoring and Reporting Actions and Schedule:
The above measures shall be incorporated as conditions of approval of the project and apply to associated building and grading permits with survey recommendations to be implemented in conjunction with all construction activities.

Implementation: P*
Monitoring: PD* DFW*
Reporting and Date of Compliance / Completion: PC* Date: _____

Mitigation Measure CUL-1 (Cultural Resources):

1. Construction resulting from the project shall not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation.
2. Modifications to the rock wall are limited to modern sections and relocation of the stone pillars at the driveway entrance. The historic sections (late 19th to early 20th century) along the frontage of the property shall not be altered or removed, excepting the proposed relocation of stone pillars, to accommodate road improvements.
3. All site work, including rehabilitation, restoration, or modifications to existing structures and contributing accessory structures and landscape features shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings as well as Napa County's Landmark Preservation Ordinance

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(Chapter 15.52). A historic architect shall review all proposed construction plans, including modifications to the rock wall and stone pillars, for compliance with Mitigation Measure CUL-1 and his/her written report shall accompany any plans submitted for grading and building permits.

Monitoring and Reporting Actions and Schedule:
Prior to issuance of any grading or building permit for the project, the Planning Division shall review the historic architect's report and confirm the project is in compliance with Mitigation Measure CUL-1.

Implementation: P*
Monitoring: PD*
Reporting and Date of Compliance / Completion: PC* Date: _____

Mitigation Measure TRANS-1 (Transportation):

Prior to building permit issuance and increasing daily trips to the site as a result of the project (from all uses – employees, visitation, marketing events), a left tum lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations.

Monitoring and Reporting Actions and Schedule:
The above measures shall be incorporated as conditions of approval of the project. Prior to the approval of any permit for construction of the project and increasing daily trips to the site, Caltrans and the Napa County Public Works Department shall verify all requirements for the left turn lane and associated driveway improvements have been completed.

Implementation: P*
Monitoring: PD* PW* CT*
Reporting and Date of Compliance / Completion: PC* Date: _____

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PC = Prior to Project Commencement CPI = Construction Period Inspections FI = Final Inspection OG = Ongoing PI= Prior to Installation of infrastructure (i.e. trellis and irrigation) and planting.

Mitigation Measure TCR (Tribal Cultural Resources):

1. Prior to initial ground disturbance, the owner/permittee shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.
2. Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.
3. The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

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4. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
5. The owner/permittee shall meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.

Monitoring and Reporting Actions and Schedule:
The above measure applies to ground disturbing activities and associated building and grading permits. Prior to the commencement of vegetation removal and earthmoving activities pursuant to #P22-00417, the Owner/Permittee shall provide documentation to Napa County that they have engaged with the Middletown Rancheria to provide cultural monitors (as necessary) and that cultural sensitivity training has been provided to site workers.

Implementation: P*
Monitoring: PD*
Reporting and Date of Compliance / Completion: PC* Date: _____

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“D”

2005 Adopted Mitigated Negative Declaration (#P04-0541)

ARCHIVE

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 THIRD ST., ROOM 210
NAPA, CA 94559
(707) 253-4416

Initial Study Checklist
(reference CEQA, Appendix G)

1. **Project title:** VMadrone Cellars, P04-0541-UP

2. **Property owner:** Christopher & Pauline Tilley, 901 Skibo Lane, Mamaroneck, NY 10543

3. **Contact person and phone number:** Barbara Abate, Planner III, (707) 253-4417

4. **Project location and APN:** Located on a 7.85 acre parcel on the west side of State Highway 29 (St. Helena Hwy North) approximately 100 feet north of its intersection with Ehlers Lane within an Agricultural Watershed (AW) zoning district. APN: 22-080-025, 3199 St. Helena Hwy North, St. Helena, CA

5. **Project sponsor's name and address:** Christopher & Pauline Tilley, 901 Skibo Lane, Mamaroneck, NY 10543

6. **General Plan description:** AWOS, Agriculture Watershed and Open Space

7. **Zoning:** AW, Agricultural Watershed

8. **Description of Project.** (including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.)

Approval of a Use Permit to establish a 20,000 gallon per year winery pursuant to Section 18.104.245 (exceptions for pre-prohibition wineries) of the Napa County Code utilizing an existing 19th century residence and cellar, and barn with attached outbuildings. Also included is the approval of a Use Permit Exception to the Conservation Regulations to allow the barn and adjacent parking area located within the required stream setback to be used for winery use. The project would involve the conversion of the historic main residence to office, conference, shipping/receiving, equipment and dry storage, kitchen/employee break room and lobby; and the cellar and adjacent basement to barrel storage, bottle and bulk storage. An outdoor crush / fermentation tank area would be constructed behind and adjacent to the residence. The barn, which had been illegally converted to residential use in the 1970's but was vacated at the County's request in 2003, would be converted to barrel storage with an employee restroom; the adjacent storage room and shed would be used for storage, for a winery totaling 6087 square feet. The project proposes 20 parking spaces. Spoils disposal would be reviewed and approved by the Department of Public Works. Total coverage of the proposed winery is approximately 0.71 acres or 9.04% of the parcel.

Typical hours of operation would be from 8:00 a.m. to 6:00 p.m., seven days a week. The winery would operate with 2 full time and 2 part-time employees. Deliveries and pickups would average less than 16 a week. Retail sales and tours & tasting are by appointment only. Proposed marketing activities include 7 private tours & tastings by appointment per week with a maximum of 20 people per day, 2 auction events per year with a maximum of 75 people per event, 1 private harvest event for a maximum of 75 people, 1 special holiday event for a maximum of 75 people, 2 wine trade open houses per year for a maximum of 75 people per event, and 6 private wine & food trade events per year with a maximum of 20 people per event. Parking would be accommodated on site, or nearby property, using shuttle service as needed. Food preparation for marketing events would be handled by outside caterers and/or the food would be prepared in a commercial kitchen in the winery.

Access to the winery would be from State Highway 29 utilizing the two existing driveways with a one-way loop internal roadway. The north driveway would serve inbound vehicles and the south driveway would serve outbound vehicles. A left-turn lane will be constructed on State Highway 29. The access road to the winery would be required to be upgraded to County standards and signed appropriately. Water supply is from two existing wells. The residence and the proposed winery offices would continue to utilize the existing sewage disposal system, and a separate winery wastewater system would be installed as required to meet County standards. There is an existing water treatment plant and two 5,000 gallon water tanks on site. An automatic fire sprinkler system will be required to be installed in the main winery building and cellar, and an additional water storage tank will be required to meet Fire Department requirements.

9. **Describe the environmental setting and surrounding land uses.**

Steeply sloping to gently sloping site (slopes typically 5 – 10%) in the project area, elevation 300-380± feet MSL at the edge of the northeastern facing wooded hills and located approximately 0.75 mile south of the Old Bale Mill and 1.36 miles northwest of the city of St. Helena. Foundation materials of the site consist of Sonoma Volcanics pumicitic ash-flow tuff (Tst). Based upon the Soil Survey of Napa County prepared by the United States Department of Agriculture (USDA), the soils found on site are composed predominantly of Perkins

Gravelly Loam (168) and Boomer Gravelly Loam (109). Soils from the Perkins Gravelly Loam series consist of gently sloping soils on old terraces and alluvial plains. Runoff is slow and erosion hazard is slight. Soils from the Boomer Gravelly Loam series consist of steep soils on uplands. Runoff is rapid and erosion hazard is moderate.

The 7.85-acre parcel has frontage on State Highway 29 and is accessed via two existing driveways. A 20 foot wide private road which serves a number of parcels to the east crosses the northwestern corner of the subject parcel. Hirsch Creek flows easterly through the northern border of the property and onto the adjacent northern parcel. The creek contains substantial riparian cover. The location of the creek channel on the adjacent parcel was altered a number of years ago by a previous adjacent property owner. In the vicinity of the barn near where the private road crosses the creek, a portion of the creek bank has been stabilized with a retaining wall.

The site is located within an archaeologically sensitive area (CA-Nap-360). An archaeological report prepared for the development of the vineyard in 2002 surveyed the entire site. Obsidian flake scatters were encountered and monitoring was required. A historic element to the archaeological site was recorded in 1992 which consisted of a 19th century ranch complex consisting of the farm house, barn and outbuildings. The existing main residence, as well as the barn, do not meet all of the criteria for either the National or California Register; however, they are considered of historic local significance. Two historic stone walls (CA-Nap-835H) are located on the property. One is located along the frontage of the parcel; the other is located on the northern side of the property south of Hirsch Creek. There is no known active earthquake fault or biologically critical areas located within the site. Vegetative cover consists of vineyard, forest, grasses, riparian cover, and introduced residential landscaping. .

Existing land use consists of an approximate 3.25-acre vineyard, a main residence with an attached second unit, 5 cottages (which were recognized as legal nonconforming uses in 2002), and a barn. The barn is located approximately 50 feet from the center of the graveled private road and approximately 20 feet from the top of bank of Hirsch Creek. The adjacent parking area is located approximately 14 feet from top of the bank of the creek. The closest off-site residence is approximately 150 feet to the north. Surrounding land uses include vineyard, forest/open space, winery, and scattered residences.

10. **Other agencies whose approval is required** (e.g., permits, financing approval, or participation agreement).

Alcoholic Beverage Control
TTB
CALTRANS
Department of Fish & Game

JURISDICTIONAL BACKGROUND: Public Plans and Policies

Based on an initial review, the following findings have been made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

Is the project consistent with:	YES	NO	N/A
a) Regional and Subregional Plans and Policies?	☐	☐	☒
b) LAFCOM Plans and Policies?	☐	☐	☒
c) The County General Plan?	☒	☐	☐
d) Appropriate City General Plans?	☐	☐	☒
e) Adopted Environmental Plans and Goals of the Community?	☐	☐	☒
f) Pertinent Zoning?	☒	☐	☐

Responsible (R) and Trustee (T) Agencies
Department of Transportation (Caltrans)

Other Agencies Contacted
Alcoholic Beverage Control
TTB
Department of Fish & Game
State Office of Historic Preservation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture Resources	☐	Air Quality
☐	Biological Resources	☒	Cultural Resources	☐	Geology / Soils
☐	Hazards & Hazardous Materials	☐	Hydrology / Water Quality	☐	Land Use/Planning
☐	Mineral Resources	☐	Noise	☐	Population/Housing
☐	Public Services	☐	Recreation	☒	Transportation/Traffic
☐	Utilities / Service Systems	☐	Mandatory Findings of Significance		

MITIGATION MEASURES:

__ None Required
__ Identified By This Study - Unadopted (see attached Draft Project Revision Statement)
X Included By Applicant As Part of Project (see attached Project Revision Statement)
__ Recommended For Inclusion As Part of Public Project (see attached Recommended Mitigation Measure List)

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.

AGENCY STAFF PARTICIPATING IN THE INITIAL STUDY:

Resource Evaluation: Barbara Abate Date: 1-05

Site Review: Barbara Abate Date: 6-22-05

Planning/Zoning Review: Barbara Abate Date: 1-05

PRELIMINARY DETERMINATION:

__ No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

X A Negative Declaration cannot be prepared unless all identified impacts are reduced to a level of insignificance or avoided.

DATE: August 17, 2005 BY: Barbara Abate

FINAL DETERMINATION. (by Napa County)

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.

Barbara Abate
Signature

8-19-05
Date

Barbara Abate
Printed Name

Napa County Conservation, Development & Planning
For

PROPOSED MITIGATED NEGATIVE DECLARATION

The Conservation, Development and Planning Director of Napa County has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Conservation, Development and Planning Department Office, 1195 Third St., Room 210, Napa, California 94559. For further information call (707) 253-4417.

Owner: Christopher and Pauline Tilley

APN: 22-080-025

Action: Use Permit #P04-0541-UP

PROJECT DESCRIPTION:
Approval of a Use Permit to establish a 20,000 gallon per year winery pursuant to Section 18.104.245 (exceptions for pre-prohibition wineries) of the Napa County Code utilizing an existing 19th century residence and cellar, and barn with attached outbuildings. Also included is the approval of a Use Permit Exception to the Conservation Regulations to allow the existing barn and adjacent parking area located within the required stream setback to be used for winery use. The project would involve the conversion of the main residence to office, conference, shipping/receiving, equipment and dry storage, kitchen/employee break room and lobby; and the cellar and adjacent basement to barrel storage, bottle and bulk storage. An outdoor crush / fermentation tank area would be constructed behind and adjacent to the residence. The barn, which had been illegally converted to residential use in the 1970's but was vacated at the County's request in 2003, would be converted to barrel storage with an employee restroom; the adjacent storage room and shed would be used for storage, for a winery totaling 6087 square feet. The project proposes 20 parking spaces. Spoils disposal would be reviewed and approved by the Department of Public Works. Total coverage of the proposed winery is approximately 0.71 acres or 9.04% of the parcel.

Typical hours of operation would be from 8:00 a.m. to 6:00 p.m., seven days a week. The winery would operate with 2 full time and 2 part-time employees. Deliveries and pickups would average less than 16 a week. Retail sales and tours & tasting are by appointment only. Proposed marketing activities include 7 private tours & tastings by appointment per week with a maximum of 20 people per day, 2 auction events per year with a maximum of 75 people per event, 1 private harvest event with a maximum of 75 people, 1 special holiday event with a maximum of 75 people, 2 wine trade open houses per year with a maximum of 75 people per event, and 6 private wine & food trade events per year with a maximum of 20 people per event. Parking would be accommodated on site, or nearby property, using shuttle service as needed. Food preparation for marketing events would be handled by outside caterers and/or the food would be prepared in a commercial kitchen in the winery.

Access to the winery would be from State Highway 29 utilizing the two existing driveways with a one-way loop internal roadway. The north driveway would serve inbound vehicles and the south driveway would serve outbound vehicles. A left-turn lane will be constructed on State Highway 29. The access road to the winery would be required to be upgraded to County standards and signed appropriately. Water supply is from two existing wells. The residence and the proposed winery offices would continue to utilize the existing sewage disposal system, and a separate winery wastewater system would be installed as required to meet County standards. There is an existing water treatment plant and two 5,000 gallon water tanks on site. An automatic fire sprinkler system will be required to be installed in the main winery building and cellar, and an additional water storage tank will be required to meet Fire Department requirements.

WRITTEN COMMENT PERIOD: August 22 – September 20, 2005

DATE: August 19, 2005

BY THE ORDER OF

HILLARY GITELMAN
Director
Napa County Conservation, Development and Planning Department

NOT

REVISED
PROJECT REVISION STATEMENT

VMadrone Cellars / Christopher and Pauline Tilley
Use Permit #P04-0541-UP

I hereby revise my request to include the measures specified below:

Cultural Resources:

1. All site work, including rehabilitation, restoration, or modification of the main residence and barn shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. An historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.
2. The stone wall, including the pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.
3. A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological firm and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities.

Transportation/Traffic:

4. Prior to issuance of a building permit for the project, a left turn lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations. Construction of the left turn lane shall not require removal or alteration of the historic stone wall.
5. All marketing activities shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3-5 pm Monday through Friday and 2-5 pm on weekends.

I understand and explicitly agree that with regards to all California Environmental Quality Act, Permit Streamlining Act, and Subdivision Map Act processing deadlines, this revised application will be treated as a new project, filed on the date this project revision statement is received by the Napa County Conservation, Development and Planning Department. For purposes of Section 66474.2 of the Subdivision Map Act, the date of application completeness shall remain the date this project was originally found complete.

Signature of Owner(s)	Print Name	Interest
Pauline Tilley	PAULINE TILLEY	OWNER
	CHRISTOPHER TILLEY	OWNER

RECEIVED

SEP 19 2005

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

MITIGATION MONITORING AND REPORTING PROGRAM
VMADRONE CELLARS / CHRISTOPHER & PAULINE TILLEY #P04-0541-UP (APN 22-080-025)

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
Cultural Resources (Section V)			
1. All site work, including rehabilitation, restoration, or modification of the main residence and barn shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. A historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.	Planning Department	Prior to issuance of any building permit for the project, Planning Dept to review historic architect's report and confirm project in compliance.	
2. The stone wall, including pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.	Public Works Dept / Caltrans	Public Works / Caltrans to review improvement plans and confirm that stone walls and pillars will not be altered or removed.	
3. A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological firm and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities.	Applicant / Planning Department	a. Prior to issuance of any building permit, grading permit or approval of any improvement plan, the archaeological resource monitoring plan & schedule shall be submitted to the Planning Dept for review & approval. b. Prior to final inspection, the archaeologist report shall be submitted to the Planning Dept.	
Transportation / Traffic (Section XV)			
4. Prior to issuance of a building permit for the project, a left turn lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations. Construction of the left turn lane shall not require removal or alteration of the historic stone wall.	Planning / Caltrans	a. Prior to the approval of any permit for the construction of the left turn lane, Caltrans shall verify the plans do not call for alteration or removal of the stone wall or pillars. b. Prior to issuance of building permit, Caltrans shall inspect and verify improvements have been completed to their satisfaction.	
5. All marketing activities shall be conducted during the off-peak hours and avoid the peak hours which are considered to be from 3-5 pm Monday through Friday and 2-5 pm on weekends.	Planning Department	Periodic checks and complaint initiated field visits.	

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
	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) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Impact Discussion:

a. The proposed project would not be located on or near a scenic vista.

b. The proposed project is not located within a state scenic highway. The proposed project is located on State Highway 29, a highway listed as a candidate for scenic highway designation in the Scenic Highways Element of the Napa County General Plan. The existing structures proposed to be converted to winery use are not designated historic structures on either the National Register of Historic Places or the California Historic Landmarks program; however they are recommended for inclusion in the Napa County Historical Resources Inventory because they retain a high degree of integrity and are of local significance. Modifications would be in keeping with the historic use of the site. The proposed project would not result in damage to scenic resources and is consistent with the goals and policies of the Scenic Highways Element in the Napa County General Plan.

c. The site contains a main residence with an attached second unit, 5 cottages, a barn and vineyard. The proposal to reestablish a wine making facility within the cellar of the main residence and utilize the residence as part of the wine operation will require minimum modifications to the exterior of the structure. The barn had been illegally converted to a residence in the 1970's and the exterior substantially changed to accommodate the residential use. The project will return the barn to an agricultural use and look. The proposal will be in keeping with the visual character and quality of the site. The outdoor crush/fermentation pad proposed to be constructed behind and adjacent to the residence should only be very minimally visible from State Highway 29 near the northern driveway. Surrounding land uses primarily include open space/forest, vineyard development, scattered residences and a winery operation. The project would be consistent with the existing character of its surroundings. The proposal has been designed to blend with the existing character of property in keeping with the rural environment.

d. Proposed lighting is expected to be minimal; however, to ensure any additional lighting does not impact the views in the area, use permit conditions will require project lighting to be shielded and directed downward, located as low to the ground as possible, and be the minimum necessary for security, safety, or operations and incorporate the use of motion detection sensors to the greatest extent practical. No floodlighting of the building will be permitted, including architectural highlighting and spotting. Low-level lighting will be required to be utilized in parking areas as opposed to elevated high-intensity light standards. Prior to issuance of any building permit for the conversion of the existing structures to winery use, a detailed lighting plan which shows the location and specifications for all lighting fixtures to be installed on the property will be required to be submitted for Planning Department review and approval.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. **AGRICULTURE RESOURCES.** In determining impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
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) Involve other changes in the existing environment which, due to their location or nature, could result in conversation of Farmland, to non-agricultural use?	☐	☐	☐	☒

Discussion

a– c. The proposed project is located on a 7.85-acre parcel. No farmland would be taken out of production by the project and the site is not currently under a Williamson Act contract. The project does not encourage the conversion of farmland to non-agricultural uses in the future. Approximately 3.25 acres of vineyard, a main residence with an attached second unit, 5 cottages and a barn currently exist on the subject parcel. The remaining acreage exists in open space and wildlife habitat.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion

a-c. The project site is located at the northern part of Napa County, which forms one of the climatological subregions (Napa County Subregion) within the San Francisco Bay Area Air Basin, and is consequently subject to the requirements of the Bay Area Air Quality Management District (BAAQMD). The project would not be in conflict with or obstruct implementation of the Ozone Maintenance Plan, Carbon Monoxide Maintenance Plan or the Bay Area 1991 Clean Air Plan, under the Federal Clean Air Act. BAAQMD regard emissions of PM-10 and other pollutants from construction activity to be less than significant if dust and particulate control measures are implemented, which are included in this project. The BAAQMD has determined that land uses that generate fewer than 2,000 trips per day do not generally require detailed

air quality analysis, since these land uses would not generally be expected to have potentially significant air quality impacts (specifically, they would not be expected to generate over 80 pounds per day of Reactive organic gases (ROG)). The project could contribute to the cumulative increase in air quality impacts. However, given the relatively small size of the project compared to the size of the affected air basin, the incremental cumulative increase in auto emission is considered less-than-significant.

d. The project site is located within an agricultural and rural residential area. The nearest off-site residence is approximately 150 feet to the north of the project area. The existing on-site residences would be affected most but because existing structures are being utilized, grading should be minimal. Emissions and dust would be both minor and temporary. A condition of the project will require water and/or dust palliatives be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. In addition, those dust producing construction activities will be prohibited from occurring during windy periods. There are no sensitive receptors in the vicinity of the project.

e. During crush season, winery activities can sometimes produce objectionable odors; however, because of the size of the facility, these odors are considered to have a less-than-significant impact due to their temporary nature.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. **BIOLOGICAL RESOURCES.** Would the project:				
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 Game or 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 federally protected wetlands as defined by Section 404 of the Clean Water Act (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. A biological reconnaissance (*MUSCI* Natural Resource Assessment, Biological Resources Reconnaissance Report - Special Status Plant Report – Chris Tilley Vineyard Conversion – dated April 20, 2002) was conducted for the establishment of the vineyard and no known candidate, sensitive, or special status species were identified as occurring within the project boundary. Since the project proposes to utilize existing structures and develop a small outdoor fermentation pad adjacent to the main residence, impact of the development on the existing open space will be minimal.

b. No critical habitat areas or sensitive natural communities are located on the subject parcel. Hirsch Creek enters the property at the northwest corner and becomes a wet weather stream along the northern boundary. The stream is seasonal and conveys water during the winter, and following rains. The stream channel has been previously modified but contains substantial riparian habitat. The barn proposed to be converted to winery storage is located approximately 20 feet from top of the bank of the creek; the existing adjacent parking area is currently graveled and is located approximately 14 feet from the top of bank. Napa County's Stormwater Ordinance requires implementation of Stormwater Management, sediment, and erosion controls to ensure any impact would be minimized to the greatest extent possible. A condition of the project will require no further encroachment into the creek setback and enhancement of the riparian vegetation within the stream setback.

c. There are no known federally protected wetlands on the project site.

d. There are no known wildlife corridors or native wildlife nursery sites identified on the property. The proposed project would utilize existing structures in areas already developed. The project would not have an impact on the movement of native resident and migratory wildlife species.

e. While the proposed project is not subject to any local policies or ordinances protecting biological resources, including tree preservation policies or ordinances, tree removal is proposed to be kept to the very minimum.

f. There are no Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans applicable to the subject project site.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V. **CULTURAL RESOURCES.** Would the project:				
a) Cause a substantial adverse change in the signficance of a historical resource as defined 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) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion:

a. The facilities on the property were operated as a resort known as "The Madrones" in the 1930's (Informational material submitted with CLN application #00516-CLN). The structures proposed to be converted to winery use were constructed in the late1880's (John D. Kelly Public Records Research, Addendum to Report Compiled on January 2, 2002 Regarding Residence and Winery of August and Fredericka Hirsch, 1883, Report dated August 24, 2004). They are not designated as historic structures on either the National Register of Historic Places or the California Historic Landmarks program; however, an historic resources evaluation and determination on whether the property retains its historical integrity was conducted by a historic architect (Juliana Inman AIA report dated November 29, 2004). While it appears that the property is not eligible for the California or National Register based on the criterion, the main residence retains a high degree of integrity, despite alterations in all probably from repairs after fire damaged in 1983, and is recommended for inclusion in an updated Napa County Historical Resources inventory. It clearly retains local significance. The barn, even though altered, was also determined to retain its historical integrity. To ensure that the project does not result in any significant impacts to the historic structures, any further alterations and restoration of the property should comply with the Secretary of the Interior Standards.

Also located on the property are two historic stone walls (CA-Nap-835H). One is located along the frontage of the parcel; and has two driveway openings through it. The other wall is located on the northern side of the property south of Hirsch Creek. The project will require the construction of a left turn on State Highway 29. To ensure the stone wall along the highway is not damaged by the installation of the required road improvements, the stone wall should remain and not be altered or removed.

b. The subject property is located in an archaeologically sensitive area (CA-Nap-360). An archaeological evaluation (Archaeological Resource Service, A cultural resources evaluation of the 8-acre vineyard lot within property at 3199 St. Helena Highway North, Napa County, California submitted by Elizabeth Bedolla dated January 25, 2002 – A.R.S. Project 01-090) was conducted in conjunction with the development of the on-site vineyard. Scatters of obsidian flakes were encountered. A monitoring plan for archaeological resources should be prepared and implemented. The plan should include the name of the archaeological firm and schedule and be submitted to the Planning Department for concurrence prior to the commencement of any earthmoving activities.

c. The subject site does not contain any known paleontological resources or unique geologic features that would be destroyed, either directly or indirectly, as a result of this project.

d. The presence of any formal cemeteries is not known to occur within the project area and therefore the proposed project is not anticipated to result in any significant adverse impacts on any such resources.

Mitigation Measures:

1. All site work, including rehabilitation, restoration, or modification of the main residence and barn shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. An historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.
2. The stone wall, including the pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.
3. A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological firm and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. **GEOLOGY AND SOILS.** Would the project:				
a) Expose people or structures to 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, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

Discussion:

a(i). The property is not within a known earthquake fault zone. Because there is no indication of any fault on site, there would be no potential to expose people and/or structures to the risk of fault rupture as a result of the proposed project.

a(ii). There is a high potential for strong ground shaking throughout the entire San Francisco Bay and Napa County areas. Modifications to existing structures for winery operations would have to adhere to current standards for earthquake resistant construction which should reduce the impact to a less than significant level.

a(iii). The proposed project site is not subject to liquefaction. There would be no impact to people or structures as a result of the project related to liquefaction.

a(iv). There are no landslide areas identified on the Napa County Environmental Resource Maps for the property.

b. Based upon the Soil Survey of Napa County, Ca prepared by the United States Department of Agriculture (USDA) the soils are composed of Perkins Gravelly Loam (168) and Boomer Gravelly Loam (109). Soils from the Perkins Gravelly Loam series (2–5 percent slope) consist of gently sloping soil on old terraces and alluvial plains, runoff is slow and erosion hazard is slight. Soils from the Boomer Gravelly Loam series (30– 0 percent slope) consist of steep soil on uplands, runoff is rapid and erosion hazard is moderate. The project will utilize existing structures, access roads and parking area. A new crush/fermentation pad and parking area will be constructed in the vicinity of the main residence. All site improvements would require compliance with the County's Stormwater Ordinance which requires all earth disturbing activities maintain erosion, sediment, and waste materials from leaving the site. Since project construction activities are located on the gentler sloping areas of the site, the potential impacts for soil loss is less than significant. Therefore, development of the winery would result in a less than significant impact with regards to loss of topsoil and soil erosion.

c. There is no presence of any landslides or soil creep areas on or within proximity of the project site. There are no areas of critical concern or areas with serious erosion potential present. The project would not result in significant on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.

d. The project would not be located on soils considered to be expansive and would not create substantial risks to life or property.

e. The project proposes to utilize an existing sewage disposal system for the domestic waste and construct another for the winery wastewater. The Department of Environmental Management has reviewed the project and has determined that there are no major limitations of the property's ability to support the use of the system. Environmental Management has recommended approval of the project subject to conditions of approval. With the proper approval, this project would result in a less than significant impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. **HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, 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 for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wild-land fires, including where wild-lands are adjacent to urbanized areas or where residences are intermixed with wild-lands?	☐	☐	☐	☒

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 Management Department should the amount of these materials reach reportable levels.

b. The project would not result in the release of hazardous materials into the environment.

c. There are no schools located within one-quarter mile from the proposed project site.

d. The proposed site is not on any known list of hazardous materials sites.

e. The project site is not located within two miles of any public airport.

f. The project site is located within the vicinity of a private airport.

g. The proposed project will not impair the implementation of or physically interfere with an adopted emergency response plan or evacuation plan.

h. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wild land fires.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

VIII. **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?	☐	☐	☐	☒
b)	Substantially deplete 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, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d)	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?	☐	☐	☐	☒
e)	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?	☐	☐	☐	☒
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

a. The project does not include any proposal that would violate any known water quality standards or waste discharge requirements.

b. The project would occur on 7.85 acres which is located in the "valley floor" area that has an extraction threshold of 1.0 acre-feet/year. The total parcel threshold is 7.85 acre-feet/year. Water is supplied by two springs and two wells. The project is not located in a recognized groundwater deficient area. Based on the information contained in the Phase 1 Water Analysis provided by the applicant, the projected water distribution is as follows:

Residential uses	2.34 acre-feet/year
Vineyard	0.85 acre-feet/year
Winery	0.43 acre-feet/year
	TOTAL = 3.62 acre-feet/year

Since the proposed project will not exceed the allowable groundwater threshold, the project would therefore not substantially reduce groundwater supplies or interfere substantially with groundwater recharge.

c. – d. The existing drainage pattern of the site would not be changed. There are no plans to alter the course of Hirsch Creek. Existing structures will be utilized in an area already developed or disturbed. The project would not cause flooding on- or off-site.

e. – f. There is no existing stormwater drainage system in the area of the proposed project. The project is not expected to have an impact in regards to item e. Existing structures will be utilized and improvement plans for the upgrade of the existing access road and installation of the parking area would be reviewed by the Public Works Department to ensure that drainage is not concentrated. All earth disturbing activities would be required to maintain erosion, sediment, and waste materials from leaving the site and entering waterways both during and after construction in conformance with the Napa County Stormwater Ordinance. As a result there would be a less than significant impact to water quality.

g. - h. The project site is not located within a flood hazard area as defined by the Federal Emergency Management Agency's Flood Insurance Rate Map Program.

i. – j. The property is not within an area subject to flooding due to a levee or dam failure. The project site is not susceptible to inundation by seiche, tsunami or mudflow.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX.	**LAND USE AND PLANNING.** Would the project:				
	a) Physically divide an established community?	☐	☐	☐	☒
	b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
	c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion:

a. – c. The project would not divide an established community. The project would occur on a 7.85-acre parcel that is zoned Agricultural Watershed (AW), which allows for wineries and under exceptions for pre-prohibition wineries (Section 18.104.245) allows for reduced setbacks and parcel size. The proposal would reestablish winery use in the cellar and nearby barn, and convert the main residence to winery use. There are no habitat or natural community conservation plans applicable to the subject property.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X.	**MINERAL RESOURCES.** Would the project:				
	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. The project site does not contain any known mineral resources.

b. The project site is not designated as a locally important mineral resources recovery site.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI.	**NOISE.** Would the project result in:				
	a) Exposure of persons to or generation of noise levels 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) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
	d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
	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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
	f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

a-b. The site is in an agricultural and rural residential setting. The majority of winery activities would occur within structures. The closest off-site residence is located 150 feet to the north and from the barn proposed to be converted to storage. Due to the size of the proposed winery and the noise generated by traffic from State Highway 29, impact of the project would be less than significant. During construction of the project, there may be some potential for groundborne vibrations when they lower the cellar floor; however, this would be a temporary situation and would be considered less than significant.

c-d. Substantial amounts of short-term, temporary noise would be generated during project construction. The cellar floor will be lowered in order to provide additional head room; structures would be modified, and access roads & parking areas improved. Construction activities would occur during the day. The anticipated level of noise to occur following the completion of construction including the operation of the winery would be minimal and typical of an agricultural setting within a rural setting. The marketing activities for larger numbers of visitors will occur within specific time frames. To ensure that a less than significant noise level is maintained, outdoor-amplified sounds will be prohibited. In addition, all noise generating equipment will be required to be placed indoors or within acoustical enclosures.

e. The project site is not located within an airport land use plan or within two miles of a public airport.

f. The project site is not located within the vicinity of a private airstrip.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII.	**POPULATION AND HOUSING.** Would the project:				

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. The project would not induce population growth. The project does not propose new homes or the extension of any infrastructure.

b. The project would not displace any housing.

c. The proposal would not displace substantial numbers of people.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. **PUBLIC SERVICES.** Would the project result in:				
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:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion:

a. The project site resides within the unincorporated area of Napa County. The Napa County Fire Department and Napa County Sheriff's Department currently serve the site. The proposed project would have no impact in regards to schools, parks or other public services/facilities. Fire protection measures are required as part of the project development. There would be no impact on response time as a result of the project nor would the project create a need for any new or expanded facilities.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. **RECREATION.** Would the project:				
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-b. The project would have no impact on the use of existing recreational facilities, nor does the project include, require or expand recreational facilities that may have a significant adverse effect on the environment.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. **TRANSPORTATION/TRAFFIC.** Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

a. – b. The project site will be accessed from State Highway 29 utilizing the two existing driveways. The proposal is to use the north driveway as an entrance only and the south driveway as an exit only. The 24-hour traffic count for State Highway 29 just north of Lodi Lane according to Caltrans 2002 vehicle traffic data was 14,600. The project proposes to have 2 full-time and 2 part-time employees. Tours & tasting and retail sales will be by appointment only. Marketing activities are proposed as follows: 7 private tours & tastings by appointment per week with a maximum of 20 people per day, 2 auction events per year with a maximum of 75 people per event, 1 private harvest event for a maximum of 75 people, 1 special holiday event for a maximum of 75 people, 2 wine trade open houses per year for a maximum of 75 people per event, and 6 private wine & food trade events per year with a maximum of 20 people per event.

Information contained in the traffic study (George W. Nickelson, P.E. – Traffic Engineering•Transportation Planning, Traffic Study for a proposed winery on State Route 29 – 3199 St. Helena Highway North, dated November 8, 2004) prepared for the proposed winery indicated that weekday activity would be limited with a maximum of 10 visitors and 2 employees on site. During a typical weekend day, about 20 persons would visit the winery by appointment only. Bi-monthly events could attract a maximum of 75 persons. The winery's weekend employment could be expected to include 4 persons full time with additional persons on-site during harvest and special marketing events. Approximately 49 daily trips would be generated on a typical summer day; on a summer Saturday, approximately 60 daily trips would be generated. These trips would include employees, visitors, deliveries, and the residential use. Because not all of the grapes would be grown on-site, grapes would have to be transported to the proposed facility. Approximately 25% of the grapes would be harvested from the site; approximately 75% would be delivered from other vineyards off-site. Currently fruit produced by the vineyard is harvested and shipped off site to other wineries. The site currently generates approximately 47 daily trips on a typical day and 57 daily trips during harvest. Because added winery trips would be offset by the elimination of the existing single family home trips, daily trip generation would only increase from 47 to 49 trips. During harvest over an approximate 6 week time period, 17 daily trips would be added with the project. Traffic generated during harvest with the project would be approximately 74 trips daily. These additional trips would occur outside of peak travel times. All travel times for reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors should not occur during peak (3-5 pm Monday-Friday, 2-5 pm Saturday-Sunday) travel times to the maximum extent possible.

Due to the traffic count for State Highway 29 combined with the estimated daily average of 2 full-employees, 24 visitors/deliveries per day, and the existing residential use, a left turn lane will be required to be installed on State Highway 29. Installation of the left-turn lane will be required prior to issuance of a building permit for the winery as required by Caltrans. Installation of the left-turn lane will ensure the safety of turning movements onto the site and maintain the existing flow of traffic so that the traffic flow is not impeded. The amount of traffic generated by the project will not reduce the level of service on the public road.

According to the traffic engineer (Fax from Nickelson dated May 10, 2004), the highway right-of-way ranges from 65 to 75 feet in width along the frontage of the subject property. At the winery access, the state highway has two 13 foot travel lanes with 3-4 foot paved shoulders. The traffic study indicates that a 50 foot length left turn vehicle storage lane would be adequate to handle the left turn volumes. There should be adequate room to accommodate the construction of the left turn lane, as well as the approach taper and median deceleration lengths required by Caltrans. The improvements will be required to be located within the existing right-of-way and not jeopardize the historic stone wall located along the parcel's frontage. Installation of a left turn lane with associated improvements should reduce the impact of the project to a less than significant impact.

c. The project does not propose any changes or proposes any features that would adversely impact air traffic patterns.

d. The existing access from State Highway 29 does not contain a design feature that is potentially hazardous. The site distance from the winery entrance/exit is considered adequate. Installation of a left turn lane as required will reduce the impact of the proposed increased traffic to a less than significant impact.

e. – f. The project would improve the existing access road. The number of proposed parking spaces provided should be adequate to accommodate all winery related activities; however, should an event be held that would exceed the available on-site parking, a condition of approval would require that additional parking with shuttle service be provided.

g. The proposed project does not conflict with any known policies or plans supporting alternative transportation.

Mitigation Measures:

1. Prior to issuance of a building permit for the project, a left-turn lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later for winery operations. Construction of the left turn lane shall not require removal or alteration of the historic stone wall.
2. All marketing activities shall be conducted during off-peak hours which are considered to be from 3-5 pm Monday through Friday and 2-5 pm on weekends.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. **UTILITIES AND SERVICE SYSTEMS.** Would the project:				

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of a new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion:

a. – g. The proposed project would not result in a significant adverse impact on utilities and service systems. No new public facilities are required. Water and wastewater would be handled on site in conformance with the requirements of the Department of Environmental Management. Sufficient landfill capacities exist and no solid waste rules would be violated.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. **MANDATORY FINDINGS OF SIGNIFICANCE**				
a) Does the project have the potential to 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, 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)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion:

a. The project proposes to utilize existing structures (main residence, cellar & barn) for winery operations, existing access roads, and the existing parking area adjacent to the barn. While the barn and adjacent parking area are located within the stream setback, they are not proposed to be expanded. Any additional parking will be provided away from the creek and be located to the south & west of the main residence. The project has been designed to keep tree removal to a minimum. The project would not eliminate any plant or animal communities and no biologically sensitive areas are known to occur within the project boundaries. It is expected that the project would have a less than significant effect on fish and wildlife habitats.

b. The project as proposed will not have impacts that are individually limited but cumulatively considerable. The project will not result in reducing the Level of Service of nearby roadways, groundwater usage is within County guidelines.

c. The project would not result in any environmental effects that will cause substantial adverse effects on human beings.

Napa County Department of Environmental Management
CUPA-Related Business Activities Form

Business Name: Tilley Winery

Business Address: 3199 St. Helena Hwy N St. Helena, Ca. 94574

Contact: Chris Tilley **Phone #:** 9146981538

A. HAZARDOUS MATERIALS Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in AST's and UST's or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70)?	☐ YES ☒ NO
B. UNDERGROUND STORAGE TANKS (UST's) 1. Own or operate underground storage tanks?	☐ YES ☒ NO
2. Intend to upgrade existing or install new UST's?	☐ YES ☒ NO
C. ABOVE GROUND STORAGE TANKS (AST's) Own or operate AST's above these thresholds: -Any tank capacity with a capacity greater than 660 gallons, or The total capacity for the facility is greater than 1,320 gallons?	☐ YES ☒ NO WINE TANKS ONLY
D. HAZARDOUS WASTE 1. Generate hazardous waste?	☐ YES ☒ NO
2. Recycle more than 220 lbs/month of excluded or exempted recyclable materials (per H&SC §25143.2)?	☐ YES ☒ NO
3. Treat hazardous waste on site?	☐ YES ☒ NO
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☒ NO
5. Consolidate hazardous waste generated at a remote site?	☐ YES ☒ NO
E. OTHER 1. Does the business activity include car/fleet washing, mobile detailing, auto-body related activities?	☐ YES ☒ NO
2. Does the business handle Extremely Hazardous Substances in amounts that would qualify for the Risk Management Program? Some examples and their thresholds common to Napa County include: Ammonia – 500 lbs, Sulfur Dioxide – 500 lbs, Chlorine – 500 lbs.	☐ YES ☒ NO

V Madrone
Department of Environmental Management

Solid Waste Disposal:

1. Recycling will be utilized on all cardboard/plastic and glass that is recyclable.
2. All pomace will be either composted on site, removed by Upper Valley Disposal Service for composting, or returned to the vineyard.
3. None
4. None

Hazardous Materials:

No hazardous materials will be stored on site. A forklift may be utilized in the future for winery operations. All natural gas (propane) needed for fuel should be limited to one five gallon cylinder, which may be refilled at a service station or other natural gas provider. Carbon Dioxide and Nitrogen cylinders will be utilized for winery operations. Two, 225 liter cylinders will be sufficient for winery usage.

HazardousWaste1204.doc

“E”

2008 Adopted Mitigated Negative Declaration Addendum (#P08-00099)

Hillary Gitelman
Director

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

JOHN MCDOWELL
Deputy PlanningDirector

MEMORANDUM

TO: Conservation, Development and Planning Commission

FROM: Patricia Hornisher, Planner III

SUBJECT: Use Permit Modification P08-00099: Addendum and Adequacy of Existing Mitigated Negative Declaration for V Madrone Cellars

REFERENCE: (1) Use Permit P04-0541-UP and associated Mitigated Negative Declaration approved on September 21, 2005

(2) California Environmental Quality Act (CEQA) sections 15162 and 15164; Napa County Local CEQA Guidelines Section 408 (a)

ASSR PARCEL # : 022-080-025-000

DATE: April 23, 2008

I. BACKGROUND AND CHANGE TO THE PREVIOUSLY ADOPTED MITIGATED NEGATIVE DECLARATION

In August of 2005, an initial study was prepared to evaluate the potential environmental impacts associated with the V Madrone Cellars winery project and concluded that there were significant but mitigable impacts to Transportation/Traffic as follows: due to the traffic count for State Highway 29 combined with the estimated daily average of 2 full-employees, 24 visitors/deliveries per day, and the existing residential use, a left turn lane will be required to be installed on State Highway 29. Installation of the left-turn lane will be required prior to issuance of a building permit for the winery as required by Caltrans. Installation of the left-turn lane will ensure the safety of turning movements onto the site and maintain the existing flow of traffic so that the traffic flow is not impeded.

September of 2005, the Napa County Conservation, Development and Planning Commission adopted a Mitigated Negative Declaration and an accompanying Project Revision Statement with Mitigation Measures for Cultural Resources and Transportation/Traffic, and a Mitigation Monitoring and Reporting Program for the project. Subsequent to its adoption, in March of 2007, the applicant's traffic consultant provided the California Department of Transportation (Cal Trans) with a revised scope for the project that would reduce traffic trips generated to and from the project site and thus eliminate the need for a left turn lane.

The revised scope and proposed elimination of the left turn lane mitigation measure was found acceptable to Cal Trans because the applicant proposed a reduction in traffic trips to the site by: (1) eliminating two non-historic residential cottages on the property; and, (2) reducing access to the property by making design changes to the driveway to allow only right turn movements in and out of the site and disallow left turn movements. The "No Left Turn" arrangement would be enforced with two "No Left Turn" signs and a redesign of the driveway to make ingress and egress left turns difficult. After

reviewing the full proposal along with other environmental factors, Cal Trans found the proposal an acceptable alternative to the requirement for the construction of a left turn lane. (See attached Caltrans letter dated December 28, 2007.)

The applicant now seeks to modify their use permit to delete the requirement that a left turn lane be constructed and replace it with a new condition of approval requiring: (1) reduced trips to the property with the elimination of two residential cottages; and, (2) reduced access to the property by making design changes to the driveway to allow only right turn movements in and out of the site and disallow left turn movements. The "No Left Turn" arrangement would be enforced with two "No Left Turn" signs and a redesign of the driveway to make ingress and egress left turns difficult.

The purpose of this document is to analyze the new proposal regarding traffic impacts, satisfy requirements under the California Environmental Quality Act that the new proposal is an acceptable alternative to the left turn lane requirement, and document that the previously adopted Mitigated Negative Declaration adequately covers the revised project. It will also be used by the decision-makers in their consideration of whether to approve the revised proposal for the project and adopt the change to the traffic mitigation of the original environmental document.

II. PROJECT HISTORY

The V Madrone Cellar Winery project involves reestablishing an historic 19th century winery (formerly known as the August Hirsch Winery of 1883) within the existing historic Hirsch residence pursuant to Napa County Code Section 18.104.245 - exceptions for pre-prohibition wineries. The project site is located on 7.85 acre parcel with approximately three acres planted in vineyard. The site originally included an historic barn and out buildings (used for wine storage), a main residence (where the historic wine making took place) and five additional residential cottages. Three of the cottages are considered historic contributors to the site and two are non-historic contributors. The parcel is located in the AWOS (Agriculture, Watershed & Open Space) designation of the General Plan with an AW (Agricultural Watershed) zoning designation. (See Attachment: L.)

The original Use Permit approved reestablishing the historic winery within the pre-existing 2 story, historic Hirsch residence. Currently it is divided into two residential units. One of these units will be removed to accommodate reconstruction of the historic main residence and winery operations on the main floor. (Removal of this unit is not counted as one of the two cottages designated by Cal Trans to be demolished.) The basement of the historic residence will be used for winery barrel storage and aging. This area was historically used by the Hirsch family to produce wine. The future, approved use of this area for wine making is essential to the reestablishment of the historic winery on this property.

The historic barn, storeroom and shed (originally located in the stream setback) will also be utilized for wine production. Pursuant to the Napa County Conservation Regulations (18.108-025 -general provisions for intermittent/perennial streams), they were required to be relocated. The historic barn and two outbuildings will be reconstructed as a single structure in accordance with the Secretary of Interior Standards for Rehabilitation to be used for fermentation, barrel storage and an employee restroom. Grape crushing will occur on an adjacent outdoor crush pad.

The winery as approved can produce 20,000 gallons per year. The total area of the historic winery within the historic residence and the reconstructed barn/shed is 6,087 square feet. The project will include a crush pad, fermentation and work area, 2 full /2 part-time employees, 20 parking spaces, tours and tasting by appointment only 7 days per week for a maximum of 20 people per day, retail sale by appointment, and a marketing plans with 12 events per year with between 20 and 75 persons per event and a water storage tank for fire protection. The initial use permit approval included the Cal

Trans requirement to construct a left-turn lane on State Highway 29 because the proposed project would increase the existing volume of trips to a level warranting the left-turn lane.

The Use Permit for the project was approved on September 21, 2005. It was subsequently modified on October 17, 2007, under P07-00656-LDMK to designate the winery as a Local Napa County Historic Landmark. The Local Historic Landmark designation was processed to meet the intent of a previous condition of approval that required the winery finalize their application with the State to be listed or eligible for listing on the California or National Register prior to issuance of any building permit. Under the current major modification, that condition will be replaced with one that simply requires written verification from an historic architect that the winery is eligible for listing on the California Register prior to issuance of any building permit. The new condition recognizes the Local Landmark Designation as meeting in the intent of the previous condition for listing at the State level. This change is not required to be part of CEQA Addendum analysis for this project.

III. CEQA GUIDELINES REGARDING PROPOSED CHANGES TO APPROVED PROJECTS

The California Environmental Quality Act (CEQA) Guidelines outlines the statues governing situations in which public agencies must consider proposed changes to approved projects. Where an agency has already adopted an environmental document for the project, these statutes disfavor the preparation of an additional environmental document except under specific circumstances.

In summary, Section 15162 states a Subsequent EIR or Negative Declaration shall be prepared if the lead agency determines one or more of the following: (1) substantial changes are proposed in the project due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) substantial changes occur with respect to the circumstances (existing conditions, or baseline) under which the project is undertaken due to new significant environmental effect or a substantial increase in the severity of previously identified effect; or (3) new substantial important information, previously unknown at the time of adoption of the environmental document, is now known.

Section 15164 states an Addendum to a previously certified EIR or Negative Declaration may be prepared by the lead agency if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for the preparation of a Subsequent EIR or Negative Declaration have occurred.

Finally, under Section 408 (a) of Napa County's Local Rules for Implementing CEQA, if a previous Mitigated Negative Declaration that covers the subject action has been adopted by the County within five years of project submission and none of the findings specified in Section 15162 requiring preparation of a subsequent environmental document can be made, the Planning Department shall complete an Adequacy of Existing Environmental Document finding form and that document shall be conclusively presumed to be adequate and the decision-making body shall simply read and consider the document and incorporate any mitigation measures contained therein into the project.

IV. DISCUSSION OF PROPOSED PROJECT CHANGES, ADDENDUM AND ADEQUACY OF EXISTING ENVIRONMENTAL DOCUMENT FINDING

The original Mitigated Negative Declaration for Transportation/Traffic was based on a Traffic Study completed by George Nickelson, P.E. dated November 8, 2004. It concluded that the existing traffic counts on State Highway 29 combined with the average daily trips for the proposed project for employees, visitors, deliveries and residential uses, warranted the installation of a left-turn lane to reduce the impact of the proposed increased traffic to a less than significant level. This conclusion was

supported by Cal Trans (the responsible agency for reviewing impacts to State highways) in their letter dated June 22, 2005. Given improvements to State highways is within the jurisdiction of Cal Trans, a mitigation measure was adopted by Napa County requiring the installation of a left-turn lane "prior to issuance of a building permit" for the project. A second mitigation measure was also adopted stating that construction of the left turn lane would not require removal or alteration of the historic rock wall.

In March of 2007, subsequent discussions between Cal Trans and the applicant took place to change the requirement for the left turn lane. After reviewing the changes to the traffic study and considering the historic wall constraints and expense to obtain additional right of way, Cal Trans found an acceptable equivalent to the original traffic mitigations. These included changes that would reduce overall traffic trips to and from the site and reduce the full access to partial access to the site. The approved equivalent measure required the following: (1) the elimination of two residential cottages on the property to reduce overall trip generation (as shown on the site plan submitted by the applicant on March 21, 2008); (2) a requirement for "No Left Turn" signage to enforce the prohibition of left turn movements to and from the project site; and, (3) redesigning of the driveways to make left turn movements in and out of the site difficult.

In their letter to the Napa County Public Works Director dated December 28, 2007, Cal Trans concluded that, "either the original proposal of a full access with a two-way left turn lane or the new proposal of a partial access, left turn movements prohibited with no left-turn lane" were found to be acceptable mitigations to reduce traffic impacts for the project to a less than significant level.

The County has determined that, in accordance with Section 15162 of the State CEQA Guidelines and Section 408 (a) of its Local CEQA Guidelines, the proposed substitute traffic mitigation is not a substantial change to the project which requires major revisions to the previous Mitigated Negative Declaration, there are no substantial changes with respect to the circumstances under which the project is undertaken which will require major revisions to the previous Mitigated Negative Declaration and there is no new information of substantial importance and therefore no subsequent environmental review is necessary. Furthermore, because the previous Mitigated Negative Declaration is less than five years old and none of the conditions in Section 15162 are triggered by the revised project, the previous Mitigated Negative Declaration along with this Addendum are adequate for the revised project pursuant to Section 408 (a) of the Local CEQA Guidelines.

Pursuant to Section 15164 of the State CEQA Guidelines Section 408 (a) of its Local CEQA Guidelines, this document constitutes the required Addendum to the original mitigated negative declaration for the V Madrone Cellars winery project to address the proposed change from the original mitigation of the left turn lane to the removal of the two cottages and redesign of the driveway with signage indicating "No Left Turn". The Planning Commission is required to consider this Addendum prior to approving the use permit modification.

" J "

Napa County Letter to Caltrans

COUNTY of NAPA

ROBERT J. PETERSON, P.E.
Director of Public Works
County Surveyor-County-Engineer
Road Commissioner

DONALD G. RIDENHOUR, P.E.
Assistant Director of Public Works

Sean Nozzari
Deputy District Director
Division of Operations
California of Department of Transportation, District 4
P.O. Box 23660
Oakland, CA 94623-0660

RE: CalTrans Encroachment Permit 0406-6MC2098
V. Madrone Winery (Christopher Tilley, St. Helena, Napa Valley)

Dear Mr. Sean Nozzari,

The Napa County Department of Public Works respectfully requests a clarification on the intent of the California Department of Transportation encroachment permit 0406-6MC2098 which has been issued to a Mr. Christopher Tilley regarding improvements in the State Highway right of way at 3199 St. Helena Highway.

In September of 2005 the Napa County Planning Commission approved Winery Use Permit P04-05410UP for V Madrone Cellars at the above mentioned location, including a condition that the applicant provide a left-turn lane access on the State Highway to serve visitors and workers entering the winery property. A CEQA determination was made, and a Mitigated Negative Declaration was adopted indicating that a left-turn lane would provide sufficient mitigation of traffic safety concerns and that a left-turn lane is warranted based on a traffic study completed by George W. Nickelson, P.E. dated November 8th, 2004. This condition was supported by the Department of Transportation (DOT), District 4 in a letter from the IGR/CEQA office dated June 22, 2005 (NAP029729).

In 2004 the available estimated annual daily vehicle traffic over the section of Highway 29 where the winery is located was 14,600 vehicles a day (obtained from the published CalTrans traffic counts.) The average daily traffic for the winery provided by the applicant was proposed to be 26 vehicles a day. These two values graphed on the Napa County Left Turn Lane Warrant chart (NC Road and Street Standards Page 15, Sec. 16 and Page 16-A) indicates that a left-turn lane is required. CalTrans has historically suported a Napa County left-turn lane condition on Highway 29 due to the safety concerns and traffic volumes present. Since Highway 29 is the jurisdiction of the State, this department will support whatever improvements that CalTrans staff feels would offset the proposed increased traffic. In the case of the Winery project proposed, this department requests clarification to confirm that DOT staff considers the proposed improvement

NAPA COUNTY DEPARTMENT OF PUBLIC WORKS
1195 Third Street • Suite 201 • Napa, CA 94559 • (707) 253-4351
www.co.napa.ca.us FAX (707) 253-4627

at 3199 St. Helena Highway (as illustrated in the approved encroachment permit) mitigates the traffic safety concerns.

If your staff has obtained new information that was not considered in the original environmental review indicating that there is a change in traffic conditions, or an ecological or natural feature in the State right of way that prevents the construction of the left-turn lane as required, we would request that you provide the information to this department so that an amendment to the approved environmental document can be processed by Napa County. Please include any reports or other documentation obtained or provided by the applicant that would support the decision to disallow the conditioned left-turn lane widening at this time. Any information you can provide to support the equivalence of the approved encroachment permit and the requirement for a left-turn lane will be greatly appreciated.

In order to help Mr. Tilley proceed to construction of the winery we request this information at your earliest convenience due to the need to amend our Mitigated Negative Declaration for the project based on the additional information that you may have. If you have any questions for Napa County Public works staff please contact at Drew Lander, (707) 253-4892. Thank you for your continued cooperation.

Sincerely,

Robert J. Peterson
Napa County
Director of Public Works

cc: Nate Galambos, DPW, Principal Engineer
Trish Hornisher, CDPD, Project Planner
Sandy Finegan, Caltrans District 4, IGR/CEQA Coordinator
Jim Leddy, NCTPA 707 Randolph St. Suite 100

"K"

Caltrans Response Letter and Traffic Study Modification

TRISH

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23360
OAKLAND, CA 94612
PHONE (510) 286-6345
FAX (510) 286-6301
TTY (800) 735-2929

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JAN 02 2008
NAPA CO CONSERVATION
DEVELOPMENT & PLANNING DEPT.

December 28, 2007

Mr. Robert J. Peterson
Director of Public Works
Napa County
1195 Third Street, Suite 201
Napa, CA 94559

Dear Mr. Peterson:

This is in response to your recent letter regarding Caltrans' Encroachment Permit 0406-6MC2098 allowing Mr. Christopher Tilley to make improvements to State Route 29 in conjunction with V. Madrone Winery. During CEQA review of this project, Caltrans concurred with the proposed two-way left turn lane by the project. Caltrans did note in our June 22, 2005 letter that "sufficient information about roadway conditions at project accesses should be provided to ensure that improvement is feasible and that sufficient Right of Way (ROW) exits to complete the improvement as envisioned in the analysis".

When the project's sponsor submitted an application for Caltrans' encroachment permit with the two-way left turn, it was found that the traffic lane is moved closer to the existing rock walls on the west side of the highway. The rock walls are now less than 20 feet from the new edge of travel way and some type of protection such as a guardrail is needed. Installation of a guardrail in front of the rock walls will block both existing driveways serving the project site and create negative visual impact on the historic rock walls. To eliminate the need of a guardrail, either the rock walls have to be removed/relocated or all roadway widening must be done towards the east side of the highway. However, the approved environmental document for the project requires that "the rock walls cannot be removed to accommodate any roadway improvement". The other alternative, which is to push all widening towards the east side of the highway, will require obtaining ROW from the opposite property.

In March 2007, the project's traffic consultant provided Caltrans with a revised scope of the project by eliminating two cottages within the winery. As a result, the trip generation is reduced (see attachment). The project also proposed to reduce from full accesses to partial access, disallowing left turn ingress and egress, thus eliminating the need for a left-turn lane. After reviewing the documents and mindful of the challenges associated with the construction of the left-turn lane, Caltrans found the proposal acceptable. In addition to the required signing to enforce the prohibition of left turn movements, Caltrans required the applicant design their driveways in a way that makes it very difficult to turn left in and out of the driveways. In

summary, either the proposal of a full access with a two-way left turn lane or the proposal of a partial access, left turn movements prohibited, with no left-turn lane is acceptable to Caltrans.

It is unfortunate that the project's sponsor has failed to inform Napa County Planning Department of the changes of their project. We will remind our staff the importance of securing appropriate concurrences prior to issuing any permit that deviates from the approved environmental document. Should you need further discussion or any information, please feel free to contact me or our District Permit Engineer, Mr. Michael Condie, at (510)286-4435.

Sincerely,

S. SEAN NOZZARI for
Deputy District Director,
Traffic Operations

c: Nate Galambos, DPW, Principal Engineer
Trish Hornisher, CDPD, Project Planner

Planning

Cover Sheet

APN	022-080-025-000
Permit #	P08-00099
Program	USE
DocType	DP
Street #	3169
Street Name	St Helena Hwy N.
Year	

HILLARY GITELMAN
Director

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

May 8, 2008

Christopher & Pauline Tilley
3169 St. Helena Hwy North
St. Helena, CA 94574

Re: Use Permit #P08-00099-MOD- Major (modification to use permit number: P04-0541-UP)
V Madrone Cellars Winery
APN 022-080-025

Dear Christopher and Pauline Tilley:

Please be advised that **Use Permit Modification P08-00099-MOD-Major** has been **APPROVED** by the Napa County Planning Commission **on May 7, 2008**, subject to the attached California Environmental Quality Act (CEQA) Addendum document, Revised Project Revision Statement, Revised Mitigation Monitoring and Reporting Program, Revised Conditions of Approval, the Napa County Department comments, and applicable County regulations. Additionally, you must comply with all the previous use permit conditions for project # P04-0541-UP that are not in conflict with these documents. (SEE ATTACHMENTS.)

In approving the above application, the Napa County Planning Commission adopted an Addendum to the previously adopted Mitigated Negative Declaration on file with the Conservation Development and Planning Department pursuant to Section 15164 of the California Environmental Quality Act (CEQA) and the Napa County Local CEQA Guidelines Section 408(a).

The use permit modification will become effective unless an appeal is filed with the Napa County Board of Supervisors pursuant to Chapter 2.88 of the Napa County Code. You may appeal the conditions of approval. In the event an appeal is made to the Board by another, you will be noticed.

Pursuant to Section 18.124.080 of the Napa County Code, the use permit modification must be activated within two (2) years from the approval date, or it shall automatically ***expire on May 7, 2010*** *and become void. This letter serves as the only notice you will receive regarding the expiration date of your permit modification.*

You are hereby further notified, pursuant to Government Code Sec.66020 (d)(1), that the 90-day period, in which you would have to protest imposition of any fees, dedications, reservations, or other exactions that may have been attached as conditions of approval, has begun. Please note that additional fees will be assessed if a landscape plan or erosion control plan is required by this approval.

Should you have any questions, please contact Patricia Hornisher at (707) 299-1349 or by e-mail: thornish@co.napa.ca.us

Sincerely,

Patricia Hornisher

Patricia Hornisher
Planner III

cc: Building Department
Assessor
file
chron

AMENDED* CONDITIONS OF APPROVAL

(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

1. **SCOPE:** The permit shall be limited to:
   - Wine production of no more than 20,000 gallons per year;
   - Conversion of the existing 2547 square foot main residence to office, conference, shipping/receiving, equipment and dry storage, commercial kitchen/employee break room and lobby; and 2555 square foot cellar and basement to barrel storage, bottle and bulk storage;
   - Relocation of the barn out of the stream setback (approximately 25 feet and in close proximity to its historical location);
   - Removal of that portion of the adjacent parking area within the stream setback;
   - Conversion **and reconstruction pursuant to the Secretary of Interior Standards and Guidelines for the Treatment of Historic Properties** of the 798 square foot barn, attached 136 square foot outbuilding **and 425 square foot enclosed outbuildings totaling 1,359 square feet to a 1,492 square foot** barrel storage **building with a storage room** and **ADA** restroom;
   - Conversion of 425 square feet of unenclosed outbuildings to covered outdoor work space;
   - Construction of 1204 square foot crush/fermentation tank pad;
   - Retail sales and tours & tasting by appointment only;
   - 15 parking spaces;
   - Two full-time and two part-time employees;
   - Establish a Marketing plan as discussed below;
   - Installation of one additional water storage tank for fire protection; and
   - **Completion of the "No Left Turn" alternative specified by the State Department of Transportation (Caltrans) and the Napa County Department of Public Works prior to issuance of a Temporary Certificate of Occupancy or Final Certificate of Occupancy for any permits for the structures to be used for winery operations.**
   -

   The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials. It is the responsibility of the applicant to communicate the requirements of these conditions and mitigations (if any) to all designers, constructors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or changes in use shall be by the approved Use Permit modification process.

2. **HISTORICAL STRUCTURES:** Prior to the issuance of any **Temporary Certificate or Final Certificate of Occupancy** for the **barrel storage building for the** project the following shall be provided:
   a. **A Letter of Intent submitted to the Planning Department setting forth a timeline outlining specific steps for the timely completion of the conversion of the historic main residence to the historic winery;**
   b. Verification **by a qualified historic architect** that the main residence **is eligible for listing on the California Historic Register;**

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

c. A historic architect's report confirming the construction plans, location, materials & color are in compliance with the Secretary of Interiors Guidelines for the Treatment of Historic Properties;

d. Written agreement from the property owner that a deed for a Notice of Use Restriction will be signed by said property owner and recorded with the Napa County Recorder's Office (prior to issuance of the Certificate of Final Occupancy of the winery / residence) stating that winery operations must occur within the converted main historic residence/winery for winery operations to continue on site; and,

e. Visitation and Marketing shall not commence until the Letter of Intent (as described in the above section 2. (a.)) is received by the Planning Department, the "No Left Turn" alternative has been completed and signed off by Caltrans, and a Final Certificate of Occupancy for the barrel storage building has been issued.

3. **MARKETING:** Marketing events shall be limited as follows:

a. Two auction events per year with a maximum of 75 people per event
b. One private harvest event per year with a maximum of 75 people
c. One special holiday event per year with a maximum of 75 people
d. Two wine trade open house events per year with a maximum of 75 people per event
e. Six private wine and food trade events per year with a maximum of 20 people per event

(All marketing events shall occur between 10:00 AM - 3:00 PM and 5:00 PM - 10:00 PM Monday through Friday; and on weekends 10:00 AM - 2:00 PM and 5:00 PM - 10:00 PM.

"Marketing of wine" means any activity of a winery identified in this paragraph which is conducted at the winery and is limited to members of the wine trade, persons who have pre-established business or personal relationships with the winery or its owners, or members of a particular group for which the activity is being conducted on a prearranged basis. Marketing of wine is limited to activities for the education and development of the persons or groups listed above with respect to wine which can be sold at the winery on a retail basis, and may include food service without charge except to the extent of cost recovery when provided in association with such education and development, but shall not include cultural and social events unrelated to such education and development. (Ord. 1104 § 11, 1996: Ord. 947 § 9 (part), 1990: prior code § 12071). All activity, including cleanup, shall cease by 10:00 PM. Start and finish time of activities shall be scheduled to minimize vehicles arriving or leaving between 3:00 PM and 5:00 PM weekdays and 2:00 PM and 5:00 PM weekends.

4. **TOURS AND TASTING:**

Tours and tastings are limited to a maximum of 20 persons/day with an average of 90 persons/week. "Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to members of the wine trade, persons invited by a winery

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

who have pre-established business or personal relationships with the winery or its owners, and persons who have made unsolicited prior appointment for tours or tastings. (Ord. 947 §9(part), 1990: prior code §12070). Tours and tasting shall complete by 4:00 PM. Retail sale of wines shall complete by 4:30 PM and shall be limited to those wines set forth in Napa County Code Sec. 18.16.030(G)(5)(c). A log book (or similar record) shall be maintained which documents the number of visitors to the winery, and the dates of their visit. This record of visitors shall be made available to the Department upon request.

5. **GRAPE SOURCE:**

At least 75% of the grapes used to make the winery's still wine shall be grown within the County of Napa. The applicant shall report to the Department on an annual basis by December 31 the source of grapes verifying that 75% of the approved production is from Napa County grapes. The report shall include the Assessor's Parcel Number and the grape tonnage. The report shall be proprietary and not available to the public. For the public record, the applicant shall annually submit to the Department for the file a statement regarding compliance with the sourcing requirement and indicating the percentage of Napa County grapes utilized.

6. **SIGNS:**

Prior to installation of any winery identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the Planning Department for administrative review and approval. All signs shall meet the design standards as set forth on Chapter 18.116 of the County Code. At least one sign placed and sized in a manner to inform the public must legibly include wording stating "Retail Sales and Tours & Tasting by Prior Appointment Only".

7. **GATES/ENTRY STRUCTURES:**

Any gate installed at the winery entrance shall be reviewed by the Planning and Public Works Departments and the Napa County Fire Department to assure that it is designed to allow a large vehicles such as motor homes 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 according the County Code.

8. **LIGHTING:**

All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, and shall be the minimum necessary for security, safety, or operations and shall incorporate the use of motion detection sensors to the greatest extent practical. No flood-lighting or sodium lighting of the building is permitted,

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards. Prior to issuance of any building permit for construction of the winery, two (2) copies of a separate detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Department review and approval.

9. **LANDSCAPING/PARKING:**

Two (2) copies of a detailed landscaping plan, including parking details, shall be submitted for review and approval prior to issuance of building permits. The landscaping plan shall include a revegetation planting plan for that area within the stream setback in the vicinity of the barn & parking area and include some type of barrier to protect the plantings and discourage winery use. That portion of the parking area adjacent to the barn located in the stream setback shall be removed and revegetated. **In addition, that area where the two cottages will be demolished shall be subject to removal of all construction materials and revegetated.** Fish & Game shall be consulted and approve the revegetation plan. The plan shall indicate the names and locations of all plant materials to be used along with the method of maintenance. **Plant materials shall be purchased locally when practical. The Agricultural Commissioner's office (707-253-4357) shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.**

The location of employee and visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any). Landscaping and parking shall be completed prior to occupancy, and shall be permanently maintained in accordance with the landscaping plan.

No trees greater than 6" BGH shall be removed, except for those identified on the submitted site plan. Any trees that are removed shall be replaced elsewhere on the property on a 2 for 1 basis of equivalent caliper. Replaced trees shall be identified on the landscaping plan. Trees to be retained shall be protected during construction.

Evergreen screening shall be maintained between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and Highway 29 that can view them. Parking shall be limited to approved parking spaces only and shall not occur along access roads or in other locations except during harvest or approved marketing events. In no case shall parking impede emergency vehicle access or public roads. If any event is held which will exceed the available on-site parking, the applicant shall arrange for off-site parking and shuttle service to the winery.

10. **OUTDOOR STORAGE/SCREENING:**

All outdoor storage of winery equipment shall be screened from the view of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No item in storage is

AMENDED* CONDITIONS OF APPROVAL
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V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

to 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.

11. **RENTAL/LEASING:**

No winery facilities, nor portions thereof, including but not limited to offices, kitchens, barrel storage areas, and warehousing space, shall be rented, leased, nor used by entities other then the on-site winery itself, except as may be specifically authorized in this use permit or pursuant to the Temporary Events Ordinance (Section 5.36.010)

12. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES:**

The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Departments and Agencies, including but not limited to:

Department of Environmental Management as stated in their letter of 1/19/2005
Department of Public Works as stated in their letter of 4/7/2005 **(as modified in their letter of March 31, 2008)**
County Fire Department as stated in their letter of 1/7/2005
Building Division as stated in their letter of 1/4/05
Department of Transportation as stated in their letter of 6/22/05 **(as modified in their letter of December 28, 2007.)**

13. **SPOILS:**

All spoils generated by construction of the project facilities shall be disposed of per Public Works direction. All spoils piles shall be removed prior to occupancy.

14. **WELLS:**

The permittee may be required (at the permittee's expense) to provide well monitoring data if it is judged that water usage at the winery is, or would potentially affect groundwater supplies or nearby wells. Data requested could include, but may not be limited to, water extraction volumes and static well levels. If applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gage potential impacts on the groundwater resource utilized for the project proposed. Water usage shall be minimized by use of best available control technology and best water management conservation practices. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the use permit would significantly affect the groundwater basin, the director of environmental management shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of the permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance and protect public heath, safety, and welfare. That recommendation shall not

AMENDED* CONDITIONS OF APPROVAL
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V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

become final unless and until the director has provided notice and the opportunity for hearing in compliance with the County Code section 13.15.070.G-K.

15. **NOISE:**

Construction noise shall be minimized to the maximum extent practical and allowable under State and local safety laws. Construction equipment muffling and hours of operation shall be in compliance with County Code Chapter 8.16. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site. If project terrain or access road condition 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 between the hours of 8 AM to 5 PM. Winery equipment shall be enclosed or muffled and maintained so as not to create a noise disturbance in accordance with the Code. There shall be no amplified sound system or amplified music utilized outside of approved, enclosed winery buildings unless a special permit to that effect has been secured through the County.

16. **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. Construction activities shall not occur during windy periods.

17. **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 Department will be contacted for further guidance, which will likely include the requirement for the applicant to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required. If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed, so that he 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 nearest tribal relatives as determined by the State Native American Heritage Commission would be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98.

18. **TRAFFIC:**

Reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors will occur during non-peak travel times to the maximum extent possible **in**

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

accordance with the approved State Department of Transportation (Caltrans) requirements for the reduction of left turn movement to the project site.

19. **ADDRESSING:**

All project site addresses shall be determined by the Director, and reviewed and approved by the U.S. Post Office, prior to issuance of any building permit. The 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.

20. **DESIGNATION OF MAIN RESIDENCE FOR PARCEL:**

Upon completion of the conversion of the main **historic** residence to a winery **/ residence** pursuant to this use permit approval, what was previously designated the attached second unit for the parcel shall become the designated main residence for the property.

21. **STORM WATER CONTROL:**

For any construction activity that results in disturbance of greater than one acre of total land area, applicant shall file a Notice of Intent with the California Regional Quality Control Board (SRWQCB) prior to any grading or construction activity. All hazardous materials stored and used on-site that could cause water pollution (e.g. motor oil, cleaning chemicals, paints, 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. Parking lots shall be designed to drain through grassy swales, buffer strips, or sand filters prior to any discharge from the impervious surface into a watercourse. If any discharge of concentrated surface waters is proposed in the any "Waters of the State," the applicant shall consult with and secure any necessary permits from the State Regional Water Quality Control Board. All trash enclosures must be covered and protected from rain, roof, and surface drainage.

22. **INDEMNIFICATION:**

An indemnification agreement, in the form attached hereto, shall be signed and returned to the County within twenty (20) days of the granting of this approval.

23. **MONITORING COSTS:**

All staff costs associated with monitoring compliance with these conditions, previous permit conditions and project revisions shall be borne by the applicant and/or property owner.

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

Generally costs associated with planning review for building plan clearance and certification of occupancy are not to be charged per this condition. However, costs associated with conditions and mitigation measures that require monitoring outside of those two processes, 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. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time, or in accordance with the hourly consulting rate established by the Department at the time of the monitoring ($88.00/hour as of December, 2002). Violations of conditions of approval or mitigations measures caused by the applicant's contractors, employees, and guests are the responsibility of the applicant.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies are 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 it is so warranted, to commence revocation hearings in accordance with Section 18.124.120 of the County Code.

24. **MITIGATION MEASURES:**

The applicant shall comply with all mitigation measures contained in the Mitigated Negative Declaration prepared, adopted **and as amended** for this project.

AMENDED PROJECT REVISION STATEMENT

V Madrone Cellars (aka Tilley Winery) / Christopher and Pauline Tilley (property owners)
Use Permit Major Modification #P08-00099 & Addendum to Use Permit #P04-0541

Under this Use Permit Modification #P08-00099, I hereby amend the Project Revision Statement of the original Use Permit #P04-0541-UP (dated 9-21-2005) for Transportation/Traffic mitigation measures the as specified below:

Transportation/Traffic:

1. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the winery structures all road and site improvements shall be completed for "No Left Turn" arrangement[1] on State Highway 29 and on the project site in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for the winery operation. The "No Left Turn" arrangement shall not require the alteration or removal of the historic stone wall.

2. No visitation or marketing shall occur until all road improvements of the "No Left Turn" arrangement on State Highway 29 as well as the project site are completed in conformance with the requirements of the California Department and the Napa County Public Works Department. All marketing shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3 – 5 pm Monday through Friday and 2 – 5 pm on weekends.

[1] The "No left turn" arrangement: In March of 2007, Caltrans found the following mitigation measures an acceptable alternative to reduce traffic volumes to and from the site and reduce full access to partial access to the site: (1) the elimination of two residential cottages on the property (as shown on the site plan submitted by the applicant on March 21, 2008); (2) disallowing left turn ingress and egress by requiring two "No Left Turn signs (on the Highway and on the driveway) to enforce the prohibition of left turn movements; (3) redesigning of the driveways to make left turn movements in and out of the site difficult.

I understand and explicitly agree that with regards to all California Environmental Quality Act, Permit Streamlining Act, and Subdivision Map Act processing deadlines, this revised application will be treated as an addendum to the original project, filed on the date this project revision statement is received by the Napa County Conservation, Development and Planning Department. For purposes of Section 66474.2 of the Subdivision Map Act, the date of application completeness shall remain the date this project was originally found complete.

Signature of Owner(s)	Print Name	Interest
	Christopher W. Tilley	4/29/08 owner
Signature of Owner(s)	Print Name	
	PAULINE TILLEY	4/29/08 OWNER

AMENDED PORTION OF THE MITIGATION MONITORING AND REPORTING PROGRAM PERTAINING TO THE TRANSPORTATION / TRAFFIC (Section XV) ONLY

V MADRONE CELLARS / CHRISTOPHER & PAULINE TILLEY #P04-0541-UP (APN 022-080-025)

Transportation / Traffic (Section XV)			
1. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the structures to be used for winery operations, all road and site improvements shall be completed for "No Left Turn" arrangement[1] on State Highway 29 and on the project site in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for the winery operation. The "No Left Turn" arrangement shall not require the alteration or removal of the historic stone wall.	Planning / Caltrans	a. Prior to the approval of any permit for the construction of the No Left Turn arrangement[1], Caltrans shall verify the plans do not call for alteration or removal of the stone wall or pillars. b. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the structures to be used for winery operations, Caltrans shall inspect and verify improvements have been completed to their satisfaction.	
2. No visitation or marketing shall occur until all road improvements of the "No Left Turn" arrangement on State Highway 29 as well as the project site are completed in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department. All marketing shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3 – 5 pm Monday through Friday and 2 – 5 pm on weekends.	Planning Department	Periodic checks and complaint initiated field visits.	

[1] The "No left turn" arrangement: In March of 2007, Caltrans found the following mitigation measures an acceptable alternative to reduce traffic volumes to and from the site and reduce full access to partial access to the site: (1) the elimination of two residential cottages on the property (as shown on the site plan submitted by the applicant on March 21, 2008); (2) disallowing left turn ingress and egress by requiring two "No Left Turn signs (on the Highway and on the driveway) to enforce the prohibition of left turn movements; (3) redesigning of the driveways to make left turn movements in and out of the site difficult.

P08-00099
Public Works
Page 1 of 2

PUBLIC WORKS DEPARTMENT
INTER-OFFICE MEMO

March 31st, 2008

TO: Conservation Development and Planning Department

FROM: Drew Lander, Assistant Engineer

SUBJECT: Tilley Cellars, APN 022-080-025, File #P08-00099

The application will allow the applicant to modify the certified Mitigated Negative Declaration as required by previously approved Use Permit #P04-0541 to adopt the Encroachment requirements approved by the California Department of Transportation for the winery approved under the prior Use Permit #P04-0541.

EXISTING CONDITIONS:

1. Existing access road is 16 feet wide at the connection with Hwy. 29, immediately widening to 22 ft for a distance of approximately 35 feet, and then narrowing to 13 feet wide for the remaining distance to the site.

2. Parking surface is currently compacted aggregate base.

3. The traffic count for Hwy. 29 was 14600 just north of Lodi Lane, according to Caltrans 2002 vehicle traffic data.

RECOMMENDED CONDITIONS:

1. All previous conditions provided by the Public Works Department for UP#P04-0541 and dated April 7th, 2005 still apply. See attached

2. The applicant must obtain an encroachment permit from CalTrans for any work performed within the Caltrans Right-of-Way.

3. The estimated annual daily traffic count of 14600 on State Hwy 29 combined with an estimated daily average of 2 full-time employees and 24 visitors/deliveries per day indicate that a left turn lane on State Hwy 29 is required. (County Road and Street Standards, Page 15, Sec. 16 and Page 16-A). **The applicant shall complete the construction of appropriate improvements as approved by the California Department of Transportation prior to issuance of a**

temporary certificate or final certificate of occupancy for any of the structures to be used for winery operations.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items please contact Nate Galambos or Drew Lander at 253-4351.

cc: Christopher & Pauline Tilley, 901 Skibo Lane, Mamaroneck, NY 10543

TRISH

COUNTY of NAPA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

STEVEN LEDERER
Director

CHRISTINE M. SECHELI, R.E.H.S.
Assistant Director

TO: Napa County Planning Department
Hillary Gitelman, Planning Director

FROM: Napa County Environmental Management Department
Christine Secheli, R.E.H.S., Assistant Director

SUBJECT: Use Permit Modification Application for V Madrone (Tilley) Winery
Located at 3199 St. Helena Hwy. North
Assessor Parcel #022-080-025
File # P08-00099

DATE: February 28, 2008

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. We have no recommendations or conditions of approval to be included if the project is approved.

RECEIVED
MAR 0 4 2008
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

cc: Christopher W. Tilley, V Madrone Cellars, 3169 St. Helena Hwy., St. Helena, CA 94574

1195 Third Street, Suite 101 • Napa, California 94559
Telephone: (707) 253-4471 • Fax: (707) 253-4545 • www.co.napa.ca.us

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DEVELOPMENT & PLANNING DEPT.

INTER-OFFICE MEMO

TO: Hillary Gitelman
Conservation, Development, and Planning Department

FROM: Brian Hampton, Fire Department

DATE: March 5, 2008

SUBJECT: V Madrone (Tilley) Winery Major Mod
Apn: 022-080-025 P08-00099

Site Address: 3199 ST Helena Hwy., ST Helena

The Napa County Fire Marshal staff has reviewed the above referenced use permit major modification to require left turn lane to issuance of building permit.

This modification does not warrant any fire department comments for this project. If there are any questions please feel free to contact the Napa County Fire Marshal's Office at (707) 967-1423 to discuss any fire protection issue you may have regarding this project.

Ernie Loveless
Fire Chief

By:

Brian Hampton
Fire Prevention Specialist II

cc: Applicant, CFM Files, Chron

FILE #: PDA-00097

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NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

HILLARY GITELMAN
Director

PATRICK LYNCH
Assistant Director

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Calif Highway Patrol

APPLICATION TITLE: MADRONE (TILLEY) WINERY MAJOR MOD APN: 022-080-026

DESCRIPTION OF PROJECT: ① ADDENDUM TO PREVIOUSLY CERTIFIED MITIGATED NEG DEC TO REQUIRE LEFT TURN LANE PRIOR TO BLDG PERMIT ISSUANCE & REPLACE WITH CAL TRANS APPROVED SUBSTITUTE MITIGATION OF "NO LEFT TURN" SIGN ② CHANGE CONDITION OF APPROVAL TO REQUIRE HISTORIC STRUCTURES TO BE LISTED AS ELIGIBLE ON THE CAL REGISTER TO VERIFIED BY HISTORIC ARCHITECT THAT STRUCTURES ARE ELIGIBLE ③ INCREASE BARN SQ FOOTAGE BY 10%.

RESPONSE REQUEST DATE: 2-26-08 RESPONSE RETURN DATE: 3/10/08

PLEASE RESPOND VIA E-MAIL TO: thornish @co.napa.ca.us
OR FAX TO (707) 299-1349

This application (see enclosed project description and maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

1. Do you have any comments on this project? ☐ Yes ☑ No

2. Do you have jurisdiction by law over this project? ☐ Yes ☑ No

3. Attach your agencies comments, or list below: ☐ Comments attached ☐ Comments below.

N/A

Name of contact person: Michael A. Berger Telephone #: (707) 253-4206

Email: MBerger@chp.ca.gov
Title: Lieutenant
Date: 3-10-08

“F”

Previous Project Conditions

ARCHIVE

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

HILLARY GITELMAN
Director

May 8, 2008

Christopher & Pauline Tilley
3169 St. Helena Hwy North
St. Helena, CA 94574

Re: Use Permit #P08-00099-MOD- Major (modification to use permit number: P04-0541-UP)
V Madrone Cellars Winery
APN 022-080-025

Dear Christopher and Pauline Tilley:

Please be advised that **Use Permit Modification P08-00099-MOD-Major** has been **APPROVED** by the Napa County Planning Commission **on May 7, 2008**, subject to the attached California Environmental Quality Act (CEQA) Addendum document, Revised Project Revision Statement, Revised Mitigation Monitoring and Reporting Program, Revised Conditions of Approval, the Napa County Department comments, and applicable County regulations. Additionally, you must comply with all the previous use permit conditions for project # P04-0541-UP that are not in conflict with these documents. (SEE ATTACHMENTS.)

In approving the above application, the Napa County Planning Commission adopted an Addendum to the previously adopted Mitigated Negative Declaration on file with the Conservation Development and Planning Department pursuant to Section 15164 of the California Environmental Quality Act (CEQA) and the Napa County Local CEQA Guidelines Section 408(a).

The use permit modification will become effective unless an appeal is filed with the Napa County Board of Supervisors pursuant to Chapter 2.88 of the Napa County Code. You may appeal the conditions of approval. In the event an appeal is made to the Board by another, you will be noticed.

Pursuant to Section 18.124.080 of the Napa County Code, the use permit modification must be activated within two (2) years from the approval date, or it shall automatically ***expire on May 7, 2010*** *and become void. This letter serves as the only notice you will receive regarding the expiration date of your permit modification.*

You are hereby further notified, pursuant to Government Code Sec.66020 (d)(1), that the 90-day period, in which you would have to protest imposition of any fees, dedications, reservations, or other exactions that may have been attached as conditions of approval, has begun. Please note that additional fees will be assessed if a landscape plan or erosion control plan is required by this approval.

Should you have any questions, please contact Patricia Hornisher at (707) 299-1349 or by e-mail: thornish@co.napa.ca.us

Sincerely,

Patricia Hornisher

Patricia Hornisher
Planner III

cc: Building Department
Assessor
file
chron

AMENDED* CONDITIONS OF APPROVAL

(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

1. **SCOPE:** The permit shall be limited to:
   - Wine production of no more than 20,000 gallons per year;
   - Conversion of the existing 2547 square foot main residence to office, conference, shipping/receiving, equipment and dry storage, commercial kitchen/employee break room and lobby; and 2555 square foot cellar and basement to barrel storage, bottle and bulk storage;
   - Relocation of the barn out of the stream setback (approximately 25 feet and in close proximity to its historical location);
   - Removal of that portion of the adjacent parking area within the stream setback;
   - Conversion **and reconstruction pursuant to the Secretary of Interior Standards and Guidelines for the Treatment of Historic Properties** of the 798 square foot barn, attached 136 square foot outbuilding **and 425 square foot enclosed outbuildings totaling 1,359 square feet to a 1,492 square foot** barrel storage **building with a storage room** and **ADA** restroom;
   - Conversion of 425 square feet of unenclosed outbuildings to covered outdoor work space;
   - Construction of 1204 square foot crush/fermentation tank pad;
   - Retail sales and tours & tasting by appointment only;
   - 15 parking spaces;
   - Two full-time and two part-time employees;
   - Establish a Marketing plan as discussed below;
   - Installation of one additional water storage tank for fire protection; and
   - **Completion of the "No Left Turn" alternative specified by the State Department of Transportation (Caltrans) and the Napa County Department of Public Works prior to issuance of a Temporary Certificate of Occupancy or Final Certificate of Occupancy for any permits for the structures to be used for winery operations.**
   -

   The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials. It is the responsibility of the applicant to communicate the requirements of these conditions and mitigations (if any) to all designers, constructors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or changes in use shall be by the approved Use Permit modification process.

2. **HISTORICAL STRUCTURES:** Prior to the issuance of any **Temporary Certificate or Final Certificate of Occupancy** for the **barrel storage building for the** project the following shall be provided:
   a. **A Letter of Intent submitted to the Planning Department setting forth a timeline outlining specific steps for the timely completion of the conversion of the historic main residence to the historic winery;**
   b. Verification **by a qualified historic architect** that the main residence **is eligible for listing on the California Historic Register;**

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

c. A historic architect's report confirming the construction plans, location, materials & color are in compliance with the Secretary of Interiors Guidelines for the Treatment of Historic Properties;

d. Written agreement from the property owner that a deed for a Notice of Use Restriction will be signed by said property owner and recorded with the Napa County Recorder's Office (prior to issuance of the Certificate of Final Occupancy of the winery / residence) stating that winery operations must occur within the converted main historic residence/winery for winery operations to continue on site; and,

e. Visitation and Marketing shall not commence until the Letter of Intent (as described in the above section 2. (a.)) is received by the Planning Department, the "No Left Turn" alternative has been completed and signed off by Caltrans, and a Final Certificate of Occupancy for the barrel storage building has been issued.

3. **MARKETING:** Marketing events shall be limited as follows:

a. Two auction events per year with a maximum of 75 people per event
b. One private harvest event per year with a maximum of 75 people
c. One special holiday event per year with a maximum of 75 people
d. Two wine trade open house events per year with a maximum of 75 people per event
e. Six private wine and food trade events per year with a maximum of 20 people per event

(All marketing events shall occur between 10:00 AM - 3:00 PM and 5:00 PM - 10:00 PM Monday through Friday; and on weekends 10:00 AM - 2:00 PM and 5:00 PM - 10:00 PM.

"Marketing of wine" means any activity of a winery identified in this paragraph which is conducted at the winery and is limited to members of the wine trade, persons who have pre-established business or personal relationships with the winery or its owners, or members of a particular group for which the activity is being conducted on a prearranged basis. Marketing of wine is limited to activities for the education and development of the persons or groups listed above with respect to wine which can be sold at the winery on a retail basis, and may include food service without charge except to the extent of cost recovery when provided in association with such education and development, but shall not include cultural and social events unrelated to such education and development. (Ord. 1104 § 11, 1996: Ord. 947 § 9 (part), 1990: prior code § 12071). All activity, including cleanup, shall cease by 10:00 PM. Start and finish time of activities shall be scheduled to minimize vehicles arriving or leaving between 3:00 PM and 5:00 PM weekdays and 2:00 PM and 5:00 PM weekends.

4. **TOURS AND TASTING:**

Tours and tastings are limited to a maximum of 20 persons/day with an average of 90 persons/week. "Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to members of the wine trade, persons invited by a winery

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

who have pre-established business or personal relationships with the winery or its owners, and persons who have made unsolicited prior appointment for tours or tastings. (Ord. 947 §9(part), 1990: prior code §12070). Tours and tasting shall complete by 4:00 PM. Retail sale of wines shall complete by 4:30 PM and shall be limited to those wines set forth in Napa County Code Sec. 18.16.030(G)(5)(c). A log book (or similar record) shall be maintained which documents the number of visitors to the winery, and the dates of their visit. This record of visitors shall be made available to the Department upon request.

5. **GRAPE SOURCE:**

At least 75% of the grapes used to make the winery's still wine shall be grown within the County of Napa. The applicant shall report to the Department on an annual basis by December 31 the source of grapes verifying that 75% of the approved production is from Napa County grapes. The report shall include the Assessor's Parcel Number and the grape tonnage. The report shall be proprietary and not available to the public. For the public record, the applicant shall annually submit to the Department for the file a statement regarding compliance with the sourcing requirement and indicating the percentage of Napa County grapes utilized.

6. **SIGNS:**

Prior to installation of any winery identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the Planning Department for administrative review and approval. All signs shall meet the design standards as set forth on Chapter 18.116 of the County Code. At least one sign placed and sized in a manner to inform the public must legibly include wording stating "Retail Sales and Tours & Tasting by Prior Appointment Only".

7. **GATES/ENTRY STRUCTURES:**

Any gate installed at the winery entrance shall be reviewed by the Planning and Public Works Departments and the Napa County Fire Department to assure that it is designed to allow a large vehicles such as motor homes 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 according the County Code.

8. **LIGHTING:**

All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, and shall be the minimum necessary for security, safety, or operations and shall incorporate the use of motion detection sensors to the greatest extent practical. No flood-lighting or sodium lighting of the building is permitted,

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards. Prior to issuance of any building permit for construction of the winery, two (2) copies of a separate detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Department review and approval.

9. **LANDSCAPING/PARKING:**

Two (2) copies of a detailed landscaping plan, including parking details, shall be submitted for review and approval prior to issuance of building permits. The landscaping plan shall include a revegetation planting plan for that area within the stream setback in the vicinity of the barn & parking area and include some type of barrier to protect the plantings and discourage winery use. That portion of the parking area adjacent to the barn located in the stream setback shall be removed and revegetated. **In addition, that area where the two cottages will be demolished shall be subject to removal of all construction materials and revegetated.** Fish & Game shall be consulted and approve the revegetation plan. The plan shall indicate the names and locations of all plant materials to be used along with the method of maintenance. **Plant materials shall be purchased locally when practical. The Agricultural Commissioner's office (707-253-4357) shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.**

The location of employee and visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any). Landscaping and parking shall be completed prior to occupancy, and shall be permanently maintained in accordance with the landscaping plan.

No trees greater than 6" BGH shall be removed, except for those identified on the submitted site plan. Any trees that are removed shall be replaced elsewhere on the property on a 2 for 1 basis of equivalent caliper. Replaced trees shall be identified on the landscaping plan. Trees to be retained shall be protected during construction.

Evergreen screening shall be maintained between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and Highway 29 that can view them. Parking shall be limited to approved parking spaces only and shall not occur along access roads or in other locations except during harvest or approved marketing events. In no case shall parking impede emergency vehicle access or public roads. If any event is held which will exceed the available on-site parking, the applicant shall arrange for off-site parking and shuttle service to the winery.

10. **OUTDOOR STORAGE/SCREENING:**

All outdoor storage of winery equipment shall be screened from the view of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No item in storage is

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V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

to 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.

11. **RENTAL/LEASING:**

No winery facilities, nor portions thereof, including but not limited to offices, kitchens, barrel storage areas, and warehousing space, shall be rented, leased, nor used by entities other then the on-site winery itself, except as may be specifically authorized in this use permit or pursuant to the Temporary Events Ordinance (Section 5.36.010)

12. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES:**

The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Departments and Agencies, including but not limited to:

Department of Environmental Management as stated in their letter of 1/19/2005
Department of Public Works as stated in their letter of 4/7/2005 **(as modified in their letter of March 31, 2008)**
County Fire Department as stated in their letter of 1/7/2005
Building Division as stated in their letter of 1/4/05
Department of Transportation as stated in their letter of 6/22/05 **(as modified in their letter of December 28, 2007.)**

13. **SPOILS:**

All spoils generated by construction of the project facilities shall be disposed of per Public Works direction. All spoils piles shall be removed prior to occupancy.

14. **WELLS:**

The permittee may be required (at the permittee's expense) to provide well monitoring data if it is judged that water usage at the winery is, or would potentially affect groundwater supplies or nearby wells. Data requested could include, but may not be limited to, water extraction volumes and static well levels. If applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gage potential impacts on the groundwater resource utilized for the project proposed. Water usage shall be minimized by use of best available control technology and best water management conservation practices. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the use permit would significantly affect the groundwater basin, the director of environmental management shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of the permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance and protect public heath, safety, and welfare. That recommendation shall not

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

become final unless and until the director has provided notice and the opportunity for hearing in compliance with the County Code section 13.15.070.G-K.

15. **NOISE:**

Construction noise shall be minimized to the maximum extent practical and allowable under State and local safety laws. Construction equipment muffling and hours of operation shall be in compliance with County Code Chapter 8.16. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site. If project terrain or access road condition 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 between the hours of 8 AM to 5 PM. Winery equipment shall be enclosed or muffled and maintained so as not to create a noise disturbance in accordance with the Code. There shall be no amplified sound system or amplified music utilized outside of approved, enclosed winery buildings unless a special permit to that effect has been secured through the County.

16. **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. Construction activities shall not occur during windy periods.

17. **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 Department will be contacted for further guidance, which will likely include the requirement for the applicant to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required. If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed, so that he 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 nearest tribal relatives as determined by the State Native American Heritage Commission would be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98.

18. **TRAFFIC:**

Reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors will occur during non-peak travel times to the maximum extent possible **in**

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

accordance with the approved State Department of Transportation (Caltrans) requirements for the reduction of left turn movement to the project site.

19. **ADDRESSING:**

All project site addresses shall be determined by the Director, and reviewed and approved by the U.S. Post Office, prior to issuance of any building permit. The 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.

20. **DESIGNATION OF MAIN RESIDENCE FOR PARCEL:**

Upon completion of the conversion of the main **historic** residence to a winery **/ residence** pursuant to this use permit approval, what was previously designated the attached second unit for the parcel shall become the designated main residence for the property.

21. **STORM WATER CONTROL:**

For any construction activity that results in disturbance of greater than one acre of total land area, applicant shall file a Notice of Intent with the California Regional Quality Control Board (SRWQCB) prior to any grading or construction activity. All hazardous materials stored and used on-site that could cause water pollution (e.g. motor oil, cleaning chemicals, paints, 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. Parking lots shall be designed to drain through grassy swales, buffer strips, or sand filters prior to any discharge from the impervious surface into a watercourse. If any discharge of concentrated surface waters is proposed in the any "Waters of the State," the applicant shall consult with and secure any necessary permits from the State Regional Water Quality Control Board. All trash enclosures must be covered and protected from rain, roof, and surface drainage.

22. **INDEMNIFICATION:**

An indemnification agreement, in the form attached hereto, shall be signed and returned to the County within twenty (20) days of the granting of this approval.

23. **MONITORING COSTS:**

All staff costs associated with monitoring compliance with these conditions, previous permit conditions and project revisions shall be borne by the applicant and/or property owner.

AMENDED* CONDITIONS OF APPROVAL
(*Amended conditions appear in bold, underlined lettering)

V Madrone Cellars / Christopher and Pauline Tilley
Use Permit Modification #P08-00099 (to Use Permit #P04-0541-UP)

Generally costs associated with planning review for building plan clearance and certification of occupancy are not to be charged per this condition. However, costs associated with conditions and mitigation measures that require monitoring outside of those two processes, 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. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time, or in accordance with the hourly consulting rate established by the Department at the time of the monitoring ($88.00/hour as of December, 2002). Violations of conditions of approval or mitigations measures caused by the applicant's contractors, employees, and guests are the responsibility of the applicant.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies are 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 it is so warranted, to commence revocation hearings in accordance with Section 18.124.120 of the County Code.

24. **MITIGATION MEASURES:**

The applicant shall comply with all mitigation measures contained in the Mitigated Negative Declaration prepared, adopted **and as amended** for this project.

AMENDED PROJECT REVISION STATEMENT

V Madrone Cellars (aka Tilley Winery) / Christopher and Pauline Tilley (property owners)
Use Permit Major Modification #P08-00099 & Addendum to Use Permit #P04-0541

Under this Use Permit Modification #P08-00099, I hereby amend the Project Revision Statement of the original Use Permit #P04-0541-UP (dated 9-21-2005) for Transportation/Traffic mitigation measures the as specified below:

Transportation/Traffic:

1. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the winery structures all road and site improvements shall be completed for "No Left Turn" arrangement[1] on State Highway 29 and on the project site in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for the winery operation. The "No Left Turn" arrangement shall not require the alteration or removal of the historic stone wall.

2. No visitation or marketing shall occur until all road improvements of the "No Left Turn" arrangement on State Highway 29 as well as the project site are completed in conformance with the requirements of the California Department and the Napa County Public Works Department. All marketing shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3 – 5 pm Monday through Friday and 2 – 5 pm on weekends.

[1] The "No left turn" arrangement: In March of 2007, Caltrans found the following mitigation measures an acceptable alternative to reduce traffic volumes to and from the site and reduce full access to partial access to the site: (1) the elimination of two residential cottages on the property (as shown on the site plan submitted by the applicant on March 21, 2008); (2) disallowing left turn ingress and egress by requiring two "No Left Turn signs (on the Highway and on the driveway) to enforce the prohibition of left turn movements; (3) redesigning of the driveways to make left turn movements in and out of the site difficult.

I understand and explicitly agree that with regards to all California Environmental Quality Act, Permit Streamlining Act, and Subdivision Map Act processing deadlines, this revised application will be treated as an addendum to the original project, filed on the date this project revision statement is received by the Napa County Conservation, Development and Planning Department. For purposes of Section 66474.2 of the Subdivision Map Act, the date of application completeness shall remain the date this project was originally found complete.

Signature of Owner(s)	Print Name	Interest
	Christopher W. Tilley	4/29/08 owner
Signature of Owner(s)	Print Name	
	PAULINE TILLEY	4/29/08 OWNER

AMENDED PORTION OF THE MITIGATION MONITORING AND REPORTING PROGRAM PERTAINING TO THE TRANSPORTATION / TRAFFIC (Section XV) ONLY

V MADRONE CELLARS / CHRISTOPHER & PAULINE TILLEY #P04-0541-UP (APN 022-080-025)

Transportation / Traffic (Section XV)			
1. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the structures to be used for winery operations, all road and site improvements shall be completed for "No Left Turn" arrangement[1] on State Highway 29 and on the project site in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for the winery operation. The "No Left Turn" arrangement shall not require the alteration or removal of the historic stone wall.	Planning / Caltrans	a. Prior to the approval of any permit for the construction of the No Left Turn arrangement[1], Caltrans shall verify the plans do not call for alteration or removal of the stone wall or pillars. b. Prior to issuance of a Temporary or Final Certificate of Occupancy for any of the structures to be used for winery operations, Caltrans shall inspect and verify improvements have been completed to their satisfaction.	
2. No visitation or marketing shall occur until all road improvements of the "No Left Turn" arrangement on State Highway 29 as well as the project site are completed in conformance with the requirements of the California Department of Transportation (Caltrans) and the Napa County Public Works Department. All marketing shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3 – 5 pm Monday through Friday and 2 – 5 pm on weekends.	Planning Department	Periodic checks and complaint initiated field visits.	

[1] The "No left turn" arrangement: In March of 2007, Caltrans found the following mitigation measures an acceptable alternative to reduce traffic volumes to and from the site and reduce full access to partial access to the site: (1) the elimination of two residential cottages on the property (as shown on the site plan submitted by the applicant on March 21, 2008); (2) disallowing left turn ingress and egress by requiring two "No Left Turn signs (on the Highway and on the driveway) to enforce the prohibition of left turn movements; (3) redesigning of the driveways to make left turn movements in and out of the site difficult.

P08-00099
Public Works
Page 1 of 2

PUBLIC WORKS DEPARTMENT
INTER-OFFICE MEMO

March 31st, 2008

TO: Conservation Development and Planning Department

FROM: Drew Lander, Assistant Engineer

SUBJECT: Tilley Cellars, APN 022-080-025, File #P08-00099

The application will allow the applicant to modify the certified Mitigated Negative Declaration as required by previously approved Use Permit #P04-0541 to adopt the Encroachment requirements approved by the California Department of Transportation for the winery approved under the prior Use Permit #P04-0541.

EXISTING CONDITIONS:

1. Existing access road is 16 feet wide at the connection with Hwy. 29, immediately widening to 22 ft for a distance of approximately 35 feet, and then narrowing to 13 feet wide for the remaining distance to the site.

2. Parking surface is currently compacted aggregate base.

3. The traffic count for Hwy. 29 was 14600 just north of Lodi Lane, according to Caltrans 2002 vehicle traffic data.

RECOMMENDED CONDITIONS:

1. All previous conditions provided by the Public Works Department for UP#P04-0541 and dated April 7th, 2005 still apply. See attached

2. The applicant must obtain an encroachment permit from CalTrans for any work performed within the Caltrans Right-of-Way.

3. The estimated annual daily traffic count of 14600 on State Hwy 29 combined with an estimated daily average of 2 full-time employees and 24 visitors/deliveries per day indicate that a left turn lane on State Hwy 29 is required. (County Road and Street Standards, Page 15, Sec. 16 and Page 16-A). **The applicant shall complete the construction of appropriate improvements as approved by the California Department of Transportation prior to issuance of a**

temporary certificate or final certificate of occupancy for any of the structures to be used for winery operations.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items please contact Nate Galambos or Drew Lander at 253-4351.

cc: Christopher & Pauline Tilley, 901 Skibo Lane, Mamaroneck, NY 10543

TRISH

COUNTY of NAPA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

STEVEN LEDERER
Director

CHRISTINE M. SECHELI, R.E.H.S.
Assistant Director

TO: Napa County Planning Department
Hillary Gitelman, Planning Director

FROM: Napa County Environmental Management Department
Christine Secheli, R.E.H.S., Assistant Director

SUBJECT: Use Permit Modification Application for V Madrone (Tilley) Winery
Located at 3199 St. Helena Hwy. North
Assessor Parcel #022-080-025
File # P08-00099

DATE: February 28, 2008

We have reviewed the above proposal and recommend approval of the application providing the following are included as conditions of approval:

1. We have no recommendations or conditions of approval to be included if the project is approved.

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

cc: Christopher W. Tilley, V Madrone Cellars, 3169 St. Helena Hwy., St. Helena, CA 94574

1195 Third Street, Suite 101 • Napa, California 94559
Telephone: (707) 253-4471 • Fax: (707) 253-4545 • www.co.napa.ca.us

TH

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

INTER-OFFICE MEMO

TO: Hillary Gitelman
Conservation, Development, and Planning Department

FROM: Brian Hampton, Fire Department

DATE: March 5, 2008

SUBJECT: V Madrone (Tilley) Winery Major Mod
Apn: 022-080-025 P08-00099

Site Address: 3199 ST Helena Hwy., ST Helena

The Napa County Fire Marshal staff has reviewed the above referenced use permit major modification to require left turn lane to issuance of building permit.

This modification does not warrant any fire department comments for this project. If there are any questions please feel free to contact the Napa County Fire Marshal's Office at (707) 967-1423 to discuss any fire protection issue you may have regarding this project.

Ernie Loveless
Fire Chief

By:

Brian Hampton
Fire Prevention Specialist II

cc: Applicant, CFM Files, Chron

FILE #: PDA-00097

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NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

HILLARY GITELMAN
Director

PATRICK LYNCH
Assistant Director

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Calif Highway Patrol

APPLICATION TITLE: MADRONE (TILLEY) WINERY MAJOR MOD APN: 022-080-026

DESCRIPTION OF PROJECT: ① ADDENDUM TO PREVIOUSLY CERTIFIED MITIGATED NEG DEC TO REQUIRE LEFT TURN LANE PRIOR TO BLDG PERMIT ISSUANCE & REPLACE WITH CAL TRANS APPROVED SUBSTITUTE MITIGATION OF "NO LEFT TURN" SIGN ② CHANGE CONDITION OF APPROVAL TO REQUIRE HISTORIC STRUCTURES TO BE LISTED AS ELIGIBLE ON THE CAL REGISTER TO VERIFIED BY HISTORIC ARCHITECT THAT STRUCTURES ARE ELIGIBLE ③ INCREASE BARN SQ FOOTAGE BY 10%.

RESPONSE REQUEST DATE: 2-26-08 RESPONSE RETURN DATE: 3/10/08

PLEASE RESPOND VIA E-MAIL TO: thornish @co.napa.ca.us
OR FAX TO (707) 299-1349

This application (see enclosed project description and maps) is being sent to you for your review and comment.

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

1. Do you have any comments on this project? ☐ Yes ☑ No
2. Do you have jurisdiction by law over this project? ☐ Yes ☑ No
3. Attach your agencies comments, or list below: ☐ Comments attached ☐ Comments below.

N/A

Name of contact person: Michael A. Berger Telephone #: (707) 253-4206

Email: MBerger@chp.ca.gov
Title: Lieutenant
Date: 3-10-08

COUNTY of NAPA
OFFICE OF CONSERVATION, DEVELOPMENT & PLANNING
PLANNING COMMISSION

Commissioner
DAVID GRAVES
District #1

Vice-Chairperson
JIM KING
District #2

Chairperson
BOB FIDDAMAN
District #3

Commissioner
TERRY SCOTT
District #4

Commissioner
RICH JAGER
District #5

✦

HILLARY GITELMAN
Secretary-Director

PATRICK LYNCH, *AICP*
Assistant Secretary-Director

GARY BREWEN
Building Codes Administrator

STEVEN LEDERER
Deputy Director
Planning

R. PATRICK LOWE
Deputy Director
Conservation

LAURA ANDERSON
Commission Counsel

PAMELA MILLER
Commission Clerk

October 5, 2005

Christopher & Pauline Tilley
901 Skibo Lane
Mamaroneck, NY 10543

RE: Use Permit #P04-0541-UP
APN #22-080-025

Dear Mr. & Mrs. Tilley:

Please be advised that Use Permit #P04-0541-UP was **APPROVED** by the Napa County Conservation, Development and Planning Commission on September 21, 2005, based on the attached conditions, the Napa County departments comments, and applicable County regulations.

The permit becomes effective ten (10) working days from the approval date unless appealed to the Napa County Board of Supervisors pursuant to Chapter 2.88 of the Napa County Code, including payment of applicable fees. You may appeal the conditions of approval. If an appeal is filed by anyone, you will be notified.

EXPIRATION DATE: September 21, 2007

Pursuant to Section 18.124.080 of the Napa County Code, the use permit must be activated within two (2) years from the approval date, or it shall automatically expire and become void. This letter serves as the only notice you will receive regarding the expiration date of your permit.

Your are hereby further notified, pursuant to Government Code Section 66020(d)(1), that the 90-day period, in which you would have to protest imposition of any fees, dedications, reservations, or other exactions that may have been attached as conditions of approval, has begun. Please note that additional fees will be assessed if a landscape plan is required by this approval.

Should you have any questions, please contact Barbara Abate at (707) 299-1347 or by e-mail: babate@co.napa.ca.us.

Sincerely,

Steven Lederer
Deputy Director
Napa County Conservation, Development and Planning Department

cc: John Tuteur, Assessor
Larry Bogner, Public Works
Gabrielle Avina, County Fire Department
Patrick Lynch, Assistant Director
Christine Secheli, Environmental Management
Mary Sikes, Architect

1195 THIRD STREET
SUITE 210
✦
NAPA, CALIFORNIA
94559
✦
TELEPHONE:
707-253-4417
✦
FAX:
707-253-4336
✦
WWW.CO.NAPA.CA.US

CONDITIONS OF APPROVAL
VMadrone Cellars / Christopher and Pauline Tilley
Use Permit #P04-0541-UP

1. **SCOPE:** The permit shall be limited to:

   - Wine production of no more than 20,000 gallons per year;
   - Conversion of the existing 2547 square foot main residence to office, conference, shipping/receiving, equipment and dry storage, commercial kitchen/employee break room and lobby; and 2555 square foot cellar and basement to barrel storage, bottle and bulk storage;
   - Relocation of the barn out of the stream setback (approximately 25 feet and in close proximity to its historical location);
   - Removal of that portion of the adjacent parking area within the stream setback;
   - Conversion of the 798 square foot barn and attached 136 square foot outbuilding to barrel storage, storage and restroom;
   - Conversion of 425 square feet of unenclosed outbuildings to covered outdoor work space;
   - Construction of 1204 square foot crush/fermentation tank pad;
   - Retail sales and tours & tasting by appointment only;
   - 15 parking spaces;
   - Two full-time and two part-time employees;
   - Establish a Marketing plan as discussed below;
   - Installation of one additional water storage tank for fire protection; and
   - Construction of a left-turn lane on State Highway 29 and improvements to the access road.

   The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials. It is the responsibility of the applicant to communicate the requirements of these conditions and mitigations (if any) to all designers, constructors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or changes in use shall be by the approved Use Permit modification process.

2. **HISTORICAL STRUCTURES:** Prior to the issuance of any building permits for the project the following shall be provided:
   a. Verification that the main residence has been either listed on or is eligible for listing on the California or National Historic Register; and
   b. A historic architect's report confirming the construction plans, location, materials & color are in compliance with the Secretary of Interiors Guidelines for the Treatment of Historic Properties.

3. **MARKETING:** Marketing events shall be limited as follows:
   a. Two auction events per year with a maximum of 75 people per event
   b. One private harvest event per year with a maximum of 75 people
   c. One special holiday event per year with a maximum of 75 people
   d. Two wine trade open house events per year with a maximum of 75 people per event
   e. Six private wine and food trade events per year with a maximum of 20 people per event

   (All marketing events shall occur between 10:00 AM - 3:00 PM and 5:00 PM - 10:00 PM Monday through Friday; and on weekends 10:00 AM - 2:00 PM and 5:00 PM - 10:00 PM)

"Marketing of wine" means any activity of a winery identified in this paragraph which is conducted at the winery and is limited to members of the wine trade, persons who have pre-established business or personal relationships with the winery or its owners, or members of a particular group for which the activity is being conducted on a prearranged basis. Marketing of wine is limited to activities for the education and development of the persons or groups listed above with respect to wine which can be sold at the winery on a retail basis, and may include food service without charge except to the extent of cost recovery when provided in association with such education and development, but shall not include cultural and social events unrelated to such education and development. (Ord. 1104 § 11, 1996: Ord. 947 § 9 (part), 1990: prior code § 12071). All activity, including cleanup, shall cease by 10:00 PM. Start and finish time of activities shall be scheduled to minimize vehicles arriving or leaving between 3:00 PM and 5:00 PM weekdays and 2:00 PM and 5:00 PM weekends.

4. **TOURS AND TASTING:**

Tours and tastings are limited to a maximum of 20 persons/day with an average of 90 persons/week. "Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to members of the wine trade, persons invited by a winery who have pre-established business or personal relationships with the winery or its owners, and persons who have made unsolicited prior appointment for tours or tastings. (Ord. 947 §9(part), 1990: prior code §12070). Tours and tasting shall complete by 4:00 PM. Retail sale of wines shall complete by 4:30 PM and shall be limited to those wines set forth in Napa County Code Sec. 18.16.030(G)(5)(c). A log book (or similar record) shall be maintained which documents the number of visitors to the winery, and the dates of their visit. This record of visitors shall be made available to the Department upon request.

5. **GRAPE SOURCE:**

At least 75% of the grapes used to make the winery's still wine shall be grown within the County of Napa. The applicant shall report to the Department on an annual basis by December 31 the source of grapes verifying that 75% of the approved production is from Napa County grapes. The report shall include the Assessor's Parcel Number and the grape tonnage. The report shall be proprietary and not available to the public. For the public record, the applicant shall annually submit to the Department for the file a statement regarding compliance with the sourcing requirement and indicating the percentage of Napa County grapes utilized.

6. **SIGNS:**

Prior to installation of any winery identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the Planning Department for administrative review and approval. All signs shall meet the design standards as set forth on Chapter 18.116 of the County Code. At least one sign placed and sized in a manner to inform the public must legibly include wording stating "Retail Sales and Tours & Tasting by Prior Appointment Only".

7. **GATES/ENTRY STRUCTURES:**

Any gate installed at the winery entrance shall be reviewed by the Planning and Public Works Departments and the Napa County Fire Department to assure that it is designed to allow a 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 according the County Code.

8. **LIGHTING:**

All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, and shall be the minimum necessary for security, safety, or operations and shall incorporate the use of motion detection sensors to the greatest extent practical. 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. Prior to issuance of any building permit for construction of the winery, two (2) copies of a separate detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Department review and approval.

9. **LANDSCAPING/PARKING:**

Two (2) copies of a detailed landscaping plan, including parking details, shall be submitted for review and approval prior to issuance of building permits. The landscaping plan shall include a revegetation planting plan for that area within the stream setback in the vicinity of the barn & parking area and include some type of barrier to protect the plantings and discourage winery use. That portion of the parking area adjacent to the barn located in the stream setback shall be removed and revegetated. Fish & Game shall be consulted and approve the revegetation plan. The plan shall indicate the names and locations of all plant materials to be used along with the method of maintenance. **Plant materials shall be purchased locally when practical. The Agricultural Commissioner's office (707-253-4357) shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.**

The location of employee and visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any). Landscaping and parking shall be completed prior to occupancy, and shall be permanently maintained in accordance with the landscaping plan.

No trees greater than 6" BGH shall be removed, except for those identified on the submitted site plan. Any trees that are removed shall be replaced elsewhere on the property on a 2 for 1 basis of equivalent caliper. Replaced trees shall be identified on the landscaping plan. Trees to be retained shall be protected during construction.

Evergreen screening shall be maintained between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and Highway 29 that can view them. Parking shall be limited to approved parking spaces only and shall not occur along access roads or in other locations except during harvest or approved marketing events. In no case shall parking impede emergency vehicle access or public roads. If any event is held which will exceed the available on-site parking, the applicant shall arrange for off-site parking and shuttle service to the winery.

10. **OUTDOOR STORAGE/SCREENING:**

All outdoor storage of winery equipment shall be screened from the view of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No item in storage is to 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.

11. **RENTAL/LEASING:**

No winery facilities, nor portions thereof, including but not limited to offices, kitchens, barrel storage areas, and warehousing space, shall be rented, leased, nor used by entities other then the on-site winery itself, except as may be specifically authorized in this use permit or pursuant to the Temporary Events Ordinance (Section 5.36.010)

12. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES:**

The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Departments and Agencies, including but not limited to:

Department of Environmental Management as stated in their letter of 1/19/2005
Department of Public Works as stated in their letter of 4/7/2005
County Fire Department as stated in their letter of 1/7/2005
Building Division as stated in their letter of 1/4/05
Department of Transportation as stated in their letter of 6/22/05

13. **SPOILS:**

All spoils generated by construction of the project facilities shall be disposed of per Public Works direction. All spoils piles shall be removed prior to occupancy.

14. **WELLS:**

The permittee may be required (at the permittee's expense) to provide well monitoring data if it is judged that water usage at the winery is, or would potentially affect groundwater supplies or nearby wells. Data requested could include, but may not be limited to, water extraction volumes and static well levels. If applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gage potential impacts on the groundwater resource utilized for the project proposed. Water usage shall be minimized by use of best available control technology and best water management conservation practices. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the use permit would significantly affect the groundwater basin, the director of environmental management shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of the permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance and protect public heath, safety, and welfare. That recommendation shall not become final unless and until the director has provided notice and the opportunity for hearing in compliance with the County Code section 13.15.070.G-K.

15. **NOISE:**

Construction noise shall be minimized to the maximum extent practical and allowable under State and local safety laws. Construction equipment mufflering and hours of operation shall be in compliance with County Code Chapter 8.16. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site. If project terrain or access road condition 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 between the hours of 8 AM to 5 PM. Winery equipment shall be enclosed or muffled and maintained so as not to create a noise disturbance in accordance with the Code. There shall be no amplified sound system or amplified music utilized outside of approved, enclosed winery buildings unless a special permit to that effect has been secured through the County.

16. **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. Construction activities shall not occur during windy periods.

17. **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 Department will be contacted for further guidance, which will likely include the requirement for the applicant to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required. If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed, so that he 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 nearest tribal relatives as determined by the State Native American Heritage Commission would be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98.

18. **TRAFFIC:**

Reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors will occur during non-peak travel times to the maximum extent possible.

19. **ADDRESSING:**

All project site addresses shall be determined by the Director, and reviewed and approved by the U.S. Post Office, prior to issuance of any building permit. The 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.

20. **DESIGNATION OF MAIN RESIDENCE FOR PARCEL:**

Upon completion of the conversion of the main residence to a winery pursuant to this use permit approval, what was previously designated the attached second unit for the parcel shall become the designated main residence for the property.

21. **STORM WATER CONTROL:**

For any construction activity that results in disturbance of greater than one acre of total land area, applicant shall file a Notice of Intent with the California Regional Quality Control Board (SRWQCB) prior to any grading or construction activity. All hazardous materials stored and used on-site that could cause water pollution (e.g. motor oil, cleaning chemicals, paints, 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. Parking lots shall be designed to drain through grassy swales, buffer strips, or sand filters prior to any discharge from the impervious surface into a watercourse. If any discharge of concentrated surface waters is proposed in the any "Waters of the State," the applicant shall consult with and secure any necessary permits from the State Regional Water Quality Control Board. All trash enclosures must be covered and protected from rain, roof, and surface drainage.

22. **INDEMNIFICATION:**

An indemnification agreement, in the form attached hereto, shall be signed and returned to the County within twenty (20) days of the granting of this approval.

23. **MONITORING COSTS:**

All staff costs associated with monitoring compliance with these conditions, previous permit conditions and project revisions shall be borne by the applicant and/or property owner. Generally costs associated with planning review for building plan clearance and certification of occupancy are not to be charged per this condition. However, costs associated with conditions and mitigation measures that require monitoring outside of those two processes, 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. Costs shall be as established by Resolution #95-77 or as such Resolution may be amended from time to time, or in accordance with the hourly consulting rate established by the Department at the time of the monitoring ($88.00/hour as of December, 2002). Violations of conditions of approval or mitigations measures caused by the applicant's contractors, employees, and guests are the responsibility of the applicant.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies are 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 it is so warranted, to commence revocation hearings in accordance with Section 18.124.120 of the County Code.

24. **MITIGATION MEASURES:**

The applicant shall comply with all mitigation measures contained in the Mitigated Negative Declaration prepared and adopted for this project.

REVISED
PROJECT REVISION STATEMENT

VMadrone Cellars / Christopher and Pauline Tilley
Use Permit #P04-0541-UP

I hereby revise my request to include the measures specified below:

Cultural Resources:

1. All site work, including rehabilitation, restoration, or modification of the main residence and barn shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. An historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.
2. The stone wall, including the pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.
3. A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological firm and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities.

Transportation/Traffic:

4. Prior to issuance of a building permit for the project, a left turn lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations. Construction of the left turn lane shall not require removal or alteration of the historic stone wall.
5. All marketing activities shall be conducted during off-peak hours and avoid the peak hours which are considered to be from 3-5 pm Monday through Friday and 2-5 pm on weekends.

I understand and explicitly agree that with regards to all California Environmental Quality Act, Permit Streamlining Act, and Subdivision Map Act processing deadlines, this revised application will be treated as a new project, filed on the date this project revision statement is received by the Napa County Conservation, Development and Planning Department. For purposes of Section 66474.2 of the Subdivision Map Act, the date of application completeness shall remain the date this project was originally found complete.

Signature of Owner(s)	Print Name	Interest
Pauline Tilley	PAULINE TILLEY	OWNER
Signature of Owner(s)	Print Name	Interest
	CHRISTOPHER TILLEY	OWNER

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

MITIGATION MONITORING AND REPORTING PROGRAM
VMADRONE CELLARS / CHRISTOPHER & PAULINE TILLEY #P04-0541-UP (APN 22-080-025)

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
Cultural Resources (Section V)			
1. All site work, including rehabilitation, restoration, or modification of the main residence and barn shall comply with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. A historic architect shall review all proposed building construction plans for compliance and his/her written report shall accompany any plans submitted for a building permit.	Planning Department	Prior to issuance of any building permit for the project, Planning Dept to review historic architect's report and confirm project in compliance.	
2. The stone wall, including pillars, along the frontage of the subject property shall not be altered or removed to accommodate any required road improvements.	Public Works Dept / Caltrans	Public Works / Caltrans to review improvement plans and confirm that stone walls and pillars will not be altered or removed.	
3. A monitoring plan shall be prepared and implemented for archaeological resources. The plan shall include the name of the archaeological firm and schedule, and be submitted to the Planning Department for concurrence prior to commencement of any earthmoving activities.	Applicant / Planning Department	a. Prior to issuance of any building permit, grading permit or approval of any improvement plan, the archaeological resource monitoring plan & schedule shall be submitted to the Planning Dept for review & approval. b. Prior to final inspection, the archaeologist report shall be submitted to the Planning Dept.	
Transportation / Traffic (Section XV)			
4. Prior to issuance of a building permit for the project, a left turn lane shall be constructed on State Highway 29 in conformance with the requirements of the California Department of Transportation to reduce potential traffic hazards in the general vicinity during the construction phase of the project and later post construction for winery operations. Construction of the left turn lane shall not require removal or alteration of the historic stone wall.	Planning / Caltrans	a. Prior to the approval of any permit for the construction of the left turn lane, Caltrans shall verify the plans do not call for alteration or removal of the stone wall or pillars. b. Prior to issuance of building permit, Caltrans shall inspect and verify improvements have been completed to their satisfaction.	
5. All marketing activities shall be conducted during the off-peak hours and avoid the peak hours which are considered to be from 3-5 pm Monday through Friday and 2-5 pm on weekends.	Planning Department	Periodic checks and complaint initiated field visits.	

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APR 07 2005
NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

PUBLIC WORKS DEPARTMENT
INTER-OFFICE MEMO

April 7, 2005

TO: Conservation Development and Planning Department

FROM: Drew Lander, Assistant Engineer DL

SUBJECT: Tilley Cellars, APN 022-080-025, File #P04-0541

The application will allow the applicant to establish a winery with a production capacity of 20,000gal/yr; 2 full time and 2 part time employees; construct a 20 space parking lot; and 5695 sqft of new building floor area. Parcel is located on the west side of State Hwy 29, North of Ehlers Lane.

EXISTING CONDITIONS:

1. Existing access road is 16 feet wide at the connection with Hwy. 29, immediately widening to 22 ft for a distance of approximately 35 feet, and then narrowing to 13 feet wide for the remaining distance to the site.

2. Parking surface is currently compacted aggregate base.

3. The traffic count for Hwy. 29 was 14600 just north of Lodi Lane, according to Caltrans 2002 vehicle traffic data.

RECOMMENDED CONDITIONS:

GROUNDWATER

1. We have reviewed the phase one, water availability analysis for the proposed project. The 7.85 acre parcel is located in the "valley floor" region, with an extraction threshold of 1.0 AF/Acre, resulting in a total parcel threshold of 7.85 AF/Year. The estimated water demand of 3.62 AF/Year (2.34 AF/Year for all residential uses, 0.43 AF/Year for winery uses and 0.85 AF/year for vineyard uses) is below the established threshold for the property. Therefore, the projected water use for this project should not have a significant impact on static water levels of neighboring wells. No further analysis is necessary.

NEW DRIVEWAY:

2. Access drive shall be a minimum of 18 feet wide with 2 feet of shoulder from the nearest County maintained road to the project site. Structural section shall be a minimum 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent. (County Road and Street Standards, Page 9, Par. 12).

PARKING:

PARKING:

3. Any parking proposed by the applicant or required by the Planning Commission as a condition of this use permit must have a minimum structural section of 5 inches of Class II Aggregate Base plus a double chip seal coat or equivalent. (County Road and Street Standards, Page 27, Section 19).

4. Parking lot details shall conform to the requirements of the latest edition of the Napa County Road and Street Standards.

SITE IMPROVEMENTS:

5. All earth disturbing activities shall maintain erosion, sediment, and waste materials from leaving the site and entering waterways both during and after construction in conformance with the Napa County Stormwater Ordinance.

6. Proposed drainage for the development shall be shown on the improvement plans and shall be accomplished to avoid the diversion or concentration of storm water runoff onto adjacent properties. Plan shall also indicate the path and changes in runoff.

7. Any necessary storm drainage improvements shall conform to the latest "Napa County Road and Street Standards".

8. Grading, drainage and parking improvements shall be constructed according to the latest "Napa County Road and Street Standards".

9. On site grading shall be accomplished to avoid the diversion or concentration of storm water runoff onto adjacent properties.

10. The applicant must obtain an encroachment permit from CalTrans for any work performed within the Caltrans Right-of-Way.

OTHER RECOMMENDATIONS:

11. Improvements shall be constructed according to plans prepared by a registered civil engineer which will be reviewed and approved by this office. Improvement plans shall be submitted with the building permit. A plan check fee will apply.

12. The estimated annual daily traffic count of 14600 on State Hwy 29 combined with an estimated daily average of 2 full-time employees and 24 visitors/deliveries per day indicate that a left turn lane on State Hwy 29 is required. (County Road and Street Standards, Page 15, Sec. 16 and Page 16-A). The applicant shall complete the construction of the turn lane prior to issuance of a certificate of occupancy for the winery.

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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

INTER-OFFICE MEMO

TO: Conservation, Development, and Planning Department

FROM: Gabrielle Maurino Avina, Fire Department

DATE: January 7, 2005

SUBJECT: Vmadrone Cellars Use Permit Comments
Apn: 022-080-025 P04-0541

Site Address: 3199 St. Helena Hwy N., St. Helena

The Napa County Fire Marshal staff has reviewed the Use Permit application to establish a 20,000 gallon a year winery within an existing historic residence and cellar and a barn.

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. An approved automatic fire sprinkler system will be required for all structures 3,600 square feet or greater. The barn with attached outbuildings is less than 3,600 square feet and will not require sprinkler protection. The main winery building and basement will require an automatic fire sprinkler system installed throughout both the winery and the residence and that system shall be installed and maintained in accordance with the *National Fire Protection Association Standard (NFPA) #13 (Installation of Sprinkler System, 1999 edition).* A minimum of 60 minutes of water storage for the sprinkler system will be required.

3. The ***minimum*** required fire flow for the protection of the ***proposed*** project is 200 gallons per minute for 60 minutes duration at 20 pounds residual water pressure with a water storage volume of 12,000 gallons. The fire flow is based on the square footage of the building and the construction type. If the applicant choses to install an automatic fire sprinkler system in all of the winery structures, including the barn, the water storage for fire flow will be reduced to 6,000 gallons. *Please note that the fire flow and storage volume in a sprinklered building is in addition to the water demand for the sprinkler system.*

4. A fire pump may be required to meet the fire flow requirements. The fire pump shall be installed and maintained in accordance to the *National Fire Protection Standard #20 (Installation of Stationary Pumps for Fire Protection 1999 edition).* Fire pumps are required to be listed and tested by an approved testing agency and are required to be either diesel driven or electric. Electric fire pumps also require a secondary power source.

5. The private fire service mains shall be installed and maintained in accordance to the *National Fire Protection Standard # 24 (Installation of Private Fire Service Mains and Their Appurtenances 1995 edition).*

6. The location, number and type of fire hydrants connected to the water supply shall be in accordance with the *California Fire Code, 2001 edition, Appendix III B.*

7. All post indicator valves, control valves, waterflow devices and fire pumps shall be monitored by an approved remote station or central alarm monitoring company. The digital alarm communicator system panel shall be installed and maintained in accordance with the *National Fire Protection Standard #72 (Fire Alarm Code, 1999 edition).*

8. Occupancy separations shall be in accordance with Table 3-B of the 2001 California Building Code. A minimum one hour occupancy separation is required between the winery space and the residence in the main winery building.

9. A complete set of Building Plans shall be submitted to the Fire Department for review and approval for egress requirements. **It does not appear from the plans submitted with the application that the exiting in the basement or cellar area complies with the 2001 California Building Code. All exiting shall comply with the standards in effect at the time of building permit issuance.**

10. Access roads from the public and/or private right-of- ways to the project/ building site shall comply with Napa County Road and Street Standards and shall be reviewed by the Napa County Public Works Department.

11. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet at the building site and an unobstructed vertical clearance of not less than 15 feet unless otherwise approved by the Napa County Department of Public Works.

12. Fire apparatus access roads shall be provided to within 150' of all portions of a structure.

13. Fire apparatus access roads shall be cleared of flammable vegetation on 10 feet of each side of the roadway. Dry grass shall be cut to less than 4" in height, ladder

fuel from trees shall be removed up to 8', brush shall be cut or removed and all dead fuel shall be removed.

14. A defensible space zone shall be created around all structures. This defensible space zone shall be 100' from all portions of a structure. Flammable vegetation shall be removed and/or modified in the defensible space zone to create a fuel break that will help protect the structures from an encroaching wildland fire and will protect the surrounding wildland areas from a structure fire originating on-site.

15. The request for beneficial occupancy ***will not*** be considered until all fire and life safety issues have been installed, tested and finaled.

16. The approved address numbers shall be placed by the applicant in such a position as to be plainly visible and legible from the street fronting the property and shall be placed as to be seen from all entrances. Proposed address shall be indicated on the elevation drawings contained within the building plan submittal. The address numbers shall be a minimum of 10" in height, contrasting in color with their background and shall be illuminated.

17. An approved project sign shall be placed at vehicle access points into the project during construction to assist emergency responders. The sign shall identify the project name and address. Such signs shall be clearly visible and legible from the street fronting the project.

18. The applicant shall properly identify all required fire lanes. Fire lanes shall be painted red with white letters to read "NO PARKING FIRE LANE CVC 22500.1, stenciled every 30 feet on top of the curb.

19. A Knox Cabinet shall be installed at an approved location by the Napa County Fire Marshal's Office. Since a fire alarm will be required the Knox box/cabinet will require "*tamper*" monitoring.

20. The Knox rapid entry system shall have one or all of the following items placed in the Knox box or Knox cabinet, dependant on requirements of this facility:

    1. A minimum of 2 master keys to the structure(s) for emergency access.
    2. Scaled site plan of the facility, identifying all buildings, hydrants, fire department access around the facility, and location of all water, electric, and gas shut-off valves.
    3. Scaled floor plans of all structures showing doors, offices, etc.
    4. Napa County Hazardous Materials Business including all MSDS forms, etc.

21. Barricades shall be provided to protect any natural gas meter, fire hydrant, or other fire department control device, which may be subject to vehicular damage. Approved signs may be required to identify the location of fire protection devices.

22. Technical assistance in the form of a fire protection engineer or consultant acceptable, and reporting directly, to the NCFD shall be provided by the applicant at **no** charge to the County (California Fire Code section 103.1.1) for the following circumstances:
    a. Independent peer review of alternate methods proposals.

23. Plans detailing compliance with the fire and life safety conditions-of-approval shall be submitted to the Napa County Fire Marshal's Office for review and approval prior to building permit issuance and /or as described above.

Ernie Loveless
Fire Chief

By: *Gabrielle Maurino Avina*

Gabrielle Maurino Avina
Assistant Fire Marshal

cc: Applicant,CFM Files, Chron

COUNTY of NAPA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

TRENT CAVE, R.E.H.S.
Director

RECEIVED
JAN 24 2005
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DEVELOPMENT & PLANNING DEPT.

TO: **Napa County Planning Department**
Hillary Gitelman, Planning Director

FROM: Napa County Environmental Management Department,
Christine Secheli, R.E.H.S., Environmental Health Manager

SUBJECT: Application for Tilley/V. Madrone Cellars
Located at 3199 St. Helena Hwy., North
Assessor Parcel 22-080-25
File # P04-0541-UP

DATE: January 19, 2005

We have reviewed the above proposal and recommend approval of the application provided the following are included as conditions of approval:

1. Because the proposed facility will have a kitchen that will be used for food preparation for marketing events, this kitchen must be regulated and permitted by this department. As such, complete plans and specifications containing equipment layout, finish schedule and plumbing plans for the food preparation/food service area and the employee restrooms, must be submitted for review and approval by the County Department of Environmental Management prior to issuance of any building permit for said areas. Additionally, as a condition of approval and permitting of this food facility, the owner will have to comply with water system sampling and reporting as required. Owner shall apply for and obtain an annual food permit prior to issuance of a final on this project.

2. Pursuant to Chapter 6.95 of the California Health and Safety Code, businesses that generate hazardous waste and/or store hazardous materials above threshold amounts shall obtain a permit and file an approved plan with the Department of Environmental Management within 30 days of said activities. If your business does not generate hazardous waste and/or store hazardous materials above threshold quantities, a Hazardous Materials Negative Declaration shall be filed.

3. Any hazardous waste produced on the site including any laboratory wastes, must be stored and disposed of in a manner consistent with Division 20, Chapter 6.5 of the California Health and Safety Code and with Title 22, Division 4, Chapter 30 of the California Code of Regulations.

4. A permit for the installation of the sewage disposal system must be secured from the Department of Environmental Management prior to issuance of a building clearance (or issuance of a

building permit) for any structure that generates wastewater to be disposed of by this system. To secure this permit you will be required to submit a scaled plot plan showing the location of the proposed septic system relative to the proposed project and other structures, the required 100% expansion area as well as the proposed trench detail. If special design sewage disposal plans are required, such plans shall fulfill this requirement.

5. The use of the drain field area shall be restricted to activities which will not contribute to compaction of the soil with consequent reduction in soil aeration. Activities which must be avoided in the area of the septic system include equipment storage, traffic, parking, pavement, livestock, etc., over the system.

6. If any uncovered outdoor processing areas are proposed, the applicant must submit a proposal from their engineer that addresses proper diversion and direction of storm water and process wastewater from such areas. This proposal must include a detail on the diversion valve (or equivalent) must be provided to this department prior to issuance of sewage permits.

7. All solid waste shall be stored and disposed of in a manner to prevent nuisances or health threats from insects, vectors and odors.

8. 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 wastes generated during project development, unless applicant transports 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.

9. Adequate area must be provided for collection of recyclables. The applicant must contact 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.

cc: Christopher and Pauline Tilley, 901 Skibo Lane, Mamaronelk, NY, 10543
John Kara, Environmental Health Supervisor

FILE #: P04-0541-UP

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

Patrick Lynch
Acting Director

RECEIVED
JAN 04 2005
NAPA CO CONSERVATION DEVELOPMENT & PLANNING DEPT.

PERMIT APPLICATION AND INITIAL STUDY REQUEST FOR COMMENTS

TO: Building Inspection

APPLICATION TITLE: Tilley/VINADRONE CELLARS APN: 22-080-025

RESPONSE REQUEST DATE: 27 Dec 04 RESPONSE RETURN DATE: 10 Jan 05
FINAL REQUEST DATE: _____ FINAL RESPONSE DATE: _____

PLEASE RESPOND VIA E-MAIL TO: babate @co.napa.ca.us
OR DIRECT FAX TO: Barbara Abate (707)299- 4053
FOR QUESTIONS ON THIS REQUEST, PLEASE CONTACT: Barbara Abate

This application (see enclosed project description and maps) is being sent to you for your review and comment .

With respect to environmental analysis, the County is assuming Lead Agency status for the project and will be preparing the necessary environmental documents.

Please advise us as to which of your permits is required, your environmental concerns and whether you recommend that a Negative Declaration or an Environmental Impact Report be prepared on this project. Due to the provisions of AB 884, it is essential that we receive your comments within the next 10 days.

1. Do you have jurisdiction by law over this project? ■ Yes ☐ No
2. Indicate areas of environmental concern and availability of appropriate technical data:
   - *None available in building files.*
3. Do you recommend: ■ Negative Declaration ☐ Environmental Impact Report
4. If the project is approved, recommend conditions of approval (use additional page if needed).
   - *Apply for and secure permits necessary for contemplated development.*
5. Have you previously reviewed an application on any portion of this project? ☐ Yes ☒ No
6. Name of contact person: _____ Telephone #: 253-4417

Prepared by: Gary W. Brewen
Title: Bldg. Codes Admin.
Date: 1-4-05

13. Prior to the issuance of any grading or building permit, or the signing of improvement plans, the permittee and County shall survey and document the condition of County roads before construction begins, and then reevaluate conditions at the end of construction. Prior to Occupancy of any buildings or commencement of any use, the permittee shall be responsible for repair of any pavement degraded due to its construction vehicles.

Any changes in use may necessitate additional conditions for approval.

If you have any questions regarding the above items please contact Larry Bogner or Drew Lander at 253-4351. For groundwater questions, please contact Anna Maria Martinez of the same office.

cc: Christopher & Pauline Tilley, 901 Skibo Lane, Mamaroneck, NY 10543

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5513
TTY (800) 735-2929

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JUN 24 2005
NAPA CO. CONSERVATION DEVELOPMENT & PLANNING DEPT.

June 22, 2005

NAP029729
NAP-029-31.33

Ms. Barbara Abate
Napa County Planning Department
1195 Third Street, Suite 210
Napa, CA 94559

Dear Ms. Abate:

TILLEY WINERY - G. NICKELSON'S RESPONSE TO TRAFFIC COMMENTS

Thank you for including the California Department of Transportation (Department) in the environmental review process for the Tilley Winery. The following comments are based on George Nickelson's Response to Traffic Comments dated April 19, 2005. As lead agency, Napa County is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed in the environmental document for all proposed mitigation measures. Any required roadway improvements should be completed prior to issuance of the project's building permit. Since the Department will not issue an encroachment permit until our concerns are adequately addressed, we strongly recommend that the lead agency ensure resolution of the Department's CEQA concerns prior to submittal of the encroachment permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding encroachment permits.

Project Improvements

As indicated in our March 3, 2005 letter, the Department fully supports the Traffic Study's recommended left-turn lane. The improvement should be discussed in the environmental document and should be clearly delineated in project site plans. Sufficient information about roadway conditions at project access should be provided to ensure that the improvement is feasible and that sufficient Right of Way (ROW) exists to complete the improvement as envisioned in the analysis.

Encroachment Permit

Work that encroaches onto the State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans, clearly indicating State ROW, must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process.

See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Sean Nozzari, District Office Chief
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Please forward copies of both the environmental document and staff report, including project conditions, to the following address below as soon as they are available.

Patricia Maurice, Associate Transportation Planner
Office of Transit and Community Planning, Mail Station 10D
California DOT, District 4
111 Grand Avenue
Oakland, CA 94612-3717

Please feel free to call or email Patricia Maurice of my staff at (510) 622-1644 or patricia_maurice@dot.ca.gov with any questions regarding this letter.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Drew Lander, Napa County Public Works Department

“G”

Use Permit, Variance, and Viewshed Applications and Narratives

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: Mark Schratz
Mailing Address: 3199 St. Helena Highway No.
City: St. Helena State: CA. Zip: 94574
Phone: (925) 785-3117
E-Mail Address: mark@axrnapavalley.com

Property Owner Contact

Name: Silverado Trail Wine Partners LLC
Mailing Address: P.O. Box 292
City: St. Helena State: CA. Zip: 94574
Phone: (925) 699-1123
E-Mail Address: don@axrnapavalley.com

Agent Contact

Name: Land Use Planning Services
Mailing Address: 2423 Renfrew Street
City: Napa State: CA. Zip: 94558
Phone: (707) 815-0723
E-Mail Address: jreddingaicp@comcast.net

Other Representative Contact

☐ Engineer ☑ Architect ☐ Agent
Name: Juancarlos Fernandez
Mailing Address: c/o Signum Architecture 1050 Adams Street suite D
City: St. Helena State: CA. Zip: 94574
Phone: (707) 963-8831 ext 101
E-Mail Address: juancarlos@signumarchitecture.com

Property Information

Project Name: AXR Napa Valley Use Permit Modification. An application for a development permit
Project Address: 3199 St. Helena Highway St. Helena, Ca.
Assessor's Parcel Number(s): 022-080-025
Size of site (acreage and/or square footage): 7.85 acres +/-
General Plan Designation: Agricultural, Watershed & Open Space Zoning: Agricultural Watershed (AW)

Application Type[1]

File No(s)_____

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.

12/16/2022 — Property Owner's Signature and Date

12-16-2022 — 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.

12-16-2022

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: (Please refer to the following link for applicable application fees per permit type:** Fees & Payments | Napa County, CA (countyofnapa.org)

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.**

Micro-Winery Use Permit: 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 for project review and 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**

☑ **Read and Sign Certification and Indemnification Form**

☑ **Read and Sign Initial Statement of Grape Source Form or Micro Winery Grape Source Form**

☑ **Provide Adjoining Property Owners List for Courtesy Notice and Public Hearing Notice Mailouts**

☑ **Detailed Project Description: T**he 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:*** Sample-Site-Plan-PDF (countyofnapa.org)

☑ **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. FOR MICRO-WINERY PROJECTS: Additional submittal information is necessary and should be included with the submittal packet consistent with the Micro-Winery Use Permit Supplemental Submittal Requirements.
3. Traffic Study consistent with Traffic Impact Study (TIS) Guidelines. 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. Study (TIS). If it is determined that a TIS is not required, physical traffic improvements (such as a left turn lane) or a site distance analysis may be required as determined by the Director of Public Works. Please consult with the Department of Public Works and the current version of the Napa County Road and Street Standards, which can be found following this link: Napa County Road & Street Standards (countyofnapa.org)
4. Archeological/Cultural Resources Study (consistent with *Guidelines for Preparing Cultural Resource Surveys* and State of California requirements)
5. Historic Resources Study (consistent with State Office of Historic Preservation requirements)
6. Biological Study – Includes Special Status Survey (consistent with *Guidelines for Preparing Biological Resources Reconnaissance Surveys* and *Guidelines for Preparing Special-Status Plant Studies*)
7. Water Availability/Groundwater Study (consistent with the *WAA Guidance Document* adopted by the Board 5/12/2015). Please refer to the following link: .Attachment-D---Water-Availability-Analysis-Guidelines-5-12-15-PDF (countyofnapa.org)
8. 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): __~4.5___acres

   Tree canopy cover to be removed: _0___acres _0___%

   Tree canopy cover to be retained: ____acres ____%

   Understory (i.e. brush, shrubs, grasses):

   Understory cover (1993): __~4.5___acres

   Understory to be removed: __0_____acres __0_____%

   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: Water-Quality-and-Tree-Protection-Ordinance-Implementation-Guide (countyofnapa.org)
9. Special Studies (The following may be required on a project-specific basis at the discretion of the PBES Director.)

   ☐ 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: _____

10.Voluntary Best Management Practices Checklist – Please fill out enclosed form.

☑ **Additional Information Required by the Environmental Health Department:**

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
6. Solid Waste & Recycling Storage area location and size included on overall site plan.
7. Cave setback plan if a cave is proposed.

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:**

2021Napa County Road & Street Standards

Napa County Road & Street Standards (countyofnapa.org)

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

☑ **Additional Information Required by the Fire and Building for Wine Cave Design:**

Proposed or Modified Winery Caves – Please include a description of uses to be conducted in the Cave. A cave floor plan shall be provided identifying where all production and hospitality uses will be conducted. Please identify how exiting requirements will be met pursuant to Building and Fire Codes.

☑ ***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 PBES 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.**

☑ **Please contact the Planning Division Staff at the following email address: Planning@countyofnapa.org to obtain a PBES Cloud link to upload application materials and to process filing payment.**

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.

DONALD VAN LAECKEN	MARK SCHRATZ
Print Name of Property Owner	Print Name Signature of Applicant (if different)
	12-16-2022
Signature of Property Owner Date	Signature of Applicant Date

Hourly Fee Agreement

PROJECT File: AXR Napa Valley ; request for use permit modification to construct production caves, conv
. I, Don Van Laeken ,
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 $ 10,000 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):

Don Van Laeken

Mailing Address of the Applicant responsible for paying processing fees:

P.O. Box 292

St. Helena, CA. 94574

Signature:*

Email Address: don@axrnapavalley.com

Date: 12-16-2022

Phone Number: (925) 699-1123

*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

Edit per H.S. 12-18-25

** 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: 20,000 gal/y Per permit : P04-0541-UP Permit date: /21/2005

Current maximum actual production: 26,302 gal/y For what year? 2021

Average 3 year production: 16,051 gal/y

Proposed production capacity: ~~25,000~~ **20,000*** gallons annual production

***Edit per H.S. 12-18-25**

** For this section, please see "Winery Production Process".*

Visitation and Operations

Please identify the winery's...

Maximum daily tours/tastings visitation:	20 existing	60 proposed
Maximum weekly tours/tastings visitation:	90 existing	420 proposed
Visitation hours (e.g. M-Sa, 10am-4pm):	Sun-Sat, 8:00am-4:30pm existing	Sun-Sat, 10:00am-6:00pm proposed
Production days and hours[1]:	Sun-Sat, 8:00am-6:00pm existing	Sun-Sat, 8:00am-6:00pm proposed

[1] It is assumed that wineries will operate up to 24 hours per day during crush.

Grape Origin

All new wineries and any existing (pre-WDO) winery expanding beyond its winery development area must comply with the 75% rule and complete the attached "Initial Statement of Grape Source". See Napa County Code §18.104.250 (B) & (C). The project description should include information on location and quantity of grapes.

Marketing Program

Please describe the winery's proposed marketing program. Include event type, maximum attendance, hours, location/facilities to be used, food service details, etc. Provide a site plan showing where the marketing event activities will occur, including overflow/off-site parking. Differentiate between existing and proposed activities. (Attach additional sheets as necessary.)

Approved Marking Plan (P04-0541-UP)

One (1) Harvest Event annually for a maximum of 75 persons
One (1) holiday event annually for a maximum of 75 people
Two (2) events annually for a maximum of 75 persons/event
Six (6) wine and food evens annually for a maximum of 20 persons/event

Proposed Marketing Plan

Two (2) events per month for a maximum of 25 persons
Four (4) per year for a maximum of 75 persons
Three (3) events per year for a maximum of 150 persons

Participation in Napa Valley charity auctions with a maximum attendance of 75 persons

On-Site Consumption

If requesting On-Site Consumption, please provide a site plan showing where such activities will occur.

The attached site plan shows the location of AB 2004 on site consumption

Food Service

Please describe the nature of any proposed food service including type of food, frequency of service, whether prepared on site or not, kitchen equipment, eating facilities, etc. Please differentiate between existing and proposed food service and existing type of commercial kitchen (low, medium or high risk) and/or food preparation areas authorized by the County Environmental Health Division. (Attach additional sheets as necessary.)

Daily food pairings will consist of pre-packaged food items such as cheeses, nuts, salami, crackers and similar food items. All food at marketing events will be prepared and provided by a county-approved catering company. Food will be assembled and plated in the on site employee break room

Winery Coverage and Accessory/Production Ratio

Winery Development Area. Consistent with the definition at "a.," and with the marked-up site plans included in your submittal, please indicate your proposed winery development area. If the facility already exists, please differentiate between existing and proposed.

Existing 4,306 sq. ft. 0.10 acres

Proposed 5,297 sq. ft. 0.12 acres

Winery Coverage. Consistent with the definition at "b.," and with the marked-up site plans included in your submittal, please indicate your proposed winery coverage (maximum 25% of parcel or 15 acres, whichever is less).

49,697 sq. ft. 1.14 acres 14 % of parcel

Production Facility. Consistent with the definition at "c.," and the marked-up floor plans included in your submittal, please indicate your proposed *production* square footage. If the facility already exists, please differentiate between existing and proposed.

Existing 6,251 sq. ft. Proposed 20,745 sq. ft.

Accessory Use. Consistent with the definition at "d.," and the marked-up floor plans included in your submittal, please indicate your proposed *accessory* square footage. If the facility already exists, please differentiate between existing and proposed. (maximum = 40% of the production facility)

Existing 1,547 sq. ft. 24 % of production facility

Proposed ~~4,243~~ *5,843 sq. ft. ~~30~~ *28 % of production facility

*Edit per HS 3-2-26

Caves and Crush pads

If new or expanded caves are proposed, please indicate which of the following best describes the public accessibility of the proposed and existing cave space: Please denote on cave floor plans the location of existing and proposed cave type/activities and identify location of on-site cave spoils on a site plan.

Existing Cave:

☒ None – no visitors/tours/events (**Class I**) ☐ Guided Tours Only (**Class II**) ☐ Public Access (**Class III**)

☐ Marketing Events and/or Temporary Events (**Class III**)

Expanded or New Cave:

☒ None – no visitors/tours/events (**Class I**) ☐ Guided Tours Only (**Class II**) ☐ Public Access (**Class III**)

☐ Marketing Events and/or Temporary Events (**Class III**)

Please identify the winery's...

Cave area (total)	Existing: 0 sq. ft.	Proposed: 17,190 sq. ft.
Cave area (Production)	Existing: 0 sq. ft.	Proposed: 17,190 sq. ft.
Cave area (Accessory)	Existing: 0 sq. ft.	Proposed: 0 sq. ft.
Covered crush pad area	Existing: 1,204 sq. ft.	Proposed: 5,197 sq. ft.
Uncovered crush pad area	Existing: 0 sq. ft.	Proposed: 0 sq. ft.
Cave Spoils total:		Proposed: cy.

Cave Spoils Use: ☒ Onsite ☒ Offsite

Initial Statement of Grape Source

Pursuant to Napa County Zoning Ordinance Sections 12419(b) and (c), I hereby certify that the current application for establishment or expansion of a winery pursuant to the Napa County Winery Definition Ordinance will employ sources of grapes in accordance with the requirements of Section 12419(b) and/or (c) of that Ordinance.

12-16-2022

Owner's Signature Date

Letters of commitment from grape suppliers and supporting documents may be required prior to issuance of any building permits for the project. Recertification of compliance will be required on a periodic basis. Recertification after initiation of the requested wine production may require the submittal of additional information regarding individual grape sources. Proprietary information will not be disclosed to the public.

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: AXR Winery **Date Prepared:**

Existing Entitled Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday	2	2
	Weekend	2	2
Number of Part Time Employees*	Weekday	2	2
	Weekend	2	2
Maximum Daily Visitation	Weekday	20	10
	Weekend	20	20
Annual Gallons of Production		20,000	20,000
Annual Tons of Grape Haul		125.0	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

Proposed Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday	6	4
	Weekend	12	12
Number of Part Time Employees*	Weekday	2	2
	Weekend	5	5
Maximum Daily Visitation	Weekday	60	40
	Weekend	60	40
Annual Gallons of Production		20,000	20,000
Annual Tons of Grape Haul		125.0	N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average	Weekday	25	25
	Weekend	25	25

*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).

AXR Winery
TRIP GENERATION

Existing Winery					Harvest	Non-Harvest
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees	2	2	3.05 one way trips/employee	FT Employee Daily Trips	6.1	6.1
PT Employees	2	2	1.9 one way trips/employee	PT Employee Daily Trips	3.8	3.8
Max Visitors	20	10	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	15.4	7.7
Max Event	0	0	2.6 visitors/vehicle for 2 one way trips	Max Event Daily Trips	0.0	0.0
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekday Daily Trips	28	18
				Total Weekday Peak Hour Trips*	10	7
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees	2	2	3.05 one way trips/employee	FT Employee Daily Trips	6.1	6.1
PT Employees	2	2	1.9 one way trips/employee	PT Employee Daily Trips	3.8	3.8
Max Visitors	20	20	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	14.3	14.3
Max Event	0	0	2.8 visitors/vehicle for 2 one way trips	Max Event Daily Trips	0.0	0.0
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekend Daily Trips	27	25
				Total Weekend Peak Hour Trips*	13	12
Maximum Annual Traffic						
				Total Annual Trips**	7,892	

Proposed Winery					Harvest	Non-Harvest
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees	6	4	3.05 one way trips/employee	FT Employee Daily Trips	18.3	12.2
PT Employees	2	2	1.9 one way trips/employee	PT Employee Daily Trips	3.8	3.8
Max Visitors	60	40	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	46.2	30.8
Max Event	25	25	2.6 visitors/vehicle for 2 one way trips	Max Event Daily Trips	19.2	19.2
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekday Daily Trips	90	67
				Total Weekday Peak Hour Trips*	26	17
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees	12	12	3.05 one way trips/employee	FT Employee Daily Trips	36.6	36.6
PT Employees	5	5	1.9 one way trips/employee	PT Employee Daily Trips	9.5	9.5
Max Visitors	60	40	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	42.9	28.6
Max Event	25	25	2.8 visitors/vehicle for 2 one way trips	Max Event Daily Trips	17.9	17.9
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekend Daily Trips	109	93
				Total Weekend Peak Hour Trips*	41	31
Maximum Annual Traffic						
				Total Annual Trips**	28,776	

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**	62	49
	Net New Weekday Peak Hour Trips*	16	10
Maximum Weekend Traffic (Saturday)			
If total net new daily trips is greater than 40, a TIS is required	**Net New Weekend Daily Trips**	82	68
	Net New Weekend Peak Hour Trips*	28	19
Maximum Annual Traffic			
Please Prepare a Traffic Impact Study	**Net New Annual Trips****	20,884	

#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.

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: AXR Permit Modification
Project number if known:
Contact person: Mark Schratz
Contact email & phone number: 925-785-3117 mark@axrnapavalley.com
Today's date: 12/19/22

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 calculate 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 possive, 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 maney in the long run by using only 1/4 the energy of an ordinary incondescent 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 thot 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 praximity, 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 hove 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 on opproach 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 droinage 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 o 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 plon 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 o commercial development propasing 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 praposing draught tolerant, zeroscape, native plantings, zoned irrigatian 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 detoils.

☐ ☐ **BMP-19 Implement a sustainable purchasing and shipping programs**

Environmentally Preferoble Purchasing (EPP) or Sustainable Purchasing refers to the procurement of products and services that hove 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-ploced 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 ond 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 thot 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 ond which species you are using.

☐ ☑ **BMP-21 Electrical Vehicle Charging Station(s)**

As plug-in hybrid electric vehicles (EV) ond battery electric vehicle ownership is expanding, there is a growing need for widely distributed accessible charging stations. Please indicate on the site plon where the station will be.

☐ ☐ **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?

FILE #_____

A Tradition of Stewardship
A Commitment to Service

NAPA COUNTY
PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4417

APPLICATION FORM

FOR OFFICE USE ONLY

ZONING DISTRICT:_____ Date Submitted: _____
TYPE OF APPLICATION:_____ Date Published: _____
REQUEST:_____ Date Complete: _____

TO BE COMPLETED BY APPLICANT

PROJECT NAME: AXR Napa Valley Permit Modification

Assessor's Parcel #: 022-080-025 Existing Parcel Size: 7.85 +/- acres

Site Address/Location: 3199 St. Helena Hwy No. St. Helena, CA. 94574
(No. Street City State Zip)

Property Owner's Name: Silverado Trail Wine Partners LLC

Mailing Address: P.O. Box 292 St. Helena, CA. 94574
(No. Street City State Zip)

Telephone #: (925) 699-1123 Fax #: ( ) N/A E-Mail: don@axrnapavalley.com

Applicant's Name: Mark Schratz

Mailing Address: 3199 St. Helena Hwy No. St. Helena, CA. 94574
(No. Street City State Zip)

Telephone #:(925) 785-3177 Fax #: (___)____ E-Mail: mark@axrnapavalley.com

Status of Applicant's Interest in Property: Owner

Representative Name: Land Use Planning Services

Mailing Address: 2423 Renfrew Street Napa, CA. 94558
(No. Street City State Zip)

Telephone # (707) 815-0723 Fax #: ( ) None E-Mail: jreddingaicp@comcast.net

I certify that all the information contained in this application, 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 my knowledge. I 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.

Signature of Property Owner — Date: 1/17/2026

DON VAN LAEKEN
Print Name

Signature of Applicant — Date

Print Name

TO BE COMPLETED BY PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES
Total Fees: $_____ Receipt No._____ Received by:_____ Date: _____

INDEMNIFICATION AGREEMENT

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.

Applicant	Property Owner (if other than Applicant)
2/17/2026	
Date	Project Identification

REASONS FOR GRANTING A VARIANCE

1. Please describe what exceptional or extraordinary circumstances or conditions apply to your property (including the size, shape, topography, location or surroundings), which do not apply generally to other land, buildings, or use and because of which, the strict application of the zoning district regulations deprives your property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

Special Circumstances

The subject parcel exhibits a number of site conditions and regulatory conditions that are unique to this property. The subject parcel is a designated county landmark that includes an operating pre-prohibition historic winery, historic cottages and related improvements. The subject parcel is irregularly shaped approximately 7.85 +/- acres whereas parcels in the vicinity are larger in size. Parcels in the vicinity that are developed in wineries are greater in size when compared to the subject parcel. Almost ½ of the parcel area occupied by mature, producing vineyards.

Under the ordinance adopted in 1990 a 10-acre minimum parcel size is required for new wineries. Exceptions to the 10-acre minimum parcel size are permitted for historic wineries. Historic wineries may be permitted on parcels of 5-acres. The 1990 ordinance also established development standards that apply equally to conforming (10 acre) parcels as well as pre-prohibition wineries located on smaller sized parcels. Thus, the same development standards including winery setbacks and maximum coverage apply to this property even though the parcel is 20% smaller than a parcel for which the 1990 development standards were adopted.

In addition to the 'sub-standard' parcel size, the property has a number of other physical and regulatory constraints that impact development options. A heavily wooded steeply sloping hillside (the majority of which is over 30%) occupies the southwestern boundary of the property. The majority of vegetation located along the western-most 'point' of the property, along Hirsch Creek and on the east facing hillside above the winery site. Hirsch Creek an ephemeral watercourse forms a portion of the northern parcel boundary. This mature native vegetation is recognized as contributing to the property's landmark designation and is to be preserved. These existing physical conditions greatly limit areas where future improvement (s) may be located, a condition not found on other parcels in the vicinity.

In addition to existing physical conditions, regulatory constraints further impact future

development options. Foremost among them is the property's landmark status that limits changes to the exterior of existing buildings, location and design of new buildings and building additions; alteration or removal of heritage site landscaping. Future placement of site improvements are impacted by a required 600' setback from State Route 29, a 300' setback from the private driveway located at the rear of the parcel, the required setback from Hirsch Creek and the limitations imposed by the Mills Act.

The combination of exceptional and extraordinary regulatory and physical constraints that impact this property are unique to this parcel and are not shared by any other parcel in the vicinity.

Hardship

Section 18.104.230(A) read in conjunction with 18.20.030(I2) prohibits **above ground disposal** of wastewater generated by the winery within the 600' setback from State Route 29. The applicant proposes to locate an above ground hold and haul tank above ground proximate to **existing** infrastructure within the required 600' setback area.

The approximate cost to underground the hold and haul tank was estimated by Summit Engineering (February 13, 2026 personal communication). While it is difficult to develop a precise estimate to underground the hold and haul tanks pending more detailed soil analysis and final design, the engineering estimate to underground 2-5,000 gallon hold and haul tanks is $80,000.

Given the other expenses associated with project implementation including the construction of a left turn lane in State Route 29 at an estimated costs of over $1,000,000, retention of archeological monitoring during that construction, costs of processing the required encroachment permit, conversion of the existing water system to a public water system, fire protection and construction of the historian approved caves for production a requirement to spend an additional monies to underground the hold and haul tank without a significant public benefit to doing so poses a severe hardship to the applicant. Further we note what appears to be an inconsistency in how the county regulated the different type of above ground tanks. Whereas above ground tanks storing irrigation water with potential impacts identical to an above ground hold and haul tank are permitted within the winery setback, above ground hold and haul tanks that may be of identical size are prohibited. From our perspective, there is no basis for this distinction and thus appears inequitable and poses an unfair hardship on

the applicants..

Parity

Since adoption of the winery development standards in 1990 the county has granted variances to setback and other development standards. Specifically, the county has approved winery setback variances for several wineries under similar or identical zoning classification (and subsequent expansions) within the setback. These wineries include Amizetta, Casttalucci, Chateauneuf Du Pott, Kelham and Gandona to name a few. In addition to avoiding severe hardship associated with the costs of undergrounding and maintaining either approved wastewater alternative, approval of the requested variance will allow the Applicant to achieve parity with other properties that share the special circumstances shared by the AXR Napa Valley property..

2. Please state why the granting of your variance is necessary for the preservation and enjoyment of your substantial property rights,

As noted in #1 above, the winery is located on a 'substandard' parcel with respect to current winery standards. Yet the same development standards including winery setbacks apply to this property even though it is over 20% smaller than the typically winery parcel. Given the historic designation, the location and extent of existing improvements as well as the numerous physical and regulatory constraints applicable to the property limit the area where future **above ground** improvements may be located. This combination of regulatory and physical constraints is exceptional or special and is not shared by other parcels in the vicinity.

Since adoption of the winery development standards in 1990 the county has granted variances to setback and other development standards. Specifically, the county has approved winery setback variances for several wineries under similar or identical zoning classification (and subsequent expansions) within the setback. These wineries include Amizetta, Casttalucci, Chateauneuf Du Pott, Kelham and Gandona to name a few. In addition to avoiding severe hardship associated with the costs of undergrounding and maintaining either approved wastewater alternative, approval of the requested variance will allow the Applicant to achieve parity with other properties that share the special circumstances shared by the

AXR Napa Valley property..

3. Please state why the granting of your variance request will not adversely affect the health or safety of persons residing or working in the neighborhood of your property, and will not be materially detrimental to the public welfare or injurious to property or improvements in your neighborhood.

There is nothing included in the variance proposal that would adversely impact our neighbors, or the public health, safety, or welfare of the County of Napa. The proposed improvements have been sited to minimize impacts to the site's historic resources, or on-site heritage trees. Additionally water use will not adversely impact the groundwater basin nor adversely affect significant watercourses. The project complies with the required setback from Hirsch Creek. And a left turn lane proposed for State Route 29 will enhance access to and from the winery.

The traffic impact study revealed no significant or potentially significant traffic impacts and includes project appropriate mitigation measures as necessary to ensure compatibility with circulation element goals and policies. All improvements to the existing winery and barrel storage building are required to meet current county building code, fire department requirements, and water and wastewater requirements. The granting of the variance to the winery road setback will not adversely affect the health or safety of persons residing or working in the neighborhood of the property as evidenced by the letters of support provided by our neighbors. Various County departments have reviewed the project and commented regarding water, waste water disposal, access, building permits, and fire protection. Conditions are recommended which will incorporate these comments into the project to assure protection of public health and safety.

FILE #_____

A Tradition of Stewardship
A Commitment to Service

NAPA COUNTY
PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES

1195 THIRD STREET, SUITE 210, NAPA, CALIFORNIA, 94559 • (707) 253-4417

APPLICATION FOR VIEWSHED PROTECTION PROGRAM

FOR OFFICE USE ONLY

ZONING DISTRICT: _____ DATE SUBMITTED: _____
TYPE OF APPLICATION: _____ DATE PUBLISHED: _____
REQUEST: _____

Project Type: Structure___Driveway_____Road_____Reservoir_____ Mass Grading____Other_____
Other Permits Applied/Pending/Required:
ECP___ Grading Permit___ Use Permit___ Variance___
SDSDS___ Groundwater Permit:___
#_____ #_____ #_____ #_____ #_____ #_____

Review Agencies: PBES: _X_ County Consultant:___ Name/Contact:_____

Final Approval: PBES _X_ Date:_____/_____/_____ Conditions: Yes___No ____

TO BE COMPLETED BY APPLICANT
(Please type or print legibly)

Applicant's Name: Mark Schratz

Telephone #: (925) 785 - 3117 Fax #: (___)N/A -_____ E-Mail: mark@axrnapavalley.com

Mailing Address: 3199 St. Helena Hwy No. St. Helena, Ca. 94574
No. Street City State Zip

Status of Applicant's Interest in Property: Partner

Property Owner's Name: Silverado Trail Wine Partners LLC

Telephone #: (925) 699 - 11223 Fax #: (___)_____-_____ E-Mail: don@axxrnapavalley.com

Mailing Address: P.O. Box 292 St. Helena, California 94574
No. Street City State Zip

Site Address/Location: 3199 St. Helena Hwy No. St. Helena, California 94574
No. Street City State Zip

Assessor's Parcel #: 022 -080 -025 Parcel Size: 7.85 acres Development Area Size: 5.297 (p) acres

Slope Range of Development Area: 5 % to 18 %

(**NOTE**: Contour map/survey is required for all development areas with an estimated slope of 15% or greater and for all road/driveway projects, Contour map must include all areas within 100'of the cut and fill edges. Percent slope shall be calculated and presented as whole numbers. (Please see attached Slope Determination Methodology)

I hereby certify that all the information contained in this application, including but not limited to, this application form, the supplemental information sheets, site plan, plot plan, cross sections/elevations, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for evaluation of this application and preparation of reports related thereto, including the right of access to the property involved.

Mark Schratz 4/19/2023 _____ ___/___/___
Signature of Applicant Date Signature of Property Owner Date

MARK SCHRATZ _____
Print Name Print Name

TO BE COMPLETED BY PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES

Application Fee: $_____Receipt. No._____Received by:_____Date:_____

INDEMNIFICATION AGREEMENT

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.

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Applicant

4-19-2023
Date

Property Owner (if other than Applicant)

Project Identification

4. Viewshed visibility analysis, prepared by Studio 1515, dated April 6, 2023

We will submit a proposed scope of work for the required TIS by separate email.

Thank you,

Don Van Laeken
AXR Winery

CC:

- Jason Flowers, Summit Engineering
- Juancarlos Fernandez, Signum Architecture

Project Statement

Use Permit P22-00417

AXR Napa Valley
3199 St. Helena Highway No.
St. Helena, California

Project Setting

The project site is a 7.85 acre irregularly shaped parcel located on the west side of Highway 29 north of the City of St. Helena. The site gradually slopes from northwest to southeast with a steeper slopes along the southwest property line.

The project site is developed with the historic Hirsch Residence, now the approved AXR Napa Valley pre-prohibition ghost winery. The upstairs is used for wine tasting, offices and conference rooms as approved in 2008. The rear portion of the building includes an apartment that is proposed for conversion to winery offices as part of the proposed modification. Related accessory winery uses include the barrel building with adjacent outdoor storage pad, on-site parking, water storage tanks, water and wastewater system, improved and unimproved driveways, pedestrian pathways. The existing building inventory also includes three (3) historic cottages not included in the proposed project.

The project site also includes a three (3) acre vineyard located on the eastern portion adjacent to State Route 29 that borders the project site on the east. A wooded hillside borders the project site on the west. Signum Architecture depicts existing improvements and site conditions on sheet G0.02 (E).

Existing vegetation include redwood trees, madrones and oak with the majority of vegetation located along the western-most 'point' of the property, along Hirsch Creek and on the east facing hillside above the winery site. Hirsch Creek an ephemeral watercourse forms a portion of the northern parcel boundary.

Regulatory Setting

AXR Winery is located within the former historic residence constructed by August Hirsch in 1883. Between 1930 and 1950 the Hirsch residence and existing cottages were used as a restaurant and resort originally referred to as "The Madrones." The historic uses and structures and improvements were recognized in a Certificate of Legal Nonconformity (#00516-CLN issued June 25, 2002.

The former Hirsch residence was recognized as a pre-prohibition 'Ghost' winery and designated as a Napa County Landmark in 2007. Use permit P04-0541 re-established the historic wine making facility within the former Hirsch residence, cellar and barn in September 2005. Demolition of the existing barn and its conversion to barrel storage was also approved in 2005. Renovations were carried out in compliance with the recommendations of historian Juliana Inman. Annual wine production was capped at 20,000 gallons annually pursuant to subsection 18.104.245(D) of the Napa County zoning ordinance. A limited visitation program and marketing plan was also approved in September 2005.

The winery is only accessible by a right turn from the southbound lane on State Route 29. No left turns are permitted from northbound State Route 29. Existing vehicles are limited to right turns only. The proposed modification includes a left turn lane from northbound State Route 29 to the exiting southern most driveway entrance for in-bound traffic. Outbound traffic continues to be limited to right turns only from the northern driveway.

Proposed Modifications

The current applicants, Silverado Trail Wine Partners acquired the subject property in 2017. The applicants are seeking some changes to the project site and winery operations authorized in 2005 and 2008. The proposed changes include:

1. Constructing a production cave, including 12,000 s.f. barrel storage and 5,200 s.f. crush pad, tank farm and related wine production improvements, with three (3) portals.
2. Converting existing barrel storage building and adjacent outdoor area to a tasting and hospitality center
3. Increasing the number of daily visitors from twenty (20) to sixty (60);
4. Increasing the number of employees from two (2) full-time and two (2) part-time to twelve (12) full-time and five (5) part-time;
5. Converting the existing apartment within the historic winery to office use. This conversion requires no exterior changes to the historic building;
6. Increasing the number of marketing events from ten (10) annual events to thirty-one (31) events. Participation in Napa Valley auctions is also requested;
7. Constructing and installing required winery related improvements including water and wastewater systems, water storage tanks, fire protection systems, parking and access driveways;
8. Constructing a northbound left turn lane and associated improvements in State Route 29 to facilitate access to the winery via southern driveway; and
9. Approval of changes to the existing winery building and site that occurred prior to the current owners acquiring the property in 2017. The revised plans prepared by Signum Architecture trace the evolution of changes to the winery floor plans and site since 2008.

No change to approved 20,000 of annual production is proposed

Proposed Design Solution

The current historic facility lacks the modern infrastructure to operate a modern 20,000 gallon production facility. Both production and hospitality facilities needed upgrading. The challenge was where to locate such facilities in the context of an historic property. Existing site conditions including significant existing mature native and ornamental vegetation, existing vineyard, steep wooded hillside, proximity to State Route 29 increased the challenge for the owners and designers. Finally. the fact that the existing parcel is less than 8 acres and irregularly shaped and a scattering of historic structures required a well thought out design solution to bring the owners vision to fruition.

The goal of ownership is to avoid any variations to county winery or related zoning standards. Retaining the integrity of the historic site for consistency with the winery's landmark designation is a key consideration. Two other challenges are the presence of numerous historic buildings and structures as well as the potential visibility of potential site improvements from State Route 29. Special attention was also given to the design of the production cave to accommodate all winemaking activities associated with the proposed increase in production.

The suggested solution was to locate the proposed production facility within a cave system in the east-facing hillside. Existing topographic conditions, mature vineyard and vegetation and proposed landscaping screen the required access portals from State Route 29. This solution retains the integrity of the existing historic buildings and site without competing with it.

Despite the fact that the winery is located on a smaller parcel than is currently required under the WDO, the project, as designed conforms to all winery development standards; no variances are required. No significant or potentially significant or potentially environmental impacts have been identified by technical studies provided by the applicants.

Project Details

Production Caves

Wine production facility at the historic winery are currently limited and in need of upgrading to current wine making standards.. The proposed production caves totals 12,000 s.f. of barrel storage and 5,000 square feet crush pad, tank area and other winery-related equipment. Please see the architectural plans prepared by Signum Architecture. The cave is designed to accommodate a modern wine making facility to produce the quality of wine that the owners, winemaking team and our guests expect from AXR Napa Valley, Currently wine production also occurs off site. The proposed cave would allow the full approved wine production to be conducted on site under the supervision of the winemaking team.

The cave has three portals based on its intended use. Portal #1 provides access to proposed crush pad and related winery equipment.. Portals 2 & 3 provide access to proposed barrel storage areas. Portal #1 is accessible from the existing road network. A new driveway provides access to portals 2 & 3.

The setback of the portals, existing vineyard and proposed landscaping as well as topographic conditions ensure that the new portals are not visible from State Route 29 or the private, shared driveway located at the western edge of the property. The project architect, Signum Architecture,and landscape architects at Studio1515 conducted viewshed studies to evaluate impact of the proposed cave construction on view from State Route 29 and the shared driveway. These studies, accepted by county staff confirm that no portals will be visible from State Highway 29 or the shared driveways.

Conversion of Barrel Storage Building to Tasting Room and Hospitality Center

The existing 1,500 square foot barrel storage building and the adjacent 1204 square foot outdoorstorage area will be converted to a hospitality center with the outdoor tasting area to be used for outdoor wine tasting, marketing events and for AB 2004 wine consumption.

Visitation and Marketing Programs

Typically county application forms and the CEQA process require wineries to specify the maximum number of daily visitors varies by season. Accordingly and in keeping with this requirement the applicants are seeking approval to host a maximum of sixty (60) daily visitors, seven (7) days per week. . Proposed visitation is consistent with wineries of comparable production and in line with visitation programs of wineries north of St. Helena.

The number of marketing events would increase from ten (10) to thirty-one (31) with twenty-four ofthe events to have a maximum of twenty-five (25) guests as follows:

- Two (2) events/month for a minimum of twenty-five (25) persons
- Three (3) events annually for a maximum of 150 persons; and
- Four (4) events annually for a maximum of seventy-five (75) person

The applicants made provisions for guest and employee parking during the seven (7) larger (75+ person) events Employees would park off site and be shuttled to the winery from area proximate to the winery. Summit Engineeringhas developed an

event parking exhibit to demonstrate the availability of parking for these larger events. This exhibit will be submitted to county staff along with other updated plans and document.

Winery Operations

The applicants propose to increase to the number of employees from two (2) full-time and two (2) part time to a maximum of twelve (12) full-time and five (5) part-time, non-harvest employees. With the increase in production, production area, visitation programs and wine making protocol, an increase in employees is necessary. Note that employee levels are at a maximum during the larger marketing events. Employees park off-site at approved wineries such as Brasswood retail area or othernon-agriculturally zoned lands.

Neighborhood Compatibility/Operational Noise

The owners pride themselves on maintaining regular contact with neighbors to ensure that current project operations project does not interfere with their qualityof life.

The project as designed continues the forethought that the owners intend to ensure continued neighborhood compatibility. For example, winemaking activities primarily take place within the proposed caves. Existing vegetation andtopographic conditions screens proposed outdoor tasting areas and portals as viewed from neighbors' residences. Outdoor tasting venues are oriented away from neighbors. Tasting by appointment occurs during normal daytime working hours. These design and operational features ensure that noise or other potential operational activities would not adversely affect our neighbors. The letters of support from closest neighbors attest to the success of these efforts.

Technical Studies

Water Availability Analysis/Groundwater Study

Both a water availability (WAA) analyses and groundwater study were prepared and approved by county staff. The WAA prepared by Summit Engineering, updated in July 2024 documented an existing water demand of 3.61 ac-ft/year. The existing water use was documented in the WAA approved as part of the previous application to re-establish the historic winery in the Hirsch residence. Groundwater use by the proposed project is 2.83 ac-ft/year, This reduction in baseline water use resultsprimarily from vineyard removal/reduction in irrigation water and removal of two (2) residences required mandated by the 2008 permit modification.

Groundwater Studies

EMA Engineering evaluated groundwater supply in its report dated July 19, 2024 evaluated potential impacts on groundwater supply and sensitive watercourses. This report and its conclusionshave been accepted and approved by staff.

Wastewater Treatment and Disposal

Summit Engineering also prepared the required wastewater feasibility study dated October 2022 and updated in April 2024. Existing septic tanks are sufficient for the anticipated sanitary sewage flows. Noadditional volume is anticipated or required. The

report also concludes that the existing PD leach field isanticipated to provide sufficient capacity for disposal of the anticipated sanitary sewage flows.

A new process waste (PW) treatment system will be required to accommodate the annual productionof 35,000 gallons. The wastewater feasibility report outlines the feasible options for the new PW treatment and disposal system.

Traffic Impact Study (TIS)

GHD prepared the required TIS pursuant to the approved scope of work as required by the county traffic engineer. The June 2024 TIS, updated July 2025 in response to comments from the public works department/traffic engineer has been accepted as meeting county standards. The TIS recommends the inclusion of a left turn lane for northbound visitors as well as specific mitigation measures. Following consultation with the county traffic engineer an exhibit has been prepared by Summit Engineering outlining the proposed left turn lane and related on- and off-site improvementsthat when implemented will ensure that potential traffic impacts associated with project and cumulative traffic are reduced to less than significant levels. Public works staff has accepted this study, and the schematic left turn lane/circulation plan. The applicant acknowledges that final off- site improvements will be approved by CALTRANS following use permit approval.

Conclusions and Recommendations

The subject property has a number of physical and regulatory constraints that were carefully evaluated before arriving at the appropriate design solution. Challenges to site development included: sub-standardparcel s ize, the location of existing historic buildings, potential visibility from State Route 29, abundant mature site vegetation, setbacks, existing well and septic systems. The solution was to locate wine production including barrel storage and crush pad within a cave system to minimize ground coverage, visibility from State Route 29 and private roads used by neighbors. The proposed caves reduce the need for a large, new production facility minimizing lot coverage without competing visually with the existinghistoric buildings

Relocation of barrel storage from the existing building allowed that building to be converted to a tasting and hospitality center to educate the increasing number of visitors expected to visit the winery due to theincreasing popularity of the AXR wine brand.

The proposed project conforms to all winery development standards without any required variations. The proposed project will result in a reduction in groundwater use below the baselinewater use. The proposed site can accommodate a code compliance wastewater treatment and disposal system.

The project as designed conforms to general plan land use polices that support agricultural as the primary land use in Napa County (AG/LU 1) and agricultural processing facilities (AG/LU-2). The proposed cave system reduces potential impacts on agricultural land, minimizes storm water runoff and downstream water quality, allgoals of the general plan conservation element (Policy CON-2; Goal CON-9); and minimizes impact on site groundwater resources (Goal CON-10).

The applicants respectfully request approval of the proposed permit modification.

“H”

Water Availability Analysis

July 25, 2024

Don Van Laeken
3199 St. Helena Highway N.
St. Helena, CA 94574

SUBJECT: WATER AVAILABILITY ANALYSIS REPORT
3199 ST. HELENA HIGHWAY N.
ST. HELENA, CALIFORNIA
NAPA COUNTY APN 022-080-025
EBA Job No. 24-3556

Mr. Van Laeken,

EBA Engineering (EBA) is pleased to present this Water Availability Analysis (WAA) in connection with permitting services for the site located at 3199 St. Helena Hwy N. in St. Helena, California (herein referred to as the project site). The intent of this WAA is to provide required information to obtain a water use permit modification for the site in conformance to the requirements of Napa County's WAA Guidance Document, adopted May 12, 2015 (Napa County, 2015) and the Application of Public Trust Doctrine to Projects Dependent on Groundwater (Napa County, 2024).

This WAA concludes that site groundwater demands are less than the estimated volume of water available for groundwater recharge on the project site under average precipitation years. Further, the existing groundwater well at the project site, is located less than 500 feet to an existing nearby well(s), is located less than 1,500 feet to a nearby natural spring(s), and is located less than 1,500 feet to a nearby significant stream(s). As such, Tier 1, 2, and 3 analyses will be evaluated in conformance with the previously outlined Napa County permitting guidance documentation.

- Well Permit Standards – Applicable Tables available on the Napa County website on the Groundwater Sustainability page;

- *Draft GSA Response to the Governor's Emergency Executive Order*, prepared by Napa County, dated June 2, 2022; and

- *WAA Guidance Document,* prepared by Napa County, adopted May 12, 2015.

A Tier 1 document, entitled *Water Availability Analysis – AXR Napa Valley,* was prepared by Summit Engineering, Inc. in 2022 and submitted to the County of Napa for the project site. In response to this Tier 1, the County of Napa requested the following information outlined below. Summit Engineering, Inc. updated the Tier 1 for the project site in July 2024 and a copy can be found in Appendix D of this Report.

Water Availability Analysis

a. *Tier 1 - Provide a Parcel Specific Recharge analysis. If existing groundwater us exceeds parcel specific recharge, no net increase in groundwater use is required. Be sure to include all existing uses on the parcel, including vineyard and any residential use.*

b. *Tier 2 – Provide a Well and Spring Interference analysis, there appears to be at least 1 neighboring well within 500' of the project well.*

c. *Tier 3 – Project well is within 1,500' of a significant stream, please provide a Tier 3 Groundwater/Surface Water Interaction.*

1.0 BACKGROUND INFORMATION

1.1 Project Description

The project site is located on St. Helena Hwy N. approximately 2.5 miles northwest of St. Helena in Napa County (Figure 1, Appendix A). The project site is further identified by Napa County Assessor's Parcel Number (APN) 022-080-025 and is approximately 7.85-acres (AC) in size. Please refer to Appendix D of this report for a project site description and site plan illustration, provided in the July 2024 *Water Availability Analysis – AXR Napa Valley* prepared by Summit Engineering, Inc. Ground elevations across the project site range from approximately 300 to 360 feet above mean sea level (MSL). The project site is mapped as a Boomer-gravelly loam soil and a Perkins gravelly loam soil with hydrologic soil group ratings of C and B, respectively (NRCS, 2020).

There are three existing water supply wells on the project site, one of which currently supplies all water to the project site. This well that supplies water to the project site will herein be referred to as the project well. The project well is located in the southwest portion of the project site. The well located in the northwest portion of the project site is proposed to be destroyed with the acquisition of a well demolition permit from Napa County in accordance with Napa County Municipal Code Section 13.12, Article IV. The well in the eastern portion of the project site, adjacent to St. Helena Hwy., is proposed to remain as a backup well in accordance with Napa County Municipal Code Section 13.12.460.B, or be destroyed with the acquisition of a well demolition permit from Napa County. Please refer to Appendix D of this Report for the locations of the on-site wells provided in Summit's July 2024 *Water Availability Analysis.* A Well Completion Report

(WCR), archived by the California Department of Water Resources (DWR), was only found for the project well (WCR e0367373). The project well is completed to a depth of 699 feet below ground surface (BGS), had a depth-to-water (DTW) of 92 feet BGS and had a yield of 125 gallons per minute (GPM) at the time of well completion. During the June 25, 2024 site visit, DTW measurements were conducted on the project well and the well adjacent to St. Helena Hwy. DTW in the project well and the well adjacent to St. Helena Hwy. measured 122 feet and 69.93 feet below top of casing (TOC), respectively. A copy of the WCR for the project well can be found in Appendix B. Please refer to Figure 2 (Appendix A) for a map of the locations of the on-site wells.

The location of the project well (WCR e0367373), along with a 500-foot radius and a 1,500-radius around the well location, is shown in Figure 2 (Appendix A). EBA performed a literature search of WCRs archived by the California Department of Water Resources (DWR) and Environmental Permitting documentation archived within the Napa County Electronic Document Retrieval database. The scope of the research encompassed available records for wells located within a 500-foot radius of the project site. Publicly available septic system design drawings were used to further identify well locations on neighboring properties. After EBA personnel conducted a site visit and a literature search, two water supply wells were identified within 500 feet of the project well location. Please refer to Figure 2 (Appendix A) for an illustration of all identified well locations and Appendix B and C for the respective WCRs. A summary of well characteristics for neighboring wells within 500 feet of the project well is presented in Table 1.

TABLE 1 – SUMMARY OF WELL CHARACTERISTICS FOR NEIGHBORING WELLS WITHIN 500 FEET OF THE PROJECT WELL

Legacy WCR[1] Number	*Distance to existing well (feet)*	*Planned Use*	*Drilling Depth (feet BGS)*	*Static Water Level (feet BGS)*	*Estimated Yield (GPM)*
119541	345	Domestic	260	35	14
e0204390	395	Domestic/ Irrigation	579	110	120

[1] WCR: Well Completion Report

1.2 Hydrogeologic Setting

The Coast Ranges geomorphic province encapsulates the greater north bay area with northwest-trending ridges and valleys that run subparallel to the San Andreas Fault Zone. Regional geology surrounding the project site has been mapped to generally consist of Late Pleistocene to Holocene aged sedimentary deposits underlain by Pliocene to Miocene aged Sonoma Volcanics (United States Geological Survey [USGS], 2007). In the immediate vicinity of the project site, the surface geology has been mapped to consist predominantly of the Sonoma Volcanic unit described as

pumiceous ash-flow tuff (Tst). Please refer to Figure 3 (Appendix A) for a map of the geology in the vicinity of the project site.

Well Completion Reports maintained by DWR for nearby wells are consistent with mapped geology. While nearby wells are reportedly completed in primarily Sonoma Volcanics, one well (WCR 562078) is reportedly completed in predominantly sedimentary deposits. Wells completed in Sonoma Volcanics are logged as predominantly ash, clay, and embedded rock from the ground surface to the maximum depths explored. Water bearing zones for wells completed in Sonoma Volcanics are fractured rock, which are expected to be stochastically distributed and likely to have a wide range of transmissivity values depending on the extents of fracture networks. Reported well yields in nearby wells completed in Sonoma Volcanics range from 14 to 125 GPM. According to Bulletin 118-4 (CDWR, 1975 and 1982), Sonoma Volcanic formation groundwater yields range from slight to moderate and have specific yields ranging from 0 to 15 percent. Please refer to Figure 3 (Appendix A) for a map of the geology in the vicinity of the project site.

The lithology at the project site, observed by EBA during a recent site visit, was consistent with regional mapping.

A mapped significant stream, Hirsch Creek, is located approximately 400 feet to the northwest of the project well (WCR e0367373), at its closest point. Please refer to Figure 2 (Appendix A) for a map of the project site in relation with Hirsch Creek.

Natural springs were identified within the vicinity of the project site during EBA's literature search and site visit. The closest spring to the project well was identified as a historical water right for the project site. During the June 25, 2024 site visit, EBA located the source of the project site spring on the adjacent parcel at 3131 St. Helena Hwy. N. The project site spring was located approximately 600 feet west of the project well within Hirsch Creek. It is EBA's understanding that the spring is not in use. Please refer to Figure 2 (Appendix A) for a map of the project site in relation with the natural springs in the area.

1.3 Local Climate

Review of published data by the Parameter-Elevation Regressions on Independent Slopes Model (PRISM) Climate Group, indicates the 10-year (2012 – 2021) average annual rainfall in the vicinity of the project site as defined by correspondence with Napa County is 34.35 inches per year (Prism, 2023). EBA understands the 10-year rainfall is considered average as defined by correspondence with Napa County. The 10-year data were evaluated using the 4 km spatial resolution and the interpolate grid cell values function.

Mean annual potential evapotranspiration (ET_o) was estimated to be 45.02 inches per year based on reference ET_o tables for Oakville provided in the California Irrigation

Management Information System (CIMIS) Reference Evapotranspiration Website (CIMIS, 2023).

2.0 EXISTING AND PROPOSED ON-SITE GROUNDWATER DEMANDS

Please refer to Appendix D of this Report for the water demand estimates provided in Summit's July 2024 *Water Availability Analysis,* which will be used for the Tier 2 and 3 analyses herein. It is EBA's understanding that the existing and proposed groundwater demand for the project includes domestic use, landscape irrigation use, vineyard irrigation use, and winery use. Water supply for the existing and proposed groundwater demand for the project will be provided exclusively from the project well located on-site.

3.0 GROUNDWATER RECHARGE ANALYSES

3.1 Project Site Groundwater Recharge Methodology

EBA analyzed the project site groundwater budget by comparing estimated inflows and outflows from the fractured-rock aquifer complex. The volume available for recharge was estimated based on precipitation as the principal source of inflow while outflows were estimated based on run-off, evapotranspiration, canopy interception, and spring losses. While secondary sources of inflow (such as upgradient boundary flow), and secondary sources of outflow (such as downgradient boundary flow, and surface-water-groundwater interaction) potentially contribute to the groundwater budget, they are assumed to be equal and resultant in no net gain or loss. Based on this approach, the following equation was used to calculate potential volume of water available for recharge:

$$\textit{Volume of Water Available for Recharge} = P - (R + ET_a + E_{CI} + S)$$

where "P" is equal to precipitation (in acre-feet per year [AFY]), "R" is equal to run-off (in AFY), "ET_a" is equal to actual evapotranspiration (in AFY), "E_{CI}" is equal to evaporative losses related to canopy interception (in AFY) and "S" is equal to spring flow (in AFY). The groundwater recharge analysis was performed during average precipitation years (10-year period from 2012 to 2021). Details regarding the calculation of each of these variables are presented below.

Precipitation (P)

The total volume of precipitation that falls within the area of the project site was calculated by multiplying the average annual precipitation rate (34.35 inches per year) by the sum of the area of the project site (7.85 AC). The total annual precipitation over this area corresponds to approximately 22.47 AFY during average precipitation years.

Run-off (R)

The percentage of the total precipitation that results as outflow (i.e., run-off) was estimated by comparing the ground slopes within the project site to run-off coefficients (RCs) for various types of developed and natural settings (Napa County Road & Street Standards, 2021). In general, slope surfaces were separated by areas identified as "low" (0 to 5 percent), "normal" (5 to 10 percent), "high" (10 to 30 percent), and "extreme" (greater than 30 percent). In this regard, the relative percentages of slopes within the project site that align with these categories are approximately 48, 15, 36, and 0 percent, respectively. These areas, in turn, were further separated by the types of settings. Table 2 below provides a breakdown of the setting types and range of RCs used in the analysis:

TABLE 2 (PROJECT SITE)
RUNOFF COEFFICENTS AND AREAS

Land Type	*Area (AC)*	*Runoff Coefficient (RC)*
Oak Woodland	4.10	0.27 - 0.42
Seasonal Grasses	0.25	0.27
Vineyards	3.00	0.28 - 0.43
Resident	0.50	0.40 - 0.60
TOTAL	**7.85**	-

Using the aforementioned variables, the annual run-off volume for each area was calculated by multiplying the respective areas by the annual precipitation volume, followed by multiplying the corresponding products by the applicable RC. Please note that the acreages summarized in Table 2 correspond to existing land use of the project site parcel. The summation of all the area run-off volumes equates to the total annual run-off volume for the entire project site. The average annual run-off volume was calculated to be approximately 7.81 AFY during average precipitation years.

Actual Evapotranspiration (ET_a)

As previously noted in Subsection 1.3 (*Local Climate*), the annual potential evapotranspiration (ET_o) for the area is estimated to be 45.02 inches per year, which translates to a total ET_o volume of approximately 29.45 AFY within the area of the project site parcel. Actual Evapotranspiration (ET_a) in turn, was calculated using a Water Use Classification of Landscape Species (WUCOLS) site specific model as described in *A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California* (UC Cooperative Extension, 2000). The WUCOLS model estimates ET_a for the native vegetation and landscaping. A review of aerial photography was utilized to determine appropriate species factors (K_S) and density factors (K_D) as outlined in the WUCOLS Guidance Documentation. A microclimate factor (K_{MC}) of 1 was selected based upon review of available climate data. Resulting landscape coefficients (K_L) were then multiplied by respective unit areas to determine an estimated ET_a for these vegetation types within the project site parcel.

Proposed vineyard ET_c (Crop Evapotranspiration) was calculated in general accordance with methodologies described in the *California Crop and Soil Evapotranspiration for Water Balances and Irrigation Scheduling/Design* (CDWR, 2003). A vineyard crop density of 60 percent cover was assumed. The reference crop evapotranspiration value for this crop type, crop cover, and region is 27.23 inches per year during typical years (Table 5, Zone 8). The evapotranspiration demand is provided by the evapotranspiration from effective precipitation in addition to evapotranspiration from applied water. As such, the amount of applied water reported for the vineyard (0.50 AFY per AC), was subtracted from the reference crop evapotranspiration value (CDWR, 2003) to yield a unit crop evapotranspiration value due to effective precipitation alone (unit ET_c). Note the unit ET_c equates to the volume of precipitation across the project site parcel that will be lost by evapotranspiration and not available for groundwater recharge. ET_a for existing vineyard was calculated by multiplying the unit ET_c by the associated acreage of vineyard. These calculations for vineyard ET_a were performed during average precipitation years.

The total ET_a within the project site parcel was then calculated to represent approximately 6.43 AFY during average precipitation years.

Canopy Interception (EC_I)

Canopy interception corresponds to the fraction of rainfall that is intercepted by the canopy of trees and shrubs and subsequently lost to evaporation. This fraction was estimated using equations developed by Helvey and Patric (Helvey & Patric, 1965) that utilize gross rainfall, throughput (i.e., rainfall that reaches the ground through spaces in the vegetative canopy and as drip from leaves, twigs, and stems), and stemflow (i.e., rainfall that is caught on the canopy and reaches the ground by running down stems) variables. The calculation excluded grassland, vineyard, surface water bodies, pavement, and roof areas as the fraction of canopy interception for these areas is assumed to be negligible or not applicable. All other areas within the project site covered by tree canopy (approximately 4.10 AC) were subjected to canopy interception losses. Canopy interception loses were calculated to be approximately 0.69 AFY during average precipitation years.

Springs (S)

Spring activity was found in the vicinity of the project site during EBA's literature search and during the June 2024 site visit. Therefore, five percent of rainfall was assumed as spring flow for the project site. Springs loses were calculated to be approximately 1.12 AFY during average precipitation years.

Water Budget Results

Using each of the calculated values in the groundwater recharge equation, the corresponding estimated volume of water available for groundwater recharge on the project site is approximately 6.42 AFY during average precipitation years. The existing groundwater demand for the project site is 2.998 AFY. Based on Summit's July 2024 WAA, which calculated an estimated groundwater demand of 2.998 AFY, this total

groundwater use equates to approximately 47 percent of the water available for recharge in the area of the project site during average precipitation years. Results from the project water budget analysis are summarized in Table 3 below.

TABLE 3
RESULTS FROM PROJECT SITE RECHARGE CALCULATIONS
AVERAGE RAINFALL YEAR

Description	*Inflow/Outflow*	*Volume (AFY)*
Precipitation	Inflow	+22.47
Run-off	Outflow	- 7.81
Actual Evapotranspiration	Outflow	- 6.43
Canopy Interception	Outflow	- 0.69
Springs	Outflow	- 1.12
TOTALS	**-**	***6.42***

AFY: Acre-Feet per year.

4.0 WELL INTERFERENCE

Tier 2, outlined in the *WAA Guidance document* and the *Well Permit Standards – Applicable Tables,* requires that a well interference evaluation be conducted for a project well, constructed less than 500 feet to nearby wells. The project well is located less than 500 feet to a nearby well(s). Therefore, the following Tier 2 evaluation to assess the potential drawdown in the nearby well(s) is described below in the following sections.

4.1 Drawdown Characteristics

There are three existing water supply wells on the project site, one of which currently supplies all water to the project site. However, since no observation well data exists, the distance-drawdown analysis will be performed using available data.

The nearest well (WCR 119541) to the project well is approximately 345 feet away and will be used for the Tier 2 analyses.

4.2 Daily Water Demand

In accordance with the estimates outlined in the July 2024 *Water Availability Analysis* (Appendix D), the projected total annual groundwater use for the project is 2.998 AFY. As described in *Section 2.0*, the existing and proposed groundwater demand for the project includes domestic use, landscape irrigation use, vineyard irrigation use, and winery use. The total annual groundwater use for the existing vineyard irrigation of

0.850 AFY (276,973 gallons), is equivalent to a maximum daily water demand of approximately 1,539 gallons per day (GPD), assuming a 180-day growing season. The maximum daily water demand of approximately 3,435 GPD for domestic water use was estimated in Table 3 of the July 2024 *Water Availability Analysis*. The total annual groundwater use for the landscape irrigation of 0.175 AFY (57,024 gallons), is equivalent to a maximum daily water demand of approximately 156 GPD, assuming a 365-day use frequency. Finally, the maximum daily water demand of approximately 1,148 GPD for winery process water was estimated in Table 1 of the July 2024 *Water Availability Analysis*. Therefore, the total annual groundwater use for the project site of approximately 2.998 AFY is equivalent to a maximum daily water demand of approximately 6,278 GPD.

4.3 Pumping Rate and Duration

As presented above, the daily water demand is approximately 6,278 GPD. Whereas the demand would likely occur intermittently throughout the day, the total volume was assumed to be pumped at one time as a conservative measure.

There are three existing water supply wells on the project site, one of which is currently active. The pumping duration required to meet the maximum daily water demand was estimated based on an average corrected yield (42 GPM) from the data collected from the WCRs of water supply wells located in close proximity to the project site. According to these WCRs, the majority of these wells appear to be completed in similar lithology as the project well. Please note that not all wells completed in similar lithology are screened at similar depths as the project well and do not have similar yields as the project well. Notable exceptions include wells identified by WCR numbers 119541, 34995, 813839, and 384931. These wells reported estimated yields of 14, 15, 15, and 25 GPM, respectively, at the time of well completion. These yields vary from the project well, which yielded 125 GPM at the time of well completion. The range in yields reported in the wells in close proximity to the project site demonstrates the variability of yields among wells completed in Sonoma Volcanic units (Napa County, 2022a). Please refer to Figure 2 (Appendix A) for the locations of the neighboring wells and their approximate distance from the project well.

At an average conservative pumping rate of 42 GPM, approximately 149 minutes (approximately 2.5 hours) of pumping is required to reach the maximum daily water demand. It should be noted that the analysis conducted herein regarding well interference and stream depletion assume that all groundwater will be pumped from the project well.

4.4 Aquifer Transmissivity

Determination of aquifer transmissivity was accomplished using available data from the WCRs of water supply wells screened in lithology the project site well is completed in. The average corrected yield (42 GPM) and average drawdown (369 feet) data recorded in the WCRs was used in empirical transmissivity equations published in the

Groundwater and Wells (Driscoll, 1986) and the *Manual of Applied Field Hydrogeology* (Weight & Sonderegger, 2001). The methods used to calculate transmissivity are presented below:

Method I:

$$\frac{Q}{s} = \frac{T}{2000}$$

for a confined aquifer, where "Q" is discharge rate (GPM), "s" is feet of drawdown in the well, and "T" is transmissivity (gallons per day per foot [GPD/ft]). For the purpose of this analysis, the aquifer is assumed to be partially confined based on the description given by the well driller at the time of well installation. Please note that an 80 percent multiplier was applied to the yield data to account for well inefficiency (assumed). The corresponding results from the calculation indicated a transmissivity value of 228 GPD/ft (30.5 square feet per day [ft^2/day]).

Method II:

$$T = 38.9(Sc)^{1.18}$$

where T = transmissivity (ft^2/day)
Sc = specific capacity (gallons per minute per foot)

The specific capacity was defined as the quotient of 42 GPM as the pumping rate and the measured drawdown of 369 feet. The corresponding results from the calculation indicated a transmissivity value of approximately 2.99 ft^2/day (22.4 GPD/ft).

Based on the methods used above, aquifer transmissivity estimated from water supply wells in the vicinity of the project site ranges between approximately 22.4 and 228 GPD/ft.

4.5 Well Interference Characteristics

The evaluation of well interference was conducted utilizing a distance-drawdown analytical computer model. Given a discharge rate and estimates of aquifer characteristics, the analytical model predicts groundwater drawdown as a function of distance from a pumping well. For this study, the classic nonequilibrium equation of Theis (1935) and the modified nonequilibrium equation of Jacob (1946) were used as the basis of our analysis.

Aquifer characteristics for the model were based on WCR data and literature values. As discussed previously in *Section 4.4*, a range of aquifer transmissivity values were calculated using available data from the WCRs and empirical transmissivity equations. A range of aquifer storage coefficient values were also calculated for the model, using available data from the WCR data and literature values. EBA calculated an approximate

range of aquifer storage coefficient values by multiplying the range of specific storage values (Fissured Rock, $1.0x10^{-6}$ to $2.1x10^{-5}$) provided on Table F-3 in Appendix F of the *WAA Guidance document* by the approximate saturated aquifer thickness in the project site area. The saturated aquifer thickness (635 feet) in the project site area was estimated based on the average static groundwater level and the maximum well completion depth from values recorded on WCRs of wells located in close proximity to the project site. This corresponds to storage coefficient values ranging from 0.00064 to 0.013. In an effort to further refine the estimated transmissivity and storage coefficient values, EBA integrated the ranges presented above into the Theis equation in order to further calibrate the transmissivity and storage coefficient as observed in the wells in the area.

The following input parameters were therefore used in the analytical model:

- *Pumping Rate:* 42 GPM
- *Aquifer Transmissivity:* 122 GPD/ft
- *Aquifer Storage Coefficient:* 0.013
- *Pumping Duration:* 149 minutes (approximately 2.5 hours)

According to Table 2B of the *WAA Guidance document* and the Napa County *Well Permit Standards – Applicability Tables,* any neighboring well(s) (≤6-inch diameter casing) within 500 feet of a project well, screened within the same aquifer as the project well, must have an estimated drawdown of 10 feet or less. EBA conducted the distance-drawdown analytical computer model for the project well, utilizing the aquifer transmissivity and aquifer storage coefficient provided above. Based on these aquifer characteristics and the pumping duration required to meet the proposed project maximum daily water demand (149 minutes), the analytical computer model predicts approximately ten feet of drawdown at a distance of 22 feet, and zero drawdown at 50 feet. As a conservative measure, EBA conducted a second distance-drawdown analytical computer model for the project well, utilizing the same model input parameters provided above. However, the second model assumed a conservative pumping duration of one day required to meet the project maximum daily water demand. Results from the second model predicts approximately ten feet of drawdown at a distance of 68 feet, approximately one foot of drawdown at a distance of 110 feet, and zero drawdown at 155 feet. Please note that the above calculations assume 95% recovery within the pumping well before beginning the next pumping cycle.

According to Table 2B of the *WAA Guidance document* and Napa County *Well Permit Standards – Applicability Tables,* any neighboring well(s) (≤6-inch diameter casing) within 500 feet of a project well, screened within the same aquifer as the project well, must have an estimated drawdown of 10 feet or less. As predicted by the distance-drawdown model presented above, the project well must be located no less than approximately 22 feet from any nearby groundwater well(s) to be in conformance with Napa County Guidelines (≤10 feet of drawdown). Thus, the location of the project well shown on Figure 2 (Appendix A), satisfies this 22-foot distance to a nearby well, and is therefore in conformance with Napa County Guidelines.

5.0 SURFACE WATER DEPLETION FROM GROUNDWATER PRODUCTION

Tier 3, outlined in the *WAA Guidance document* and the *Well Permit Standards – Applicability Tables,* requires that a groundwater/surface water interaction evaluation be conducted for a project well, located within 1,500 feet of surface waters. As previously mentioned, a mapped significant stream, Hirsch Creek, is located approximately 400 feet to the northwest of the project well (WCR e0367373), at its closest point.

According to the *WAA Guidance document,* "streamflow depletion will be calculated using industry standard methods appropriate to the aquifer under consideration; such methods include the Hantush Equation applicable for aquifers hydraulically connected with surface waters (Hantush, 1965)." EBA used the web-based United States Geological Survey (USGS) STRMDEPL08 tool to characterize streamflow depletion from a nearby pumping well (USGS, 2022). As outlined in *Section 4.0,* EBA refined the estimated transmissivity and storage coefficient values by integrating the ranges into the Theis equation to further calibrate the transmissivity and storage coefficient. Distance drawdown output results of the Theis Equation suggest that drawdown from the pumping of the project well should not extend past a linear distance of 155 feet when pumping at a rate of 42 GPM for approximately one day. Please refer to *Section 4.0* above for a description of the calculations for the model parameter values, storage coefficient, and transmissivity.

The following assumed parameter values were input into the model:

- Distance between the project well and Hirsch Creek (400 feet);
- Transmissivity value of 122 GPD/ft (16.3 ft^2/day);
- Storage coefficient value of 0.013;
- Streambed Leakance value of 100 feet;
- A pumping rate of 42 GPM, as per the average corrected yield from WCRs; and
- A pumping duration of 1 day.

EBA utilized the aquifer transmissivity of 16.3 ft^2/day and aquifer storage coefficient of 0.013 in the streamflow depletion model based on the calibration using the Theis Equation as outlined above. The results of the streamflow depletion model does not indicate stream depletion at a distance of 400 feet from the project well to Hirsch Creek.

Based on the aforementioned calculations, it is EBA's opinion that pumping from the project well will not contribute to streamflow depletion in Hirsch Creek using the variables and assumptions as noted above. It should also be noted that the distance drawdown calculation using the Theis Equation presented above suggests no drawdown from the pumping well at a distance of 155 feet which correlates with the Hantush Equation.

6.0 SPRING INTERFERENCE

As described previously in *Subsection 1.2*, the historical spring water right that exists for the project site was located approximately 600 feet west of the project well and was identified as within Hirsch Creek. This spring was the closest spring to the project well found during EBA's literature search and site visit. Given the lack of stream depletion in Hirsch Creek as a result of pumping from the project well for the proposed project, no spring interference is anticipated for any natural spring in the area. Further, it should be noted that the distance drawdown calculation using the Theis Equation presented above suggests no drawdown from the pumping well at a distance of 155 feet which correlates with no anticipated spring interference.

7.0 CONCLUSIONS

The results of the WAA have indicated that the groundwater demand associated with the project site (2.998 AFY) is not expected to have a significant impact on current and future groundwater availability, surface water, or neighboring wells under existing or foreseeable future use conditions. This conclusion is based on the following:

- According to the water recharge analyses conducted herein, the amount of water available for recharge over the project site area, during average precipitation years, was calculated to be approximately 6.42 AFY. Based on the estimated groundwater demand of 2.998 AFY, this total groundwater use equates to approximately 47 percent of the water available for recharge in the area of the project site during average precipitation years.

- Based on the analysis presented herein, it does not appear that pumping in the project well will be able to substantially influence any existing neighboring wells. As predicted by the distance-drawdown model presented herein, the project well must be located no less than approximately 22 feet from any nearby groundwater well(s) to be in conformance with Napa County Guidelines (≤10 feet of drawdown).

- With regards to the effects of groundwater pumping at the project site on flow of water in Hirsch Creek, surface water depletion as a result of on-site groundwater extraction is expected to be de minimis.

Based on the results of this evaluation, it is EBA's professional opinion that the Tier 1, 2, and 3 analyses are in conformance with the requirements outlined in Napa County's *WAA Guidance Document* and *Well Permit Standards*.

8.0 LIMITATIONS

This report was prepared in accordance with generally accepted standards of professional hydrogeologic and engineering principles and practices at the place and time this study was performed. This warranty is in lieu of all other warranties, either expressed or implied. The conclusions presented herein are based solely on information made available to us by others, and includes professional interpretations based on limited research and data. Based on these circumstances, the decision to conduct additional investigative work to substantiate the findings and conclusions presented herein is the sole responsibility of the Client. No guarantee is made that groundwater of sufficient quantity or quality will be found in any specific depth or interval nor that pumping will not affect quality nor quantity of water found and/or subsidence. This report has been prepared solely for the Client and any reliance on this report by third parties shall be at such party's sole risk.

9.0 CLOSING

EBA appreciates the opportunity to be of service on this project. If you should have any questions regarding the information contained herein, please do not hesitate to contact our office at (707) 544-0784.

Sincerely,
EBA ENGINEERING

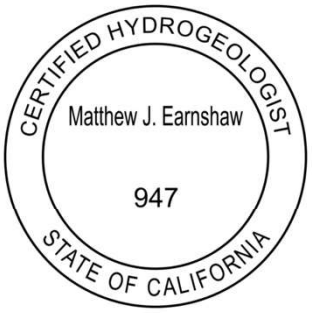
Prepared by

Ian Penn, G.I.T.
Project Geologist

Reviewed by

Matthew J Earnshaw Digitally signed by Matthew J Earnshaw
Date: 2024.07.25 16:18:08 -07'00'

Matthew Earnshaw, P.G., C.E.G., C.Hg., QSD
Vice President – Senior Hydrogeologist



Appendices: Appendix A: Figures
Appendix B: On-Site Well – Water Well Completion Report
Appendix C: Off-Site Wells – Water Well Completion Reports
Appendix D: Existing and Proposed Water Use

10.0 REFERENCES

California Department of Water Resources, December 1975, *Evaluation of Ground Water Resources*, Sonoma County, Volume 1: Geologic and Hydrologic Data; Bulletin 118-4.

California Department of Water Resources, September 1982, *Evaluation of Ground Water Resources*, Sonoma County, Volume 2: Santa Rosa Plain; Bulletin 118-4.

California Department of Water Resources - Irrigation Training and Research Center, 2003. *California Crop and Soil Evapotranspiration for Water Balances and Irrigation Scheduling/Design*. June 25, 2024. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/dd_jardins/part2/ddj_267.pdf

California Irrigation Management Information System (CIMIS), *Reference Evapotranspiration*, Retrieved from https://cimis.water.ca.gov/.

Driscoll, F.G., 1986. *Groundwater and Wells,* Johnson Division, St. Paul, Minnesota.

Helvey, J.D. and Patric, J.H., 1965, *Canopy and Litter Interception of Rainfall by Hardwoods of Eastern United States*; Water Resources Research, Volume 1, Number 2, Second Quarter, p. 193-205.

Jacob, C.E., 1946, *Drawdown Test to Determine Effective Radius of Artesian Well: Transactions*, Am. Soc. Civil Engineers, Vol. 112, p. 1047-1070.

Napa County, 2015. *Water Availability Analysis (WAA) – Guidance Document*. Accessed June 25, 2024. https://www.countyofnapa.org/3074/Groundwater-Sustainability.

Napa County, 2021. *Napa County Road & Street Standards | Napa County, CA.* Accessed June 25, 2024. https://www.cityofnapa.org/484/Standard-Plans-Specifications.

Napa County, 2022a. *Napa Valley Subbasin Groundwater Sustainability Plan, Section 4, Basin Setting - Napa County, CA.* January 2022. Accessed June 25, 2024. https://www.countyofnapa.org/3218/GSP-Sections

Napa County, 2022b. *Draft Napa County and GSA Response to the Governor's Emergency Executive Order N-7-22,* Napa County Planning and Environmental Services Department, Napa County Groundwater Sustainability Agency. June 2, 2022.

Napa County, 2022c. *Well Permit Standards | Napa County, CA.* January 10, 2024.

Accessed June 25, 2024. https://www.countyofnapa.org/3074/Groundwater-Sustainability.

Napa County, 2024. *Application of Public Trust Doctrine to Projects Dependent on Groundwater*. January 10, 2024.

Natural Resources Conservation Service (NRCS), 2020, *Web Soil Survey*. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, data accessed June 25, 2024.

PRISM Climate Group, Oregon State University, https://prism.oregonstate.edu/, data accessed on June 25, 2024.

Theis, C.V., 1935, *The Relation between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground Water Storage.* Am. Geophysical Union, Washington, D.C. p. 518-524.

University of California Cooperative Extension - California Department of Water Resources, 2000. *A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California - The Landscape Coefficient Method and WUCOLS III*. June 25, 2024. https://cimis.water.ca.gov/Content/PDF/wucols00.pdf

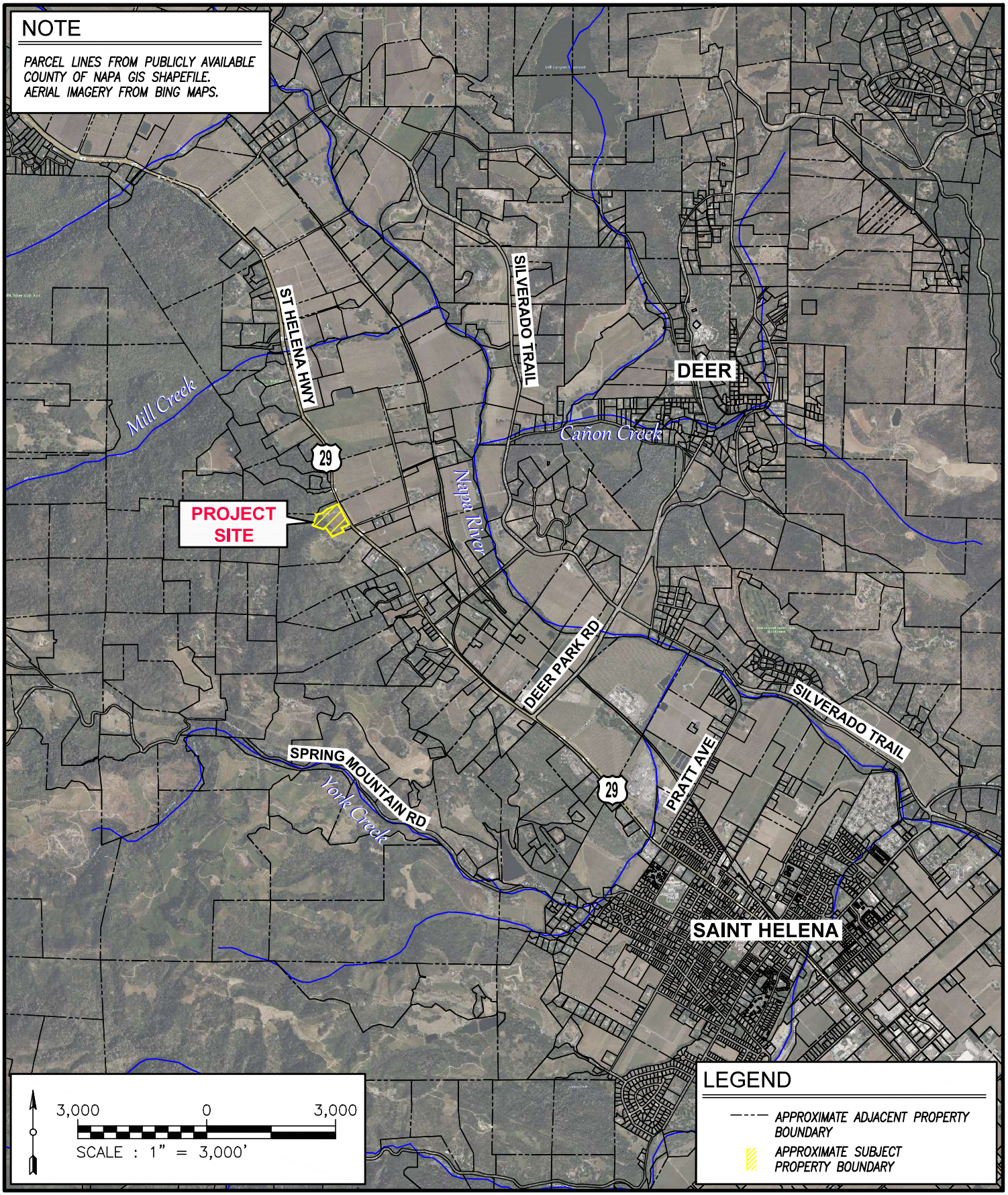
United States Geological Survey (USGS), 2007. *Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties*, California. United States Geological Survey – R.W. Graymer, E.E. Brabb, D.L. Jones, J. Barnes, R.S. Nicholson, and R.E. Stamski.

United States Geological Survey (USGS), 2022. *STRMDEPL08-An Extended Version of STRMDEPL with Additional Analytical Solutions to Calculate Streamflow Depletion by Nearby Pumping Wells*. Accessed June 25, 2024. https://mi.water.usgs.gov/software/groundwater/strmdepl08/

Weight, W.D, Sonderegger, J.L., 2001, *Manual of Applied Field Hydrogeology*, McGraw-Hill, New York, New York.

APPENDIX A

FIGURES



EBA ENGINEERING
825 SONOMA AVENUE
SUITE C
SANTA ROSA, CA 95404
TEL: (707) 544-0784

LOCATION MAP

3199 N ST HELENA HWY
SAINT HELENA, CA 94574-9507
APN 022-080-025

FIGURE
1

24-3556

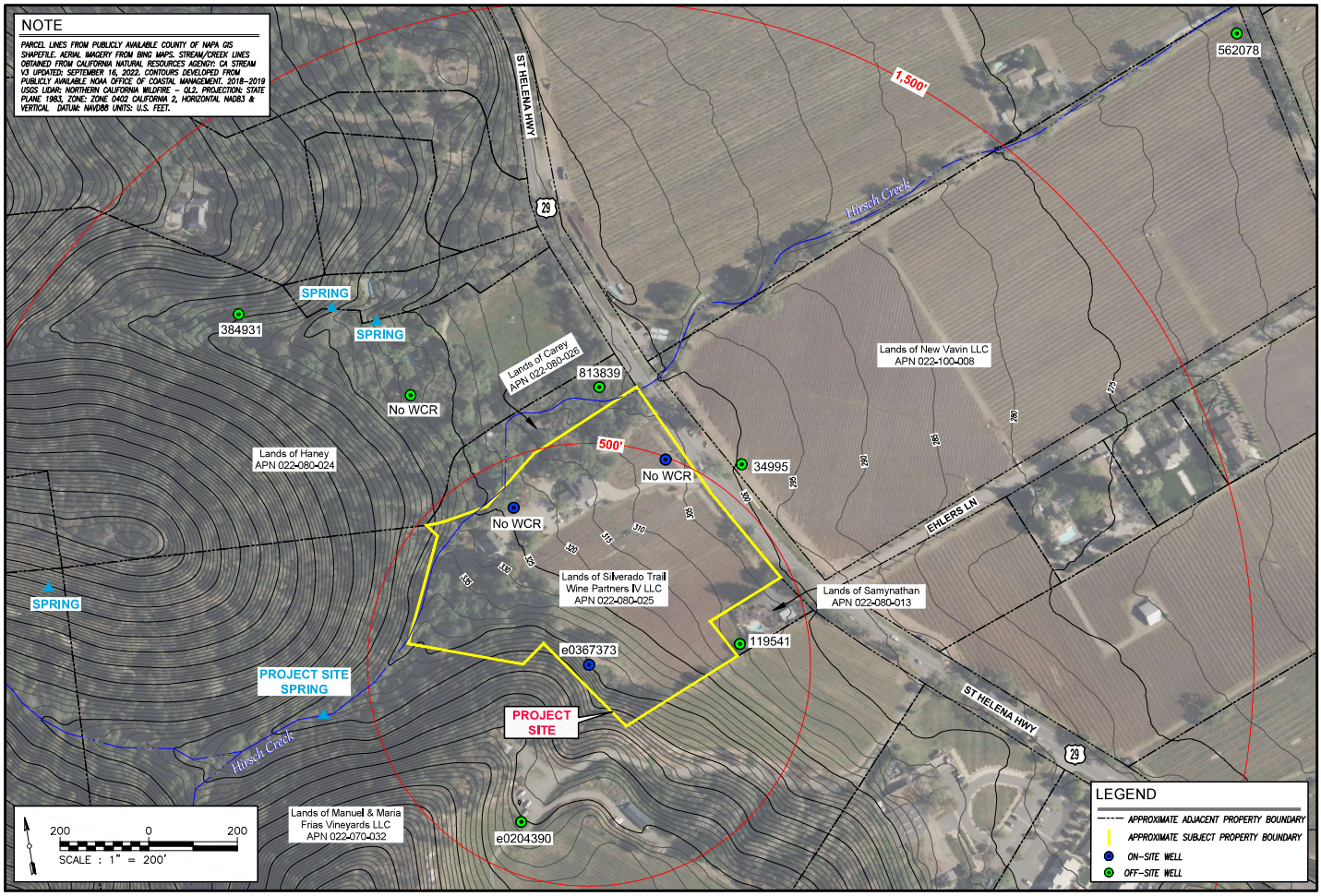


FIGURE 2
24-3556

WELL INTERFERENCE MAP

3199 N ST HELENA HWY
SAINT HELENA, CA 94574-9507
APN 022-080-025

EBA ENGINEERING
825 SONOMA AVENUE
SUITE C
SANTA ROSA, CA 95404
TEL: (707) 544-0784

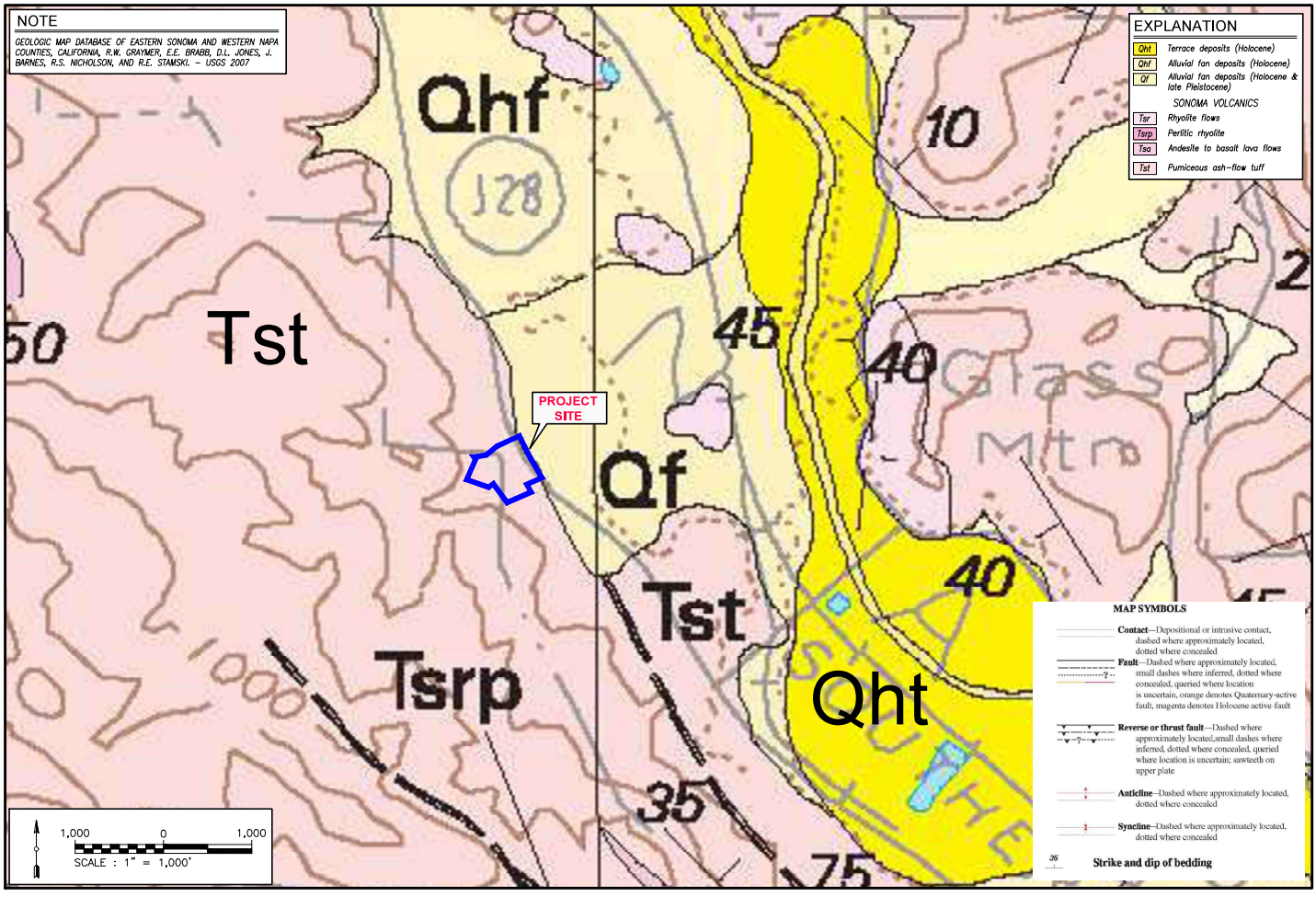


FIGURE 3

24-3556

GEOLOGIC MAP

3199 N ST HELENA HWY
SAINT HELENA, CA 94574-9507
APN 022-080-025

EBA ENGINEERING
825 SONOMA AVENUE
SUITE C
SANTA ROSA, CA 95404
TEL: (707) 544-0784

APPENDIX B

ON-SITE WELL

WATER WELL COMPLETION REPORT

E18-00508 WL

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0367373

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./ STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. 1-2018
Date Work Began 8/3/2018, Ended 9/6/2018
Local Permit Agency Napa County Environmental Mgmt
Permit No. E18-00508 Permit Date 6/19/2018

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL — HORIZONTAL — ANGLE — (SPECIFY)
DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	6	BOULDERS
6	15	TAN SANDY ASH
15	30	FRACTURED VOLCANIC ROCK
30	35	RED VOLCANIC ASH
35	40	HARD BLACK VOLCANICS
40	75	TAN VOLCANIC ASH
75	120	FRACTURED VOLCANIC ROCK
120	140	TAN SANDY ASH
140	190	LARGE FRACTURED VOLCANICS
190	245	TAN VOLCANIC ASH
245	335	FRACTURED MIXED VOLCANICS
335	375	MIXED VOLCANICS WITH ASH STRINGERS
375	380	HARD FRACTURED, RED VOLCANICS
380	435	MIXED VOLCANICS WITH ASH STRINGERS
435	440	HARD FRACTURED BLACK VOLCANICS
440	450	RED SANDY ASH
450	456	BLACK, RED VOLCANICS
456	475	RED, GRAY SANDY ASH
475	530	RED, GRAY VOLCANIC ASH
530	545	MIXED VOLCANIC SANDS
545	554	RED, GRAY VOLCANIC ASH
554	557	MIXED VOLCANIC SANDS
557	598	GRAY VOLCANIC ASH
598	688	FRACTURED BLACK VOLCANIC ROCK
688	700	GRAY VOLCANIC ASH
		CONTINUED CASING LAYOUT
539	559	SCREEN PVC 6" .032 SLOT
559	599	BLANK PVC 6"
599	689	SCREEN PVC 6" .032 SLOT
689	699	BLANK PVC 6"

TOTAL DEPTH OF BORING 700 (Feet)
TOTAL DEPTH OF COMPLETED WELL 699 (Feet)

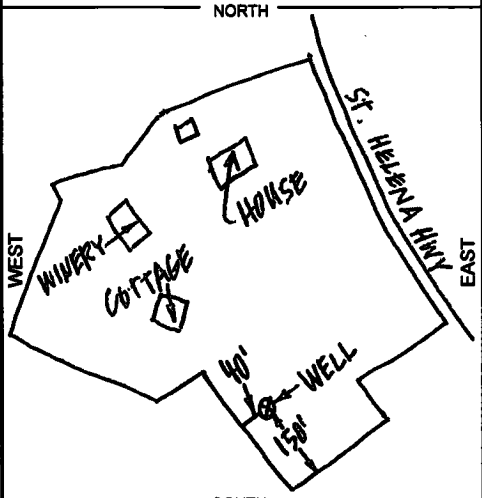
WELL OWNER

Name [redacted]
Mailing Address 31[redacted] St[redacted]
CITY [redacted] STATE [redacted] ZIP [redacted]

WELL LOCATION

Address 3199 St. Helena Hwy
City St. Helena CA
County Napa
APN Book 022 Page 080 Parcel 025
Township ____ Range ____ Section ____
Latitude ____ DEG. MIN. SEC. ____ DEG. MIN. SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

✓ NEW WELL
MODIFICATION/REPAIR
— Deepen
— Other (Specify)
— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG"

PLANNED USES (✓)
WATER SUPPLY
✓ Domestic — Public
✓ Irrigation — Industrial
MONITORING —
TEST WELL —
CATHODIC PROTECTION —
HEAT EXCHANGE —
DIRECT PUSH —
INJECTION —
VAPOR EXTRACTION —
SPARGING —
REMEDIATION —
OTHER (SPECIFY) —

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER N/A (Ft.) BELOW SURFACE 1
DEPTH OF STATIC WATER LEVEL 92 (Ft.) & DATE MEASURED 9/6/2018
ESTIMATED YIELD * 125 (GPM) & TEST TYPE AIR LIFT
TEST LENGTH 2 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)
May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	700	12								
0	239		✓				PVC F480	6	SDR-21	
239	399			✓			PVC F480	6	SDR-21	.032
399	419		✓				PVC F480	6	SDR-21	
419	479			✓			PVC F480	6	SDR-21	.032
479	539		✓				PVC F480	6	SDR-21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	62	✓			10 SK SAND
62	699			✓	#6 SAND

ATTACHMENTS (✓)

— Geologic Log
— Well Construction Diagram
— Geophysical Log(s)
— Soil/Water Chemical Analysis
— Other ____
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
2110 Penny Lane ADDRESS Napa CITY CA STATE 94559 ZIP
Signed [signature] WELL DRILLER/AUTHORIZED REPRESENTATIVE
09/13/18 DATE SIGNED
439-746 C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

APPENDIX C

OFF-SITE WELLS

WATER WELL COMPLETION REPORTS

Bill

QUADRUPLICATE
Use to comply with local requirements

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in

No. 119541

Notice of Intent No.
Local Permit No. or Date

State Well No.
Other Well No.

(1) OWNER: Name [redacted]
Address [redacted]
City St. Helena, Ca Zip 94574

(2) LOCATION OF WELL (See instructions):
County Napa Owner's Well Number 22-080-13
Well address if different from above same
Township Range Section
Distance from cities, roads, railroads, fences, etc.

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☒
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary ☐ Reverse ☐
Cable ☐ Air ☒
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size 3/4
Diameter of bore 12¼"
Packed from 25 to 260 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS: machine
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	160	6	160	160	260	.040

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 25 ft.
Were strata sealed against pollution? Yes ☐ No ☒ Interval ft.
Method of sealing cement

(10) WATER LEVELS:
Depth of first water, if known 140' ft.
Standing level after well completion 35 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? driller
Type of test Pump ☐ Bailer ☐ Air lift ☒
Depth to water at start of test 35 ft. At end of test complete
Discharge 14 gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No ☒ If yes, by whom?
Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 260 ft. Depth of completed well 260 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	6	soil & gravel
6	40	hard gray & brown rock
40	50	hard gray & black rock/str. red clay
50	60	sandy brown clay -soft
60	100	gray rock & clay stringers
100	140	soft red rock hard stringers red rock fractures
140	190	soft black rock
190	215	multi color rock fract
215	260	cemented gravel & coarse sand

Work started 6/20 19 83 Completed 6/30 19 83

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED [signature] (Well Driller)
NAME 5365 Napa Vallejo Hwy (Person, firm, or corporation) (Typed or printed)
Address Doshier-Gregson Drilling, Inc
City Vallejo, Ca Zip 94589-9679
License No. 294001 Date of this report 7/8/83

CONFIDENTIAL
NOT FOR PUBLIC USE
WATER CODE SEC. 13752

RECEIVED
AUG 1 1983
DIVISION OF ENVIRONMENTAL HEALTH

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. e0204390

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./ STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. 1-2014
Date Work Began 5/27/2014, Ended 6/17/2014
Local Permit Agency Napa County Environmental Mgmt
Permit No. E14-00109 Permit Date 2/13/2014

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL — HORIZONTAL — ANGLE — (SPECIFY)
DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	35	BROWN CLAY
35	45	TAN VOLCANIC ASH
45	100	GRAY VOLCANIC ROCK
100	112	RED VOLCANICS
112	305	HARD FRACTURED MIXED VOLCANICS
305	320	MIXED VOLCANICS
320	370	70% BROWN ASH / 30% MIXED VOLCANICS
370	395	MIXED VOLCANICS
395	425	70% MIXED VOLCANICS / 30% GRAY ASH
425	450	GRAY VOLCANIC ASH
450	515	90% MIXED VOLCANICS / 10% GRAY ASH
515	520	GRAY ASH
520	525	MIXED VOLCANICS
525	532	GRAY ASH
532	565	MIXED VOLCANICS
565	585	50% MIXED VOLCANICS / 50% GREEN ASH
		CONTINUED CASING LAYOUT
439	519	SCREEN PVC 6" .032 SLOT
519	539	BLANK PVC 6"
539	569	SCREEN PVC 6" .032 SLOT
569	579	BLANK PVC 6"

RECEIVED
JUL 21 2014
Napa County Planning, Building & Environmental Services

TOTAL DEPTH OF BORING 585 (Feet)
TOTAL DEPTH OF COMPLETED WELL 579 (Feet)

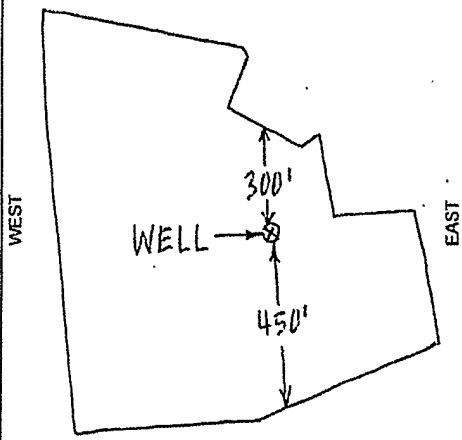
WELL OWNER

Name [redacted]
Mailing Address [redacted]
CITY [redacted] STATE [redacted] ZIP

WELL LOCATION

Address 3131 St. Helena Hwy
City St. Helena CA
County Napa
APN Book 022 Page 070 Parcel 032
Township ____ Range ____ Section ____
Latitude ____ DEG. MIN. SEC. ____ DEG. MIN. SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

✓ NEW WELL
MODIFICATION/REPAIR — Deepen — Other (Specify)
— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG"

PLANNED USES (✓)

WATER SUPPLY ✓ Domestic — Public ✓ Irrigation — Industrial
MONITORING —
TEST WELL —
CATHODIC PROTECTION —
HEAT EXCHANGE —
DIRECT PUSH —
INJECTION —
VAPOR EXTRACTION —
SPARGING —
REMEDIATION —
OTHER (SPECIFY) —

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER N/A (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 110 (Ft.) & DATE MEASURED 6/17/2014
ESTIMATED YIELD 120 (GPM) & TEST TYPE AIR LIFT
TEST LENGTH 2 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)
May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	585	12								
0	159		✓				PVC F480	6	SDR-21	
159	319			✓			PVC F480	6	SDR-21	.032
319	339		✓				PVC F480	6	SDR-21	
339	419			✓			PVC F480	6	SDR-21	.032
419	439		✓				PVC F480	6	SDR-21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	56	✓			10 SK SAND
56	579			✓	#6 SAND

ATTACHMENTS (✓)

— Geologic Log
— Well Construction Diagram
— Geophysical Log(s)
— Soil/Water Chemical Analysis
— Other
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP
Signed [signature] 06/18/14
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED
439-746-
C-57 LICENSE NUMBER

DWR 188 REV 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL

File with DWR

Notice of Intent No.

Local Permit No. or Date

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

022 100 008

E/M

Do not fill in

No. 34995

State Well No.

Other Well No. 08N06W-23E

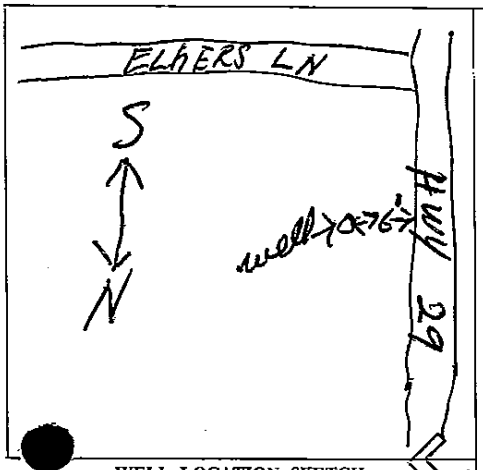
(2) LOCATION OF WELL (See instructions):

County Napa Owner's Well Number

Well address if different from above Same

Township 22 Range 100 Section 08

Distance from cities, roads, railroads, fences, etc. 1/4 mi. North of Elhers Lane on Hwy. 29



WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☐
Irrigation ☐
Industrial ☒
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:

Rotary ☐ Reverse ☐
Cable ☒ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size

Diameter of bore 10'

Packed from 60' to 20' ft.

(7) CASING INSTALLED:

Steel ☒ Plastic ☐ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	295	8	188	40	60	1/8 x 3"
				255	295	1/8 x 3"

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 22 ft.

Were strata sealed against pollution? Yes ☐ No ☒ Interval ft.

Method of sealing

(10) WATER LEVELS:

Depth of first water, if known 45 ft.

Standing level after well completion 35 ft.

(11) WELL TESTS:

Was well test made? Yes ☒ No ☐ If yes, by whom? Driller

Type of test Pump ☐ Bailer ☒ Air lift ☐

Depth to water at start of test 35 ft. At end of test 300 ft

Discharge 15 gal/min after 1 1/2 hours Water temperature

Chemical analysis made? Yes ☐ No ☒ If yes, by whom?

Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG:

Total depth 455 ft. Depth of completed well 455 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	265'	brown clay, boulders gravel
265	300'	greenash, boulders
300	360'	brown ash, boulders
360	455'	greenash, rock

Work started 8-5 1979 Completed 9-5- 1979

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED Bill Pulliam (Well Driller)

NAME Pulliam Well Drilling (Person, firm, or corporation) (Typed or printed)

Address 2877 Piedmont

City Napa Zip 94558

License No. 248677 Date of this report 11-8-79

CONFIDENTIAL
NOT FOR PUBLIC USE
WATER CODE SEC. 13752

D 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM 43816-950 7-76 50M QUAD ① T OSP

QUADRUPLICATE
For Local Requirements

Page 1 of 1

Owner's Well No. _____

Date Work Began 4/26/95, Ended 4/28/95

Local Permit Agency NAPA COUNTY ENVIRONMENTAL MANAGEMENT

Permit No. ~~Record#5393/Receipt38750~~ Permit Date 4/7/95

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 562078

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	2	Top soil
2	5	Sandy brown clays w/ cobbles
5	7	Sandy yellow clays w/ cobbles
7	17	Sandy brown clays w/ cobbles
17	24	Brown clays
24	29	Cemented multi-colored conglomerate
29	43	Boulders
46	63	Multi-colored clays w/ embedded rock
63	80	Sandy brown clay w/ small streaks of sand & gravel
80	87	Clayee blue sand & sandy blue clays
87	89	Cemented conglomerate
89	114	Sandy blue clays & clayee blue sands
114	132	Sandy blue clays w/ occasional streak of volcanic conglomerate
132	143	Sandy blue clays
143	162	Sandy blue clay w/ streaks of loose volcanic conglomerate
162	170	Volcanic conglomerate
170	172	Sandy blue clays
172	200	Volcanic conglomerate

TOTAL DEPTH OF BORING 200 (Feet)

TOTAL DEPTH OF COMPLETED WELL 199 (Feet)

WELL OWNER

Name [redacted]

Mailing Address [redacted]

City [redacted] STATE [redacted] ZIP

WELL LOCATION

Address 3220 St. Helena Hwy

City St.Helena, CA

County NAPA

APN Book 22 Page 100 Parcel 08

or Township ___ Range ___ Section ___

or Latitude ___ NORTH Longitude ___ WEST

DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH

MAY 19 1995

OF ENVIRONMENTAL HEALTH

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING

WATER SUPPLY

X Domestic

___ Public

X Irrigation

___ Industrial

___ "TEST WELL"

___ CATHODIC PROTECTION

___ OTHER (Specify)

DRILLING METHOD Mud Rotary FLUID Poly Jel

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 13 (Ft.) & DATE MEASURED 5/3/95

ESTIMATED YIELD* 55 (GPM) & TEST TYPE PUMP

TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN 173 (Ft.)

** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	20	10 5/8								
20	200	9 7/8								
+1	199		X				PVC/480	6"	CL200	
139	199			X						.032

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	27	X			
27	199			X	3/8 pea

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME WEEKS DRILLING AND PUMP COMPANY by Ward Thompson
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

P.O. Box 176 Sebastopol CA 95473
ADDRESS CITY STATE ZIP

Signed [signature] 5/11/95 177681
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

382

QUADRUPLICATE
For Local Requirements

Page ___ of ___

Owner's Well No. ___

Date Work Began 12/14/99, Ended 12/21/99

Local Permit Agency Napa

Permit No. 96-11236 Permit Date 8-13-99

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 813839

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Mud FLUID Betonite

DEPTH FROM SURFACE Ft	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	2	Topsoil
2	20	boulders & brown clay
20	40	gray rock & boulders
40	60	boulders & brown sandy clay
60	70	brown sandy clay
70	90	gray rock stringers sandy gray clay
90	110	black&red rock stringers brown & red clay
110	130	reddish brown rock
130	150	reddish brown clay strimers black rock
150	170	gray & black rock
170	190	brown sandy clay
190	210	reddish brown sandy clay
210	230	gray brown & black rock
230	250	gray&black rock fract hard
250	270	gray brown&red rock soft
270	300	black&gray rock fract hard

TOTAL DEPTH OF BORING 300 (Feet)
TOTAL DEPTH OF COMPLETED WELL 300 (Feet)

WELL OWNER

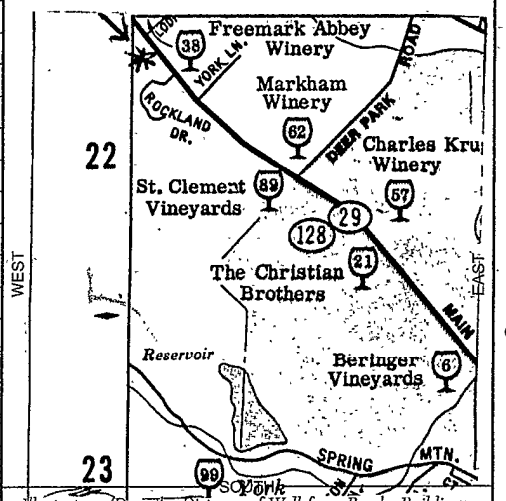
Name [redacted]
Mailing Address [redacted]
CITY [redacted] STATE ZIP

WELL LOCATION

Address 3225 St. Helena Hwy
City Napa
County Napa
APN Book 22 Page 020 Parcel 011
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 60 (Ft.) & DATE MEASURED 12-21-99
ESTIMATED YIELD * 15 (GPM) & TEST TYPE air
TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN 255 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	60	9 7/8	X				F480	6"	200	
60	140	9 7/8		X			F480	6"	200	factory
140	200	9 7/8	X				F480	6"	200	
200	300	9 7/8		X			F480	6"	200	factory

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	57	X			
57	300			X	pea gravel

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME McLean & Williams, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

878 El Centro Ave. Napa CA 94558
ADDRESS CITY STATE ZIP

Signed [signature] 1/21/00 396352
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

22-080-024

#4323

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

QUADRUPLICATE
Use to comply with local requirements

Do not fill in

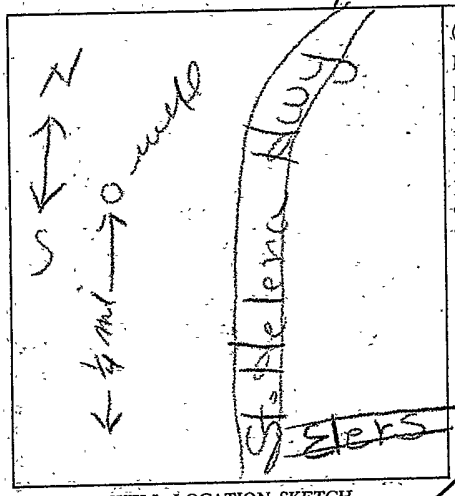
No. **384931**

State Well No. _____
Other Well No. _____

Notice of Intent No. _____
Local Permit No. or Date 31744

(1) OWNER: Name [redacted]
Address [redacted]
City [redacted] ZIP _____

(2) LOCATION OF WELL (See instructions):
County 28 Owner's Well Number _____
Well address if different from above Same
Township 22 Range 80 Section 24
Distance from cities, roads, railroads, fences, etc. 1/4 mi. No. of Elers Lane on St. Helena Hwy.



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☒
Irrigation ☐
Industrial ☐
Test Well ☐
Municipal ☐
Other ☒
(Describe)

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size PEA
Diameter of bore 9
Packed from 30 to 516 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	516	4	200	80	516	FACT PREF

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 30 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 17-25 ft.
Method of sealing cement

(10) WATER LEVELS:
Depth of first water, if known 17 ft.
Standing level after well completion 50 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? Driller
Type of test Pump ☐ Bailer ☐ Air lift ☒
Depth to water at start of test 50 ft. At end of test 500 ft.
Discharge 25 gal/min after 4 hours Water temperature _____
Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____
Was electric log made Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 516 ft. Completed depth 516 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	17	clay & rock
17	25	broken up rock
25	80	clay & rock
80	120	broken up rock
120	340	clay & rock
340	370	clay, streaks of broken up rock
370	470	clay & rock
470	510	clay layers of broken up volcanic ash
510	516	clay

RECEIVED
JUN 21 1993
DEPT. OF ENVIRONMENTAL MANAGEMENT

Work started 10-19-1992 Completed 11-2-

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true best of my knowledge and belief.

Signed [signature] (Well Driller)
NAME Pulliam Well Drilli (Person, firm, or corporation) (Typed or printed)
Address 2877 Piedmont Av
City Napa ZIP 94
License No. 248677 Date of this report 24

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

DWR 188 (REV. 12-86)

CONFIDENTIAL NOT FOR PUBLIC USE WATER CODE SEC 13752

APPENDIX D

EXISTING AND PROPOSED WATER USE

WATER AVAILABILITY ANALYSIS

AXR Napa Valley

3199 St. Helena Highway

St. Helena, California, 94574

APN 022-080-025

SUMMIT

CIVIL STRUCTURAL WATER|WASTEWATER ELECTRICAL PLANNING

Project No. 2021183
Revised July 2024

TABLE OF CONTENTS

Project Overview 1
Existing Water Demand 1
Proposed Water Demand 1
Conclusion 4

LIST OF ENCLOSURES

Enclosure A: Overall Site Plan

Enclosure B: Well Completion Report

Enclosure C: Water Availability Analysis for Existing Entitlement

PROJECT OVERVIEW

AXR Napa Valley, located at 3199 St. Helena Highway in St. Helena, CA (APN 022-080-025), is applying for a use permit modification to the approved UP #P08-00099 to revise the entitled number of employees, daily visitors, marketing events, and wine production at the facility. The site is a 7.85-acre parcel located within the Napa Valley Floor. An overall site plan for the winery is provided in Enclosure A. Details of the proposed use permit modification are summarized below:

- Increase full-time employees (FTE) from two to twelve
- Increase part-time employees (PTE) from two to five
- Increase daily tasting visitors from 20 persons/day and 90/week to 60 persons/day and 420/week
- Revise marketing events (discussed in greater detail in subsequent sections of this report)
- Increase wine production from 20,000 gallons/year to 35,000 gallons/year

There is one active groundwater well that currently supplies all water to site. The well completion report for this well is provided in Enclosure B. The well has a completed depth of 699 feet, an annular seal depth of 62 feet, and a 6-inch casing. This well is anticipated to have sufficient capacity so satisfy the estimated future water demand for the winery.

Summit Engineering has prepared the following Water Availability Analysis (WAA) to demonstrate there is no net increase in water consumption associated with the proposed increase in wine production, employees, tasting visitation, and marketing events associated with the use permit modification application.

EXISTING WATER DEMAND

The existing water demand at site is documented in the WAA that was included in the 2004 use permit modification application (#P04-0541). This WAA is provided in Enclosure C and reflects an annual water usage of 3.62 acre-feet per year. The 2008 use permit modification (#P08-00099) did not impact water usage at site, and thus a WAA was not submitted as part of the application.

PROPOSED WATER DEMAND

Future water demands are anticipated for winery process, domestic, vineyard irrigation, and landscape irrigation demand. Estimates of each water demand are provided in the following sections.

Proposed Process Water Demand Projection

The proposed process water demand is calculated in Table 1.

Table 1: Estimate of proposed annual process water demand.

Parameter	Value	Units
Wine Production	35,000	gal wine / year
Water Demand for Wine Production (Note 1)	6.0	gal water / gal wine
Total Annual Process Water Demand	210,000	gal water / year
	0.644	acre-feet water / year
Average Daily Process Water Demand (Note 2)	575	gal water / year
Peak Daily Process Water Demand (Note 3)	1,148	gal water / day
Notes:		
1. Water demand for wine production is based on industry standard values.		
2. Assumes the total annual process water demand is spread evenly across 365 days.		
3. Assumes the peak Harvest month of September accounts for 16.4% of the annual process water demand. This assumption is based on data from wineries of similar size.		

Proposed Domestic Water Demand Projection

Domestic water use at the winery is determined based on the total number of employees, daily visitors, event guests, and the residential demand. Using Napa County standards, the proposed average and peak domestic water demands for the winery facility is estimated in Table 2:

Table 2: Estimate of proposed domestic water demand on an average weekend day.

Category	Number People / Day	Domestic Water Demand, gal/person	Total Domestic Water Demand, gal/day
Full-Time Employee	12	15	180
Part-Time Employee	5	15	75
Tasting Visitors (Note 1)	60	3	180
Residential (Note 2)	5	150	750
Total	—	—	1,185
Notes:			
1. Assumes full meals are not served to tasting visitors. Pre-packaged foods such as cookies and crackers may be available to tasting visitors.			
2. Residential demand is based on two 2-bedroom cottages (Cottage #4 and #8) and one 1-bedroom cottage (Cottage #7) onsite.			

The winery also proposes to host events. The events are proposed to be catered, with no food preparation occurring onsite. The size and frequency of proposed events are as follows:

- Event Type #1: 150 attendees max, 3 events per year
- Event Type #2: 75 attendees max, 4 events per year
- Event Type #3: 25 attendees max, 2 events per month (24 events per year)

The estimated domestic water demand on a day with a 150-person event is summarized in Table 3.

Table 3: Estimate of proposed domestic water demand on an event day.

Category	Number People / Day	Domestic Water Demand, gal/person	Total Domestic Water Demand, gal/day
Full-Time Employee	12	15	180
Part-Time Employee	5	15	75
Tasting Visitors (Note 1)	60	3	180
Event Guest (Note 2)	150	15	2,250
Residential (Note 3)	5	150	750
Total	—	—	3,435
Notes:			
1. Assumes full meals are not served to tasting visitors. Pre-packaged foods such as cookies and crackers may be available to tasting visitors.			
2. Events are assumed to be catered, with no food preparation occurring onsite.			
3. Residential demand is based on two 2-bedroom cottages (Cottage #4 and #8) and one 1-bedroom cottage (Cottage #7) onsite.			

The total annual domestic water demand is calculated in Table 4.

Table 4: Estimate of proposed annual domestic water demand.

Use Type	Number (persons/day)	Water Demand (gal/person)	Daily Demand (gal/day)	Frequency (days/year)	Annual Water Use (gal/year)
FTE (Note 1)	12	15	180	365	65,700
PTE (Note 2)	5	15	75	104	7,800
Tasting Visitors (Note 3)	60	3	180	365	65,700
Event Guests (Note 4)	—	—	—	—	—
Event, 150 Guests	150	15	2,250	3	6,750
Event, 75 Guests	75	15	1,125	4	4,500
Event, 25 Guests	25	15	375	24	9,000
Residential (Note 5)	5	150	750	365	273,750
Total Annual Winery Domestic Water Demand (Gallons)					433,200
Total Annual Winery Domestic Water Demand (acre-feet/year)					1.329
Notes:					
1. Maximum number of FTE's assumed every day to be conservative.					
2. PTE's assumed to work an average of two days a week.					
3. Tasting assumed to occur seven days per week. Assumes full meals are not served to tasting visitors. Pre-packaged foods such as cookies and crackers may be available to tasting visitors.					
4. Events are assumed to be catered, with no food preparation occurring onsite.					
5. Residential demand is based on two 2-bedroom cottages (Cottage #4 and Cottage #8) and one 1-bedroom cottage (Cottage #7) onsite.					

Proposed Vineyard Irrigation Water Demand Projection

The winery does not intend to plant any additional vineyard as part of the use permit modification. The vineyard water demand of 0.85 acre-feet/year presented in the 2004 use permit modification application is expected to remain valid. The Water Availability Analysis from the 2004 use permit modification application is provided in Enclosure C.

Proposed Landscape Water Demand Projection

The existing landscape and garden irrigation water demand at the winery is calculated according to the Guidelines for Estimating Non-Residential Water Usage in Napa County's Water Availability Analysis Guidance Document. There is no change in landscaping associated with the proposed increase in wine production and revised marketing plan. The expected water demand for all winery landscape irrigation is calculated in Table 5.

Table 5: Estimate of proposed landscaping water demand

Parameter	Value	Units
Proposed Annual Production	35,000	gal wine / year
Domestic and Landscaping Water Allocation (Note 1)	0.5	ac-ft / 100,000 gal wine
Total Annual Winery Landscape Water Demand	0.175	ac-ft / year
Notes:		
1. Demand based on Guidelines for Estimating Non-Residential Water Usage in Napa County's Water Availability Analysis Guidance Document.		

Proposed Total Water Demand Projection

The total estimated water demand projection is calculated in Table 6.

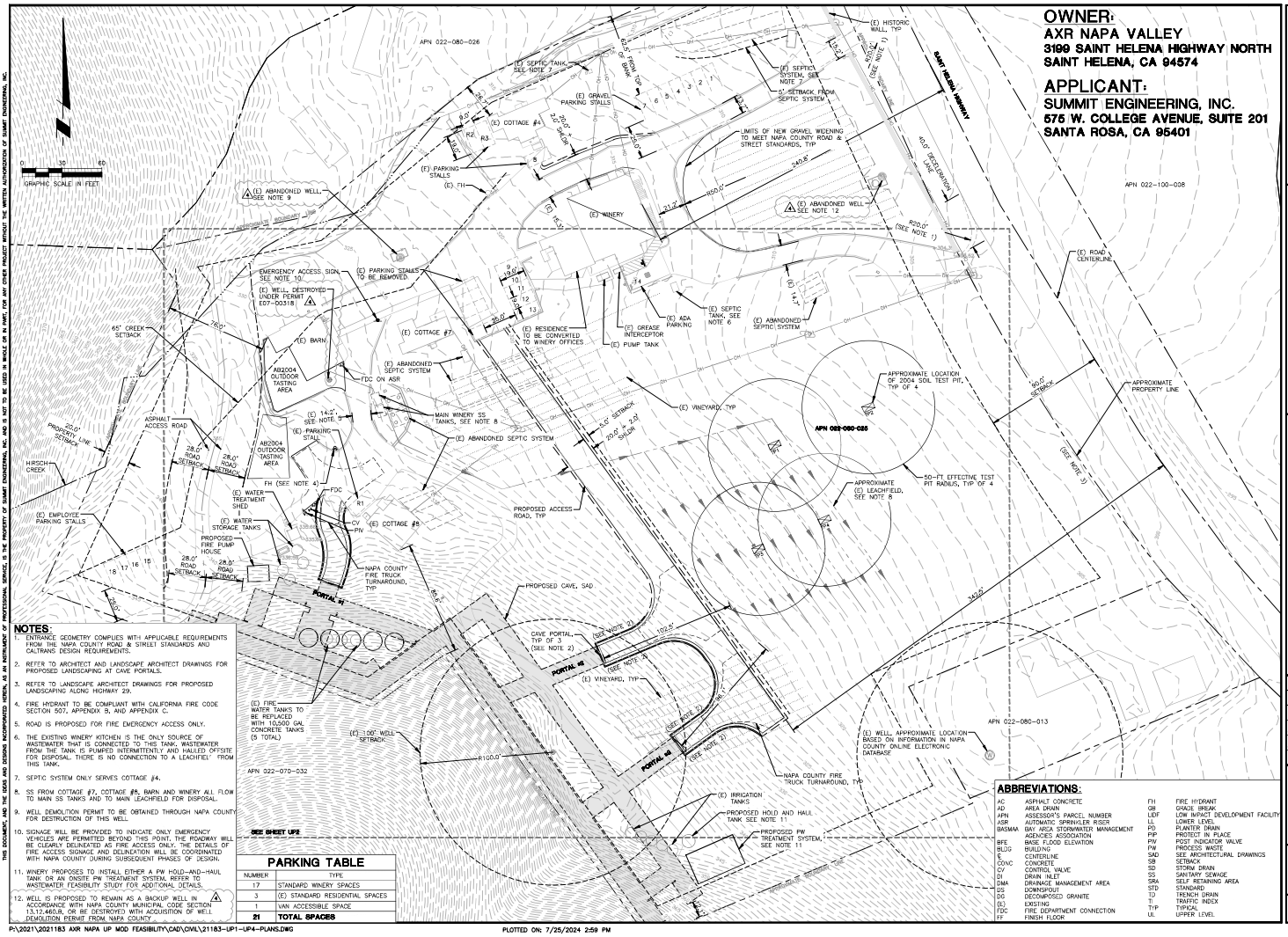
Table 6: Total estimated water demand.

Category	Estimated Water Demand (ac-ft/year)
Process Water	0.644
Domestic Water	1.329
Vineyard Irrigation Water	0.850
Landscaping Water	0.175
Total	2.998

CONCLUSION

The proposed total water demand of 2.998 ac-ft/year is less than the existing water demand of 3.62 ac-ft/year. There is no net increase in water demand associated with the use permit modification. Furthermore, the parcel-specific recharge calculations developed by EBA Engineering, Inc. estimate 6.42 ac-ft/year of groundwater available for recharge. The proposed water demand is less than the estimated parcel-specific recharge.

ENCLOSURE A
OVERALL SITE PLAN



NOTES:

1. ENTRANCE GEOMETRY COMPLIES WITH APPLICABLE REQUIREMENTS FROM THE NAPA COUNTY ROAD & STREET STANDARDS AND CALTRANS DESIGN REQUIREMENTS.
2. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING AT CAVE PORTALS.
3. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING ALONG HIGHWAY 29.
4. FIRE HYDRANT TO BE COMPLIANT WITH CALIFORNIA FIRE CODE SECTION 507, APPENDIX B, AND APPENDIX C.
5. ROAD IS PROPOSED FOR FIRE EMERGENCY ACCESS ONLY.
6. THE EXISTING WINERY KITCHEN IS THE ONLY SOURCE OF WASTEWATER THAT IS CONNECTED TO THIS TANK. WASTEWATER FROM THE TANK IS PUMPED INTERMITTENTLY AND HAULED OFFSITE FOR DISPOSAL. THERE IS NO CONNECTION TO A LEACHFIELD FROM THIS TANK.
7. SEPTIC SYSTEM ONLY SERVES COTTAGE #4.
8. SS FROM COTTAGE #7, COTTAGE #8, BARN AND WINERY ALL FLOW TO MAIN SS TANKS AND TO MAIN LEACHFIELD FOR DISPOSAL.
9. WELL DEMOLITION PERMIT TO BE OBTAINED THROUGH NAPA COUNTY FOR DESTRUCTION OF THIS WELL.
10. SIGNAGE WILL BE PROVIDED TO INDICATE ONLY EMERGENCY VEHICLES ARE PERMITTED BEYOND THIS POINT. THE ROADWAY WILL BE CLEARLY DELINEATED AS FIRE ACCESS ONLY. THE DETAILS OF FIRE ACCESS SIGNAGE AND DELINEATION WILL BE COORDINATED WITH NAPA COUNTY DURING SUBSEQUENT PHASES OF DESIGN.
11. WINERY PROPOSES TO INSTALL EITHER A FW HOLD-AND-HAUL TANK OR AN ONSITE FW TREATMENT SYSTEM. REFER TO WASTEWATER FEASIBILITY STUDY FOR ADDITIONAL DETAILS.
12. WELL IS PROPOSED TO REMAIN AS A BACKUP WELL IN ACCORDANCE WITH NAPA COUNTY MUNICIPAL CODE SECTION 13.12.460.B, OR BE DESTROYED WITH ACQUISITION OF WELL DEMOLITION PERMIT FROM NAPA COUNTY.

PARKING TABLE

NUMBER	TYPE
17	STANDARD WINERY SPACES
3	(E) STANDARD RESIDENTIAL SPACES
1	VAN ACCESSIBLE SPACE
21	**TOTAL SPACES**

ABBREVIATIONS:

AC	ASPHALT CONCRETE	FH	FIRE HYDRANT
AD	AREA DRAIN	GB	GRADE BREAK
APN	ASSESSOR'S PARCEL NUMBER	LIDF	LOW IMPACT DEVELOPMENT FACILITY
ASR	AUTOMATIC SPRINKLER RISER	LL	LOWER LEVEL
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION	PD	PLANTER DRAIN
		PIP	PROTECT IN PLACE
BFE	BASE FLOOD ELEVATION	PW	POST INDICATOR VALVE
BLDG	BUILDING	PW	PROCESS WASTE
℄	CENTERLINE	SAD	SEE ARCHITECTURAL DRAWINGS
CONC	CONCRETE	SB	SETBACK
CV	CONTROL VALVE	SD	STORM DRAIN
DI	DRAIN INLET	SS	SANITARY SEWAGE
DMA	DRAINAGE MANAGEMENT AREA	SRA	SELF RETAINING AREA
DS	DOWNSPOUT	STD	STANDARD
DG	DECOMPOSED GRANITE	TD	TRENCH DRAIN
(E)	EXISTING	TI	TRAFFIC INDEX
FDC	FIRE DEPARTMENT CONNECTION	TYP	TYPICAL
FF	FINISH FLOOR	UL	UPPER LEVEL

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AXR NAPA VALLEY
3199 ST HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574
APN 022-080-025

USE PERMIT MODIFICATION

OVERALL SITE PLAN

2022-12-13	USE PERMIT APPLICATION
2023-04-13	USE PERMIT RESUBMITTAL
2023-12-11	USE PERMIT RESUBMITTAL
2024-03-19	USE PERMIT RESUBMITTAL
2024-07-29	USE PERMIT RESUBMITTAL

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS
SHEET UP1 OF 5

ENCLOSURE B
WELL COMPLETION REPORT

E18-00508 WL

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0367373

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./ STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. 1-2018
Date Work Began 8/3/2018, Ended 9/6/2018
Local Permit Agency Napa County Environmental Mgmt
Permit No. E18-00508 Permit Date 6/19/2018

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL — HORIZONTAL — ANGLE — (SPECIFY)
DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	6	BOULDERS
6	15	TAN SANDY ASH
15	30	FRACTURED VOLCANIC ROCK
30	35	RED VOLCANIC ASH
35	40	HARD BLACK VOLCANICS
40	75	TAN VOLCANIC ASH
75	120	FRACTURED VOLCANIC ROCK
120	140	TAN SANDY ASH
140	190	LARGE FRACTURED VOLCANICS
190	245	TAN VOLCANIC ASH
245	335	FRACTURED MIXED VOLCANICS
335	375	MIXED VOLCANICS WITH ASH STRINGERS
375	380	HARD FRACTURED, RED VOLCANICS
380	435	MIXED VOLCANICS WITH ASH STRINGERS
435	440	HARD FRACTURED BLACK VOLCANICS
440	450	RED SANDY ASH
450	456	BLACK, RED VOLCANICS
456	475	RED, GRAY SANDY ASH
475	530	RED, GRAY VOLCANIC ASH
530	545	MIXED VOLCANIC SANDS
545	554	RED, GRAY VOLCANIC ASH
554	557	MIXED VOLCANIC SANDS
557	598	GRAY VOLCANIC ASH
598	688	FRACTURED BLACK VOLCANIC ROCK
688	700	GRAY VOLCANIC ASH
		CONTINUED CASING LAYOUT
539	559	SCREEN PVC 6" .032 SLOT
559	599	BLANK PVC 6"
599	689	SCREEN PVC 6" .032 SLOT
689	699	BLANK PVC 6"

TOTAL DEPTH OF BORING 700 (Feet)
TOTAL DEPTH OF COMPLETED WELL 699 (Feet)

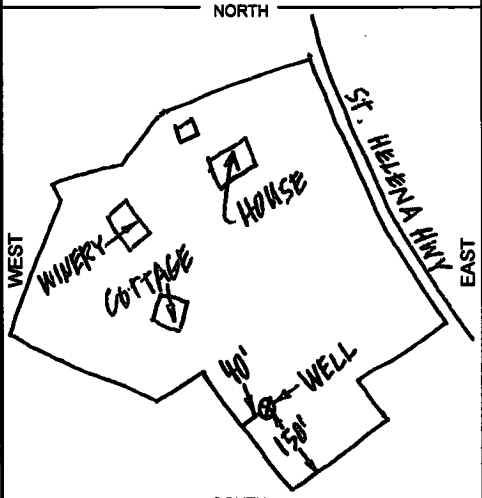
WELL OWNER

Name [redacted]
Mailing Address 31[redacted] St[redacted]
CITY [redacted] STATE [redacted] ZIP [redacted]

WELL LOCATION

Address 3199 St. Helena Hwy
City St. Helena CA
County Napa
APN Book 022 Page 080 Parcel 025
Township ____ Range ____ Section ____
Latitude ____ DEG. MIN. SEC. ____ DEG. MIN. SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

✓ NEW WELL
MODIFICATION/REPAIR
— Deepen
— Other (Specify)
— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG"

PLANNED USES (✓)
WATER SUPPLY
✓ Domestic — Public
✓ Irrigation — Industrial
MONITORING —
TEST WELL —
CATHODIC PROTECTION —
HEAT EXCHANGE —
DIRECT PUSH —
INJECTION —
VAPOR EXTRACTION —
SPARGING —
REMEDIATION —
OTHER (SPECIFY) —

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER N/A (Ft.) BELOW SURFACE 1
DEPTH OF STATIC WATER LEVEL 92 (Ft.) & DATE MEASURED 9/6/2018
ESTIMATED YIELD * 125 (GPM) & TEST TYPE AIR LIFT
TEST LENGTH 2 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)
May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	700	12								
0	239		✓				PVC F480	6	SDR-21	
239	399			✓			PVC F480	6	SDR-21	.032
399	419		✓				PVC F480	6	SDR-21	
419	479			✓			PVC F480	6	SDR-21	.032
479	539		✓				PVC F480	6	SDR-21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	62	✓			10 SK SAND
62	699			✓	#6 SAND

ATTACHMENTS (✓)

— Geologic Log
— Well Construction Diagram
— Geophysical Log(s)
— Soil/Water Chemical Analysis
— Other ____
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
2110 Penny Lane ADDRESS Napa CITY CA STATE 94559 ZIP
Signed [signature] WELL DRILLER/AUTHORIZED REPRESENTATIVE
09/13/18 DATE SIGNED
439-746 C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ENCLOSURE C
WATER AVAILABILITY ANALYSIS FOR EXISTING ENTITLEMENT

NAPA COUNTY

DEPARTMENT OF PUBLIC WORKS

1195 THIRD STREET • ROOM 201 • NAPA, CALIFORNIA 94559-3092
PHONE 707-253-4351 • FAX 707-253-4627
www.co.napa.ca.us/PublicWorks/Default.htm

ROBERT J. PETERSON
Director of Public Works
County Surveyor-County Engineer
Road Commissioner

WATER AVAILABILITY ANALYSIS

PHASE 1 STUDY

Introduction: As an applicant for a permit with Napa County, It has been determined that Chapter 13.15 of the Napa County Code is applicable to approval of your permit. One step of the permit process is to adequately evaluate the amount of water your project will use and the potential impact your application might have on the static groundwater levels within your neighborhood. The public works department requires that a Phase 1 Water Availability Analysis (WAA) be included with your application. The purpose of this form is to assist you in the preparation of this analysis. You may present the analysis in an alternative form so long as it substantially includes the information required below. Please include any calculations you may have to support your estimates.

reason for the WAA is for you, the applicant, to inform us, to the best of your ability, what changes in water use will occur on your property as a result of an approval of your permit application. By examining the attached guidelines and filling in the blanks, you will provide the information we require to evaluate potential impacts to static water levels of neighboring wells.

Step #1:

Provide a map and site plan of your parcel(s). The map should be an 8-1/2"x11" reproduction of a USGS quad sheet (1:24,000 scale) with your parcel outlined on the map. Include on the map the nearest neighboring well. The site plan should be an 8-1/2"x11" site plan of your parcel(s) with the locations of all structures, gardens, vineyards, etc in which well water will be used. If more than one water source is available, indicate the interconnecting piping from the subject well to the areas of use. Attach these two sheets to your application. If multiple parcels are involved, clearly show the parcels from which the fair share calculation will be based and properly identify the assessors parcel numbers for these parcels. Identify all existing or proposed wells.

Step #2: Determine total parcel acreage and water allotment factor.

Determine the allowable water allotment for your parcels:

Parcel Location Factors

allowable allotment of water is based on the location of your parcel. There are 3 different location classifications. Valley floor areas include all locations that are within the Napa Valley, Pope Valley and Carneros Region, except for areas specified as groundwater deficient areas. Groundwater deficient areas are areas that have been determined by the public works department as having a history of problems with

groundwater. All other areas are classified as Mountain Areas. Please circle your location classification below (Public Works can assist you in determining your classification if necessary):

Valley Floor	1.0 acre feet per acre per year
Mountain Areas	0.5 acre feet per acre per year
MST Groundwater Deficient Area	0.3 acre feet per acre per year

Assessors Parcel Number(s)	Parcel Size (A)	Location Factor (B)	Allowable Water Allotment (A) X (B)
022-080-025-000	7.85	1.0	7.85
		TOTAL	7.85

Step #3:

Using the guidelines in Attachment A, tabulate the existing and projected future water usage on the parcel(s) in acre-feet per year (af/yr). Transfer the information from the guidelines to the table below.

Existing Usage:		**Future Usage:**	
Residential	2.34 af/yr	Residential	2.34 af/yr
Farm Labor Dwelling	— af/yr	Farm Labor Dwelling	— af/yr
Winery	.43 af/yr	Winery	.43 af/yr
Commercial	— af/yr	Commercial	— af/yr
Vineyard	.85 af/yr	Vineyard	.85 af/yr
Other Agriculture	— af/yr	Other Agriculture	— af/yr
Landscaping	af/yr	Landscaping	af/yr
Other Usage	— af/yr	Other Usage	— af/yr
TOTAL:	3.62 af/yr	TOTAL:	3.62 af/yr
TOTAL:	1,179,472 gallons*	TOTAL:	1,179,472 gallons*

$\left(\frac{20,000\ gal}{100,000\ gal}\right) \times 2.15$

*To determine your existing and proposed total water use in gallons, multiply the totals (in acre- feet) by 325,821 gal/AF.

Is the estimated future usage less than the "allowable" (✓) Yes ( ) No
If no, is the future usage less than the existing usage ( ) Yes ( ) No ( ) Equal

Step #4:

Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses, the usage if other water sources such as city water or reservoirs, the timing of the development, etc. Use additional sheets if necessary.

Main well in front is 150' feet deep 26 gpm - 30 gpm
Second well in back is 5 gpm
Parcel has first deeded access to offsite spring (since 19th century)
Xeriscaping is planned where possible

nclusion: Congratulations! Just sign the form and you are done! Public works staff will now compare your projected future water usage with a threshold of use as determined for your parcel(s) size, location, topography, rainfall, soil types, historical water data for your area, and other hydrogeologic information. They will use the above information to evaluate if your proposed project will have a detrimental effect on groundwater levels and/or neighboring well levels. Should that evaluation result in a determination that your project may adversely impact neighboring water levels, a phase two water analysis may be required. You will be advised of such a decision.

Signature: _____ **Date:** 12-1-04 **Phone:** 914-698-1538

Pauline C. Tilley 12/1/04

FOR STAFF ONLY:
Phase 1 complete? ____Yes ____ No Phase 2 Required? ____ Yes ____ No
Additional Information required to complete this application:_____

Attachment A: Guidelines For Estimating Water Usage:

Residential Guidelines-part I: Indoor use

1.Determine the number of potential bedrooms.
2. Assume 2 people /bedroom
3. Add 0.2 people for employees not living on site
4. Multiply the total number of people by a factor of 0.084 AF.

Calculations:

A	B	C	D	E	F
Potential Bedrooms	People per Bedroom [2 x A]	Number of Employees	Additional people [0.2 x C]	Total Number of people [B + D]	Total Estimated Indoor Water Use (AF) [E x 0.084]

Residential-part II: Additional Annual Water Use

Determine if you will be using passive or active water saving techniques on your parcel. Passive techniques will require that all appliances and fixtures be of the low flow water saving type. It will also require that the area of your lawn be of drought tolerant turf and be no larger that the square footage of your house. If there is a pool, it must be covered whenever it is not in use to prevent evaporation. Active techniques will require that all appliances and fixtures be of the low flow water saving type. The lawn area cannot exceed 1000 square feet of drought tolerant turf, xeriscape landscaping techniques must be employed. All plant watering will be accomplished through drip irrigation. No swimming pools are allowed.

Passive water use factor = 0.08 per person.
Active water use factor = 0.04 per person.
No water saving techniques = 0.14 per person.

G	H	I
Total Number of People [From E above]	Water Use Factor Active: 0.08 Passive: 0.04 Unlimited: 0.14	Total Additional Water Use (AF) [G x H]

Other Usage To Be Added

1. Add an additional 0.1 acre-feet of water for each additional 1000 square feet of drought tolerant lawn or 2000 square feet of non-xeriscape landscaping above that already counted above.
2. Add an additional 0.05 acre-feet of water for a pool with a pool cover.
3. Add an additional 0.1 acre-feet of water for a pool without a cover.

I	J	K
Total Additional Water Use (AF) (from above)	Other water use to be added	Total Water Use (AF) [I + J]

If you have very limited outdoor irrigation and feel the "additional" or "other" water use included above is not relative to your property, you must submit evidence in the form of pictures or a site plan of existing/proposed landscaping (or other indication of vegetation or lack thereof) on the property. The department of public works will evaluate the evidence and a lesser number may be allowed. On the contrary, if there is extensive landscaping and outdoor irrigation, you must account for this additional irrigation as noted below

The total above (**K**) from above should be transferred to page 2. Do a similar exercise for any other residential use (second dwelling, guest house, etc.).

Typical Water Use Guidelines:

Primary Residence	0.5 to 1.5 acre-feet per year (includes landscaping)
Secondary Residence	0.25 to 1.0 acre-feet per year
Farm Labor Dwelling	1.0 acre-feet per year (six people)

Non-Residential Guidelines:

Agricultural:	
Vineyards	
Irrigation only	0.2 to 0.5 acre-feet per acre per year
Heat Protection	0.25 acre feet per acre per year
Frost Protection	0.25 acre feet per acre per year
Farm Labor Dwelling	1.0 acre-feet per year (6 people)
Irrigated Pasture	4.0 acre-feet per acre per year
Orchards	4.0 acre-feet per acre per year
Livestock (sheep or cows)	0.01 acre-feet per acre per year
Winery:	
Process Water	2.15 acre-feet per 100,000 gal. of wine
Domestic and Landscaping	0.50 acre-feet per 100,000 gal. of wine
Industrial:	
Food Processing	31.0 acre-feet per employee per year
Printing/Publishing	0.60 acre-feet per employee per year
Commercial:	
Office Space	0.01 acre-feet per employee per year
Warehouse	0.05 acre-feet per employee per year

SUMMIT

SUMMIT ENGINEERING, INC.
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Santa Rosa, CA 95401
707 527-0775
Contact: SFO@summit-sr.com

“I”

Wastewater Analysis

WASTEWATER FEASIBILITY STUDY

AXR Napa Valley

3199 St. Helena Highway

St. Helena, California, 94574

APN 022-080-025

SUMMIT

CIVIL STRUCTURAL WATER|WASTEWATER ELECTRICAL PLANNING

Project No. 2021183
Revised April 2024

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LIST OF ENCLOSURES

Enclosure A: Overall Site Plan
Enclosure B: Plans and Calculations for Existing Wastewater System (Combined SS and PW)
Enclosure C: 2004 Soils Evaluation
Enclosure D: Footprint Estimates for Proposed PW Treatment Options
Enclosure E: Water Balance for Vineyard Irrigation with Treated PW

PROJECT OVERVIEW

AXR Napa Valley, located at 3199 St. Helena Highway in St. Helena, CA (APN 022-080-025), is applying for a use permit modification to the approved UP #P08-00099 to revise the entitled number of employees, daily visitors, marketing events, and wine production at the facility. The purpose of this Wastewater Feasibility Study (WWFS) is to evaluate the capacity of the existing sanitary sewage (SS) and proposed process wastewater (PW) treatment and disposal systems to meet the anticipated future facility demands.

An overall site plan for the winery is provided in Enclosure A. Details of the proposed use permit modification are summarized below:

- Increase wine production from 20,000 to 35,000 gallons of wine per year
- Increase visitation from 20/day and 90/week to 60/day and 420/week
- Increase employees from 2 full-time (FTE) and 2 part-time (PTE) to 12 FTE and 5 PTE
- Revise marketing events to include:
  - 3 events/year with 150 guests/event
  - 4 events/year with 75 guests/event
  - 2 events/month (24 events/year) with 25 guests/event

This WWFS evaluates the wastewater treatment and disposal systems associated with the winery, one 1-bedroom cottage (Cottage #7) and one 2-bedroom cottage (Cottage #8). There is an additional 2-bedroom cottage (Cottage #4) on site that is currently served and will continue to be served by a dedicated septic disposal system. Portable toilets will be brought in during 75- and 150-person marketing events. The impact of the Cottage #4 and 75- and 150-person events on the wastewater system are not evaluated in this WWFS.

SANITARY SEWAGE (SS) TREATMENT AND DISPOSAL SYSTEM

OVERVIEW OF EXISTING SS SYSTEM

Based on plans on file with Napa County, SS from the winery is collected in a 1,200-gallon septic tank separately from winery PW. PW is collected in two 1,500-gallon settling tanks. SS and PW currently combine in a 1,500-gallon pump tank prior to being pumped to an existing conventional leachfield for disposal. The leachfield receives 420 gallons per day (GPD) of SS and 1,000 GPD of PW, for a total combined flow of 1,420 GPD. The existing wastewater treatment and disposal system at the site was approved via permit E08-00140. Refer to Enclosure B for the plans of the existing PW and SS treatment systems.

SS CHARACTERISTICS

SS will consist primarily of wastewater generated from restrooms and tasting room facilities. There is no change anticipated to the composition of the SS generated at the winery. Typical characteristics of raw SS are summarized in Table 1.

Table 1: Typical SS composition.

Characteristic	Units	Raw Wastewater Range (Note 1)
Biochemical Oxygen Demand (BOD-5)	mg/L	133 - 400
Oil and Grease	mg/L	51 - 153
Total Suspended Solids (TSS)	mg/L	130 - 389
Volatile Suspended Solids	mg/L	101 - 304
Total Dissolved Solids (TDS)	mg/L	374 – 1,121
Nitrogen	mg/L	23 - 69
Nitrate	mg/L	0
Phosphorous	mg/L	3.7 - 11
Chlorides	mg/L	39 - 118
Sulfate	mg/L	24 - 72
Notes:		
1. From Metcalf & Eddy, "Wastewater Engineering, Fifth Edition", 2014.		

SS DESIGN FLOWS

Existing System – SS Flow Rates

The existing SS system was designed for a flow rate of 420 GPD. The basis of this calculation is shown in the permit calculations provided in Enclosure B and is summarized in Table 2.

Table 2: Sizing basis for existing SS system.

Source	Number (persons/day)	SS Generation (gal/person)	Total Daily SS Generation(gal/day)
Full-time employees	2	15	30
Part-time employees	2	15	30
Visitors	20	3	60
Event Guests (Note 1)	20	15	300
Total	—	—	**420**
Notes:			
1. SS generation rate based on 10 gal/person and 5 gal/meal.			

Existing System – PW Flow Rates

In the existing system, SS and PW are combined prior to disposal in the conventional leachfield. The existing PW treatment system is sized for a capacity of 1,000 GPD. The system was sized by applying the Napa County peak day formula and utilizing the approved wine production value of 20,000 gallons/year as shown below:

[Annual Production (Gal) x 1.5] / 30 = [20,000 gallons x 1.5] / 30 = 1,000 GPD

Proposed SS Flow Rates

The scenario with maximum SS generation has been evaluated to assess the impact of the proposed employee and marketing plan changes associated with the use permit modification. The anticipated SS flow estimates are summarized in Table 3 below.

Table 3: Anticipated SS flows during a 25-guest event on a weekend day.

Source	Number (persons/day)	SS Generation (gal/person)	Total Daily SS Generation (gal/day)
Full-Time Employees (Note 1)	12	15	180
Part-Time Employees (Notes 1, 2)	5	15	75
Visitation - Tasting (Notes 1, 3)	60	3	180
Visitation - Event (Note 1, 4)	25	15	375
Residential (Note 5)	3	150	450
Total	**-**	**-**	**1,260**

Notes:

1. Design flow rate from Napa County Onsite Wastewater Treatment Systems (OWTS) Technical Standards.
2. Assumed that all PTEs are working on weekends.
3. Assumes full meals are not served to tasting visitors. Prepackaged foods such as cookies and crackers may be available to tasting visitors.
4. Assumes events are catered with full meals, with all food preparation occurring offsite.
5. Residential SS generation rate is based on one 2-bedroom cottage (Cottage #8) and one 1-bedroom cottage (Cottage #7) onsite.

ASSESSMENT OF EXISTING SS TREATMENT AND DISPOSAL SYSTEM CAPACITY

AXR plans to segregate the PW and SS treatment systems in the future as part of this Use Permit Modification. PW will no longer be sent to the existing wastewater treatment system. The increased SS flow is proposed to continue to be treated and disposed of via the existing septic/settling tanks and leachfield system.

The existing treatment system includes two 1,500-gallon settling tanks that are currently utilized for PW in addition to one 1,200-gallon septic tank that is currently utilized for SS. In the current system, combined PW and SS flow into a 1,500-gallon pump tank. The current system provides a total septic/settling tank volume of 5,700 gallons, or 4.5 days of retention time at peak flow rate on a day with a 25-guest event. The existing tanks also satisfy the volume requirements of the Uniform Plumbing Code:

Required Volume (gal) = 1,125 + 0.75 x (Daily Wastewater Flow) = 1,125 + 0.75 x (1,260 GPD) = 2,070 gal

The existing septic tanks are anticipated to provide sufficient capacity for the anticipated SS flows and no additional volume is anticipated to be required. The plumbing will need to be reconfigured in some areas so that SS flows into the tanks that are currently functioning as PW settling tanks.

The existing disposal system includes 1,080 linear feet of conventional leach lines. There are nine 70-foot long lines and nine 50-foot long lines. The trenches are 36” deep, with 18” rock under pipe, and have an effective surface area of 4 square feet (sf)/linear foot (LF).

The soils evaluation on file at the County is provided in Enclosure C. The soils evaluation indicates an acceptable soil depth of 72”; therefore, the installed system provides the necessary 36” of acceptable soil below the bottom of the trench. Depending on the test pit, the soils evaluation reports a combination of silt loam with moderate to strong blocky structure and silty clay loam with moderate to strong blocky structure. An average hydraulic loading rate of 0.33 gal/sf/day was used in the system design calculations. The existing

leachfield is evaluated to have a disposal capacity of 1,425 GPD. The calculation is shown below:

Existing System Capacity = (Total Dispersal Line Length) x (Effective Surface Area) x (Soil Application Rate)

= (1,080 LF) x (4 sf/LF) x (0.33 gal/sf/day) = 1,425 GPD.

The leachfield is anticipated to provide sufficient capacity for disposal of the anticipated SS flows.

PROCESS WASTEWATER (PW) TREATMENT AND DISPOSAL SYSTEM

OVERVIEW OF EXISTING PW SYSTEM

Based on information on file with Napa County (see Enclosure B), PW from the winery is collected in two 1,500-gallon settling tanks separately from the winery SS. SS and PW currently combine in a 1,500-gallon pump tank prior to being pumped to a conventional leachfield for disposal. The existing PW settling tanks are proposed to be used for SS and a new PW treatment system will be installed.

PW CHARACTERISTICS

PW consists primarily of wastewater collected at floor drains and trenches within the winery, receiving, crush, tank, and wash down areas. Typical winery wastewater characteristics are summarized in Table 4.

Table 4: Typical winery PW characteristics.

Characteristic	Units	Crushing Season Range	Non-crushing Season Range
pH	--	2.5 - 9.5	3.5 - 11.0
Dissolved Oxygen	mg/L	0.5 - 8.5	1.0 - 10.0
BOD-5	mg/L	500 – 12,000	300 – 3,500
COD	mg/L	800 – 15,000	500 – 6,000
Grease	mg/L	5 - 30	5 - 50
Settleable Solids	mg/L	25 - 100	2 - 100
Nonfilterable Residue	mg/L	40 - 800	10 - 400
Volatile Suspended Solids	mg/L	150 - 700	80 - 350
Total Dissolved Solids	mg/L	80 – 2,900	80 – 2,900
Nitrogen	mg/L	1 - 40	1 - 40
Nitrate	mg/L	0.5 - 4.8	-
Phosphorous	mg/L	1 - 10	1 - 40
Sodium	mg/L	35 - 200	35 - 200
Alkalinity ($CaCO_3$)	mg/L	40 - 730	10 - 730
Chloride	mg/L	3 - 250	3 - 250
Sulfate	mg/L	10 - 75	20 - 75

PW DESIGN FLOWS

Proposed PW Flow Rates

PW flows are anticipated to increase due to the proposed increase in production from 20,000 to 35,000 gallons of wine per year. Based on typical flow data from wineries of similar size and characteristics, projected flows are calculated as follows:

Table 5: PW design flows.

Parameter	Value	Units
Annual Volume of PW		
Annual Wine Production	35,000	gal wine / year
PW Generation Rate (Note 1)	6.0	gal PW / gal wine
Annual PW Flow	210,000	gal PW / year
Daily Flow Rate Calculations		
Average Daily Flow (Note 2)	575	gal PW / day
Napa County Peak Day Flow (Note 3)	1,167	gal PW / day
Average Harvest Design Flow Calculations		
Percentage of Annual PW Flow in September (Note 1)	16.4%	
Total PW Flow During September	34,440	gal PW
Average Daily Flow during September	1,148	gal PW / day
Notes:		
1. Based on historical data in wineries of similar size.		
2. Calculated based on total annual flow averaged across 365 days of operation.		
3. Calculated based on 45-day harvest per guidelines in the Napa County OWTS Technical Standards.		

The Napa County Peak Day Flow is the more conservative approach at 1,167 GPD; therefore **1,200 GPD** will be used for sizing of the future PW treatment system.

ASSESSMENT OF PROPOSED PW TREATMENT AND DISPOSAL SYSTEM CAPACITY

To accommodate a proposed annual production of 35,000 gallons of wine, a new PW treatment system is proposed to be installed. The system will include a new gravity collection system with screens on floor drains for solids removal in any new production areas, a PW pump station (if needed to transfer PW from the collection system to the treatment system), and treatment and disposal through one of the following alternatives:

1. Treatment through a new package treatment system and disposal via a new subsurface drip disposal system.
2. Treatment through a new package treatment system, storage of treated PW, and reuse for vineyard irrigation.
3. Hold-and-haul

The new PW treatment system will be designed and installed in accordance with all necessary Napa County Planning, Building and Environmental Services (PBES) and Regional Water Quality Control Board (RWQCB) criteria and permits. It will also comply with the requirements of the State Water Resources Control Board General Waste Discharge Requirements for Winery Process Water ("General Order").

Components of the proposed PW treatment system are described in greater detail in the following paragraphs.

Gravity Collection

Any new production areas that will generate PW will include a new gravity collection system designed to provide low maintenance and no infiltration or exfiltration. Piping materials will be compatible with PW and satisfy Uniform Plumbing Code and local requirements. Screening will be provided by screened baskets and strainers installed on the trench drains and floor drains within the winery.

PW Pump Station (if necessary)

If PW is unable to flow to the new package treatment system via gravity, a pump station will transfer screened PW to the new package treatment system.

Treatment and Disposal

AXR plans to evaluate several potential options for treatment and disposal of PW. The options being considered are described in greater detail below. Additional design detail for the selected PW treatment system will be available after a treatment system has been selected.

The first two options described in this section are proposed to utilize some type of PW package treatment system. The specific type will be selected in the future. For this WWFS, Summit Engineering has allocated 900 square feet of space for the PW package treatment system. This is based on information we have received from vendors on recent projects involving PW package treatment systems with a similar capacity to what is anticipated to be required for AXR. Estimated footprints for the various treatment and disposal options identified in the following sections are illustrated on the site plan provided in Enclosure D.

Option 1: New Package Treatment System with Disposal via New Subsurface Disposal System (SDS)

With this approach, the package treatment system would be selected from one of the alternatives described above. The treatment system would be designed to achieve the SDS effluent quality required in the General Order (total nitrogen < 10 mg/L, BOD < 300 mg/L, and TSS < 330 mg/L).

Treated effluent would be disposed of in a new SDS. An onsite soils evaluation would be performed in the proposed location of the SDS to determine an appropriate system if the limits of the SDS are proposed outside of the effective radius of the 2004 test pits. The specific size and layout of the system would be defined at that time. For the purpose of this WWFS, it is assumed that the disposal system would be subsurface drip.

To demonstrate feasibility of this approach, Summit Engineering has assumed that the SDS disposal area will be located near the existing leachfield and that the SDS disposal area will have similar soil characteristics to what is reported in the 2004 soils evaluation. If Option 1 is selected, depending on the extent of the proposed SDS area these assumptions may need to be verified via another onsite soil evaluation.

The results of the 2004 soils evaluation indicate mainly soils that would be categorized as Type III Silt-Clay

Loam per Table 10 of the OWTS Manual. The design hydraulic loading rate for this type of soil is 0.4 gal/sf/day. For a peak PW flow rate of 1,200 GPD, the subsurface disposal field would require approximately 3,000 SF of subsurface drip area. The site would also need to identify 200% reserve area (6,000 SF). The locations of the proposed treatment system, primary disposal area, and reserve disposal area are shown in Enclosure D.

Option 2: New Package Treatment System with Vineyard Irrigation Reuse

With this approach, the package treatment system would be selected from one of the alternatives described under Option 1. The treatment system would be designed to achieve the levels required in the General Order (cycle average BOD loading < 100 lb/acre/day and nitrogen application rates below the crop agronomic uptake rate).

Treated PW would then be stored in an effluent storage tank sized to provide 10 – 15 days of storage during the rainy season. This tank would provide storage for treated PW during rain events when irrigation with treated PW is prohibited. Preliminary sizing of the treated effluent storage tank is provided in Enclosure E. The locations of the proposed treatment system and effluent storage tank are shown in Enclosure D.

For this WWFS, it has been assumed that one acre of vineyard will be available for irrigation with treated PW. If this option is selected, the exact irrigation area would be defined in greater detail in future design documents. A water balance illustrating the relationship between vineyard irrigation demand and PW generation is provided in Enclosure E.

Option 3: Hold and Haul

AXR may choose to utilize PW storage tanks and off-hauling to a facility such as East Bay Municipal Utility District (EBMUD) as the disposal option. During crush, the expected peak PW flow is 1,200 GPD. The County's hold and haul guidelines require the holding tank to be sized to store seven days of peak PW flow. A storage tank with a minimum volume of 8,400 is proposed for storage and off-hauling of PW. The location of the proposed hold-and-haul tank is shown in Enclosure D. The hold and haul system would be designed in accordance with Napa County requirements.

SOLID WASTES

Solid wastes from the winery primarily include pomace, seeds, and stems. The estimated quantities of these wastes (at peak capacity) are as follows:

$$Peak\ annual\ production = \ 35{,}000\ gal\ wine\ \times \frac{1\ ton}{165\ gal} = 212\ tons$$

$$Ultimate\ Annual\ Total = \ 35\% \times \ 212\ tons = 74.2\ tons$$

Based on a unit weight of 38 pounds per cubic foot, the annual volume of solids wastes would be:

$$74.2\ tons\ \times \frac{2{,}000\ lb}{1\ ton} = 148{,}000\ lb$$

$$148{,}000\ \text{lbs}\ \times \frac{1\ ft^3}{38\ lb} \times \frac{1\ yd^3}{27\ ft^3} = 145\ yd^3$$

These organic solids will be hauled to an off-site composting location or composted and land applied to the existing vineyard at site.

OTHER CONSIDERATIONS

ODOR CONTROL

There should be no noxious odors from a properly designed and operated wastewater treatment system.

GROUNDWATER CONTAMINATION

Disposal of wastewater effluent (either PW or SS) will not occur within 100 feet of any existing or proposed wells.

PROTECTION

Exposed wastewater treatment facilities should be posted with appropriate warning signs. The treatment areas will be protected to restrict access and potential damage to the system.

ENCLOSURE A

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF SUMMIT ENGINEERING, INC. AND IS NOT TO BE USED IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF SUMMIT ENGINEERING, INC.

0 30 60
GRAPHIC SCALE IN FEET

OWNER:
AXR NAPA VALLEY
3199 SAINT HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574

APPLICANT:
SUMMIT ENGINEERING, INC.
575 W. COLLEGE AVENUE, SUITE 201
SANTA ROSA, CA 95401

APN 022-080-026
APN 022-100-008
APN 022-080-025
APN 022-080-013
APN 022-070-032

(E) SEPTIC TANK, SEE NOTE 7
62.5' FROM TOP OF BANK
(E) HISTORIC WALL, TYP
(E) SEPTIC SYSTEM, SEE NOTE 7
5' SETBACK FROM SEPTIC SYSTEM
(E) GRAVEL PARKING STALLS
(E) COTTAGE #4
R2 R3
(E) PARKING STALLS
(E) FH
LIMITS OF NEW GRAVEL WIDENING TO MEET NAPA COUNTY ROAD & STREET STANDARDS, TYP
SAINT HELENA HIGHWAY
40.0' DECELERATION LANE
R20.0' (SEE NOTE 1)
(E) ABANDONED WELL DESTROYED UNDER PERMIT E07-00318 ③
(E) WINERY
(E) ABANDONED WELL SEE NOTE 9 ③
(E) ROAD CENTERLINE
(E) PARKING STALLS TO BE REMOVED
EMERGENCY ACCESS SIGN, SEE NOTE 10 ③
65' CREEK SETBACK
(E) BARN
AB2004 OUTDOOR TASTING AREA
(E) COTTAGE #7
(E) RESIDENCE TO BE CONVERTED TO WINERY OFFICES
(E) GREASE INTERCEPTOR
(E) PUMP TANK
(E) ADA PARKING
(E) SEPTIC TANK, SEE NOTE 6
(E) ABANDONED SEPTIC SYSTEM
(E) ABANDONED SEPTIC SYSTEM
FDC ON ASR
(E) 14.2', SEE NOTE 5 ③
MAIN WINERY SS TANKS, SEE NOTE 8
(E) VINEYARD, TYP
5.0' SETBACK
20.0' + 2.0' SHLDR
APPROXIMATE LOCATION OF 2004 SOIL TEST PIT, TYP OF 4
TP1 TP2 TP3 TP4
50-FT EFFECTIVE TEST PIT RADIUS, TYP OF 4
APPROXIMATE (E) LEACHFIELD, SEE NOTE 8 ③
90.0' SETBACK
APPROXIMATE PROPERTY LINE
(SEE NOTE 3)
20.0' PROPERTY LINE SETBACK
ASPHALT ACCESS ROAD
28.0' ROAD SETBACK
AB2004 OUTDOOR TASTING AREA
(E) PARKING STALL
FH (SEE NOTE 4)
FDC
HIRSCH CREEK
(E) EMPLOYEE PARKING STALLS
(E) WATER TREATMENT SHED
(E) WATER STORAGE TANKS
PROPOSED FIRE PUMP HOUSE
CV PIV
(E) COTTAGE #8
PROPOSED ACCESS ROAD, TYP
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
PROPOSED CAVE, SAD
PORTAL #1
PORTAL #2
PORTAL #3
CAVE PORTAL, TYP OF 3 (SEE NOTE 2)
(SEE NOTE 2)
102.5'
96.1'
85.6'
342.5'
(E) FIRE WATER TANKS TO BE REPLACED WITH 10,500 GAL CONCRETE TANKS (5 TOTAL)
(E) 100' WELL SETBACK
R100.0'
(E) WELL, APPROXIMATE LOCATION BASED ON INFORMATION IN NAPA COUNTY ONLINE ELECTRONIC DATABASE ③
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
(E) IRRIGATION TANKS
PROPOSED HOLD AND HAUL TANK SEE NOTE 11 ③
PROPOSED PW TREATMENT SYSTEM, SEE NOTE 11

NOTES:
1. ENTRANCE GEOMETRY COMPLIES WITH APPLICABLE REQUIREMENTS FROM THE NAPA COUNTY ROAD & STREET STANDARDS AND CALTRANS DESIGN REQUIREMENTS.
2. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING AT CAVE PORTALS.
3. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING ALONG HIGHWAY 29.
4. FIRE HYDRANT TO BE COMPLIANT WITH CALIFORNIA FIRE CODE SECTION 507, APPENDIX B, AND APPENDIX C.
5. ROAD IS PROPOSED FOR FIRE EMERGENCY ACCESS ONLY. ③
6. THE EXISTING WINERY KITCHEN IS THE ONLY SOURCE OF WASTEWATER THAT IS CONNECTED TO THIS TANK. WASTEWATER FROM THE TANK IS PUMPED INTERMITTENTLY AND HAULED OFFSITE FOR DISPOSAL. THERE IS NO CONNECTION TO A LEACHFIELD FROM THIS TANK.
7. SEPTIC SYSTEM ONLY SERVES COTTAGE #4.
8. SS FROM COTTAGE #7, COTTAGE #8, BARN AND WINERY ALL FLOW TO MAIN SS TANKS AND TO MAIN LEACHFIELD FOR DISPOSAL.
9. WELL DEMOLITION PERMIT TO BE OBTAINED THROUGH NAPA COUNTY FOR DESTRUCTION OF THIS WELL
10. SIGNAGE WILL BE PROVIDED TO INDICATE ONLY EMERGENCY VEHICLES ARE PERMITTED BEYOND THIS POINT. THE ROADWAY WILL BE CLEARLY DELINEATED AS FIRE ACCESS ONLY. THE DETAILS OF FIRE ACCESS SIGNAGE AND DELINEATION WILL BE COORDINATED WITH NAPA COUNTY DURING SUBSEQUENT PHASES OF DESIGN.
11. WINERY PROPOSES TO INSTALL EITHER A PW HOLD-AND-HAUL TANK OR AN ONSITE PW TREATMENT SYSTEM. REFER TO WASTEWATER FEASIBILITY STUDY FOR ADDITIONAL DETAILS. ③

SEE SHEET UP2

PARKING TABLE

NUMBER	TYPE
17	STANDARD WINERY SPACES
3	(E) STANDARD RESIDENTIAL SPACES
1	VAN ACCESSIBLE SPACE
21	**TOTAL SPACES**

ABBREVIATIONS:

AC	ASPHALT CONCRETE	FH	FIRE HYDRANT
AD	AREA DRAIN	GB	GRADE BREAK
APN	ASSESSOR'S PARCEL NUMBER	LIDF	LOW IMPACT DEVELOPMENT FACILITY
ASR	AUTOMATIC SPRINKLER RISER	LL	LOWER LEVEL
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION	PD	PLANTER DRAIN
		PIP	PROTECT IN PLACE
BFE	BASE FLOOD ELEVATION	PIV	POST INDICATOR VALVE
BLDG	BUILDING	PW	PROCESS WASTE
℄	CENTERLINE	SAD	SEE ARCHITECTURAL DRAWINGS
CONC	CONCRETE	SB	SETBACK
CV	CONTROL VALVE	SD	STORM DRAIN
DI	DRAIN INLET	SS	SANITARY SEWAGE
DMA	DRAINAGE MANAGEMENT AREA	SRA	SELF RETAINING AREA
DS	DOWNSPOUT	STD	STANDARD
DG	DECOMPOSED GRANITE	TD	TRENCH DRAIN
(E)	EXISTING	TI	TRAFFIC INDEX
FDC	FIRE DEPARTMENT CONNECTION	TYP	TYPICAL
FF	FINISH FLOOR	UL	UPPER LEVEL

SUMMIT
Summit Engineering, Inc
575 W College Ave., Suite 201 • Santa Rosa, CA 95401
707-527-0775 • www.summit-sr.com

AXR NAPA VALLEY
3199 ST HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574
APN 022-080-025

USE PERMIT MODIFICATION

OVERALL SITE PLAN

③	2024-03-19 USE PERMIT RESUBMITTAL
	2023-12-11 USE PERMIT RESUBMITTAL
	2023-04-13 USE PERMIT RESUBMITTAL
	2022-12-13 USE PERMIT APPLICATION

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS

SHEET UP1
1 OF 5

ENCLOSURE B

Environmental

Cover Sheet

APN	022 - 080 - 025 - 000
Permit #	E08-00140
Program	SD
DocType	Pmt
Street #	3199
Street Name	St Helena Hwy
Year	2008

STEVEN LEDERER
Director of Environmental Management

COUNTY of NAPA
ENVIRONMENTAL MANAGEMENT
1195Third Street, Suite 101, Napa CA 94559
Phone: 707/253-4471 Fax: 707/253-4545
www.co.napa.ca.us

SEWAGE PERMIT

Application Type: EM Permits-Sewage System-New Install Conventional
Permit Number: E08-00140
Parcel Number: 022-080-025-000
Applied Date: 04/02/2008
Issued Date: 04/02/2008
Expiration Date: 4/2/2010

Site Address: 3199 ST HELENA HWY NORTH ST HELENA
Owner: TILLEY CHRISTOPHER AND PAULINE **Phone:**
Address: 901 SKIBO LANE, MAMARONECK, NY, 10543-4726
Applicant: Christopher Tilley **Phone:**
Business Name:

Type of Project: New Install Conventional

	Bedrooms Existing	Proposed	GPD
Residence			
Second Dwelling			
Guest House			

Commercial UP#: P04-0541

	GPD
Sanitary Waste	420
Process Waste	1000

Water Supply: Well

Distance from closest water source to any part of sewage system: >100

Specifications

Designer:	Jim Clifton	**Drainline:**	1076	**Sump Type:**	1200/0r 1500 Gal Sump
Engineered Plan Date:		**Trench Depth (in):**	36	**A/V Alarm:**	Yes
Conventional Plan Date:	03/10/2008	**Rock Under Pipe (in):**	18	**Remote Alarm:**	Yes
Septic Tank:	see plan	**Chamber Manu:**		**Elec Self Cert:**	Yes
Sewer Line:	ABS/PVC Sched 40	**Model Number:**			
Length (ft):		**DOC Backfill (in):**	12		
		DOC Fill (in):			

TO PERMITTEE:

Any work performed or operations conducted under the auspices of this permit constitutes acceptance of all conditions, inspections and comments contained in this permit, and the incorporation of all requirements as set forth in the permit application.

Staff Signature: _____ Date: 4/2/08

STEVEN LEDERER
Director of Environmental Management

COUNTY of NAPA
ENVIRONMENTAL MANAGEMENT
1195Third Street, Suite 101, Napa CA 94559
Phone: 707/253-4471 Fax: 707/253-4545
www.co.napa.ca.us

Sewage Permit
CONDITIONS/INSPECTIONS/COMMENTS

Application Type: **New Install Conventional**

Permit Number:	E08-00140	**Applied Date:**	04/02/2008
Parcel Number:	022-080-025-000	**Issued Date:**	04/02/2008
Applicant:	Christopher Tilley		
Owner:	TILLEY CHRISTOPHER AND PAULINE		

Conditions:

Code	Condition
HISTORIC SITE ISSUE	Historic Site. Historic Landmark nomination pending and must be obtained prior to issuance of Certificate of Occupancy per requirements of the Use Permit.
EM-11	The applicant shall comply with the Department of Public Works "Conditions of Approval-National Polution Discharge Elimination System Requirements", a copy of which was provided at the time of permit issuance. Failure to comply with the NPDES requirements will result in a stop-work order.
EM-5	An as-built drawing must be submitted prior to final.
EM-6	Electrical form to be submitted prior to final.

Inspections: Inspected By: Date: 04/02/2008

11/13/08 Note: 2 old tanks by house to be destroyed. Jim Clifton will pump, sanitize, + pull to haul to dump at time a 2nd permit is obtained for the grease interceptor

Inspection

Leach Lines ZP 4/14/08
Initial Layout and Site Prep 4/4
Sewer Line PF 11/13/08
Septic Tank Installation PF 11/13/08
Sump Tank,Pump,Force Main PF 11/13/08
Control Box,Dose Counter,Alarm PF 12/4/08
~~D-Box~~ None
Environmental Management Final PF 12/4/08
Remote Alarm PF 12/4/08
Grease Interceptor Install Installed later under separate permit

Comments:

Date	Comment
04/02/2008	Agreement for future winery on file.
	Call 253-4135 at least 24 hours in advance during normal business hours to schedule inspection requests. Inspections are taken on a first-come-first-served basis so if you need a specific date and time be sure to call well in advance
	Environmental Management"s inspection must be obtained prior to covering any portion of the system.
04/02/2008	Any deviation from these permit specifications without prior approval from the Department of Environmental Management will be cause for stopping work until the changes are fully justified and approved.
	If a claim is to be submitted for a refund, per County Code, a 25% processing fee will be retained. Such claims must be made within one year of the date on the receipt.

STEVEN LEDERER
Director of Environmental Management

COUNTY of NAPA

ENVIRONMENTAL MANAGEMENT
1195Third Street, Suite 101, Napa CA 94559
Phone: 707/253-4471 Fax: 707/253-4545
www.co.napa.ca.us

APPLICATION
THIS IS NOT A PERMIT

Application Type:	EM Permits-Sewage System-New Install Conventional		
Permit Number:	E08-00140	**Parcel Number:**	022-080-025-000
Situs Address:	3199 ST HELENA HWY NORTH ST HELENA	**Applied Date:**	04/02/2008
Owner:	TILLEY CHRISTOPHER AND PAULINE	**Phone:**	
Applicant:	Christopher Tilley	**Phone:**	

Worker's Compensation Coverage:
( ) A Certificate of current Worker's Comp Insurance Coverage is on file with this office (or filed with this application)
( ) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws of California.

By executing this application, the undersigned agrees to comply with all conditions, inspections and comments of the issued permit and all federal, state and county code requirements applicable to this permit. Furthermore, I understand that the Department of Environmental Management in no way guarantees trouble-free operation of the system, and that future repair may be necessary.

Owner or Authorized Agent Signature: Pauline C. Tilley Date: 4/2/08

COUNTY of NAPA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

STEVEN LEDERER
Director

CHRISTINE SECHELI
Assistant Director

SEPTIC SYSTEM SUMP PUMP ELECTRICAL SYSTEM INSTALLATION CONFORMANCE CERTIFICATION NOTICE

Complete this form, and return it to:

County of Napa
Dept. of Environmental Management
1195 Third Street, Suite 101
Napa, CA 94559

RECEIVED
DEC 04 2008
DEPT. OF
ENVIRONMENTAL MANAGEMENT

This installation self-certification is only available for use for a stand-alone breaker for a septic system sump pump and alarm with no other connections. A licensed contractor must complete the certification.

Site Owner: Chris Tilley

Assessor's Parcel Number (APN): 22-080-025

Site Address: 3199 St. Helena Hwy N

Septic System Permit Number: E08-00140

Building Permit Number: B07-00973

Date Installation Completed: Nov 25-08

Contractor: Gleffe Electric

License Number: 430094 Date:

Conductor Size: #12 Circuit Amperage: 20

Conductor Type: THHN copper

I, the undersigned, declare under penalty of perjury that the electrical apparatus to power the sewage sump pump and alarm is installed in conformance with the product manufacturer's recommendations and the California Electrical Code (1998 edition).

Executed this Dec 4th day of , 200 8 in Napa County, California.

Signature: Gary Gleffe

Print Name: Gary Gleffe

TILLEY / V. Madrone Cellars
3199 St. Helena Hwy

PW $\frac{20{,}000 \times 1.5}{30} = 1000$ GPD

SS

employees :	4 @ 15 GAL/Empl.	= 60
VISITORS	20 @ 3 GAL/Empl	= 60
EVENTS	20 @ 15 GAL/person (10 l/person) (5 l MEAL)	= 300
		420 GPD

TOTAL WASTEWATER FLOW

PW	1000 GPD
SS	420 GPD
	1420 GPD

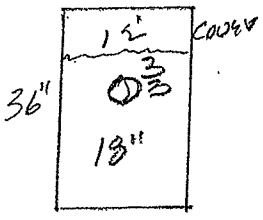
TANK REQUIREMENTS :

Domestic = 1200 gallons
PW = 2 @ 1500 gallons
Grease INTERCEPTOR = 750 gallons

Leachfield 72" accept. soil
3-6"/hr = 0.33 gal/ft²/day

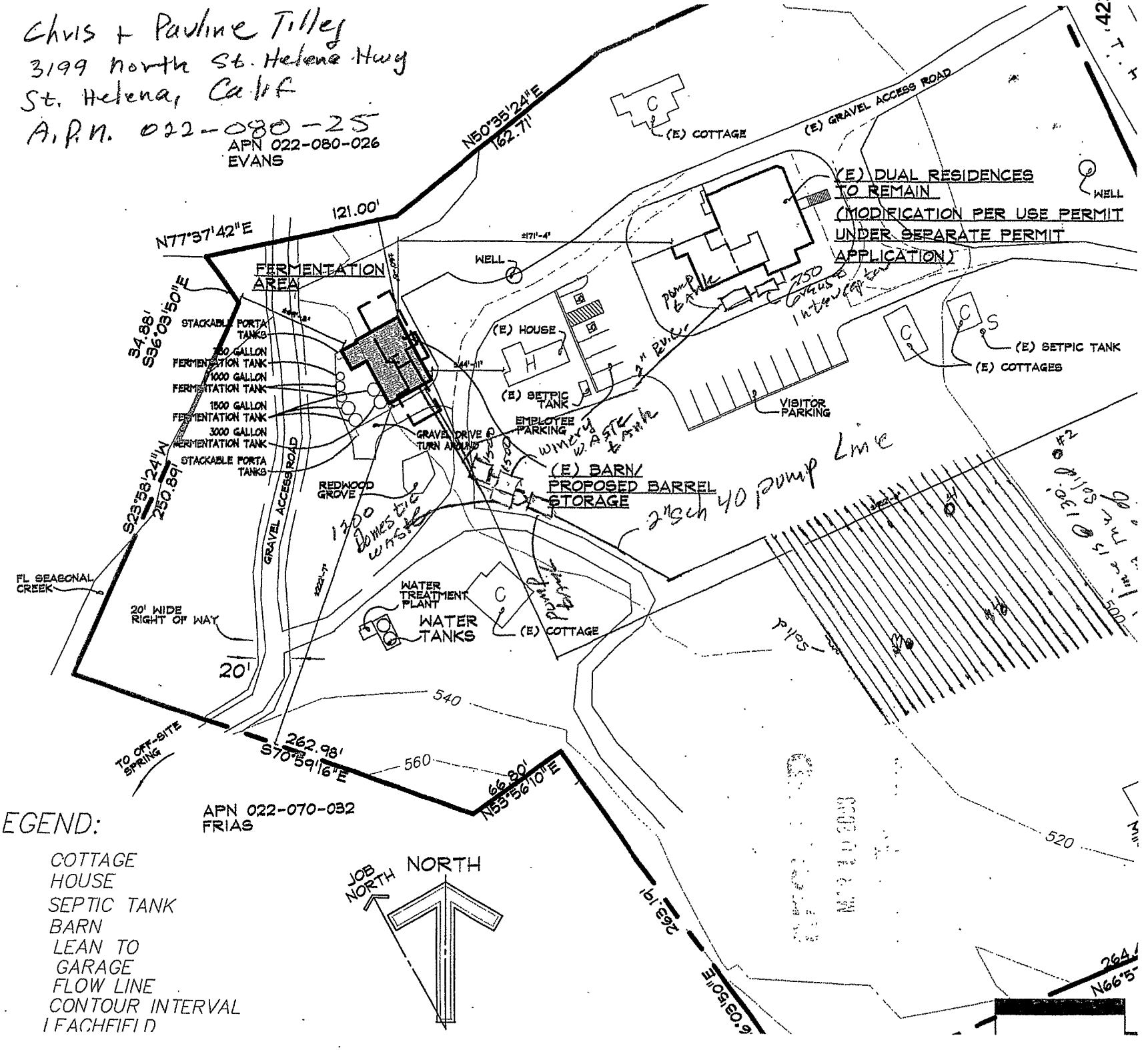
$\frac{1420}{(4)(0.3)} = 1076$ L.F.

trench detail



4 sq feet side wall per Foot

Chris + Pauline Tilley
3199 north St. Helena Hwy
St. Helena, Calif
A.P.N. 022-080-25



LEGEND:

C	COTTAGE
H	HOUSE
S	SEPTIC TANK
B	BARN
LT	LEAN TO
G	GARAGE
FL	FLOW LINE
CI	CONTOUR INTERVAL
L	LEACHFIELD

ACKNOWLEDGEMENT REGARDING ISSUANCE OF A SEWAGE PERMIT TO SERVE FUTURE WINERY

The undersigned owner(s) hereby acknowledge to the County of Napa through the Department of Environmental Management the following:

1. This acknowledgement applies to that parcel of land designated as Assessors parcel Number 022080025, located at 3199 St. Helena Hwy. N, St Helena within the County of Napa. A complete legal description of the property is attached hereto as Exhibit "A". Furthermore, this project has been approved by County Use Permit P04-0541.

2. The Constraints on the issuance of building permits may require owner to wait for several months until a permit is issued to construct the project on the above referenced parcel. Owner wishes to install a sewage system at the present time.

3. Owner acknowledges that he has been informed and understands that the issuance of a sewage permit does not guarantee that a building permit will ever be issued for the subject parcel. All construction is performed at owner's risk and the County of Napa shall not be responsible if owner fails to obtain a building permit at any time in the future.

4. Owner acknowledges that he has been informed and understands that he must comply with all other County requirements applicable to this project.

Owner Signature — Date: 4-2-08

Owner Signature — Date: 4/2/08

COUNTY *of* NAPA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

STEVEN LEDERER
Director

CHRISTINE M. SECHELI, R.E.H.S.
Assistant Director

INSTRUCTIONS FOR COMPLETING THE ACKNOWLEDGEMENT REGARDING ISSUANCE OF SEWAGE PERMIT TO SERVE A FUTURE WINERY

1. Type in the property owner's names, Assessor's Parcel number and site location.

2. All legal owners must sign and date the agreement and have the signatures notarized with an all purpose acknowledgement.

3. The property owner is responsible for submitting evidence satisfactory to this department that the slope in the area of the proposed sewage disposal system is less that 5% (In most cases a topological map of the area will be acceptable). **If the property is greater than 5% slope in the area of the sewage disposal system, this agreement may not be used unless the project has a valid use permit which considered the location of this septic system.**

4. Prior to issuance of a sewage permit the following must be completed:

   a) A developed water supply (well, spring or public agency) with the required yield and storage as stated in Title V, Article 2 of the County Code (the Well Ordinance).

   b) An approved soil percolation test must be on file with this office.

   c) If the soil percolation test requires a SDSDS, the plans must be submitted and approved.

   d) If the soil percolation test will allow a standard septic system, a plot plan indicating the proposed leach line location, reserve area, wells and other setbacks must be indicated.

5. This department may require that you receive a planning or zoning clearance from the CDPD. If not, after all the above steps have been completed, this office can issue the sewage permit.

PLEASE NOTE: ALL OTHER COUNTY REQUIREMENTS WILL STILL APPLY

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of Napa }

On April 2nd 2008 (Date) before me, Lee Richard Gibson, Notary Public (Here Insert Name and Title of the Officer),

personally appeared Christopher W. Tilley & Pauline M. Cullen - Tilley (Name(s) of Signer(s)),

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Signature of Notary Public)

LEE RICHARD GIBSON
COMM. #1763333
NOTARY PUBLIC - CALIFORNIA
NAPA COUNTY
My Comm. Expires Aug. 24, 2011

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Acknowledgement re: issuance of sewage permit

Document Date: April 2nd 2008 Number of Pages: 1

Signer(s) Other Than Named Above: X

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
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STEVEN LEDERER
Director of Environmental Management

COUNTY of NAPA
ENVIRONMENTAL MANAGEMENT
1195Third Street, Suite 101, Napa CA 94559
Phone: 707/253-4471 Fax: 707/253-4545
www.co.napa.ca.us

APPLICATION
THIS IS NOT A PERMIT

Application Type:	EM Permits-Sewage System-New Install Conventional		
Permit Number:	E08-00140	**Parcel Number:**	022-080-025-000
Situs Address:	3199 ST HELENA HWY NORTH ST HELENA	**Applied Date:**	04/02/2008
Owner:	TILLEY CHRISTOPHER AND PAULINE	**Phone:**	
Applicant:	Christopher Tilley	**Phone:**	

Worker's Compensation Coverage:
( ) A Certificate of current Worker's Comp Insurance Coverage is on file with this office (or filed with this application)
(X) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws of California.

By executing this application, the undersigned agrees to comply with all conditions, inspections and comments of the issued permit and all federal, state and county code requirements applicable to this permit. Furthermore, I understand that the Department of Environmental Management in no way guarantees trouble-free operation of the system, and that future repair may be necessary.

Owner or Authorized Agent Signature: _____ Date: 4-2-08

Legend
A 4" sewerline from Bathroom 56' from back WALL of winery 40' Long
B " " " + surface drain in separate pipes 7' from building
C 4" Sewer Line + surface drain in separate pipes 44' to 4" VALVES
D 4" " " 7' Long
E 4" Line to surface drain
F 2 1500 gal winery waste tanks
G 2 - 4" valves to divert stormwater out of septic tanks in a box
H 1200 gal Domestic
I 1500 gal pump tank with duplex pump
J 2" pump Line 106' Long 2" pipe
K 2" pump Line 97'
L Cross-overs 80' of them
M Drain field
9-70 + 9-50 cross-over at 70'
N. Inspection pipe/cap
O Surface Drain

Chris & Pauline Filley
3199 HWY 29
St. Helena
A.P.N. 22-080-025

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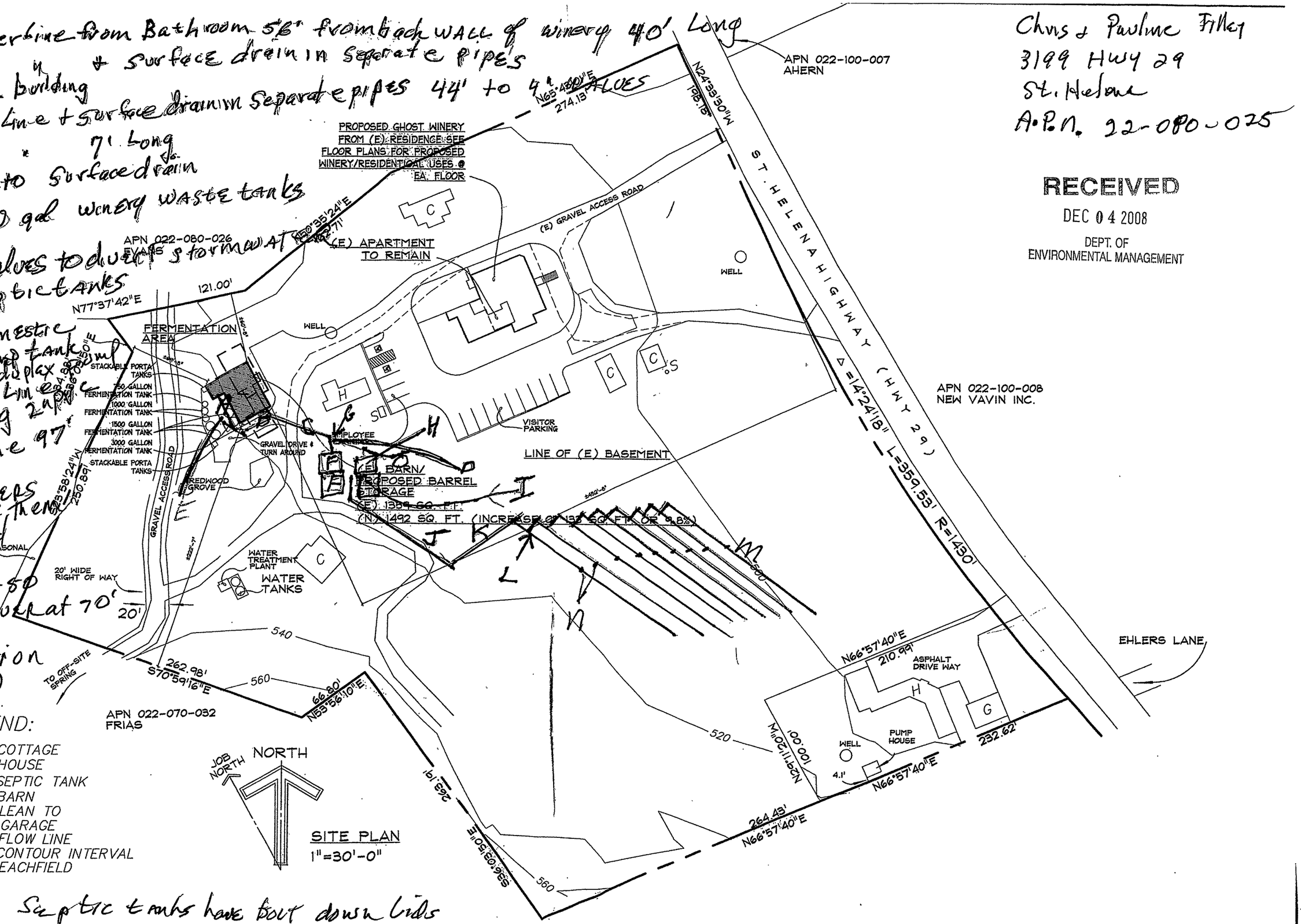


LEGEND:

C	COTTAGE
H	HOUSE
S	SEPTIC TANK
B	BARN
LT	LEAN TO
G	GARAGE
FL	FLOW LINE
CI	CONTOUR INTERVAL
L	LEACHFIELD

Note: all Septic tanks have bolt down lids to surface

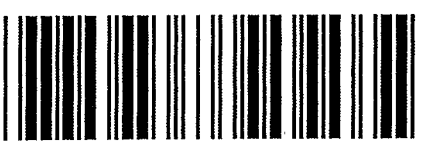
428

ENCLOSURE C

Environmental

Cover Sheet

APN	022 - 080 - 025 - 000
Permit #	E04-0653
Program	SD
DocType	SER
Street #	3199
Street Name	St Helena Hwy
Year	2004



NAPA COUNTY

DEPARTMENT OF Environmental Management
1195 THIRD STREET ROOM 101 NAPA, CALIFORNIA 94559
PHONE 707-253-4471 FAX 707-253-4545 www.co.napa.ca.us

TRENT CAVE, R.E.H.S.
Director of Environmental Management

SITE EVALUATION

Permit Number:	**E04-0653**		
Status:	**PENDING**		Applied: 11/01/2004
Comp Type:	EMSEWAGE SITEEVAL		Test Date: 11/01/2004
Fee:	$456.00		Test Time:
Site Address:	**3199 ST HELENA HWY**	**Parcel Number:**	022-080-025-000
Owner:	**TILLEY CHRISTOPHER AND PAULINE**	Phone:	
Address:	901 SKIBO LANE MAMARONECK 10543-4726		
Applicant:	**JIM CLIFTON**	Phone:	965-2622

Type of Project: **site evaluation for winery**

Prosposed wastewater flows:

Residence:	0 gpd
Winery Production Capacity:	0 gpy ?
Process Waste:	0 gpd
Sanitary Waste:	0 gpd
Total Waste Flow:	0 gpd
Other:	0 gpd

Summary of Results:

Primary Area:

Conventional System	Y	Alternative System	N
Acceptable soil depth	72 inches	Acceptable soil depth	0 inches
Assigned percolation rate	3-6 inches/hour	Assigned percolation rate	inches/hour

Reserve Area:

Conventional System	Y	Alternative System	N
Acceptable soil depth	56 inches	Acceptable soil depth	0 inches
Assigned percolation rate	3-6 inches/hour	Assigned percolation rate	inches/hour

Comments:
Cond: EM-2
Plot Plan

Staff Signature: Kim Withrow Date: 12-20-04

DEM REHS KWithrow
Date 11/1/04

Soil Profile Data

Site Plan Received Yes
Accuracy Checked by KW

Profile	Horizon Depth	Boundary	Color	% Coarse Particles (>2 mm)	Texture	Structure	Perc Rate (inches/hr)	Consistence			Pores	Roots	Mottling
								D	M	W			
1	0-48"	Clear		0 - 15%	Silt Loam	Mod Blocky	3-6	--	V Frb	NS	Few Fine	Few Fine	None --/--
	48-72"	--		15 - 30%	SCL	Mod Blocky	3-6	--	V Frb	SS	Few Fine	-- None	None --/--
2	0-56"	Clear		0 - 15%	SCL	Strong Blocky	3-6	--	Frb	SS	Few Fine	Few Fine	None --/--
	56"+	--		>50%	Clay	-- --	--	--	--	--	-- --	-- --	-- --/--
3	0-18"	Clear		0 - 15%	Silt Loam	Mod Blocky	3-6	--	V Frb	NS	Few Fine	Few Fine	None --/--
	18-46"	Clear		15 - 30%	Silt Loam	Strong Blocky	3-6	--	V Frb	NS	Few Fine	-- None	None --/--
	46-72"	--		15 - 30%	SCL	Strong Blocky	3-6	--	Frb	SS	Few Fine	-- None	None --/--
4	0-18"	Clear		0 - 15%	Silt Loam	Mod Blocky	3-6	--	V Frb	NS	Few Fine	Few Fine	None --/--
	18-46"	Clear		15 - 30%	Silt Loam	Strong Blocky	3-6	--	V Frb	NS	Few Fine	-- None	None --/--
	46-72"	--		15 - 30%	SCL	Strong Blocky	3-6	--	Frb	SS	Few Fine	-- None	None --/--
		--		0 - 15%	--	-- --	--	--	--	--	-- --	-- --	-- --/--
		--		0 - 15%	--	-- --	--	--	--	--	-- --	-- --	-- --/--

Boundary	USDA Texture Class	Structure	Consistence			Pores	Roots	Mottles
Abrupt: <1"; Clear: 1" – 2.5"; Gradual: 2.5" – 5"; Diffuse: >5"	Sand; Loamy Sand; Sandy Loam; Sandy Clay Loam; Sandy Clay; Clay Loam; Loam; Clay; Silty Clay; Silty Clay Loam Silt Loam; Silt	Weak, Moderate, or Strong and Granular; Platy; Prismatic; Columnar; Blocky; Angular Blocky; Subangular Blocky; Massive; Cemented	Dry- Loose; Soft; Slightly Hard; Hard; Very Hard; Extremely Hard	Moist: Loose; Very Friable; Friable; Firm; Very Firm; Extremely Firm;	Wet: NonSticky; Slightly Sticky; Sticky; Very Sticky; NonPlastic; Slightly Plastic; Plastic; Very Plastic	Quantity: Few, Common or Many; Size: Very Fine, Fine, Medium, Coarse	Quantity: Few, Common or Many; Size: Very Fine, Fine, Medium, Coarse, Very Coarse	Quantity: Few, Common, or Many; Size: Fine, Medium, Coarse, Very Coarse or Extremely Coarse; Contrast: Faint, Distinct or Prominent

Site Address: 3199 St. Helena Highway North City: St. Helena AP Number: 022-080-025
Owner: Tilley Site Evaluator: Jim Clifton Permit #: E04-0653

E04-653

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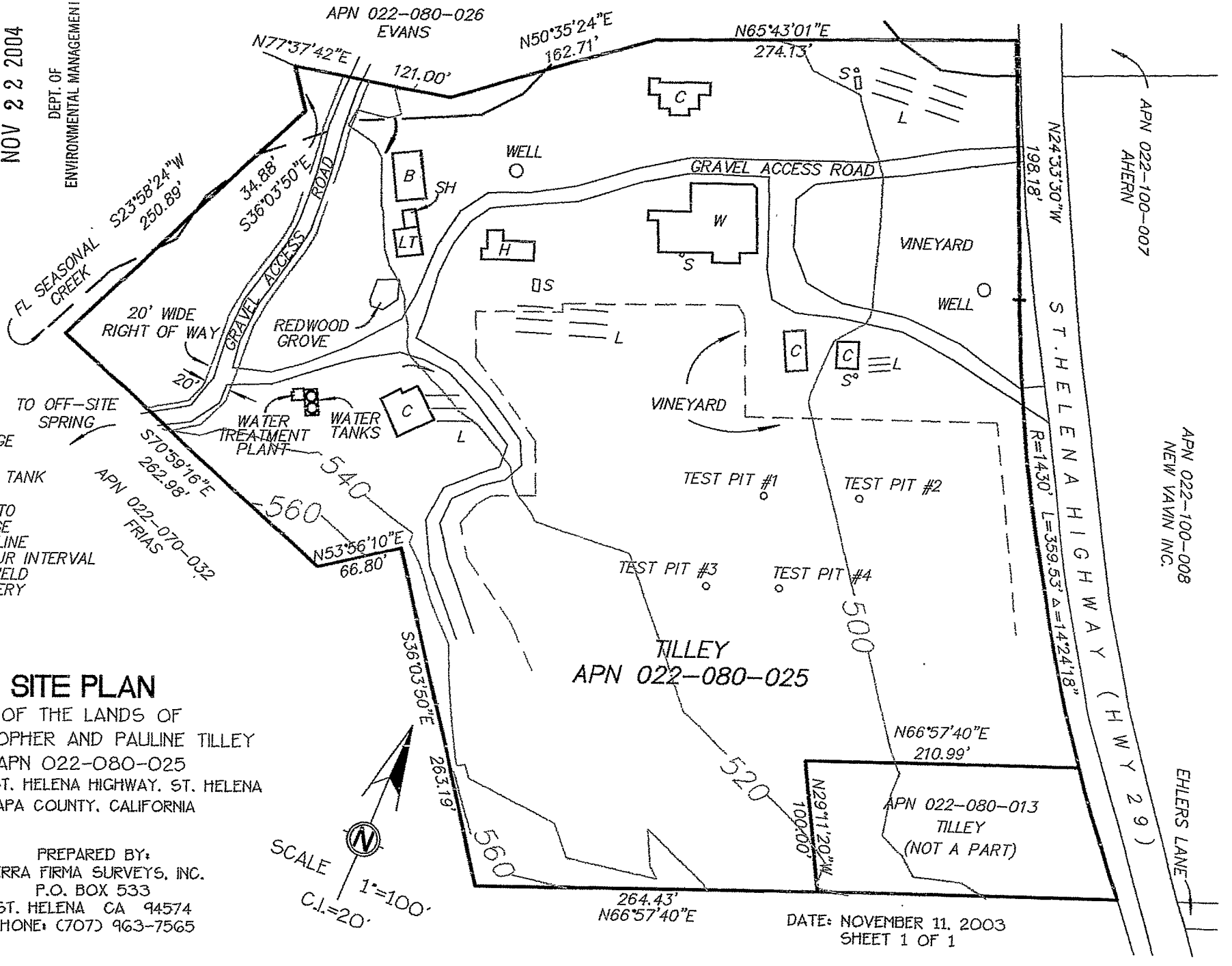

LEGEND:

C	COTTAGE
H	HOUSE
S	SEPTIC TANK
B	BARN
LT	LEAN TO
G	GARAGE
FL	FLOW LINE
CI	CONTOUR INTERVAL
L	LEACHFIELD
W	WINERY

SITE PLAN

OF THE LANDS OF
CHRISTOPHER AND PAULINE TILLEY
APN 022-080-025
3199 N. ST. HELENA HIGHWAY, ST. HELENA
NAPA COUNTY, CALIFORNIA

PREPARED BY:
TERRA FIRMA SURVEYS, INC.
P.O. BOX 533
ST. HELENA CA 94574
PHONE: (707) 963-7565

Terra Firma Surveys, Inc.
P.O. Box 533
St. Helena California 94574

Phone: (707) 963-7565 *Fax: (707) 963-7542*

LETTER OF TRANSMITTAL

TO: Christine M. Secheli, R.E.H.S.
Napa County Department of Environmental Management
1195 Third Street, Room 101
Napa CA 94559

RECEIVED
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ENVIRONMENTAL MANAGEMENT

DATE: November 19, 2004

CC: Christopher Tilley

FROM: Christopher K. Cole CKC

RE: **Site Plan with Septic Systems**
Lands of Christopher and Pauline Tilley
APN 022-080-025 3199 N. St. Helena Hwy, St. Helena CA
7.85 Acres

ENCLOSED:

- One 8 ½"x11" Site Plan of the Tilley parcel plotted at a scale of 1"=100'.

COMMENTS:

This map shows all of the existing septic systems and leachfields. The most recent test holes in the main vineyard prepared by Jim Clifton are also shown.

Please call if you have any questions.

ENCLOSURE D

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Legend:
BLUE Option 1: 900 SF Package Treatment System with Subsurface Drip Disposal (3,000 SF Primary and 200% Reserve = 6,000 SF)
GREEN Option 2: 900 SF Package Treatment System with Land Application Area via Vineyard Irrigation (1 acre)
ORANGE Option 3: Hold and Haul

0 30 60
GRAPHIC SCALE IN FEET

APN 022-080-026
APN 022-100-008
APN 022-080-025
APN 022-080-013
APN 022-070-032

(E) HISTORIC WALL, TYP
SAINT HELENA HIGHWAY
(E) SEPTIC TANK, SEE NOTE 7
(E) SEPTIC SYSTEM, SEE NOTE 7
5' SETBACK FROM SEPTIC SYSTEM
62.5' FROM TOP OF BANK
(E) GRAVEL PARKING STALLS
(E) COTTAGE #4
LIMITS OF NEW GRAVEL WIDENING TO MEET NAPA COUNTY ROAD & STREET STANDARDS, TYP
40.0' DECELERATION LANE
(E) PARKING STALLS
(E) FH
(E) ABANDONED WELL DESTROYED UNDER PERMIT E07-00318
(E) WINERY
(E) ABANDONED WELL SEE NOTE 9
(E) ROAD CENTERLINE
(E) PARKING STALLS TO BE REMOVED
EMERGENCY ACCESS SIGN, SEE NOTE 10
(E) RESIDENCE TO BE CONVERTED TO WINERY OFFICES
(E) GREASE INTERCEPTOR
(E) PUMP TANK
(E) ADA PARKING
(E) SEPTIC TANK, SEE NOTE 6
(E) ABANDONED SEPTIC SYSTEM
APPROX. LIMITS OF VINEYARD IRRIGATION (~1 ACRE)
65' CREEK SETBACK
(E) BARN
(E) COTTAGE #7
AB2004 OUTDOOR TASTING AREA
FDC ON ASR
(E) ABANDONED SEPTIC SYSTEM
(E) VINEYARD, TYP
APPROXIMATE LOCATION OF 2004 SOIL TEST PIT, TYP OF 4
APPROXIMATE PROPERTY LINE
90.0' SETBACK
SUBSURFACE DISPOSAL AREA PRIMARY ~3,000 SF
20.0' PROPERTY LINE SETBACK
ASPHALT ACCESS ROAD
28.0' ROAD SETBACK
HIRSCH CREEK
(E) 14.2', SEE NOTE 5
MAIN WINERY SS TANKS, SEE NOTE 8
(E) PARKING STALL
(E) ABANDONED SEPTIC SYSTEM
50-FT EFFECTIVE TEST PIT RADIUS, TYP OF 4
APPROXIMATE (E) LEACHFIELD, SEE NOTE 8
FH (SEE NOTE 4)
FDC
(E) WATER TREATMENT SHED
(E) WATER STORAGE TANKS
CV
PIV
(E) COTTAGE #8
PROPOSED ACCESS ROAD, TYP
PROPOSED FIRE PUMP HOUSE
200% RESERVE DISPOSAL AREA ~6,000 SF
(E) EMPLOYEE PARKING STALLS
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
PROPOSED CAVE, SAD
PORTAL #1
PORTAL #2
PORTAL #3
CAVE PORTAL, TYP OF 3 (SEE NOTE 2)
(E) VINEYARD, TYP
(E) FIRE WATER TANKS TO BE REPLACED WITH 10,500 GAL CONCRETE TANKS (5 TOTAL)
(E) 100' WELL SETBACK
(E) WELL, APPROXIMATE LOCATION BASED ON INFORMATION IN NAPA COUNTY ONLINE ELECTRONIC DATABASE
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
(E) IRRIGATION TANKS
PROPOSED HOLD AND HAUL TANK SEE NOTE 11
PROPOSED PW TREATMENT SYSTEM, SEE NOTE 11
900 SF PACKAGE TREATMENT SYSTEM
TREATED EFFLUENT IRRIGATION STORAGE TANK
HOLD AND HAUL TANK
SEE SHEET UP2

NOTES:

1. ENTRANCE GEOMETRY COMPLIES WITH APPLICABLE REQUIREMENTS FROM THE NAPA COUNTY ROAD & STREET STANDARDS AND CALTRANS DESIGN REQUIREMENTS.
2. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING AT CAVE PORTALS.
3. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING ALONG HIGHWAY 29.
4. FIRE HYDRANT TO BE COMPLIANT WITH CALIFORNIA FIRE CODE SECTION 507, APPENDIX B, AND APPENDIX C.
5. ROAD IS PROPOSED FOR FIRE EMERGENCY ACCESS ONLY. △3
6. THE EXISTING WINERY KITCHEN IS THE ONLY SOURCE OF WASTEWATER THAT IS CONNECTED TO THIS TANK. WASTEWATER FROM THE TANK IS PUMPED INTERMITTENTLY AND HAULED OFFSITE FOR DISPOSAL. THERE IS NO CONNECTION TO A LEACHFIELD FROM THIS TANK.
7. SEPTIC SYSTEM ONLY SERVES COTTAGE #4.
8. SS FROM COTTAGE #7, COTTAGE #8, BARN AND WINERY ALL FLOW TO MAIN SS TANKS AND TO MAIN LEACHFIELD FOR DISPOSAL.
9. WELL DEMOLITION PERMIT TO BE OBTAINED THROUGH NAPA COUNTY FOR DESTRUCTION OF THIS WELL
10. SIGNAGE WILL BE PROVIDED TO INDICATE ONLY EMERGENCY VEHICLES ARE PERMITTED BEYOND THIS POINT. THE ROADWAY WILL BE CLEARLY DELINEATED AS FIRE ACCESS ONLY. THE DETAILS OF FIRE ACCESS SIGNAGE AND DELINEATION WILL BE COORDINATED WITH NAPA COUNTY DURING SUBSEQUENT PHASES OF DESIGN.
11. WINERY PROPOSES TO INSTALL EITHER A PW HOLD-AND-HAUL TANK OR AN ONSITE PW TREATMENT SYSTEM. REFER TO WASTEWATER FEASIBILITY STUDY FOR ADDITIONAL DETAILS. △3

PARKING TABLE

NUMBER	TYPE
17	STANDARD WINERY SPACES
3	(E) STANDARD RESIDENTIAL SPACES
1	VAN ACCESSIBLE SPACE
21	**TOTAL SPACES**

ABBREVIATIONS:

AC	ASPHALT CONCRETE	FH	FIRE HYDRANT
AD	AREA DRAIN	GB	GRADE BREAK
APN	ASSESSOR'S PARCEL NUMBER	LIDF	LOW IMPACT DEVELOPMENT FACILITY
ASR	AUTOMATIC SPRINKLER RISER	LL	LOWER LEVEL
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION	PD	PLANTER DRAIN
		PIP	PROTECT IN PLACE
BFE	BASE FLOOD ELEVATION	PIV	POST INDICATOR VALVE
BLDG	BUILDING	PW	PROCESS WASTE
℄	CENTERLINE	SAD	SEE ARCHITECTURAL DRAWINGS
CONC	CONCRETE	SB	SETBACK
CV	CONTROL VALVE	SD	STORM DRAIN
DI	DRAIN INLET	SS	SANITARY SEWAGE
DMA	DRAINAGE MANAGEMENT AREA	SRA	SELF RETAINING AREA
DS	DOWNSPOUT	STD	STANDARD
DG	DECOMPOSED GRANITE	TD	TRENCH DRAIN
(E)	EXISTING	TI	TRAFFIC INDEX
FDC	FIRE DEPARTMENT CONNECTION	TYP	TYPICAL
FF	FINISH FLOOR	UL	UPPER LEVEL

OWNER:
AXR NAPA VALLEY
3199 SAINT HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574

APPLICANT:
SUMMIT ENGINEERING, INC.
575 W. COLLEGE AVENUE, SUITE 201
SANTA ROSA, CA 95401

SUMMIT
Summit Engineering, Inc
575 W College Ave., Suite 201 • Santa Rosa, CA 95401
707-527-0775 • www.summit-sr.com

AXR NAPA VALLEY
3199 ST HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574
APN 022-080-025

USE PERMIT MODIFICATION

OVERALL SITE PLAN

2022-12-13	USE PERMIT APPLICATION
2023-04-13	USE PERMIT RESUBMITTAL
2023-12-11	USE PERMIT RESUBMITTAL
△3 2024-03-19	USE PERMIT RESUBMITTAL

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS
SHEET UP1 1OF 5

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(E) WINERY

(E) COTTAGE #7

(E) BARN

(E) VINEYARD

(E) COTTAGE #8

(E) WATER TANKS

(E) OH

(E) SS, TYP

4" SD

PROPOSED WINE CAVE

TP CONF 321.59±

TP CONF 320.58±

EG 331.73
TP 330.00

TD #3
TG 326.48
IE 324.48

EG 342.28
TP 326.48

TD #1
TG 321.90
IE 319.90

EG 336.20
TP 321.90

TD #2
TG 321.90
IE 319.90

EG 337.82
TP 321.90

TP 323.22
EG 323.16

EG 325.55
TP 323.60

TP 323.20
EG 322.97

IE 317.93

FG/TP 324.15

E 322.96

TOE OF 2:1 FILL

APPROXIMATE LOCATION OF 2004 SOIL TEST PIT, TYP OF 4

TP1

TP2

TP3

TP4

50-FT EFFECTIVE TEST PIT RADIUS, TYP OF 4 (3)

Setbacks from proposed storm drain to leachfield

RIPRAP ENERGY DISSIPATOR

RETAINING WALL, TYP

SEE NOTE 1 (1)

SEE NOTE 1 (1)

R30.0'

APPROXIMATE PROPERTY LINE

DIRT ROAD

GRAVEL DRIVEWAY

PAVEMENT

STONE BORDER

GRAVEL DRIVEWAY

CONTROL PANEL 311.04

CRKBB CUR BEND 311.51

CREPE MYRTLE 15" CLUMP

OLD CONCRETE SEPTIC TANK

OLD AC PATH

WAL 12/25 CP 90D AT WALNUT SW HOUSE

ROCK COLUMN

ROCK WALL

PAVEMENT

SP W/ UNDERGROUND 305.11

ICVB 304.86

GUY

PANEL 305.27

OLIVE 3/10

OLIVE 2/8

STONE BOARDER

MAPLE 20-24/60

SSCO 324.21

SEPTIC LID (TYP)

RISER 323.38

RISER 322.15

CONCRETE TANK (COVERED)

TANK CONNECTIONS

TRENCH DRAIN

ELEC METER

ELEC PANEL

RDWD 38/40

RDWD 42/40

RDWD 36/40

RDWD 46/40

RDWD 24-40/40

RDWD 18-38/40

RDWD 30/40

FIR 30/40

MAPLE 14/40

WAL 26/40

CRKBB CL GRAVEL RD

FIR 28/45

WALNUT 18/35

MAPLE 14/25

WAL 20/35

MAPLE 16/40

FIR 12/25

PUMP HOUSE

OVERHANG

WATER TANKS

PATH

TANK

RISER 342.50

H2O BOX 343.34

RISER 342.94

RISER 341.40

RISER 341.52

ELEC 340

WAL 12/45

WAL 10/30

TREE 4/15

TREE 6/15

TREE 20/40

MAPLE 22/50

MAPLE 8-12-16/45

INV 30" CMP

TOP OF BANK

WELL 323.53

PANEL 323.54

ELEC BOX 323.65

CRKBB NCR GR WLY WELL

ICVB 327.08

GAS METER 324.27

PW WV

FF PORCH 323.86

FF THRESH 324.05

ELEC METER 324.00

1265 330.70 TOE

TW 330.97

DI 330.47

CP 90D EGR

DI 327.67

DI 330.51

90D SLY CONN

ICVB 325.71

ICVB 325.77

ICVB 330.65

ICVB 331.61

RISER 330.52

RISER 326.11

RISER 326.10

RISER 325.85

RISER 325.68

RISER 323.81

ELEC PANEL 326.12

STONE BORDER 328.22

STONE BORDER HANDICAP LIFT

FF 315.53

FF DECK 315.33

CONCRETE TC 314.93

TC 316.64

TC 315.22

TC 315.26

TC 315.08

TC 314.84

TC 314.27

TC 313.76

TC 313.53

TC 313.02

TC 312.01

TC 310.98

TC 309.89

TC 309.73

TC 308.17

TC 308.11

TC 307.37

TC 307.24

TC 306.73

TC 306.15

TC 305.50

TC 305.36

TC 304.74

TC 304.57

TC 304.38

TC 303.94

TC 303.13

TC 321.96

TC 321.23

TC 321.21

TC 319.55

TC 319.29

TC 319.32

TC 319.36

TC 319.19

TC 319.04

TC 318.56

TC 318.33

TC 317.22

TC 316.16

TC 314.77

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ENCLOSURE E

SUMMIT ENGINEERING, INC.	AXR Napa Valley Wastewater Feasibility Study PW Effluent Storage Tank Sizing (Option 3)	PROJECT NO. 2021183 BY: CC CHK:

PW EFFLUENT STORAGE TANK

Min. Tank Volume=	29,490	gallons	(Can be split into multiple tanks)
Number of tanks=	1		(provides 15 days of storage at average peak harvest month flows)
Needed tank volume	29,490	gallons	
Selected tank volume	32,000	gallons	based on National Storage Tank 32,000 gallon Factory Coated Bolted Steel Tank #492
Actual Tank Height =	18	ft	
Useable Tank Height =	16	ft	Accounting for 2 feet of freeboard
Tank Diameter =	16.00	ft	
Unit Volume =	2,000	gal/ft	

Month	Initial Volume (gal)	Total Inflow (gal)	Divert Volume[a] (gal)	Final Volume (gal)	Final Depth (ft)
August	0	22,050	22,050	0	0.0
September	0	34,440	22,000	12,440	6.2
October	12,440	27,090	25,000	14,530	7.3
November	14,530	15,540	15,000	15,070	7.5
December	15,070	13,440	10,000	18,510	9.3
January	18,510	13,860	10,000	22,370	11.2
February	22,370	15,120	8,000	**29,490**	14.7
March	29,490	15,960	17,000	28,450	14.2
April	28,450	14,280	15,000	27,730	13.9
May	27,730	13,440	20,000	21,170	10.6
June	21,170	11,760	20,000	12,930	6.5
July	12,930	13,020	25,950	0	0.0
TOTAL	**202,690**	**210,000**	**210,000**		

[a] Monthly volume of effluent to be used for onsite irrigation or reuse.

SUMMIT ENGINEERING, INC.	AXR NAPA VALLEY Wastewater Feasibility Study PW Irrigation Balance	PROJECT NO. 2021183 BY: CC CHK:

Applied Irrigation Area Vineyard 1.00 acres

Total Area Available for Irrigation Vineyard acres

Month	Reference ET[a]	Turfgrass Crop Coefficient[b]	Vineyard Crop Coefficient[c]	Turfgrass ET[d]	Vineyard ET[d]	100 year Precipitation[e]	Irrigation Demand[f]		Operating Days per Month[g]	Percolation Capacity[h]		Assimilative Capacity[i]		Effluent Applied[j]		Excess Capacity
	(in)			(in)	(in)	(in)	(in)	(Mgal)	(d)	(in)	(Mgal)	(in)	(Mgal)	(Mgal)	(in)	(Mgal)
August	6.5	0.9	0.5	5.6	2.9	0.1	2.8	0.077	25	30.60	0.831	33.4	0.908	0.022	0.81	0.89
September	5.1	0.7	0.3	3.8	1.3	0.2	1.2	0.032	22	26.93	0.732	28.1	0.764	0.022	0.81	0.74
October	3.4	0.8	0.1	2.6	0.2	4.2	0.0	0.000	17	20.81	0.565	20.8	0.565	0.025	0.92	0.54
November	1.8	0.7	0.0	1.2	0.0	8.2	0.0	0.000	12	14.69	0.399	14.7	0.399	0.015	0.55	0.38
December	0.9	0.6	0.0	0.6	0.0	18.1	0.0	0.000	11	13.46	0.366	13.5	0.366	0.010	0.37	0.36
January	1.2	0.6	0.0	0.8	0.0	16.3	0.0	0.000	11	13.46	0.366	13.5	0.366	0.010	0.37	0.36
February	1.7	0.6	0.0	1.1	0.0	16.9	0.0	0.000	11	13.46	0.366	13.5	0.366	0.008	0.29	0.36
March	3.4	0.8	0.0	2.6	0.0	12.6	0.0	0.000	12	14.69	0.399	14.7	0.399	0.017	0.63	0.38
April	4.8	1.0	0.2	5.0	0.8	5.0	0.0	0.000	15	18.36	0.499	18.4	0.499	0.015	0.55	0.48
May	6.2	1.0	0.6	5.9	3.6	3.3	0.3	0.008	18	22.03	0.599	22.3	0.607	0.020	0.74	0.59
June	6.9	0.9	0.7	6.1	4.9	0.9	4.0	0.109	22	26.93	0.732	30.9	0.841	0.020	0.74	0.82
July	7.4	0.9	0.6	7.0	4.8	0.0	4.7	0.129	26	31.82	0.865	36.6	0.993	0.026	0.96	0.97
Total	**49.4**			**42.1**	**18.5**	**85.7**	**13.0**	**0.4**	**202.0**	**247.2**	**6.7**	**260.3**	**7.1**	**0.21**	**7.7**	**6.86**

(a) Average monthly reference evapotranspiration rates, see Climate Data Worksheet.
(b) Kc coefficients for pasture from Table 1, "Landscape Irrigation System Evaluation and Management"- University of California Cooperative Extension, April 2009
(c) Kc coefficients for vineyards from Table 5-12, Irrigation with Reclaimed Municipal Wastewater - A Guidance Manual, 84-1 wr, SWRCB.
(d) ET=ETo x Kc. A weighted value is determined on the basis of the available irrigated acreage of vineyard and pasture.
(e) Precipitation, 10-year rainfall event, see Climate Data Worksheet.
(f) Irrigation Demand = ET-Precipitation, inches. A weighted value is determined on the basis of the available irrigated acreage of vineyard and pasture.
(g) Number of operating days per month based on estimated irrigation days available based on 24-hr post storm criteria for a 100-year return period. Summit Engineering, NBRID Capacity Study, April 1996.
(h) Design percolation rate is a maximum of.75 inches per day for the number of operating day per month. Per USDA soil survey, predominant soil type is bale loam.
Sizing perc rate based on clay soils. Pretreated loading rates for non-shrink clay soils adjusted by a 0.04 safety factor to account for typical slow rate land application design methodology.
(i) Assimilative capacity is the sum of irrigation demand and percolation applied.
(j) Effluent applied depths exceeding 1 inch/month could result in ponding; if ponding occurs, additional disposal area may be required for expansion

Percolation Adjustment		
Hourly Percolation Rate	1.275	in/hr
15	24	hr/day
Daily Percolation Rate	30.6	in/day
Land Application Safety Factor	0.04	
Adjusted Percolation Rate	1.22	in/day

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Santa Rosa, CA 95401
707 527-0775
Contact: sfo@summit-sr.com

“J”

Biological Study
(ECP #01-222)

P_14_1201

MUSCI Natural Resource Assessment
1130 Cayetano Court Napa CA 94559-4137 707.257.2487
musci@musci.com

BIOLOGICAL RESOURCES RECONNAISSANCE REPORT
SPECIAL STATUS PLANT REPORT
CHRIS TILLEY VINEYARD CONVERSION (ECP 01-222)

STEPHEN P. RAE

20 April 2002

INTRODUCTION

Biological Reconnaissance and Special Status Plant surveys were conducted on the proposed Chris Tilley Vineyard Conversion project (ECP #01-222) property at 3199 St. Helena Highway, St. Helena (APN 022-080-025) on 13 April by Glenn Clifton and on 17 April 2002 by Stephen P. Rae of MUSCI. The purpose of the survey was to determine the occurrence of significant biological resources, including special status plants. The field survey covered 100% of the approximately 3.1 acre project area (see map below). The center point of the survey area is UTM 10S/0543177/4264813.

The property has been previously managed intensively for agricultural and residential use. Approximately 100% of the pre-existing native vegetation within the area dedicated to residential and orchard use was removed many years ago. Prior to conversion of the orchard to vineyard, the property produced walnuts and supported residential uses. The walnut orchard was removed for vineyard conversion. Native vegetation was not removed. Removal of native vegetation is not proposed.

BIOLOGICAL RESOURCES RECONNAISSANCE

The surveyors covered the entire project area during two separate on-foot field examinations. In addition, the biological reconnaissance extended to contiguous lands to the north and west which supported native vegetation.

The project area is vegetated with an annual grassland, with some perennial herbaceous plant species. Along the west and northern boundaries of the project area there are several mature native trees together with several planted trees. Several walnut trees remain from the original orchard.

The native vegetation west of the project area is Mixed Evergreen forest, composed of Douglas fir, redwood, Interior live oak, and big-leaf maple. Along

the north boundary of the northernmost vineyard block there are California bay, alder, and buckeye along an unnamed dry stream. Previous disturbance related to removal of the walnut orchard and preparation for vineyard conversion have not impacted the existing riparian vegetation canopy.
The unnamed stream borders the northernmost boundary of the parcel, and is within 30 m of the northernmost vineyard block. The stream is currently dry, but conveys water during the winter and following rains. The stream channel is composed of cobbles, with few fines or pools evident. The adjoining property owner to the north has placed obstructions to normal flow and reconfigured the channel.

A review of available records (California Natural Diversity Data Base and Napa County Sensitivity maps) reveals that there are no special status animals reported on the project parcel or contiguous parcels. The Northern Spotted Owl is currently reported within the Bothe Napa Valley State Park approximately one mile to the north (Bill Grummer, State Park Ranger, personal communication). The territory of the owl probably does not extend to the project area as the mix of nesting, roosting, and foraging within one mile of the recorded nest site satisfies life history requirements.

During the field survey, no special status plants or animals were observed, nor were there potential habitats encountered.

The herbaceous vegetation is representative of old field succession, that is, a species mix that results following the abandonment of agricultural or other intensive land use. There were about 34 species of plants observed. Among these there were a number of introduced plants from the Pea Family that have been planted to enhance the soil. All but 5 of the species observed were introduced weeds. A partial list of plant species is presented in Table 1. The plant list does not include horticultural materials outside of the project area that were introduced consequent to residential and other uses.

Bird species observed during the survey were red-tailed hawk, turkey vulture, red-breasted sapsucker, scrub jay, common bushtit, American robin, brown towhee, and song sparrow. Taller trees adjacent to the project area were inspected for raptor and squirrel nests. The ground surface below the tree canopy within 50 m of the project area was inspected for bird and small mammal nest. Nests for raptors, squirrels, and woodrats were not observed. Three songbird nests within redwood and willow were observed. The one occupied nest in a redwood appeared to be inhabited by American robins.

There were no significant concentrations of birds observed. There were no mammals, reptiles, or amphibians observed within the project area.

SPECIAL STATUS PLANTS
A review of available records (California Natural Diversity Data Base and Napa

County Sensitivity maps) reveals several listed plants that occur within several miles of this site. These include Amorpha californica var. napensis, Napa false indigo, List 1B; Astragalus clarianus, Clara Hunt's milkvetch, List 1B; Micropus amphibolus, Mount Diablo cottonweed, List 4; and Calochortus uniflorus, Large-flowered star-tulip, List 4. The indigo occurs within openings in Oak woodland and mixed evergreen forest. The milkvetch occurs within annual grassland especially on serpentine derived soils and within Cismontane woodland. The cottonweed occurs within annual grasslands and broadleaved evergreen forest. The star-tulip occurs within annual grasslands and broadleaved evergreen forests. The annual grassland on the project area is primarily of introduced species and is the result of intensive land management; such habitat is not comparable to the known habitat of the milkvetch, cottonweed, and star-tulip. Habitat for the listed plants was not observed within the project area.

Within the project area and the immediate contiguous area already dedicated to residential use, there is no unique or unusual habitat that could support special status plants which have been reported elsewhere in the County.

CONCLUSIONS

The management history of the property has resulted in a significantly disturbed site which exhibits little natural biological habitat features. The mix of plant species is primarily introduced, and the plant cover has not developed into any recognizable category of native vegetation classified in California. Habitat for special status plant species does not occur within the project area.

The mix of animal species observed within the project area is representative of annual grasslands and sites under residential or other landscaped use in Napa Valley. There are no unique or special status animals known on the site. The closest occurring sensitive animal species (Northern Spotted Owl) has little likelihood of using the project area. There are no unusual habitats within the project area that could support special status animals which could occur in other seasons, in low numbers, or are difficult to observe.

The likelihood of observing special status plants or animals if additional survey work were to be scheduled (at other seasons or times or over additional years) is low. The conversion of the walnut orchard to vineyard should have no effect on special status plant and animal species. In addition, due to the extent of similar habitat within the surrounding area, the conversion of this parcel should have an insignificant effect on non-special status plants and animals.

Table 1. Plant Species
(Introduced plants are denoted by *)

APIACEAE
*Torilis arvensis var. purpurea

APOCYNACEAE
*Vinca major

ASTERACEAE
*Carduus pycnocephalus
*Hypochoeris glabra
*Lactuca serriola
*Silybum marianum

BRASSICACEAE
Cardamine oligosperma
*Raphanus sativus
*Sisymbrium officinale

CARYOPHYLLACEAE
*Cerastium glomeratum

FABACEAE
Lotus purshianus var. purshianus
*Medicago polymorpha
*Vicia faba
*Vicia sativa var. angustifolia
*Vicia villosa var. glabrescens

GERANIACEAE
*Erodium cicutarium
*Erodium moschatum
Geranium dissectum

LAMIACEAE
*Lamium amplexicaule
*Lamium purpureum

ONAGRACEAE
Epilobium brachycarpum

PLANTAGINACEAE
*Plantago lanceolata

POACEAE
*Avena barbata
*Bromus diandrus
*Bromus hordeaceus
*Hordeum murinum
*Poa annua
*Vulpia bromoides
Vulpia microstachys var. pauciflora
*Vulpia myuros var. myuros

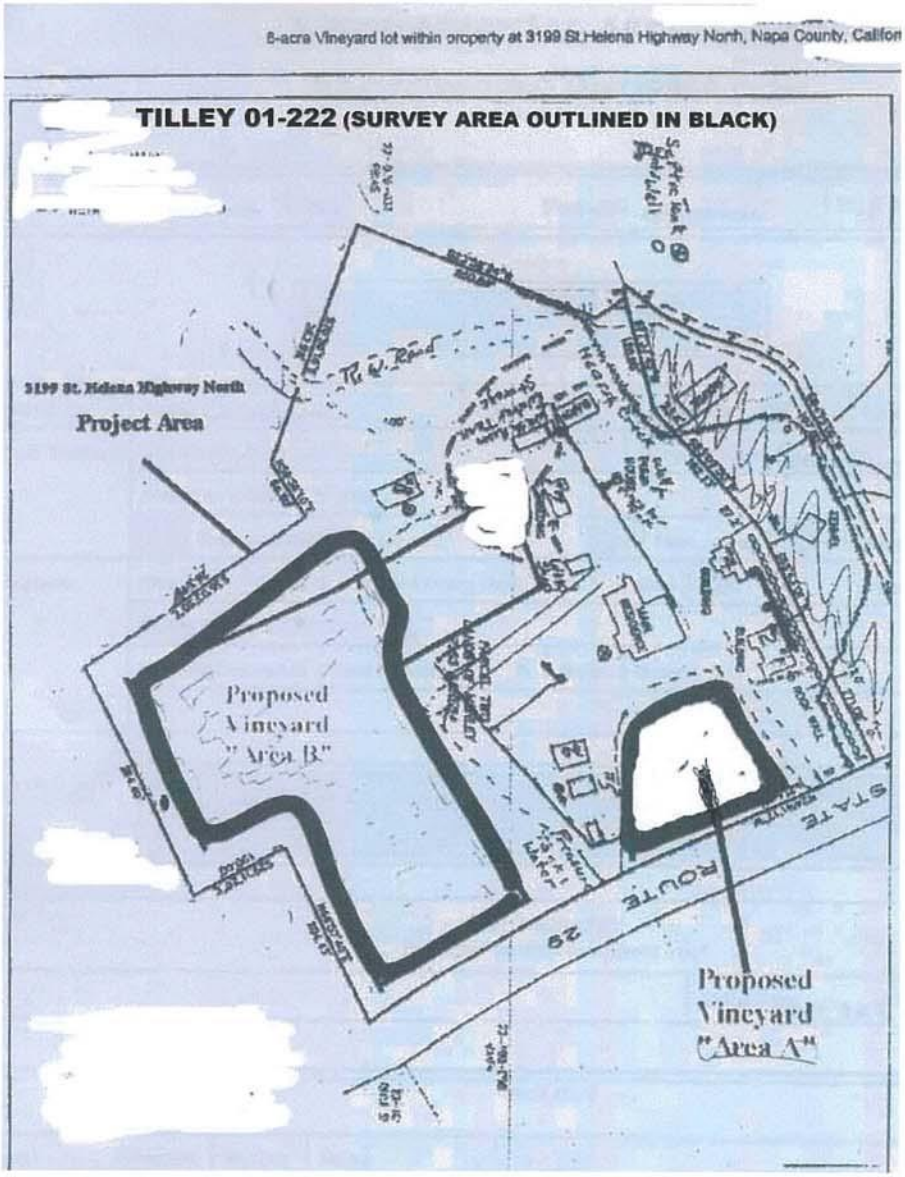
PRIMULACEAE
*Anagallis arvensis

RANUNCULACEAE
*Ranunculus muricatus

RUBIACEAE
*Galium parisiense

SCROPHULARIACEAE
*Kickxia spuria

MAP: TILLEY VINEYARD CONVERSION SURVEY AREA



REFERENCES

California Native Plant Society. Inventory of Rare and Endangered Vascular Plants of California. Special Publication 1.

“K”

Historic Resources Evaluation

EVANS & DE SHAZO
ARCHAEOLOGY HISTORIC PRESERVATION

A HISTORIC RESOURCE EVALUATION, LOCAL ASSESSMENT, AND SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES REVIEW OF THE PROPERTY AT 3199 ST. HELENA HIGHWAY N, ST. HELENA, NAPA COUNTY, CALIFORNIA

SUBMITTED TO:

AXR Napa Valley
c/o Jeffery Redding

SUBMITTED BY:

Stacey De Shazo, M.A.
Principal Architectural Historian,
and
Nicole Wyton, M.S.
with
Bee Thao, M.A.

August 9, 2025

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ATTACHMENTS: Department of Parks and Recreation (DPR) 523 forms (Appendix A) and Notice of Napa County Landmark Designation (Appendix B).

INTRODUCTION

Evans & De Shazo, Inc. (EDS) completed a Historic Resource Evaluation (HRE) and a local assessment of the 7.85-acre property at 3199 St. Helena Highway North, St. Helena, Napa County, California, within Assessor Parcel Number (APN) 022-080-025 (Property). The Property includes the 1883 Hirsch House (AXR Winery), three 1932 cottages, a ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards. In 2007, the Property was included within the California Office of Historic Preservation Built Environment Resource Directory (BERD) and given a status code of "7W," meaning the resource was "Submitted to OHP for action – withdrawn."[1] This same year, the Property, including "1883 Hirsch House and cellar" (extant), and 1883 barn (no longer extant), was granted Historic Landmark Designation by the Napa County Conservation, Development, and Planning Commission (P07-00656-LDMK; October 17, 2007) and two 19th century cottages (no longer extant), rock wall (sections are now modern construction), cistern (modern), Redwood grove, and oak trees were noted as "contributing accessories" (Appendix B). As such, the Property is a Historical Resource as defined in Section (§) 15064.5 of the California Code of Regulations (CCR). However, the Property does not appear to have been previously evaluated for listing on the California Register of Historical Resources (CRHR). The proposed project includes the removal of a modern portion of the Elhers Lane Rock Wall (P-28-000955) and the construction of a wine cave, including three portals and an access road (Project).[2] As such, in compliance with the California Environmental Quality Act (CEQA), an HRE was completed to determine whether any of the built environment resources, at least 45 years in age, within the Property are eligible for listing on the CRHR. In addition, due to changes to the Property after the Historic Landmark Designation, EDS completed a local assessment to provide recommendations for continued listing as a Napa County Historic Landmark. In addition, due to its current listing status as a Historic Landmark, EDS completed a Secretary of Interior's Standards for the Treatment of Historic Properties (Standards) review (36 CFR Part 67) to assess potential impacts to the historical resources within the Property.

The HRE is based on specific guidelines and evaluation criteria of the CRHR (14 CCR §15064.5 and PRC § 21084.1); the local assessment adheres to Napa County historic preservation guidelines and Chapter 15.52. of the Napa County Municipal Code, and the Standards review is based on National Park Service (NPS) guidelines. The report was completed by EDS Principal Architectural Historian Stacey De Shazo, M.A., and Nicole Wyton, M.S., who both exceed the Secretary of the Interior's professional qualification standards in Architectural History and History, and researcher Bee Thao, M.A. The results are presented herein.

[1] The 2007 BERD listing provides no details about the OHP application. The OHP, NWIC, or the County of Napa Planning Department does not have a copy of the application.

[2] Previously documented as "Elhers Lane Rock Wall" (P-28-000955), named for nearby Elhers Lane and not for association with the NRHP-eligible Elhers Winery building.

PROPERTY LOCATION

The Property (APN 022-080-025 (7.85-acres)) at 3199 St. Helena Highway N in Napa County, California (Figure 1) is located approximately 2.6 miles northwest of the City of St. Helena and approximately 0.2 miles northwest of Ehler Lane.

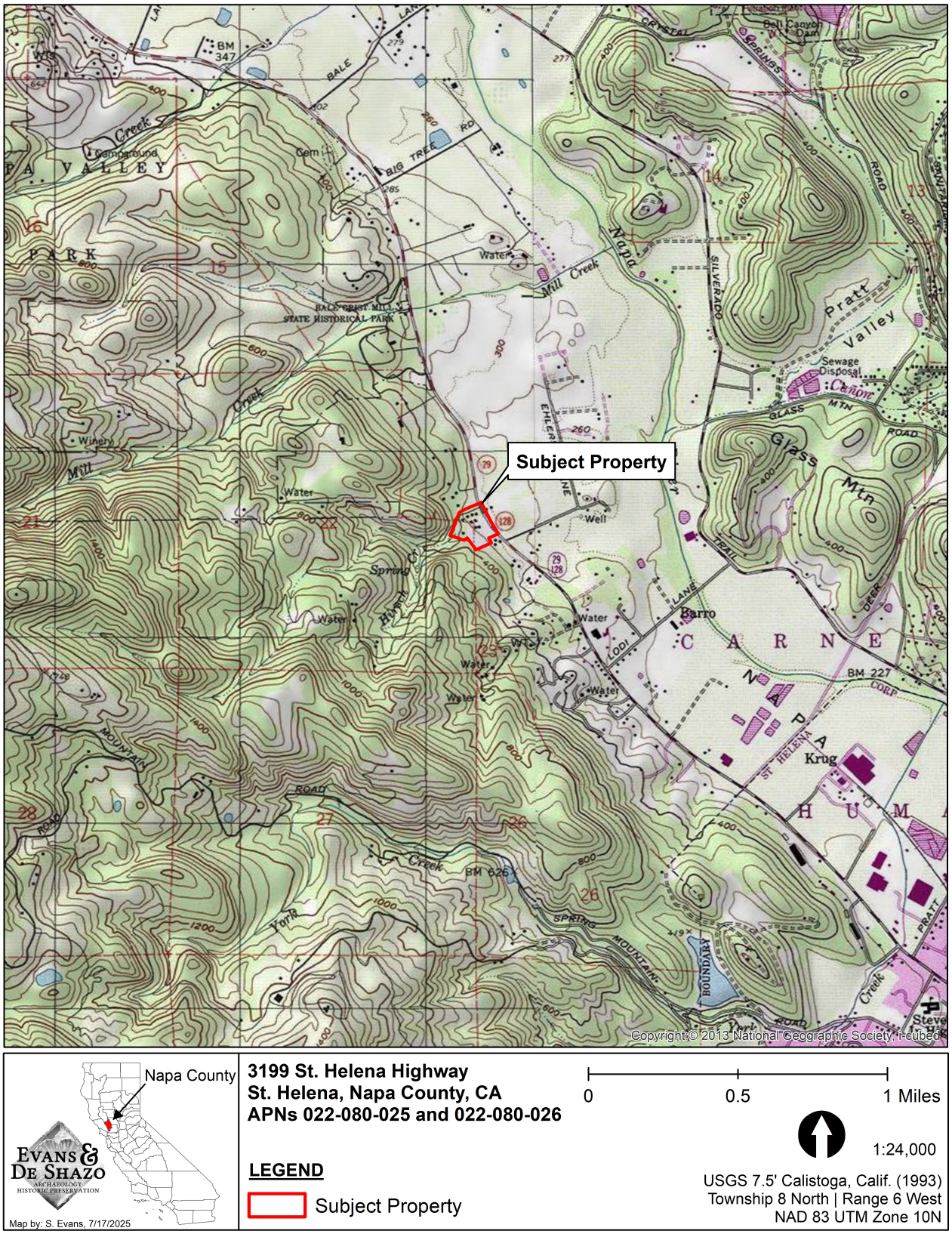

Figure 1. Property location map.

REGULATORY SETTING

The CEQA regulations and guidelines and Napa County historic preservation ordinances, as they pertain to cultural resources, are outlined below.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA and the Guidelines for Implementing CEQA (State CEQA Guidelines § 15064.5) give direction and guidance for evaluating properties and the preparation of Initial Studies, Categorical Exemptions, Negative Declarations, and Environmental Impact Reports. Pursuant to California State law, Napa County is legally responsible and accountable for determining the environmental impact of any land use proposal it approves. Cultural resources are aspects of the environment that require identification and assessment for potential significance under CEQA (14 CCR § 15064.5 and PRC § 21084.1).

There are five classes of cultural resources defined by the State OHP. These are:

- **Building**: A structure created principally to shelter or assist in carrying out any form of human activity. A "building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.
- **Structure**: A construction made for a functional purpose rather than creating human shelter. Examples include mines, bridges, and tunnels.
- **Object**: Construction primarily artistic in nature or relatively small in scale and simply constructed. It may be movable by nature or design or made for a specific setting or environment. Objects should be in a setting appropriate to their significant historic use or character. Examples include fountains, monuments, maritime resources, sculptures, and boundary markers.
- **Site**: The location of a significant event. A prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event and if no buildings, structures, or objects marked it at that time. Examples include trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs.
- **Historic District**: Unified geographic entities which contain a concentration of historic buildings, structures, or sites united historically, culturally, or architecturally.

According to CCR § 15064.5, cultural resources are historically significant if they are:

(1) A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (PRC §5024.1, 14 CCR § 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in a historical resource survey meeting the requirements PRC § 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such

resource as significant unless the preponderance of the evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources pursuant to PRC § 5020.1(k) or identified in a historical resources survey meeting the criteria in PRC § 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC § 5020.1(j) or § 5024.1.

LOCAL GUIDELINES

Chapter 15.52 - LANDMARK PRESERVATION [14]

15.52.010 - Purpose of provisions—Citizen participation.

A. It is the intent and purpose of the board, by this chapter, to:

1) Preserve the county's historic and cultural heritage, as embodied and reflected in its historic resources;

2) Stabilize and improve property values and the local economy through the appropriate rehabilitation and reuse of historic structures;

3) Foster civic pride and increase the collective understanding of Napa's agricultural heritage and accomplishments of the past;

4) Protect and enhance the county's attractions to residents and visitors, and serve as a support and stimulus to business;

5) Protect the county's important assets and strengthen its overall economy; and

6) Promote the use of historic resources for the education, pleasure and welfare of the people of the

county.

B. Toward the preceding goals, the county will promote citizen participation by:

1) 1. Providing specific criteria for property owners who wish to designate their historic resources as Napa County Landmarks, thus making them eligible to apply for local, state, and federal preservation incentives; and

2) 2. Seeking funding, in kind donations, and volunteer efforts necessary to develop and maintain a comprehensive inventory of potentially eligible resources so that the State Historic Building Code may be utilized when applicable during rehabilitation, reconstruction or restoration activities.

(Ord. 1364, § 1, 10-18-2011)

STANDARDS FOR REHABILITATION

Rehabilitation as a Treatment and Standards for Rehabilitation (36 CFR Part 67, 1990) as provided by the National Parks Service.[3]

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be

[3] NPS, "he Secretary of the Interior's Standards for the Treatment of Historic Properties: Rehabilitation as a Treatment and Standards for Rehabilitation," accessed May 27, 2025, https://www.nps.gov/articles/000/treatment-standards-rehabilitation.html.

substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

METHODS

The methods used to complete the HRE included a database search conducted by the Northwest Information Center (NWIC) of the California Historical Information Systems (CHRIS) (NWIC File #24-1718) to obtain primary records associated with the Property and review the cultural resource inventories listed below. EDS also conducted in-person research (detailed below), which included the Napa County Assessor/Recorder Office. EDS also conducted extensive online research using the resources detailed in the section below and reviewed the title history of the Property provided by the client. The purpose of the record search and literature review was to understand the Property's history to assist in developing a historical context to evaluate the historical significance of the built environment resources within the Property. In addition, EDS Principal Architectural Historian Stacey De Shazo, M.A., completed a historic architectural survey of the Property to identify the age, architectural style, character-defining features, materials, and alterations to the built environment. Department of Parks and Recreation (DPR) 523 forms were completed and are attached to this report as Appendix A.

CULTURAL RESOURCE INVENTORIES

As part of the record search, the following inventories were reviewed:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- California Historical Landmarks (CHL)
- California Points of Historical Interest (CPHI)
- California Inventory of Historical Resources
- California Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD) for Napa County, California (2020)
- 1978 Napa County Historic Resources Inventory

- City of St. Helena Historic Resource Inventory

ONLINE RESEARCH

Online research was conducted using the following sources:

- www.newspapers.com
- www.ancestry.com
- www.calisphere.org (University of California)
- https://oac.cdlib.org/ Online Archives of California
- http://www.library.ca.gov/ (California State Library)
- https://cdnc.ucr.edu/ California Digital Newspaper Collection
- https://mil.library.ucsb.edu/ap_indexes/FrameFinder/ (U.C. Santa Barbara Library)
- http://pcad.lib.washington.edu (Pacific Coast Architecture Database)
- https://aiahistoricaldirectory.atlassian.net (American Architects Directory)
- https://napahistory.org (Napa Historical Society)

OUTREACH

- Napa County Recorder and Assessor's Office (in-person research)
    - On April 9, 2025, EDS conducted research at the Napa County Recorder and Assessor's office to obtain the ownership history of the Property.
    - On July 25, 2025, EDS called the Napa County Recorder and Assessor's office to confirm the status of the Mills Act on the Property.
- Napa County Landmarks
    - On May 16, 2025, EDS contacted Napa County Landmarks (NCL) regarding the history of the property. To date, no response from NCL has been received.

The literature review results are within the Historical Setting section of this report.

HISTORICAL SETTING

The following section provides a brief history of the area where the Property is located and a specific history of the Property to assist in understanding the development of the area and Property to provide a specific context within which built environment resources within the Property were evaluated for historical significance.

MEXICAN PERIOD (1821 – 1848)

In 1821, Mexico declared its independence from Spain and took possession of "Alta California,"[4] marking the end of the Spanish period (1769 – 1821) and the beginning of the Mexican period, also referred to as the "rancho" period in Alta California. Although California was now under Mexican rule, in 1824, the present-day City of Sonoma was where the last and most northerly of the 21 missions, the Mission San Francisco Solano (i.e., Mission Sonoma), was constructed, the only mission established under an independent Mexican government within the Mexican era. In 1833, the Mexican government secularized the missions in California, and mission-owned land was dissolved. During this time, extraordinary changes occurred throughout Alta California, as the Mexican government lacked the strong oversight and military rule previously imposed by the Spanish. As such, there were new trade opportunities. Foreign ships that Spanish-guarded military ports had previously held off could now dock and provide a variety of provisions to local settlers throughout California. These new provisions included tea, coffee, sugar, spices, and spirits, as well as a variety of manufactured goods. Soon, these new provisions made their way into the region, and the taxes on these imported goods became the primary source of revenue for the Mexican government in Alta California. Likewise, products produced in Alta California were exported, which bolstered the hide and tallow trade that became the primary business activity in Alta California. During this time, the Mexican colonial authorities encouraged the settlement of Alta California by providing large land grants called ranchos to politically prominent persons loyal to the Mexican government and permitting foreigners to settle the land. As a result, the 20 or so ranchos in Alta California issued during the Spanish period, increased to roughly 800 ranchos that varied from 10,000 to 20,000 acres during the Mexican era.

During this period, land ownership within present-day Napa Valley was dominated by the Vallejo family, headed by Mexican General Mariano Guadalupe Vallejo, who was responsible for securing the region for Mexican colonization and gave his family members, as well as loyal soldiers and friends, land in the Napa Valley. During this time, the Property was situated in the former *Rancho Carne Humana*, an 18,000-acre rancho granted to Dr. Edward Turner Bale by the Mexican government in 1841. Bale married General Mariano Vallejo's niece, Maria Ignacia Sobrantes, in 1839, giving him Mexican citizenship and making him eligible to receive land from the Mexican government. Bale and his family moved to the rancho in 1843 and built a grist mill to grind corn, wheat, and sawmill.[5]

[4] Alta California was a polity of New Spain founded in 1769 and became a territory of Mexico after the Mexican War of Independence in 1821.

[5] The Bale Grist Mill is a California State Historic Park and California Historical Landmark #359.

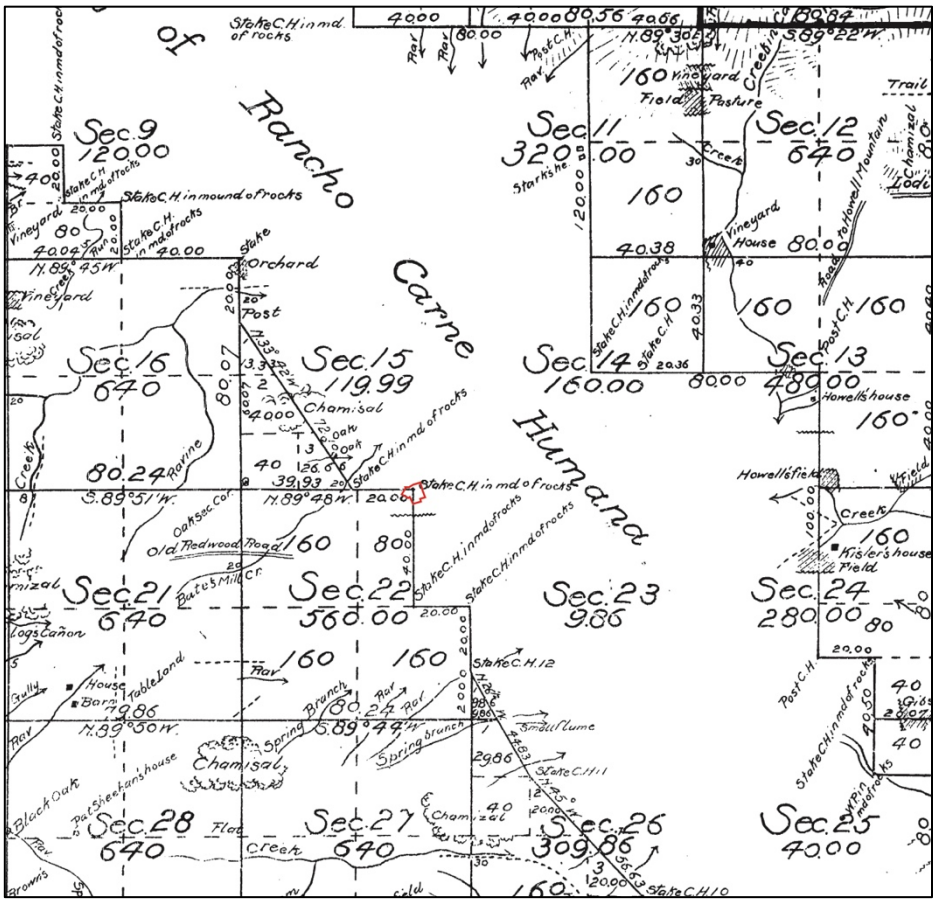

Figure 2. The drawing shows the southern half of Carne Humana Rancho with the approximate location of the property outlined in red.

EARLY AMERICAN PERIOD (1848 – 1850)

The beginning of the American period in California is marked by the end of the Mexican American War (1846-1848), when the U.S. took possession of the territories, including California, New Mexico, Texas, and Arizona, in the signing of the Treaty of Guadalupe Hidalgo. The Treaty provided Mexicans living in the captured territories with American citizenship and guaranteed title to the land they owned in Alta California during the Mexican period. However, on January 24, 1848, within weeks of the treaty signing, James W. Marshall discovered gold along the American River in California. News of the discovery brought between 150,000 and 200,000 people (known as "49ers") to California from all over the U.S., as well as other countries, including China, Germany, Chile, Mexico, Ireland, Turkey, and France. In 1850, California became a state, and Napa County was one of the original 27 counties created.[6,7] During this time, Napa County included present-day Lake County, which became a separate county in 1861.[8]

[6] Lynn Webber, *Old Napa Valley, The History to 1900*, St. Helena, Calif.: Wine Ventures Publishing, (1998); 138.

[7] Nancy Olmsted, *Vanished Waters, A History of San Francisco's Mission Bay,* San Francisco: Mission Creek Conservancy, 1986.

[8] Lynn Webber, *Old Napa Valley, The History to 1900,* Wine Ventures Publishing, St. Helena, 1998, 138.

HISTORY OF ST. HELENA (1850 – 1970S)

During the early 1850s, Euro-American settlers, some of whom were former gold miners or those seeking opportunities to farm the fertile soil of Napa Valley, and land speculators began arriving in Napa Valley, including the area of present-day St. Helena. In 1854, Henry Stills and Charles Walters, early settlers in St. Helena, purchased an approximately 126-acre portion of *Rancho Carne Humana* from Maria Soberanes de Bale.[9] The land encompassed the west side of present-day Main Street (previously a county road) and a part of State Route 29 (SR 29), extending northwest from Sulphur Creek to present-day Madrona Avenue.[10] [11] In 1854, Stills constructed a house (no longer extant) and the first commercial building (no longer extant) in St. Helena, situated south of Main Street near Oak Avenue. Stills then laid out a road from Main Street to his store, which sold general merchandise. To promote growth in the area and ensure the success of his business, Stills and partner Walter donated lots along what is now known as Main Street to anyone who would agree to open a business within the developing town of St. Helena.[12] In February 1855, Walters sold his share to Stills for $500, and Stills became the sole owner of what remained of the original 126-acre property.[13] During this time, the town's first hotel opened. By 1857, St. Helena had two general stores, a saddlery, a blacksmith shop, a shoe repair business, a wagon and carriage manufactory, and several general merchandise stores; however, many of these buildings were constructed of wood and are no longer extant. By March of 1857, Stills was in severe financial debt and was forced to sell his general merchandise store and house. By December 1857, Stills had sold all his property and moved away from St. Helena.[14]

In the late 1850s and early 1860s, new settlers began planting grapevines and making wine, including Charles Krug, who constructed the first commercial wine business in Napa Valley. In 1860, Krug married Carolina Bale. As part of Carolina's dowry, Krug received 540 acres of land just north of the town of St. Helena, approximately 0.5 miles northwest of the subject Property, wherein, in 1861, he established the Charles Krug Winery. During this time, cattle ranching, wheat farms, and viticulture were exceedingly profitable enterprises in Napa Valley, spurring further commercial development along Main Street and the vicinity of St. Helena.[15] [16]

Between 1864 and 1868, the Napa Valley Railroad (NVRR) was constructed through the Napa Valley, [17] and the workforce needed to build the railroad resulted in the first significant settlement of Chinese immigrants to the upper Napa Valley, including the town of St. Helena.[18] In 1868, the railroad construction crews reached

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[9] *Rancho Carne Humana* was a 17,962-acre Mexican land grant given in 1841 by Governor Juan Alvarado to Dr. Edward Turner Bale, who was the husband of Maria Soberanes de Bale.

[10] St. Helena Historical Society, *The Electrolier*, Vol. 12, May 2014, 4.

[11] St. Helena Historical Society and Mariam Hansen, *St. Helena*, Arcadia Publishing, 2010.

[12] City of St. Helena, "Our History", http://www.ci.st-helena.ca.us/content/our-history.; Marguerite Hunt and Harry Lawrence Gunn, *History of St. Helena*, Chicago: The S. J. Clarke Publishing Co., 1926, accessed February 21, 2021.

[13] St. Helena Historical Society, *The Electrolier*, Vol. 12, May 2014, 2.

[14] Ibid.

[15] Douglas E. Kyle, et. al., *Historic Spots in California*, Fifth Edition. Stanford University Press, 2002.

[16] Page & Turnbull, *City of St. Helena, Historic Resources Inventory*, prepared for the City of St. Helena, 2006.

[17] John Wichels, *Railroads in Napa County, Why They Came and Why They Failed*, Napa County Historical Society, Series 2, No. 3. Napa, California, 1979.

[18] Mariam Hansen, "St. Helena's Chinese Heritage", St. Helena Historical Society, 2011.

St. Helena, and the completion of the rail catalyzed growth and encouraged settlement within Napa Valley and the town of St. Helena. By 1870, the town of St. Helena consisted of 1,500 residents, including Chinese, German, and Italian immigrants who came to work in the growing agricultural and winemaking region.[19] In 1874, the *St. Helena Star* began publishing the town's first newspaper, and on March 24, 1876, St. Helena was incorporated.

The early 1880s saw a boom in the vineyard industry throughout Napa Valley, with grapes selling for $30 to $35 per ton, and many local wine cellars began selling their wine to merchants in San Francisco and other destinations (Figure 3). During this time, the land between the City of Napa and a point eighteen miles north of St. Helena was one continuous vineyard.[20] The 1886 Sanborn Fire Insurance maps for St. Helena show increased development of St. Helena, particularly along Main Street, and several "Bonded Warehouses" were constructed for wine storage and distribution. The warehouses, often built of native Tuff stone due to their resistance to fire,[21] had a storage capacity of 120,000 gallons, reflecting St. Helena's early history of wine production. By this time, Spring Street, north of Main Street, consisted of a cluster of saloons, rooming houses, and hotels, such as the ca. 1876 William Tell Hotel (NR# 82002217)[22] [23] owned by William Tell (Figure 4). By 1886, the town of St. Helena had a population of 1,800. During this time, the commercial district extended several blocks along Main Street and several adjacent streets where some residential development occurred.

By 1890, several early residential neighborhoods in St. Helena had developed, and small farms were predominantly planted with grapes and fruit trees.[24] During this time, St. Helena became an important commercial center for the developing countryside and a central shipping point for agricultural and extractive industries.[25] By 1890, Napa Valley was considered America's premier wine region, and the town of St. Helena was thriving; however, by the late 1890s, the root disease *phylloxera* nearly destroyed the wine industry in Napa Valley and the economic stability of St. Helena. Vineyards had to be removed, and agricultural land once covered in vines was replaced by prunes and walnuts, considered more stable crops.

During the late 19th and early 20th centuries, the Napa Valley, including St. Helena, experienced a significant rise in tourism, as the valley had become one of America's premier wine regions. The increase in tourism was also facilitated by the San Francisco, Vallejo & Napa Valley (SFV&NV) Railroad Company, which extended its line from Napa to St. Helena in 1908. The SFV&NV was an electric interurban railway that ran north from the Napa City limits along the graded portion of the county road and parallel to the Southern Pacific Railroad (former Napa Valley Railroad) tracks for most of the way to St. Helena. The electric interurban railroad offered fast, reliable, and comfortable travel through Napa Valley and connected St. Helena with Vallejo and points beyond. The coming of the electric railroad helped bolster the local economy and became an important

[19] Page & Turnbull, *City of St. Helena, Historic Resources Inventory*, prepared for the City of St. Helena, 2006.
[20] Ibid.
[21] Tuff is a porous rock formed by the consolidation of volcanic ash, dust, and other matter.
[22] Paul H. Drymalski, "William Tell Saloon and Hotel," National Register of Historic Places Nomination Form, February 6, 1980, 2.
[23] Napa Landmarks, 1978 Historic Resource Inventory, City of St. Helena.
[24] Page & Turnbull, *City of St. Helena, Historic Resources Inventory*, prepared for the City of St. Helena, 2006.
[25] Ibid.

fixture in the commercial and social life of St. Helena's residents, as many relied on its service for employment, recreation, and travel to and from job appointments and social events.[26] "The opening of the St. Helena extension was cause for celebrating, not only by the SFV&NV but also by the citizens of St. Helena, now connected with down-valley cities and San Francisco by modern transportation."[27] During this time, Spring Street, located approximately 0.2 miles north of the Property, had diversified from the original cluster of saloons, rooming houses, and hotels to a street that included several wineries clustered near Hudson Avenue and Spring Street, new single-family houses, and two churches, including Grace's Episcopal Church (extant) and First Presbyterian Church (extant), both occupying prominent locations on the street.[28]

In the early 1900s, the wine industry in Napa Valley was experiencing a slow recovery from phylloxera; however, Main Street in St. Helena remained a vibrant and busy business district (Figure 5). During this time, several houses on Main Street were converted to office or commercial use.[29] In 1919, the Volstead Act (aka Prohibition; 1920-1933) was passed, outlawing the production and consumption of alcohol. During this time, most wineries closed, and vineyards were again removed and replaced with various crops. Being at the center of the Napa Valley wine region, St. Helena was hit particularly hard by Prohibition, and construction was nearly halted on Main Street and in surrounding residential neighborhoods. Many farmers planted fruit trees and other crops to replace their vineyards during this time.

In addition to changes in the agricultural industry, automobile ownership throughout the U.S. had increased, eventually resulting in the Southern Pacific Railroad abandoning its Napa Valley passenger service in 1929 and the interurban railway service in 1937. In 1933, the Volstead Act was repealed; however, only a few wineries in the St. Helena area survived. Also, the U.S. was at the end of the Great Depression (1929-1933), and as such, economic recovery for the wine industry was slow. It was not until after World War II (WWII) that the wine industry truly began to rebuild.[30]

Wine production in Napa Valley increased during the early 1940s due to changes in the U.S. wine production and distribution structure.[31] In 1941, the U.S. entered WWII, and, like other citizens around the U.S., the residents of St. Helena contributed to the wartime effort. From 1941 to 1942, the St. Helena Militia trained members at American Legion Hall on Madrona and Oak Avenue. During this time, the citizens of St. Helena held scrap drives to recycle unused or unwanted metal that the government could use to build ships, airplanes, and other equipment needed to fight the war.

The 1950s and 1960s in St. Helena saw steady growth and prosperity; however, the town remained a relatively quiet rural community for farmers and local business owners (Figure 6). However, this all changed in 1976 when the Paris Tasting (known as the Judgement of Paris) gave international recognition to Napa Valley

[26] Ira L. Swett, and Harry C. Aitken, Jr., *The Napa Valley Route, Electric Trains and Steamers,* Published by Ira L. Swett, Glendale, California, 1975.
[27] Ibid.
[28] Napa Landmarks, 1978 Historic Resource Inventory, City of St. Helena.
[29] Judith Munns, "Historical Overview", City of St. Helena (Appendix A), 1978, A-2.
[30] Page & Turnbull, *City of St. Helena, Historic Resources Inventory*, prepared for the City of St. Helena, 2006.
[31] James T. Lapsley, *Bottled Poetry, Napa Winemaking from Prohibition to the Modern Era,* University of California Press, Berkeley, California, 1997.

vintners, wines, grape-growing methods, and wine production. Today, Napa Valley and St. Helena are at the center of the wine industry, with a flourishing wine tourism industry that provides a stable economy for grape farmers and winemakers.[32]

Figure 3. ca. 1880 photograph of vineyard workers in St. Helena (courtesy of Napa County Historical Society).

Figure 4. 1886 photograph of Spring Street, facing west, showing the ca. 1876 William Tell Saloon at the far right (courtesy of Marcella Rice Collection, St. Helena Historical Society).

[32] City of St. Helena, "Our History", http://www.ci.st-helena.ca.us/content/our-history, accessed February 22, 2022.

Figure 5. 1900 photograph of Main Street from the corner of Spring Street, facing north (courtesy of Napa County Historical Society).

Figure 6. 1965 photograph of Main Street in downtown St. Helena (courtesy of Napa County Historical Society).

PROPERTY HISTORY

Before the construction of the built environment, the Property resided on land belonging to Theodore B. Lyman, as shown on the 1881 King and Morgan Map (Figure 7). In 1883, Theodore Lyman deeded the Property, which was part of a 28-acre parcel, to August for $3,256. On the 1895 Buckman and Punnett Brother Map, the Property was a portion of 20-acre land owned by A. Hirsch/Hersch (Figure 8).

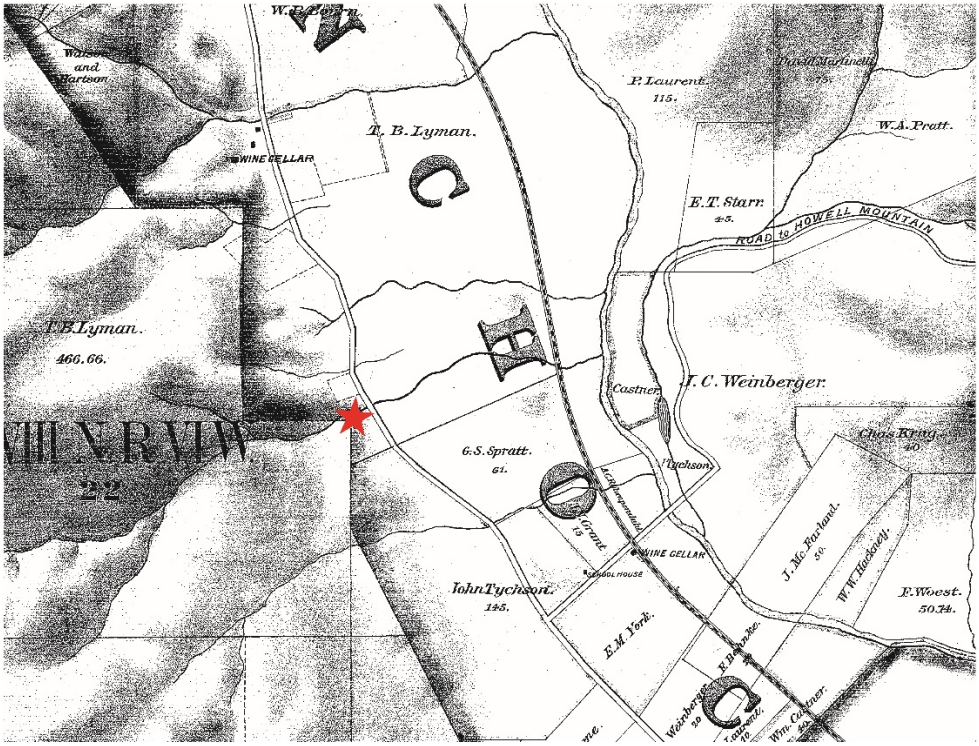

Figure 7. 1881 King and Morgan Map showing the Property (depicted as a red star) (courtesy of the Library of Congress).

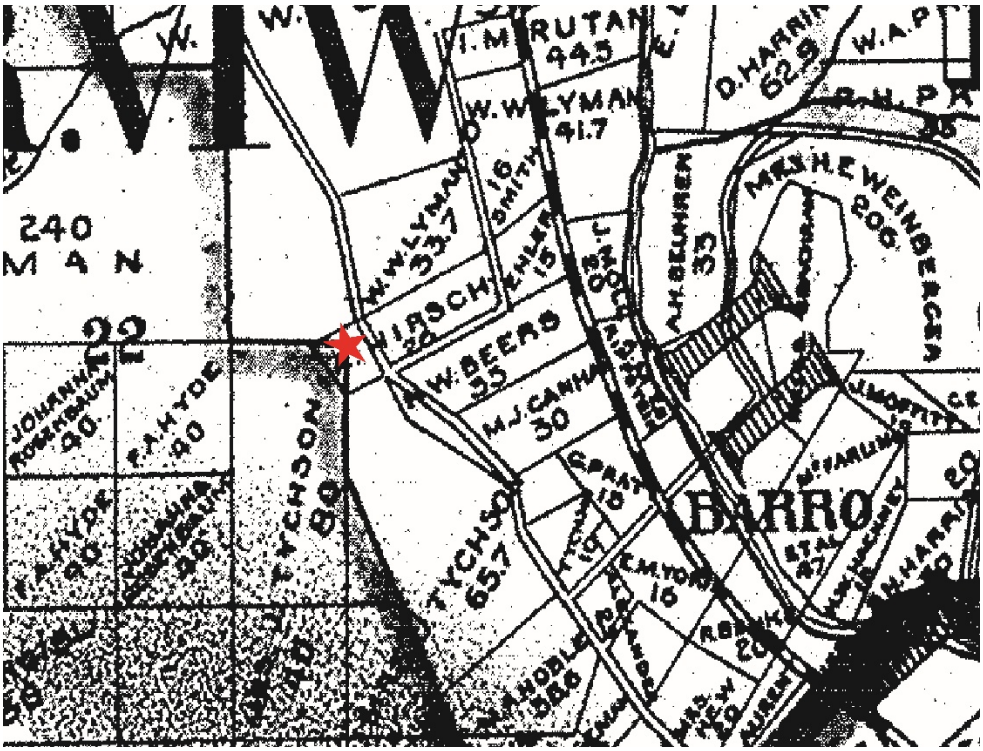

Figure 8. 1895 Buckman Map of Napa County showing the location of the Property (depicted as a red star) (courtesy of the Library of Congress).

Table 1. Ownership and Occupancy of 1883 Hirsch House (AXR Winery Building), three 1932 cottages, ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), rock wall (various ages),[33] and landscape (022-080-025)

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
1883-1895	Owners: August Hirsch and Frederika Hirsch	• The first owners of the Property, which at the time was part of a 28-acre parcel (Hirsch Ranch), were August and Frederika Hirsch. During their ownership, they built the 1883 house, which consisted of a side-facing gable form, and included an underground stone cellar, and occupied it as their house. At the time, the Property also contained a small fermenting room, a barn, a baggy shed, a 6,000-gallon tank, and three acres of vineyards. • August was born in 1834 in Germany, while Fredericka was born in 1846 in Germany. Prior to their immigration in 1882, Frederika and August married and had seven children, including William, Sophie, Gertie, Pauline, Edwards, Johanna, and Nellie. In 1882, August, Fredericka, and their children immigrated to the U.S. via New York, briefly residing in Philadelphia before purchasing the Property and settling in St. Helena a year later in 1883. • At the time of the purchase, the Property was part of a 28-acre parcel and was used as a vineyard and winery, selling as many as 8,000 gallons of wine in 1890. • In 1890, the sole ownership of the then 28-acre parcel, including the Property, was given to Frederika. However, August and Frederika remained on the parcel and continued operating a vineyard. • August died in 1894. In 1895, Frederika sold the Property, which remained as part of the 28-acre parcel, and moved to Alameda County, where she resided until she died in 1935.
1895-1899	Owners: Alton L. Williams and Kate Huidekoper Williams (née Cullum)	• The subsequent owners of the Property were Alton and Kate Williams. • Alton was born in 1834 in New York, while Kate was born in 1845 in Pennsylvania.[34] In 1868, Kate and Alton married in New York, and together they had four children: Daniel, Harry, Percy, and Adelaide. • In 1876, the family moved to Vallejo, where Alton worked as an accountant for the Southern Pacific Company. In 1882, they purchased a 30-acre parcel in Napa County called "Inglewood" and established a vineyard. At the same time, Alton also worked for the Carver National Bank and, in 1886, became president.[35] In 1895, Alton and Kate

[33] Previously documented as "Elhers Lane Rock Wall" (P-28-000955), which was named for the nearby Lane and not the historic Elhers Winery.

[34] Ancestry.com and The Church of Jesus Christ of Latter-day Saints, "Elton N. Williams," *1880 United States Federal Census California, Solano County, Vallejo, District 112.*

[35] Newspapers.com, "Here and There," *The Weekly Calistogian*, September 15, 1886.

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		purchased the Property, which was then part of the 30-acre parcel, for $9,550.[36] However, in 1899, they went bankrupt and were foreclosed on by the bank. • It appears that Alton and Kate separated after this, residing in different states, while remaining married. According to the 1900 U.S. Federal Census record, Kate lived in San Francisco with her two youngest children,[37] and Alton resided in Hawaii, where he worked as a real estate agent.[38] At some point, he moved back to the mainland and resided in Oakland, where he lived until he died in 1918.[39] [40] During his life, Alton worked at the Southern Pacific Company as a cashier, and then as president of The Carver National Bank, real estate agent, and railroad developer, and finally for the oil industry before retiring and moving in with his daughter and son-in-law.[41] • Per the 1910 U.S. Federal Census records, Kate was recorded twice, on April 22, 1910, while residing in Spokane, Washington, with her daughter, Adelaide, and son-in-law Elliot Shepherd. At this time, she is listed as a widow.[42] A little more than a week later, she died on April 30, 1910, living in Kern County, near Bakersfield, with her husband, Alton, and their son Percy, and his family, and was 65 years old.[43] In April 1910, Kate was 65; thus, it is likely that she was living in Kern County with her husband, but was spending her time between the two residences. As Alton died while living with Adelaide and Elliot, it suggests that both Alton and Kate resided with their daughter and son-in-law in Oakland, following their time in Kern County. Furthermore, Kate was recorded as living with Adelaide and Elliot in the 1920 census.[44] She remained in Oakland until she died in 1924.[45]

[36] Newspapers.com, Real Estate, *Napa Journal*, March 5, 1895.

[37] Ancestry.com, "Kate C Williams," *1900 United States Federal Census, California, San Francisco County, San Francisco, District 0230.*

[38] Ancestry.com, "Alton L. Williams," *1900 United States Federal Census, Hawaii Territory, Hawaii, Hilo, District 0063.*

[39] Newspapers.com, "Was Former Resident," *The St. Helena Star,* February 29, 1924.

[40] Ancestry.com, "Alton L Williams," *California, U.S., Death Index, 1905-1939.*

[41] Newspapers.com, "Former Resident Summoned: Alton L. Williams Passes Away in Oakland," *The St. Helena Star,* January 18, 1918.

[42] Ancestry.com, "Katherine Williams,"*1910 United States Federal Census, Washington, Spokane, Spokane Ward 1, District 0157.*

[43] Ancestry.com, "A L Williams," *1910 United States Federal Census, California, Kern County, Township 6, District 0030.*

[44] Ancestry.com, "Catherine H Williams," *1920 United States Federal Census, California, Alameda County, Oakland, District 0133.*

[45] Newspapers.com, "Alton L. Williams Passes Away," *Napa Journal*, January 19, 1918.

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
1899-1904	Owner: Bank of St. Helena (aka Bank of Helena Savings)	• From 1899 to 1904, the Property was owned by the Bank of St. Helena. During the Bank's ownership, the Property was subdivided from the 28-acre parcel into an 8-acre parcel. • Although EDS conducted extensive research, additional details about the bank's usage of the Property were not found.
1904-1909	Owners: George Savage and Doreta M. Savage née Long	• In 1904, George and Doreta Savage purchased the Property as a summer home, which they named "Lyndhurst," and completed a ca. 1905 addition on the 1883 house. At the time, the Property contained an orchard and vineyards.[46] • George was born in 1864 in France, while Doreta was born in 1880 in Benicia. In 1901, George and Doreta married when he was 37 years old, and she was 21 years old.[47] Together, they had one child, Georgiana. During George and Doreta's ownership, he operated the Leader Saloon and Restaurant in Vallejo, while the family primarily resided in Vallejo, and used the Property as a summer house.[48] George died in 1909. Afterward, Doreta and their daughter moved to San Francisco.[49] • By 1920, Doreta married Joseph Irwin Honn and moved to Berkeley[50]. Joseph and Doreta did not have any children together. Doreta died in 1960.[51]
1909-1916	Owners: Charles Calvin (C.C.) Boynton and Florence Elizabeth Boynton née Treadwell	• The subsequent owners of the Property were Charles and Florence Boynton, who purchased the Property. At this time, the Property consisted of approximately 7 acres and was known as Sugar Loaf Mountain.[52] Charles and Florence utilized the Property as a summer house, while their primary residence was in Berkeley.[53] • Charles was born in Rough and Ready, Nevada, on July 13, 1874, to pioneers John Calvin and Rose Marie Boynton.[54] Charles attended the

[46] Newspapers.com, "Savage Place Sold," *The St. Helena Star*, September 17, 1900.
[47] Newspapers.com, "Marriage Licenses," *The San Francisco Call and Post,* June 27, 1901.
[48] Newspapers.com, "Leader Saloon in Vallejo Closed," *Napa Journal,* December 15, 1908.
[49] Newspapers.com, "George Savage's Estate," *Napa Journal,* April 30, 1909.
[50] Ancestry.com, "Doreta S Honn," *1920 United States Federal Census, California, Alameda County, Berkeley, District 0183.*
[51] Ancestry.com. "Doreta M Honn," *California, U.S., Death Index, 1940-1997.*
[52] Newspaeprs.com, "Sugar Loaf" Changes Hands," *The St. Helena Star*, July 6, 1917.
[53] Newspapers.com, "Spending Summer Here," *The St. Helena Star*, June 5, 1908.
[54] Ancestry.com, "Charles Calvin Boynton," accessed July 9, 2025, https://www.ancestry.com/family-tree/person/tree/72488067/person/44259004571/facts?_phsrc=XaX3&_phstart=successSource

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		University of California and Hastings Law College,[55] after which he practiced law in Oakland and San Francisco.[56] • Florence Elizabeth Treadwell was born December 25, 1876, to John Bartlett Treadwell, a civil engineer, inventor, and miner, and May Suylgwynn Singer Wentworth, an illegitimate daughter of the Singer Sewing Machine inventor.[57] Florence was raised in Oakland, a neighbor and childhood friend of Isadora Duncan, whose modern dancing inspired much of Florence's adult philosophy.[58] Before meeting Charles, Florence had two broken engagements, one with Augustin Duncan, the brother of Isadora Duncan, and one with William Randolph Hearst, which was an engagement arranged by Phoebe Hearst.[59] • Charles and Florence were married on June 11, 1899.[60] During their sixty-one years of marriage, the couple had eight children, May Sulgwynn, Rhea Rey, John Treadwell, William Wentworth, Charles Caleb, Benjamin Fay, Judd Emery, and Miriam Christel.[61] • While Charles spent his days in the city, Florence was a social reformer who emphasized existing in nature, from birth, throughout childhood, into adulthood, inspired by her childhood friend and ancient Greek philosophies.[62] Florence worked with Bernard Maybeck to design the Temple of Wings, the Boynton residence in Berkeley, and not within the Property,[63] an open-air residence with large Corinthian columns, a rotunda roof, and the rungs for weatherproof curtains.[64] Maybeck departed from the project before it was completed, and the residence

[55] Newspapers.com, "C. C. Boynton Rites Will Be Private," *The San Francisco Examiner,* August 22, 1960.

[56] Newspapes.com, "Lawyer Plans Change in Judicial System: Charles C. Boynton of Oakland to Lay Scheme Before Legislature," *The Recorder,* January 6, 1919.

[57] Ancestry.com, "Florence Tredwell," *1880 United States Federal Census, California, Alameda County, Oakland, District 002.*

[58] Susan Cerny, "Dance Theories of Isadora Duncan were Taught in Berkeley for Years," *The Berkeley Daily Planet,* January 26, 2002.

[59] Archive.org, Suzanne B. Riess, interviewer, *Florence Treadwell, and Berkeley: Oral History Transcript and Related Raterial, 1973-1978,* (Bancroft Library, 1973) 92.

[60] Ancestry.com, "Charles Calvin Boynton," *Geneanet Community Trees Index.*

[61] Ancestry.com, "Charles C Boynton," *1920 United States Federal Census, California, Alameda County, Berkeley, District 0193.*

[62] Newspapers.com, "

[63] The name "Temple of Wings" was based on the architecture, however, it was also misnamed as Temple of the Winds

[64] BAHA, Daniella Thompson, "Maybeck Made La Loma Park His Own Country," *BAHA, East Bay Then and Now*, April 28, 2009, accessed July 14, 2025, http://berkeleyheritage.com/eastbay_then-now/maybeck_country.html

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		was completed by draftsman Arthur Randolph Monro (Figure 9).[65] Although the original house was razed in a 1923 fire, the reinforced concrete columns remained, and a new house was constructed around them using designs by Clarence Dekin and Edna Deakins in 1924; the 1923 house remained in the Boynton family until the 1990s, and is listed as Berkeley Landmark No. 173.[66] • Five of the Boyton children were born in the outdoor arbor of their Berkeley home, "Temple of Wings," as part of Florence's Open Air Motherhood movement.[67] Following her Open-Air-Motherhood movement, the Boynton children were raised outdoors, the family dressed in loose-fitting, Greek-inspired attire, except when Charles was working at the office, they practiced a vegetarian lifestyle, and they inspired many early twentieth-century mothers to incorporate naturalism in their child-rearing.[68] • As part of her movement, Florence also taught her children dance, following the style developed by Isadora Duncan, without the rigidity of formal ballet.[69] After her oldest daughter grew up, Florence and Sulgwynn opened their Temple of the Wings home as a dance school.[70] • Charles died at the family home, Temple of Wings, on August 20, 1960; his ashes were spread in Rough and Ready, Nevada, where he was born.[71] A few years after the death of her husband, Florence died on March 23, 1962; her ashes were also spread in Rough and Ready, Nevada.[72]
1916-1917	Owner: Helen C. Yates and Robert R. Yates	• The subsequent owners of the Property were Helen and Robert Yates. • Helen Marian Coman was born August 12, 1878, in Kansas.[73] By 1900, her family had moved to Portland, Oregon.[74] Robert Russell Yates was born January 20, 1878, in Oakland, California.[75]

[65] BAHA, Susan Cerny, "The Temple of Wings: 2800 Buena Vista Way, Berkeley, CA," *BAHA Berkeley Landmarks,* accessed July 14, 2025, http://berkeleyheritage.com/berkeley_landmarks/temple_of_wings.html

[66] Cerny.

[67] Newspapers.com, "Open Air Motherhood," *The San Francisco Examiner,* October 23, 1910.

[68] Ibid.

[69] Newspapers.com, "Back to Nature and the Greek," *The San Francisco Call and Post,* December 5, 1909.

[70] Newspapers.com, "By Florence Treadwell Boynton," *The San Francisco Examiner*, October 23, 1910.

[71] Newspapers.com, "C. C. Boynton Rites Will be Private," *The San Francisco Examiner,* August 22, 1960.

[72] Newspapers.com, "Inside Society: In Life, in Death, a Non-Conformist," *The San Francisco Examiner,* March 2, 1962.

[73] Ancestry.com, "Helen Coman Yates," *California, U.S., Death Index, 1940-1997.*

[74] Ancestry.com, "Helen M Coman," *1900 United States Federal Census, Oregon, Multnomah County, Portland Ward 10, District 0078.*

[75] Ancestry.com, "Robert Russell Yates," *U.S., World War II Draft Registration Cards, 1942, California, All, Minard, Rulo Elliott - Zingel, Theodore [Many Cards Out of Order, Mostly Deceased After Reg].*

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		• Helen and Robert were married on March 23, 1904, in Portland, Oregon.[76] Directly following the wedding, they moved to San Francisco, where they resided at "The Wellesley" house, no longer extant.[77] The couple had one son, Wilbur.[78] Robert worked at the First National Bank, starting as a teller ca. 1906,[79] but rose to the position of vice president by 1930.[80] • Robert died April 22, 1949, in Alameda County.[81] Helen died August 30, 1957.[82]
1917-1919	Owner: Emily Hinkley Baker Carrier Fenner and Captain Walter H. Fenner	• The subsequent owners of the Property were Emily and Walter Fenner. • Emily Hinkley Baker was born in Poughkeepsie, New York, on November 7, 1875, to Elbert and Julia Baker.[83] She married Charles Carrier, a well-known Santa Barbara attorney, on April 8, 1896, in Manhattan.[84] The couple had one child, Beatrice, before Charles died on January 29, 1916.[85] • Walter Fenner was born in 1867 in London and attended Sandhurst; he served in the King's Royal Rifle Corps during the Second Boer War as a Captain, operating as the commandant of the prisoners' camp at Port Elizabeth, after which, he moved to San Francisco.[86] Due to his experience with emergency sanitation in camps, he was stationed at the Presidio, where he was tasked with sanitation at the refugee camps following the 1906 earthquake.[87] • Emily moved to the Bay Area in the early 1900s to be near her daughter, who was attending college at UC Berkeley. Emily met and married Captain Walter Fenner on July 28, 1917; following the wedding, they moved to the Property, where Walter established a ranch.[88] Although Emily did not have an occupation, while married to Walter, she

[76] Newspapers.com, "Engagements," *The Oregon Daily Journal*, February 27, 1904.
[77] Newspapers.com, "Weddings," *The Oregon Daily Journal*, March 27, 1904.
[78] Ancestry.com, "Robert R Yates," *1930 United States Federal Census, California, Alameda County, Piedmont, District 0337.*
[79] Newspapes.com, "Puts Bullet Through Temple: Miss Florence M. Yates Ends Her Life with Revolver," *San Francisco Chronicle,* November 13, 1909.
[80] Ancestry.com, "Robert R Yates," *1930 United States Federal Census.*
[81] Ancestry.com, "Robert Russell Yates," *California, U.S., Death Index, 1940-1997.*
[82] Newspapers.com, "Funeral Notice: Yates," *The San Francisco Examiner,* September 1, 1957.
[83] Ancestry.com, "Emily Hinckley Baker," *North America, Family Histories, 1500-2000.*
[84] Ancestry.com, "Emily Baker," *New York, New York, U.S., Extracted Marriage Index, 1866-1937.*
[85] Ancestry.com, "Charles Frederick Carrier," *U.S., Find a Grave® Index, 1600s-Current.*
[86] Newspapers.com, "Heart Attack Fatal," *The St. Helena Star,* November 27, 1925.
[87] Ibid.
[88] Newspapers.com, "Will Make Home Here," *The St. Helena Star*, August 10, 1917.

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		participated in recitations and short plays,[89] and Walter worked as a playwright.[90] During their marriage, they lived in St. Helena, Oakland, and in the 1920s, moved to Santa Barbara.[91] • Walter died on October 13, 1925, in Santa Barbara.[92] Emily died in June 1955 in New York, where she lived with her daughter and son-in-law.[93]
1919-1920	Owner: Michael S. Boland and Mary E. Boland	• The subsequent owners of the Property were Michael and Mary Boland. • Mary Elizabeth was born September 8, 1861, in St. Helena to Eli and Rachel York, considered a pioneer family in Napa County.[94] Michael Sixon Boland was born on December 4, 1856, in Canada.[95] • Mary and Michael were married in St. Helena on December 11, 1891.[96] The couple had one child, Chester. Michael owned and operated a successful ranch in the Napa Valley, with extensive prune orchard and vineyard holdings, including the subject Property.[97] It is unclear if he lived within the Property. • Mary died April 8, 1937, in Napa.[98] Michael died April 25, 1941.[99]
1920-1924	Owners: Caroline "Carrie" Alexander and Francis Lincoln "F.L." Alexander	• In 1920, the Property was sold to Mary Boland's sister and brother-in-law, Carrie and F.L. Alexander. • Caroline Lincoln York was born March 7, 1865, to Eli and Rachel York in Calistoga.[100] Francis Lincoln Alexander was born September 20, 1860, in Iowa.[101] After moving to Healdsburg, he started a career as a merchant, before shifting into the banking business, where he worked at the Carver National Bank, where he worked for forty-five years, in various capacities, including the president and manager, who remained on the advisory board after the bank was acquired by the Bank of America in 1927.[102]

[89] Newspapers.com, "Clubwoman to Give Recital," *The Fresno Morning Republican,* January 8, 1920.
[90] Ancestry.com, "Emily Fenner," *1920 United States Federal Census, California, Alameda County, Berkeley, District 0192.*
[91] Newspapers.com, "Heart Attack Fatal."
[92] Ancestry.com, "Walter H Fenner," *U.S., Find a Grave® Index, 1600s-Current.*
[93] Newspapers.com, "Mrs. Fenner Services Held," *Santa Barbara News Press,* June 9, 1955.
[94] Ancestry.com, "Mary Elizabeth Boland," *U.S., Find a Grave® Index, 1600s-Current.*
[95] Ancestry.com, "Michael Sixon Boland," *California, U.S., Death Index, 1940-1997.*
[96] Newspapers.com, "St. Helena News," *Napa Journal,* December 13, 1891.
[97] Newspapers.com, "Michael Boland Passes Away," The St. Helena Star, May 2, 1941.
[98] Newspapers.com, "Deaths: Boland," *The Sacramento Bee,* April 12, 1937.
[99] Ancestry.com, "Michael Sixon Boland," *U.S., Find a Grave® Index, 1600s-Current.*
[100] Ancestry.com, "Caroline Lincoln Alexander," *U.S., Find a Grave® Index, 1600s-Current.*
[101] Ancestry.com, "Frank L Alexander," *Geneanet Community Trees Index.*
[102] Newspapers.com, "Final Rites Are Conducted for Banker in Napa," *The Sacramento Bee,* December 27, 1943.

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		• Carrie and F.L. were married on April 28, 1887, in St. Helena. Following the wedding, they moved into the Simmons house on Oak and Madrona in St. Helena.[103] During their marriage, the couple had four children, Grant, Lois, Doris, and Paul.[104] • Although the 1883 house was previously known as "Sugar Loaf," during the Alexanders' ownership, it was known as "Amistad" and it was their summer, or country, home, where they entertained, hosted friends, and enjoyed the beauty of the Property.[105] • Per the plaque dedicated on April 22, 2023, erected by Sam Brannan Chapter #1004 of E. Clampus Vitus, Carrie Alexander operated a brothel out of the cottages (likely referring to the 19th century cottages, no longer extant) in 1919. However, EDS could not confirm this information, noting the Alexanders did not own the Property until 1920. However, it should be noted that during their ownership, Prohibition was enacted as law in the U.S. in 1920. • During their ownership, F.L. was president of The First National Bank.[106] • Carrie died December 6, 1941,[107] and F.L. died on December 25, 1943.[108]
1924	Owners: Eugene Sawtelle and Emma Sawtelle	• The Alexanders sold the Property (exact acreage is unknown) to Eugene and Emma Sawtelle early in 1924. They lived on the Property until renovations and redecorating were completed at their townhouse.[109] • Eugene William Sawtelle was born December 13, 1846, in Whitefield, Maine.[110] Emma Susan McKenzie was born April 1, 1855, in Canada.[111] • After arriving in California, Eugene served as the undersheriff in Yuba County, was part of the survey crew that surveyed the Central Pacific railroad from San Francisco to Utah and was present during the driving of the golden spike.[112] The couple married in the late nineteenth century and had one child, Norman.[113]

[103] Newspapers.com, Marriage Notice, *Napa Weekly Journal,* May 5, 1887.
[104] Newspapers.com, "Final Rites Are Conducted for Banker in Napa."
[105] Newspapers.com, "Personal Mention," *The St Helena Star,* September 5, 1924.
[106] Newspapers.com, "Over Half Century of Banking," *The St. Helena Star*, September 26, 1924.
[107] Ancestry.com, "Caroline Lincoln Alexander," *U.S., Find a Grave® Index, 1600s-Current*
[108] Ancestry.com, "Francis Lincoln Alexander," *U.S., Find a Grave® Index, 1600s-Current.*
[109] Newspapers.com "Have Sold County Home," *The St. Helena Star,*
[110] Ancestry.com, "Eugene William Sawtelle," *Geneanet Community Trees Index.*
[111] Ancestry.com, "Emma Susan Sawtelle," *U.S., Find a Grave® Index, 1600s-Current.*
[112] Newspapers.com, "Eugene Sawtelle Dies in North," *Appeal-Democrat,* May 16, 1925.
[113] Ancestry.com, "Eugene Sawtelle," *1900 United States Federal Census, California, San Francisco County, San Francisco, District 0165.*

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		• Eugene died May 10, 1924, in Seattle, Washington.[114] Due to Eugene's death, Emma defaulted on making the payments on the Property, and it was briefly returned to the Alexanders' ownership. In September 1924, Emma Sawtelle then sold the Property to S. W. Crane.[115] • Emma died November 18, 1941.[116]
1924-1926	Owner: S.W. Crane	• The next owner of the Property was S.W. Crane. At this time, the Property was reduced to 7.78-acres. • No information regarding S. W. Crane was found.
1926-1928	Owner: Thomas Carney and Naomi Carney	• In June 1926, S. W. Crane sold the Property to Thomas and Naomi Carney.[117] • No information about Thomas or Naomi was found
1928-1932	Owners: H.D. Clark and Emma Clark	• The subsequent owners of the Property were H.D. and Emma Clark. • H.D. was a capitalist. During their ownership, H.D. and Emma had their primary residence in Oakland. No additional details about H.D. or Emma were found.[118]
1932-1956	Owners: Andrew Nemes and Rose Nemes (from 1932 to 1936)	• The subsequent owners of the Property were Andrew and Rose Nemes. • Andrew was born March 10, 1883, in Transylvania, Austria-Hungary, and immigrated to the United States in 1906 and was naturalized in 1915, per the 1920 census.[119] Prior to emigrating from Hungary, Andrew worked as an attorney and as a professor of law, which influenced his love for Hungary's history and his dislike for Communism, on which subjects he spent much of his free time writing and lecturing.[120] Rose was born in Hungary in 1881 and immigrated with Andrew after their marriage.[121] The couple had one daughter, Margaret.[122] Andrew received citizenship in July 1923.[123]

[114] Ancestry.com, "Eugene W Sawtelle," *Washington, U.S., Death Records, 1907-2017.*

[115] Newspapers.com, "Notice of Trustees' Sale of Real Estate," *The Saint Helena Star,* June 5, 1925.

[116] Ancestry.com, "Emma Susan Sawtelle," *U.S., Find a Grave® Index, 1600s-Current.*

[117] Newspapers.com, "Real Estate Transfers," *The St. Helena Star,* June 18, 1926.

[118] Newspapers.com, "New Enterprise in Prospect," *The St. Helena Star,* May 6, 1932.

[119] Ancestry.com, "Andrew Nemes," *1920 United States Federal Census, California, Humboldt County, Scotia, District 0067.*

[120] Newspapers.com, "Andrew Nemes, Long Time St. Helena Resident, Dies," *The St. Helena Star,* July 18, 1957.

[121] Ancestry.com, "Rosa Nemes," *California, U.S., Death Index, 1905-1939, 1930-1939, Surnames H-N.*

[122] Newspapers.com, "Scotia Girl To Sing Thursday," *The Times Standard,* July 24, 1933.

[123] Newspapers.com, "23 Applicants are Made into Citizens," *Ferndale Enterprise,* July 20, 1923.

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		• Before purchasing the Property, Andrew and Rose lived and worked in Scotia for the Pacific Lumber Company, working as the caretakers of the officers' homes for eighteen years.[124] • After the Nemes purchased the Property, they opened up the house and 19th-century cottages (no longer extant) as a resort, called "The Madrones."[125] They then constructed the three 1932 cottages (extant),[126] and utilized the 1883 Hirsch House as a lodge, complete with a kitchen, porch, and dining room that served fifty guests.[127] In 1952, the Property consisted of the 1883 house, two 19th-century cottages (no longer extant), three 1932 cottages, a fountain surrounded by a roundabout, an 1883 barn (no longer extant), rock walls, orchards, and vineyards (Figure 10). The resort focused on a relaxing environment and excellent food, particularly Hungarian food from Andrew's homeland, catering to bridge parties, local clubs, and transients, rather than a place of gambling or drinking, which was a new business model for the area.[128] • Rose died in August 1936, two years after the couple moved to the Property full-time.[129] In 1938, Andrew married Lenke Sebessy.[130] • Andrew died July 16, 1957, in Napa, after operating the Madrones for nearly twenty-five years.[131]
1956-1973	Owners: Edward Cuny and Harriet Cuny	• In 1956, Andrew sold the Property to Edward and Harriet Cuny. The APN of the Property was updated to 022-080-012. • Edward Rudolph Cuny was born August 23, 1896, in San Antonio, Texas; he joined the military and served in 1919, after which he moved to California.[132] Harriet Jane Switzer was born September 15, 1898, in San Francisco.[133] • Harriet and Edward married on January 9, 1921, and had two children, Donald and Florian.[134] The couple lived in Berkeley, where Edward worked for forty years as an electrician for Rochester Electrical

[124] Newspapers.com, "Under New Management."
[125] Ibid.
[126] Newspapers.com, "New Rest Resort Opened," *The St. Helena Star,* July 15, 1932.
[127] Newpapers.com, "'The Madrones,' Resort Near St. Helena," *The St. Helena Star*, May 11, 1934.
[128] Newspapers.com, "Under New Management," *The St. Helena Star,* July 13, 1934.
[129] Newspapers.com, "Dies After Lingering Illness," *The St. Helena Star,* August 7, 1936.
[130] Newspapers.com, "Former Scotians Reveal Weddings," *The Times Standard,* April 7, 1938.
[131] Ibid.
[132] Ancestry.com, "Edward Cuny," *U.S., Social Security Death Index, 1935-2014.*
[133] Ancestry.com, "Harriet Jane Cuny," *California, U.S., Death Index, 1940-1997.*
[134] Ancestry.com, "Edward R Cuny," *1930 United States Federal Census, California, Alameda County, Berkeley, District 0306.*

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		Company.[135] Harriet worked for nineteen years at Wells Fargo in Berkeley.[136] • Per *The Weekly Calistogian,* the Cunys closed The Madrones and intended to turn the lodge house into a rental house, and merge two of the cottages into a single house for their weekend home, with a plan to construct their house further back from the road.[137] By 1959, the Property was returned to a private residence, and the fountain was removed (Figure 11) and by 1965, additional changes occurred within the Property (Figure 12). • Edward died on March 23, 1971.[138] After Edward died, Harriet remained at the Property for several years before selling it to Billy and Patricia Manley and moving to Yountville. Harriet died on August 26, 1985.[139]
1973-1977	Owners: Billy Manley and Patricia Manley	• The subsequent owners of the Property were Billy and Patricia Manley. • Billy Manley was born February 17, 1933.[140] Although Billy was born in Arkansas, his family moved to Calistoga when Billy was young. While living in Calistoga, Billy worked as a ranch hand.[141] Billy and Patricia were married in the 1950s and had at least two children, David and Mary Anne.[142] Billy and Patricia divorced in December 1975.[143] • From 1966 until 2001, Billy operated the Manley Construction company.[144] Billy married Sally Pincus on January 7, 1984, in Reno, Nevada.[145]
1977-2001	Owners: Billy Manley and Sally A. Pincus Manley	• Following Billy and Patricia's divorce, Patricia was removed from the Property deed, and Sally and Billy were the owners.

[135] Newspapers.com, "Edward Rudolph Cuny," *The St, Helena Star,* March 25, 1971.
[136] Newspapers.com, "Harriet Cuny," *The Napa Valley Register,* August 30, 1985.
[137] Newspapers.com, "County Resorts Changing Hands," *The Weekly Calistogian,* August 16, 1956.
[138] Newspapers.com, "Edward Rudolph Cuny."
[139] Newspapers.com, "Harriet Cuny."
[140] Ancestry.com, "Billy Manley," *U.S., Public Records Index, 1950-1993, Volume 2.*
[141] Ancestry.com, "Billy R Manley," *1950 United States Federal Census, California, Napa County, Calistoga, District 28-2.*
[142] Newspapers.com, Astrid Edington "Over the Gate, The Very Young Set: Mary Anne Manley," *The Napa Valley Register,* May 28, 1955.
[143] Ancestry.com, "Billy R Manley," *California, U.S., Divorce Index, 1966-1984.*
[144] Newspapers.com, Letter and Notice of Retirement, *The Weekly Calistogian,* May 17, 2001.
[145] Ancestry.com, "Billy R Manley," *Nevada, U.S., Marriage Index, 1956-2005.*

1883 Hirsch House (AXR Winery Building), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards.		
Years	**Owners**	**Details**
		• Sally Brown was born in Wyoming in 1943, but her family moved to Calistoga by 1950.[146] Sally was first married to Donald Pincus, but they divorced in 1980.[147] • In 1986, the Pacific Telephone & Telegraph received an easement on the right of way. • In 1989, the Property consisted of APN 022-080-022 as 8.23 acres. However, in 1999, the property was subdivided into its current 7.85-acres within APN 022-080-025.
2001-2017	Owners: Pauline Tilley Cullen and Christopher W. Tilley	• The subsequent owners of the Property were Pauline and Christopher (Chris) Tilley. • Chris and Pauline Tilley founded V Madrone Cellars in St. Helena, California, at the site of a prohibition winery (also known as a "ghost" winery) whose foundation was originally laid in 1887 and then shuttered before the onset of Prohibition in 1920. Though continuing a long-term restoration of the buildings on the V Madrone campus, the Tilleys opened a tasting room after the completion of the first phase in December 2008. • In 2007, the Property was designated as a Napa County Historic Landmark under P07-00656, which designated it for association with August Hirsch, and was approved on October 17, 2007. As part of the conditions of approval, the Historic Landmark designation must be recorded for future residents, and the documents were to be submitted to the Office of Historic Preservation to update the California Historic Register – it does not appear that either of these conditions was met. • In ca. 2009, Pauline and Christopher demolished the two 19th-century cottages (located on the east side of the Property), although they were designated as part of the Historic Landmark listing. • In 2013, Pauline and Christopher applied for and received the Mills Act tax credit application for the rehabilitation of the 1883 house and the Property that was determined a resource for the Historic Landmark. Per EDS's conversation with the Napa County Assessor on July 25, 2025, the Mills Act is still in effect.
2017-Current	Owner: Silverado Trail Wine Partners IV LLC	• The current owners of the Property are the Silverado Trail Wine Partners IV, LLC. • As Silverado Trail Wine Partners IV, LLC is the current owner, no research was completed on the company or its owners.

[146] Ancestry.com, "Sally A Brown," *1950 United States Federal Census, District 28-1.*

[147] Ancestry.com, "Sally A Pincus," *California, U.S., Divorce Index, 1966-1984.*

Figure 9. Florence Treadwell Boynton and three of her eight children within the "walls" of the original Temple of Wings, designed by Bernard Maybeck, and finished by Arthur Randolph Monro, photograph, ca. 1915. (courtesy of Shipounoff Collection, BAHA Archives http://berkeleyplaques.org/plaque/temple-of-wings/).

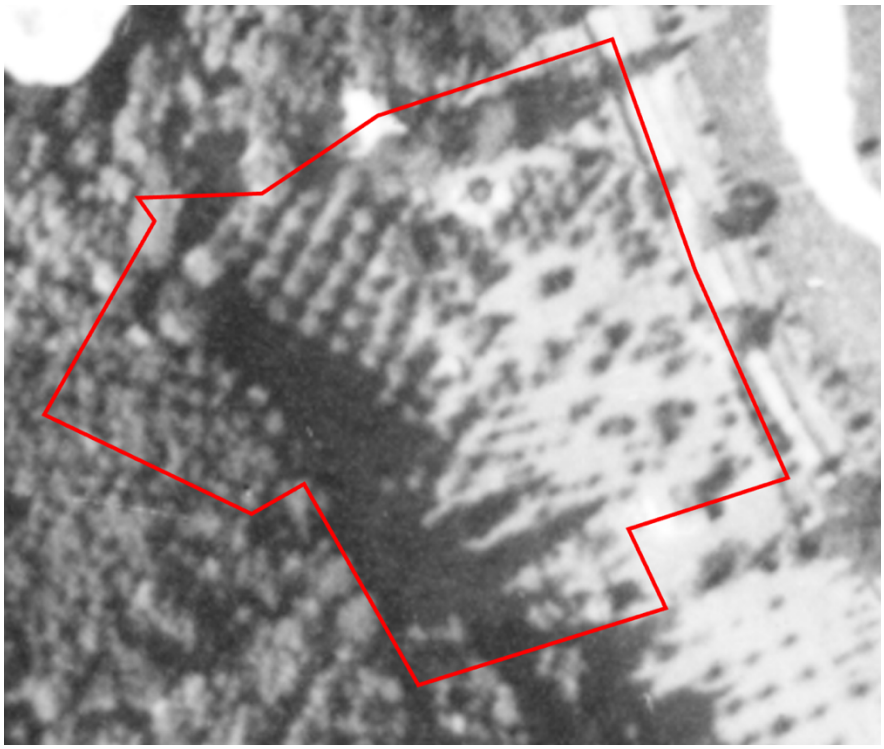

Figure 10. 1952 aerial showing the 1883 house, 1932 cottages, and fountain within a roundabout (no longer extant) and the orchard (courtesy of UC Santa Barbara).

Figure 11. 1959 aerial showing the 1883 house, 1932 cottages, and the orchard, after the resort shifted back to a private home (courtesy of UC Santa Barbara).

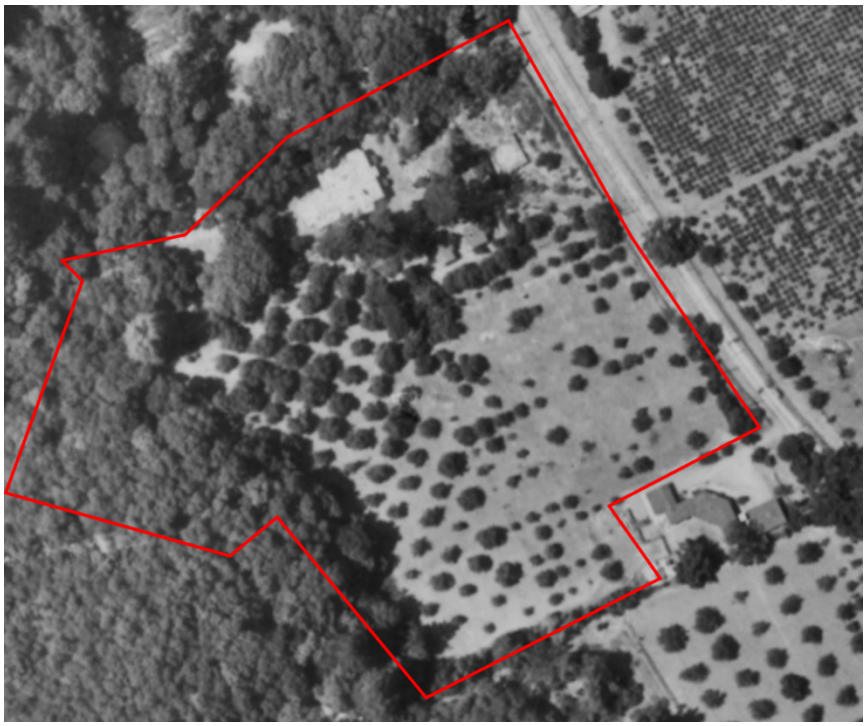

Figure 12. 1965 aerial showing the 1883 house, 1932 cottages, an unknown, no longer extant, building, and what appears to be the remnants of a prune orchard (courtesy of UC Santa Barbara).

NAPA COUNTY ROCK WALLS

Stone masonry in Napa County became more prominent from the late 19th Century to the turn of the 20th Century.[148] [149] Native stones used in masonry construction in Napa County generally comprised limestone, sandstone, tuff, rhyolite, and basalt, and came from quarries in the surrounding hills and/or from fields and stream beds.[150] [151] [152] A history of Napa County published in 1878 noted the stones as, "Light yellow in color, coarse in texture, not susceptible to polish; so soft that when first quarried it can be shaped with an axe, yet hard enough to preserve its shape, growing harder with exposure to air and not liable to injury by heat."[153]

Early stone constructions were architecturally similar to those from Germany, France, and Switzerland, as the

[148] St. Helena's Chinese Heritage," St. Helena Historical Society, https://shstory.org/st-helenaa-chinese-heritage/,, accessed 05/16/2025.

[149] John Edmund, McCormick, The Forgotten Contributions of Napa Valley Chinese immigrants, 1870-1900. Master's Thesis, Harvard University, 2022.

[150] Robert Fredericks, "Nineteenth Century Stonework in California's Napa Valley," *The California Geographer 35*; pages 32 to 41.

[151] Al Edmister, Stone Structures in Napa County, California, Stone Quarries and Beyond, https://quarriesandbeyond.org/states/ca/structures/ca-%20napa_stone_structs_in_napa_co.html

[152] Kim J. Tremaine and John A. Lopez, Rock Fences of Napa County: A Pilot Study, Termain & Associated, Archaeological Consultants, August 1998.

[153] Smith and Elliott, "Illustrations of Napa County, California with Historical Sketch," Oakland, 1878, page 3.

ideas and skills were brought in by the early German, French, and Swiss immigrants to the country.[154] However, it was the Chinese immigrants who were hired to build these stone walls, often serving as property boundaries on well-travelled roads, among other stone constructions, including bridges and buildings in Napa County. The Chinese immigrants arrived in Napa County as cheap labor in the 1860s for the Napa Valley Railroad.[155] According to McCormick, the Chinese population jumped from 17 in 1860 to 263 in 1870 before doubling in 1880 to 907.[156] However, anti-Chinese sentiment and the passing of the 1882 Exclusion Act forced many Chinese to leave the country, and starting in 1880, the Chinese population would drop to 875 in 1890 and 541 by 1900.

Aside from the railroad, Chinese men also worked in other areas, including but not limited to the quicksilver mines, hop fields, as domestic servants, clerks, operated their stores and businesses, and in construction, including building and grading roads. The St. Helena Highway (Highway 128) was graded by 125 Chinese in 1886. In Napa County, they also worked in other areas, including vineyards to pick grapes, and built fences, rock walls, cellars, and wineries using quarried stone blocks or rocks.[157]

According to Tremaine and Lopez, in the mid-1860s, in exchange for rights-of-way land, the county would pay landowners to rebuild or move current property boundaries. It is possible that, to cut costs, local field stone was used as it was both cheaper and more durable than rod and wires.[158] Several varieties of stone walls were constructed within the county, including simple dry-laid stone with stacked cobbles of similar size, complex dry-laid fence with stacked cobbles of different size and placement, or mortared fence with both quarried stone and field stones, which were often installed in rectangular cross sections.[159] Stone buildings in Napa County fall within two building techniques. One type is characterized by rectangular-shaped, rough-cut, quarry stone with flush or tooled mortar joints, and was mainly used for homes, wineries, and public buildings. The second type is irregularly shaped with coarse, rough-cut and uncut quarry stones or various shapes with both mortar joints and cement facing, and were mainly on warehouses, farm buildings, and other commercial and industrial buildings. Most stone building construction was in downtown Napa.[160] Napa County also used stone to build bridges, such as the Pope Street Bridge (1894). The county has 23 stone bridges, and most are constructed of quarried volcanic rock and or sandstone.[161]

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[154] Fredericks, 32 to 41.

[155] "St. Helena's Chinese Heritage," St. Helena Historical Society, https://shstory.org/st-helenaa-chinese-heritage/, accessed 05/16/2025.

[156] John Edmund, McCormick, The Forgotten Contributions of Napa Valley Chinese immigrants, 1870-1900. Master's Thesis, Harvard University, 2022.

[157] "St. Helena's Chinese Heritage," St. Helena Historical Society, https://shstory.org/st-helenaa-chinese-heritage/, accessed 05/16/2025.

[158] Kim J. Tremaine and John A. Lopez, "Rock Fences of Napa County: A Pilot Study, Termain & Associated," Archaeological Consultants, August 1998.

[159] Ibid.

[160] Stacie Ham, Survey and Evaluation of Masonry Arch Bridges, Caltrans, 2003, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/masonry-arch-bridges-2003-a11y.pdf

[161] Stacie Ham, Survey and Evaluation of Masonry Arch Bridges, Caltrans, 2003, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/masonry-arch-bridges-2003-a11y.pdf

By the end of World War I, stone masonry was mostly retired as the second generation of Napa citizens were no longer interested in "the old way", and were more interested in newer, faster, and cheaper methods of construction. Additionally, the decrease in the Chinese population and workforce, as a cheap form of labor, made it more expensive to supply and use stones. and their descendants left Napa County, moving to the cities, and although Italian immigrants replaced them. [162] [163] [164]

ARCHITECTURAL STYLE

The following section briefly explains the architectural style most closely associated with the 1883 house, which is associated with National and Folk Victorian architecture.

NATIONAL ARCHITECTURAL STYLE (1850 – 1890)

The "National" architectural style is often interchanged or combined with the Vernacular style and labeled Vernacular National but is considered part of the Folk architectural style. In California, the National architectural style is associated with the expansion of the West. Buildings are often constructed of single-walled, plank-walled, or box-house construction. These modest structures, of which some were meant to provide temporary shelter, typically consisted of a floor structure constructed on a rubble stone or wood foundation; however, equally common was no foundation. They are built in a box-like form with wall panels constructed on the ground and then stood up to form rooms. The panels were attached to one another, leaving no room for corner posts or vertical structural members. Often, door and window openings were cut out after the wall was constructed. The roof and floor structures provided rigidity to the box. Other variations in form include gable front, gable front and wing addition, and the hall-and-parlor family house with an addition at the rear of the house.

FOLK VICTORIAN ARCHITECTURE (CA. 1870 - CA. 1910)

Folk Victorian is considered a type of Victorian-era architecture, as it represents the presence of Victorian-era elements and detailing on a simple, folk house form. This type of applied detailing was far less elaborate than the other Victorian-era styles of the period. Still, it evoked some shared features with Queen Anne, Italianate, and sometimes the Gothic Revival styles. Most often, these Victorian-era architectural elements took the form of porches with turned spindles or lacy vergeboard along roof ridges or within gable ends. Still, many examples of Folk Victorian architecture exhibit these elements with a much simpler character and reflect subtler adornment. While applied Victorian-era features differ by date of construction, property owner means, and vernacular influences, the common thread for Folk Victorian architecture is the simple, National Folk building form that focused on simple spaces within simple, square, or rectangular forms.

[162] https://napahistory.org/programs/local-history/napa-county-history/

[163] Robert Fredericks, Nineteenth Century Stonework in California's Napa Valley, The California Geographer 35; pages 32 to 41.

[164] Stacie Ham, Survey and Evaluation of Masonry Arch Bridges, CalTrans, 2003, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/masonry-arch-bridges-2003-a11y.pdf

HISTORIC ARCHITECTURAL SURVEY

On April 5, 2025, EDS Principal Architectural Historian Stacey De Shazo, M.A., completed a historic architectural survey of the Property, including the 1883 house (aka Hirsch House), three 1932 cottages, a ca. 1995 barn, two pump houses (modern), five above-ground water tanks (2000s), a rock wall (various ages), and landscape.

1883 HOUSE

The 1883 house is associated with National and Folk Victorian architecture (Figure 13) and consists of at least four phases of construction (Figure 14). The first phase consists of the ca. 1883 one-and-a-half-story side-facing gable form, which is associated with National architecture. The second phase of construction consists of a one-story, hipped roof Folk Victorian addition, constructed on the east elevation of the ca. 1883 house in ca. 1905. In 1932, the porch addition was built on the east elevation of the ca. 1905 addition; the original, 1883 form was expanded with a broken gable. In the 1950s, a shed addition was constructed on the south elevation, and a gable monitor was added to the roof. The building has a raised foundation with a basement that is accessible from outside the house. The walls are clad with tongue-in-groove wood siding, while the moderately sloped roof is clad with asphalt composite shingles. The 1883 section of the house has a side-facing, broken gable with moderate boxed eave overhangs and an incorporated porch. The roof of the ca. 1905 addition has a hipped roof with wide boxed eave overhangs with decorative brackets and wood paneling between each bracket. Within the field of the roof is a brick chimney. The ca. 1905 addition has an exposed, raised brick foundation. The 1932 additions consist of a hipped roof with clipped corners, small, boxed eave overhangs, and a wraparound hipped addition around the 1883 section. In the 1950s, a hipped roof addition was constructed on the south elevation, and a front-facing gable monitor was added to the roof. Due to the various phases of construction, there are several window types seen on the building, including one-over-one, double-hung wood windows, tall and slender two-over-two, double-hung wood windows, ribbons of three eight-over-two, fixed wood windows, and fixed transom windows.

Figure 13. East elevation of the house, facing west.

Figure 14. 1883 house with four phases on construction, with the 1883 section in yellow, ca. 1905 addition in red, 1932 additions in blue, and 1950s additions in green.

East Elevation (Primary Façade)

The east elevation (Primary Façade) consists of the 1932 and 1950s additions (Figure 15). The 1932 addition consists of a porch, a pair of exterior stairs that extend from a central landing, and glazing. There is a central double wood door with multi-light glazing with a six-light fixed wood transom. Above the door is a low-sloped, front-facing gable portico roof that is supported by two wood columns that are located at the landing of the stairs. The stairs have wood balusters that match those of the landing. The door is centered between six ribbons of three, eight-over-two fixed wood windows, with six-light fixed wood transoms (Figure 16). At the northeast corner of the house, the wall is canted, and there is a single eight-over-two fixed wood window with a two-light fixed wood transom. On the east wall of the 1950s hipped addition is a single eight-over-two fixed wood window with a two-light fixed wood transom and a single wood door at the basement level.

Figure 15. East elevation, facing west.

Figure 16. East elevation, facing west.

South Elevation

The south elevation consists of sections of the 1883 house, ca. 1905 addition, 1932 addition, and 1950s hipped addition (Figure 17). The 1932 addition has five eight-over-two, fixed wood windows, each of which has two-light fixed wood windows. Below these windows is a wood-paneled door at the basement level and an infilled window with a window air-conditioning unit. The 1950s hipped addition has two large one-over-one, double-hung wood windows (Figure 18). On the ca. 1905 addition, there are two slender two-over-two, double-hung wood windows (Figure 19). The 1883 section of the house consists of a ribbon of four, one-over-one, double-hung wood windows and a pair of wood doors with multi-light glazing (Figure 20). A partial facade deck extends from the door on the 1883 section of the house to the west wall of the 1950s hipped addition. There is also a single wood paneled door on the south wall of the 1932 addition that wraps around the original 1883 section of the house.

Figure 17. South elevation, facing northwest.

Figure 18. South elevation, facing northwest.

Figure 19. South and west elevations, facing northeast.

Figure 20. South elevation, facing northeast.

West Elevation

The west elevation consists of the 1883 house, sections of the ca. 1905 addition, a 1932 addition, and the west wall of the 1950s addition (Figure 21). Within the 1950s addition is a single wood paneled door. The 1883 house has a single wood door with multi-light glazing, which is located beneath a partial façade porch that extends from the 1932 addition and is supported by two wood columns. Within the gable of the 1883 section of the house, there is a wood vent. There is no fenestration on the 1932 addition (Figure 22). Within the ca. 1905 addition, there are two slender two-over-two, double-hung wood windows (Figure 23).

Figure 21. West and south elevations of the 1883 house, with ca. 1905, 1932, and 1950s additions, facing northeast.

Figure 22. West and north elevations of the 1883 house, with ca. 1905 and 1932 additions, facing southeast.

Figure 23. West and north elevations of the 1883 house, with ca. 1905 and 1932 additions, facing southeast.

North Elevation

The north elevation consists of the two sections of the 1932 additions and the ca. 1905 addition. The 1932 hipped addition that wraps around the side-facing gable form of the 1883 section of the house has five nine-over-two fixed wood windows and board and batten wood siding (Figure 24). The ca. 1905 addition has a slender two-over-two, double-hung wood window and a double door that provides access to the cellar (Figure 25). Within the 1932 addition, there are five eight-over-two fixed wood windows, each of which has a two-light wood transom, three slender two-over-two, double-hung wood windows, which were likely repurposed from the east elevation of the ca. 1905 addition during the 1932 renovation. Between the fixed windows and the double-hung windows, there is a high-placed six-light wood window. At the basement level, there is a double door.

Figure 24. North elevation of the 1883 house, with the 1932 hipped addition, facing south.

Figure 25. North elevation, with ca. 1905 and 1932 additions, facing southwest.

1932 COTTAGE

The 1932 cottage is not associated with an architectural style (Figure 26). The one-story house consists of a side-facing gable form with telescoping side-facing gables and a front-facing cross-gable. The building has a raised foundation and is clad with wood tongue-in-groove siding, while the moderately sloped roof is clad

with composite shingles. The south elevation is the primary façade and consists of an off-centered multi-light door, set within a shed roof porch that is supported by three wood columns and wood balusters. Within the eaves, there are four, six-over-one, double-hung wood windows. The west elevation consists of a one-over-one, double-hung wood window within the smaller gable, and a six-over-one, double-hung wood window within the wall of the larger gable (Figure 27). The north elevation consists of four windows and a door, the details of which were not visible during the survey. The east elevation has a one-over-one, double-hung wood window within the wall of the smaller gable, and two six-over-one, double-hung wood windows, one within the wall of the larger gable and the eave wall of the front-facing gable (Figure 28 and Figure 29).

Figure 26. South elevation, facing north.

Figure 27. West elevation, facing east.

Figure 28. East and north elevations, facing southwest.

Figure 29. South and east elevations, facing northwest.

1932 COTTAGE

The 1932 cottage is not associated with an architectural style (Figure 30). The one-story building has a gable-and-wing form on a raised foundation. The building is clad with board and batten wood siding, while the moderately sloped roof is clad with composite asphalt shingles. The building has two porches, one that is incorporated within the eave of the side-facing wing, and the other beneath the shed addition on the west elevation. The north elevation is the primary façade and consists of a single multi-light wood door, with two fixed windows and a one-over-one, double-hung wood window within the eave of the wing. Within the gable is a one-over-one, double-hung wood window and a single wood paneled door with single light glazing and a small front-facing gable portico roof that is supported by wood brackets, within the peak is a wood vent. The east elevation consists of two one-over-one, double-hung wood windows and a ribbon of six nine-over-two fixed wood windows (Figure 31 and Figure 32). The south elevation was not visible during the survey. The west elevation has a pair of one-over-one, double-hung wood windows, a high-placed wood casement window, a wood vent within the gable, and a sliding glass door within the eave (Figure 33).

Figure 30. North elevation, facing south.

Figure 31. East elevation, facing west.

Figure 32. East elevation, facing west.

Figure 33. West elevation, facing east.

1932 COTTAGE

The 1932 house is not associated with an architectural style (Figure 34). The one-story house consists of a gable and wing form. The building has a raised foundation and is clad with vertical wood siding, while the moderately sloped roof is clad with asphalt composite shingles. The north elevation is the primary façade and

consists of a partial façade porch that is supported by three wood columns with a wood railing. Within the porch is a single wood door with multi-light glazing and a ribbon of six-light wood windows. Within the front-facing gable is a single wood door with multi-light glazing, with a front-facing gable roof supported by brackets (Figure 35). The west elevation consists of a ribbon of windows with a sliding vinyl window and two fixed vinyl windows (Figure 36). The south elevation consists of a single window, a one-over-one, double-hung vinyl window, a single wood door with multi-light glazing that opens onto a wood deck, and a large sliding window (Figure 37 and Figure 38). The east elevation does not have any fenestration on the gable elevation, while within the eave wall of the front-facing gable is a sliding vinyl window.

Figure 34. North elevation, facing south.

Figure 35. North and west elevations, facing southeast.

Figure 36. West elevation, facing east.

Figure 37. South elevation, facing north.

Figure 38. South and east elevations, facing northwest.

CA. 1995 BARN

The ca. 1995 barn is not associated with an architectural style (Figure 39). The one-and-a-half-story building consists of a side-facing gable form with a front-facing cross-gable with exposed truss beams and supported by wood brackets. Within the peak of the roof is a front-facing gable monitor that has vents on each elevation.

On the west elevation of the barn is a shed roof. The barn has a concrete slab-on-grade foundation. The building is clad with wood board and batten siding, while the roof is clad with composite shingles. The east elevation is the primary façade and consists of a wood double door, centered below the front-facing gable. The door is set between four high-placed, four-light windows. The north elevation does not have any fenestration or character-defining features (Figure 40). The west elevation was not visible during their survey, but it has a shed roof constructed on the façade. The south elevation does not have any fenestration or character-defining features (Figure 41).

Figure 39. East elevation of the ca. 1995 barn, facing west.

Figure 40. East elevation and north elevations, facing southwest.

Figure 41. South and west elevations, facing northeast.

ASSOCIATED LANDSCAPE: ROCK WALLS AND VINEYARDS

The landscape associated with the Property is not associated with any designed landscape. The property has a stone wall along the boundary and a small creek. Between the highway and the Property is a stone wall that has an entryway with stone pillars with lanterns (Figure 42 and Figure 43). Most of the stone walls consist of

dry rubble masonry (Figure 44). At the stone entrance, there is a gravel driveway that snakes through vineyards to the 1883 house (Figure 45 and Figure 46). Although sections of the Property remain wooded, the eastern and southeastern sections of the Property consist of vineyards (Figure 47). At the end of the driveway, there is a parking lot, sections of which are concrete, while parts of it are paved with asphalt (Figure 48). North of the ca. 1995 barn, there is a pump house that has a shed roof and five large, above-ground water tanks, added in the 2000s (Figure 49). Next to the pump house and water tanks, there is a prefabricated front-facing gable shed (Figure 50). At the north boundary of the Property is a stream (Figure 51). The Property has several types of trees, including walnuts, oak, and redwoods (Figure 52).

Figure 42. Stone entrance to the Property, facing west.

Figure 43. Detail of stone pillar at entrance with lantern, facing east.

Figure 44. Rock wall between the Property and St. Helena Highway.

Figure 45. Gravel driveway snaking between vineyards, facing east.

Figure 46. Gravel driveway snaking between vineyards, facing west.

Figure 47. Vineyards on Property, facing west.

Figure 48. Vineyards, trees, and parking lots next to the 1883 building.

Figure 49. Five above-ground water tanks and a shed.

Figure 50. Front-facing gable shed, next to five water tanks.

Figure 51. Stream through Property.

Figure 52. Redwoods on Property.

EVALUATION FOR HISTORICAL SIGNIFICANCE

The 8.86-acre Property, including the 1883 Hirsch House (AXR Winery), three 1932 cottages, a ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards, was evaluated to determine individual eligibility for listing on the CRHR.

- The Property, including the 1883 house is designed in both the National and Folk Victorian architectural styles, with a period of significance of 1883, the year of the original construction of the house. The three 1932 cottages and ca. 1995 barn are not associated with any architectural style. Sections of the rock wall (various ages) within the Property are associated with Stone masonry in Napa County, with a period of significance of the late 19th Century to the turn of the 20th Century.
- The ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), and landscape, including vineyards, do not meet the age requirements for evaluation on the CRHR.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The CRHR is an inventory of significant architectural, archaeological, and historical resources in California. Resources can be listed in the CRHR through several methods. State Historical Landmarks and NRHP-listed properties are automatically listed in the CRHR. Properties can also be nominated to the CRHR by local governments, private organizations, or citizens. The CRHR follows *similar* guidelines to those used for the NRHP. One difference is that the CRHR identifies the Criteria for Evaluation numerically instead of alphabetically. Another difference, according to the OHP, is that "It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the NRHP, but they may still be eligible for listing in the California Register. A resource that has lost its historical character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data".[165]

For a property to qualify for listing in the CRHR, it must possess significance under one of the four criteria and have historical integrity. Determining integrity consists of evaluating seven variables or aspects, including location, design, setting, materials, workmanship, feeling, and association. According to the *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*, these seven characteristics are defined as follows:

- **Location** is the place where the historic property was constructed.
- **Design** is the combination of elements that create the form, plans, space, structure, and style of the property.
- **Setting** addresses the physical environment of the historic property, inclusive of the landscape and spatial relationships of the building(s).
- **Materials** refer to the physical elements that were combined or deposited during a particular period

[165] California Office of Historic Preservation Technical Assistance Series #6 California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register).

of time and in a particular pattern of configuration to form the historic property.

- **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history.
- **Feeling** is the property's expression of the aesthetic or historic sense of a particular period of time.
- **Association** is the direct link between an important historic event or person and a historic property.

The following section examines the eligibility of the Property containing the 1883 house, three 1932 cottages, a ca. 1995 barn, and associated landscape with two pump houses, five water tanks, and stone walls and associated landscape for individual listing on the CRHR.

CRHR EVALUATION

1. **(Event): Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage**

   The Property, including the 1883 house, is associated with early winemaking in California in the late nineteenth century. Despite this association, the Property does not have enough integrity to convey significance for this event, as much of the built environment has either been demolished or has been significantly altered, as seen in the remnants of the 1883 house. As such, the Property was not found to be associated with any event that made a significant contribution to California's history or cultural heritage.

   Therefore, the Property is not individually eligible for listing in the CRHR under Criterion 1.

2. **(Person): Is associated with the lives of persons important in our past**

   The ownership and occupancy history of the Property, including the 1883 house, three 1932 cottages, ca. 1995 barn, and associated landscape with two pump houses, five water tanks, and stone walls, was thoroughly researched.

   The Property is associated with several people of local importance, including August and Frederika Hirsch (1883-1895), early members of the wine-making industry in St. Helena, and Frederika was one of the first female winemakers. Although the Property is associated with the August and Frederika Hirsch, the Property lacks integrity for association, as only a portion of the original 1883 house remains, from their winery and vineyards.

   Additional influential people include Charles and Florence Boynton (1909-1919), the latter of whom was a social reformer and proponent of the Open-Air Motherhood movement; Carrie and Francis Alexander (1920-1924), the latter of whom was the acting president of the Carver National Bank in St. Helena. Although these couples are of local importance, the Property was their summer home, and not their primary residence. As such, the Property is not eligible for inclusion on the CRHR for association with a person.

   Therefore, the Property does not appear individually eligible for listing in the CRHR under Criterion 2.

3. **(Construction/Architecture): Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses**

high artistic values

Architecture: The 1883 house is associated with the **National Architectural style**, with a period of significance of 1883, the year that the house was constructed, and with **Folk Victorian architecture**, with a period of significance of ca. 1905, the year that the addition was built.

Due to the four phases of construction, the 1883 house has two distinct architectural styles.

National Architectural style: The original 1883 house consists of a side-facing broken gable form that has undergone several renovations. Although the form remains, two of the elevations have been wholly absorbed by additions, while the other two have altered fenestration. As such, only the form associated with the style remains, and thus, the house does not maintain an association with the original National architectural design.

Folk Victorian style: The ca. 1905 addition is associated with Folk Victorian design. The addition has several characteristics associated with Folk Victorian design, including the slender, two-over-two, double-hung wood windows, brick chimney, wide eave overhangs with decorative brackets, wood paneling, and wood siding. Although the building maintains these characteristics, it is not a representative example of the style, as it has been altered significantly due to the 1932 and 1950s additions. While what remains is associated with the Folk Victorian style, the building is not a good or representative example of the style. As such, the 1883 house is not eligible for listing under Criterion 3.

The three 1932 cottages, ca. 1995 barn, and associated landscape are not associated with any architectural style or landscape design.

Stone Masonry Construction: Sections of the rock wall (various ages) within the Property are associated with **Stone masonry in Napa County**, with a period of significance of the late 19th Century to the turn of the 20th Century. The rock wall, though some areas appear to have been constructed in the late 19th and early 20th century, the majority of the rock wall has been "restacked" with modern or reused stone. This includes the section directly east of the ca. 1905 house. As such, the rock wall, in and of itself, as a resource within the Property, is not individually eligible for listing on the CRHR under Criterion C for association with Stone Masonry Construction.

Therefore, none of the built environment resources within the Property are individually eligible for listing in the CRHR under Criterion 3.

4. **(Information potential): Has yielded, or may be likely to yield, information important in prehistory or history.**

Criterion 4 most commonly applies to resources that contain or are likely to contain information bearing on an important archaeological research question. While most often applied to archaeological sites, Criterion 4 can also apply to buildings that contain important information. For a building to be eligible under Criterion 4, it must be a principal source of important information, such as exhibiting a local variation on a standard design or construction technique can be eligible if a study can yield important information, such as how local availability of materials or construction expertise affected the evolution of local building development.

The 1883 house within the Property does not appear to have the ability to convey information about either National or Folk Victorian architecture. In addition, none of the built environment within the Property is the principal source of information. As such, the Property is not eligible for listing in the CRHR under Criterion 4. The Property was not assessed to determine the presence of or potential for, any associated archaeological deposits.

INTEGRITY

To qualify for listing in the CRHR, a property must possess significance under one or more of the above-listed criteria and have historic integrity. Seven variables, or aspects, are used to judge historic integrity, including location, design, setting, materials, workmanship, feeling, and association.[166] A resource must possess the aspects of integrity that relate to the historical theme(s) and period of significance identified for the built-environment resources. National Register Bulletin 15 explains, "only after significance is fully established can you proceed to the issue of integrity."

The Property, containing the 1883 Hirsch House (AXR Winery), three 1932 cottages, a ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards, was not found to be eligible under any of the CRHR criteria; therefore, an integrity analysis was not completed.

LOCAL ASSESSMENT

On October 17, 2007, the Napa County Conservation, Development, and Planning Commission approved the Property for Historical Landmark Designation under application #P0-7-00565-LDMK. Per the public Notice of Historic Landmark Designation, "The Historic Landmark Status was granted to the August Hirsch main residence, cellar, and barn originally constructed in 1883. The two 19th-century cottages, rock wall, cistern, redwood grove, and oak trees are to be considered contributing accessory structures and landscape features." Based on this description, the primary contributing elements of the Historic Landmark include the 1883 house and cellar, and the 1883 barn (no longer extant), and the secondary contributing elements consist of two 19th-century cottages (no longer extant), the rock wall (altered), cistern (no longer extant), redwood grove (extant), and oak trees (extant).

EDS Assessment: Although the Property has been altered since the Historic Landmark designation in 2007 (prior to the current ownership), the 1883 house appears intact from when it was listed in 2007 and therefore remains eligible for Historic Landmark Designation. However, it should be noted ca. 2009, the County approved the demolition of the 1883 barn, and two ca. 19th-century cottages, sections of the rock wall were replaced, and elements of the landscape that were given landmark status. As such, the preservation of the 1883 house is essential to the Property remaining eligible for Historic Landmark Designation.

STANDARDS REVIEW

The 1883 house is currently listed as a Napa County Historic Landmark; as such, the 1883 house is considered

[166] National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: United States Department of the Interior, 1997).

a Historical Resource. As the documentation for the landmark was not recorded, EDS completed the HRE to document the existing resources and completed the Standards review to determine the impact on the remaining resources associated with the Landmark designation. To ensure the Project meets the Standards, the EDS team worked with the Project's architectural and design team at Signum Architecture. The review of the drawing sets by Signum Architecture, dated June 12, 2025, and the preliminary engineering plans by Summit Engineering, dated February 11, 2025, is detailed in the section below.

Secretary of Interior Standards for Rehabilitation Review

The following section addresses the current Project within the context of the Secretary of the Interior's Standards for Rehabilitation. Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. When repair and replacement of deteriorated features are necessary, when alterations or additions to the property are planned for a new or continued use, and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment.

According to the Standards, "some exterior and interior alterations to a historic building are generally needed as part of a Rehabilitation project to ensure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include changes to the site or setting, such as the selective removal of buildings or other features of the building site or setting that are intrusive, not character-defining or outside the building's period of significance."

The Standards and EDS' analysis of the current preliminary Project related to the Standards is presented below. The Project was reviewed using the Project description provided by the architect, which was applied to each of the Standards. The results of the Standards analysis are presented below with an "EDS Response" and an "EDS Analysis" that identifies whether the Project conforms with Standards. "EDS Recommendations" are also provided, if warranted.

The following Standards review assesses potential impacts on the Historic Landmark, specifically the 1883 house and sections of the rock wall and landscape that contribute to the history of the Property. To complete the assessment, EDS reviewed plans by Signum Architecture, dated June 12, 2025, and preliminary Engineering plans by Summit Engineering, dated February 11, 2025.

1. **A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.**

   The property, particularly the 1883 house, has had several historic uses since its construction, including a winery, private home, resort restaurant, and rental property. The 1883 house was initially the private home of August and Frederika Hirsch, who operated a small winery in the 19th century on the property. It remained a private residence without winery operations until the 1930s, when it shifted to a resort, and then returned to a private residence in 1956. Following its Historic Landmark designation, the property was rezoned again in 2007, and the 1883 house was transitioned into a winery and tasting room. While this returned the property to its historic use as a winery, it shifted its use from a private residence with a winery to a winery and public tasting room. The current

preliminary project does not alter its current use, and thus, it does not impact the use of the 1883 house.

EDS Analysis: The proposed Project complies with Standard 1.

2. **The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.**

The preliminary proposed project includes the removal of sections of the existing stone wall, and the construction of wine caves, at the base of the mountain. While the sections of the wall that will be impacted were documented by CalTrans through Elhers Lane Rock Wall (P-28-000955), it appears that this section of wall is modern, and not historic. Therefore, removing these sections of the wall as needed for the removal of the existing culvert, and the installation of the new 12" culvert, as well as shifting the driveway south, will not destroy the historic character of the Property. In addition, elements of the rock wall that appear to be original will be preserved.

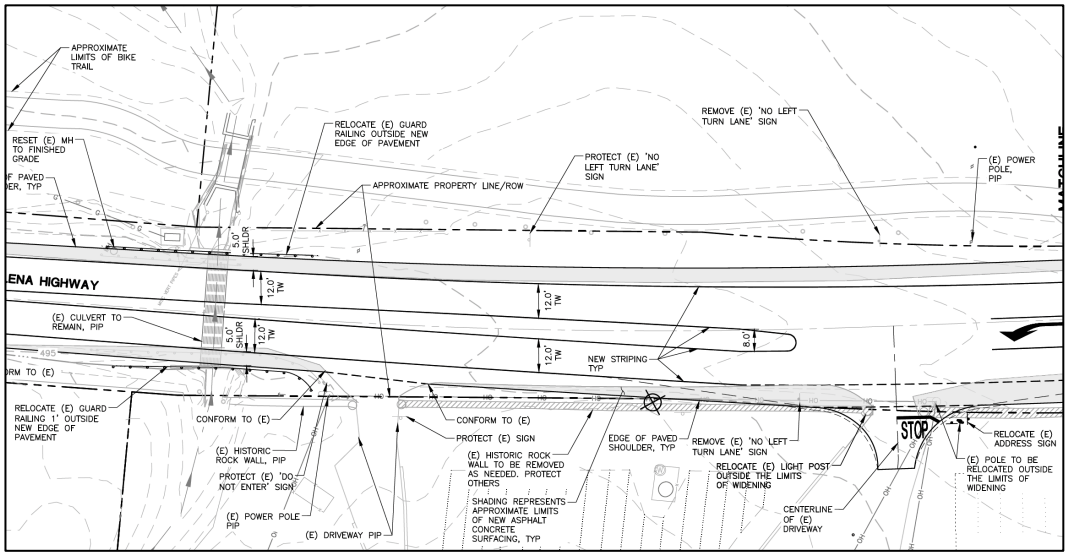


Figure 53. Section from page C2 of "Preliminary Grading & Drainage Plan," from *AXR Napa Valley* by Summit Engineering, Inc., June 12, 2025.

EDS Analysis: Although the proposed Project includes removing a section of the documented Ehlers Lane Rock Wall, this section is modern and not historic; additionally, the project retains as much of the wall as possible to complete the Project. As such, the Project complies with Standard 2.

3. **Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.**

Based on the preliminary proposed project plan, there are no proposed changes to the property that create a false sense of history.

EDS Analysis: The Project complies with Standard 3.

4. **Most properties change over time; those changes that have acquired historic significance in their**

own right shall be retained and preserved.

There are no proposed changes to the property or the 1883 house that have become "significant in their own right."

EDS Analysis: The Project complies with Standard 4.

5. **Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.**

   The proposed Project does not impact any distinctive features, finishes, or construction techniques, or examples of craftsmanship that characterize a historic property.

   EDS Analysis: The Project complies with Standard 5.

6. **Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.**

   There are no proposed changes to deteriorated features.

   EDS Analysis: As such, Standard 6 does not appear to apply.

7. **Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.**

   EDS Analysis: Not applicable to the Project.

8. **Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.**

   EDS Analysis: Not applicable, as a professional archaeologist would need to make this determination.

9. **New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.**

   The proposed Project includes the construction of new wine caves, which are located away from the historic resources that characterize the property. The proposed Project does not include any new additions or exterior alterations to the 1883 house, changes to historic sections of the rock wall, or the landscape that would impact the Historic Landmark Designation. Additionally, the project utilizes materials and construction techniques that are modern and are thus easily distinguishable from the historic materials (Figure 54 and Figure 55).

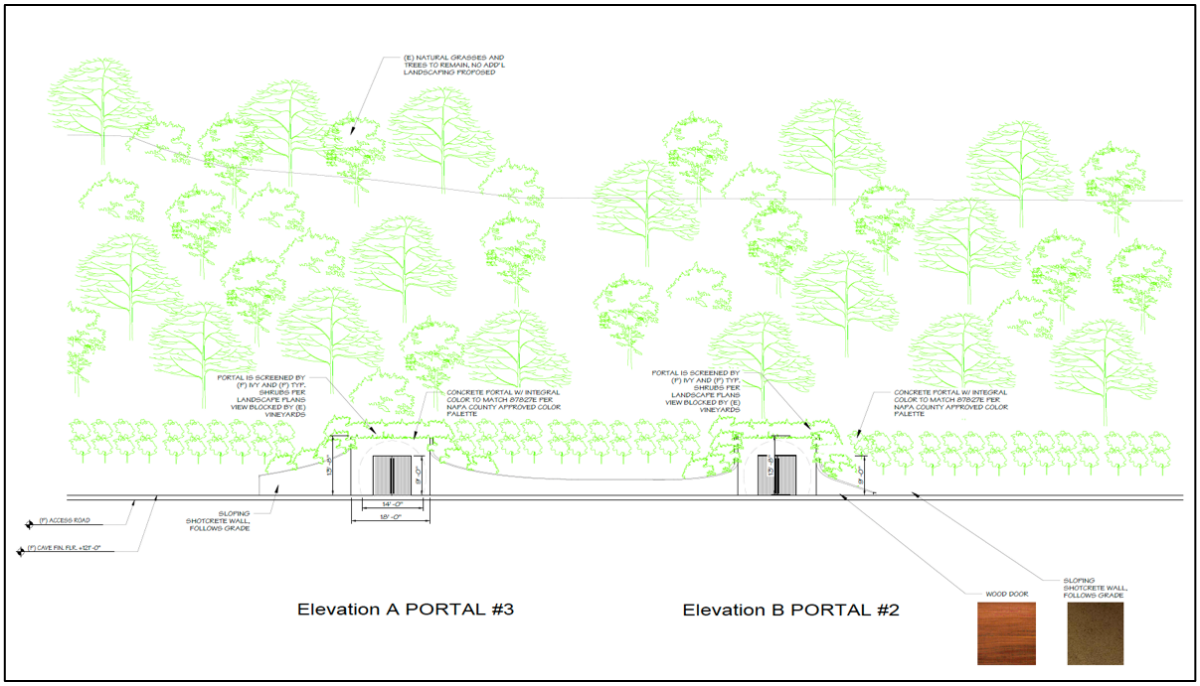


Figure 54. Section from page A3.01 from "Elevations," from *AXR Winery Cave* by Signum Architecture, June 12, 2025.

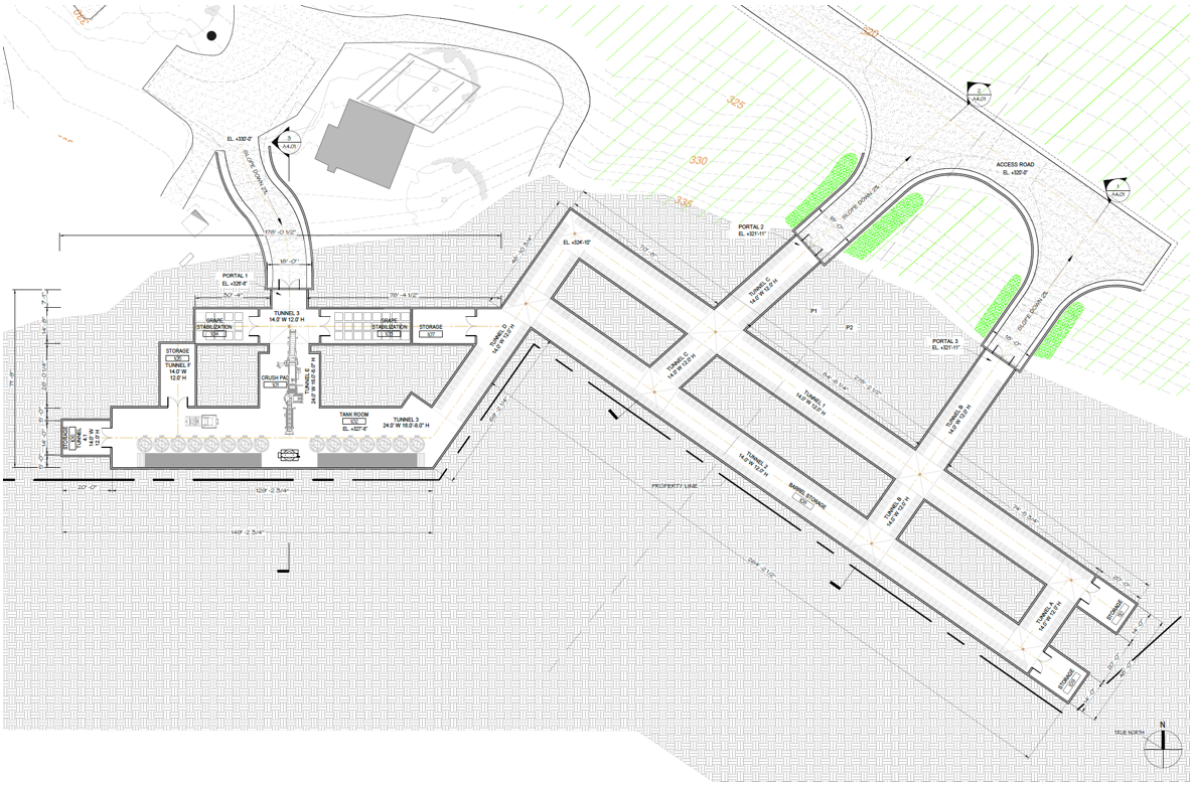


Figure 55. Page A2.11 from "Floor Plan," from *AXR Winery Cave* by Signum Architecture, June 12, 2025.

EDS Analysis: The Project complies with Standard 9.

10. **New additions and adjacent or related new construction shall be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.**

    The proposed Project consists of the removal of a modern section of rock wall and the construction of wine caves and an access road. The rock wall section is modern, and the removal or reconstruction, if rebuilt later, would not impact the integrity of the Historic Landmark Designation. In addition, the caves or access road, which will not be visible from the street view, will not alter or diminish the historic integrity of the Property.

    EDS Analysis: As such, the Project complies with Standard 10.

CONCLUSIONS

EDS completed an HRE of the Property, including the 1883 Hirsch House (AXR Winery), three 1932 cottages, a ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards, at 3199 St. Helena Hwy N. (APN 022-080-025) within St. Helena, Napa County, California. On October 17, 2007, the Property was designated by the Napa County Conservation, Development, and Planning Commission (P07-00656-LDMK) as a Napa County Historic Landmark. As such, the Property is a Historical Resource under CEQA. However, some of the buildings and elements of the Property within the Historic Landmark listing (Appendix B) are no longer present; as such, an updated documentation and a CRHR evaluation were completed for the Property to determine if there are any CRHR eligible resources within the Property and updated local assessment to determine the status of the built environment resources within the 2007 Historic Landmark Designation. The methods used to complete the CRHR evaluation and local assessment included extensive research and an intensive level historic architectural survey conducted by EDS Principal Architectural Historian Stacey De Shazo, M.A., and Nicole Wyton, M.S., who exceed the Secretary of the Interior's qualification standards in Architectural History and History, and researcher Bee Thao, M.A.

The HRE determined that none of the built environment resources, at least 45 years in age, including the 1883 Hirsch House (AXR Winery), three 1932 cottages, and the rock wall (various ages) and landscape, are eligible for listing on the CRHR and the ca. 1995 barn, two pump houses (2000s), and five above-ground water tanks (2000s), do not meet the age requirements for listing on the CRHR. However, the local assessment determined that the Property, including the 1883 house, historic sections of the rock wall (late 19th to early 20th century), and elements of the landscape, including the redwood and oak trees, are present and remain eligible as a Napa County Historic Landmark.

As such, to access impacts to historical resources, which include the 1883 house, historic sections of the rock wall (late 19th to early 20th century), and elements of the landscape, including the redwood and oak trees, a Standards for Rehabilitation review was completed. The Standards review assessed the proposed Project, utilizing architectural plans by Signum Architecture, dated April 7, 2023, and the engineering plans by Summit Engineering, dated June 12, 2025. The Standards review determined that the proposed Project meets the Standards for Rehabilitation. As such, there will not be a significant impact to historical resources. In addition, EDS supports the continuation designation of the Property as eligible for the Mills Act.

Additional Recommendations for Continued Historic Landmark Designation

- The Property, including the 1883 house, historic sections of the rock wall (late 19th to early 20th century), and elements of the landscape, including the redwood and oak trees, are the current elements of the Historic Landmark listing. As such, EDS recommends that the County of Napa utilize this HRE and the attached DPRs to update the Historic Listing Designation.

BIBLIOGRAPHY

Ancestry.com

"Alton L. Williams." *1900 United States Federal Census, Hawaii Territory, Hawaii, Hilo, District 0063.*

"Alton L Williams." *California, U.S., Death Index, 1905-1939.*

"A L Williams." *1910 United States Federal Census, California, Kern County, Township 6, District 0030.*

"Andrew Nemes." *1920 United States Federal Census, California, Humboldt County, Scotia, District 0067.*

"Andrew Nemes." *U.S., World War I Draft Registration Cards, 1917-1918, California, Humboldt County, ALL, Draft Card N.*

"Billy Manley." *U.S., Public Records Index, 1950-1993, Volume 2.*

"Billy R Manley." *1950 United States Federal Census, California, Napa County, Calistoga, District 28-2.*

"Billy R Manley." *California, U.S., Divorce Index, 1966-1984.*

"Billy R Manley." *Nevada, U.S., Marriage Index, 1956-2005.*

"Caroline Lincoln Alexander." *U.S., Find a Grave® Index, 1600s-Current.*

"Charles Calvin Boynton." accessed July 9, 2025, https://www.ancestry.com/family-tree/person/tree/72488067/person/44259004571/facts?_phsrc=XaX3&_phstart=successSource

"Charles Calvin Boynton." *Geneanet Community Trees Index.*

"Charles C Boynton." *1920 United States Federal Census, California, Alameda County, Berkeley, District 0193.*

"Charles Frederick Carrier." *U.S., Find a Grave® Index, 1600s-Current.*

"Catherine H Williams." *1920 United States Federal Census, California, Alameda County, Oakland, District 0133.*

"Doreta M Honn." *California, U.S., Death Index, 1940-1997.*

"Doreta S Honn." *1920 United States Federal Census, California, Alameda County, Berkeley, District 0183.*

"Edward Cuny." *U.S., Social Security Death Index, 1935-2014.*

"Edward R Cuny." *1930 United States Federal Census, California, Alameda County, Berkeley, District 0306.*

"Elton N. Williams." *1880 United States Federal Census California, Solano County, Vallejo, District 112.*

"Emily Baker." *New York, New York, U.S., Extracted Marriage Index, 1866-1937.*

"Emily Fenner." *1920 United States Federal Census, California, Alameda County, Berkeley, District 0192.*

"Emily Hinckley Baker." *North America, Family Histories, 1500-2000.*

"Emma Susan Sawtelle." *U.S., Find a Grave® Index, 1600s-Current.*

"Eugene Sawtelle." *1900 United States Federal Census, California, San Francisco County, San Francisco, District 0165.*

"Eugene William Sawtelle." *Geneanet Community Trees Index.*

"Eugene W Sawtelle." *Washington, U.S., Death Records, 1907-2017.*

"Florence Tredwell." *1880 United States Federal Census, California, Alameda County, Oakland, District 002.*

"Francis Lincoln Alexander." *U.S., Find a Grave® Index, 1600s-Current.*

"Frank L Alexander." *Geneanet Community Trees Index.*

"Harriet Jane Cuny." *California, U.S., Death Index, 1940-1997.*

"Helen Coman Yates." *California, U.S., Death Index, 1940-1997.*

"Helen M Coman." *1900 United States Federal Census, Oregon, Multnomah County, Portland Ward 10, District 0078.*

"Kate C Williams." *1900 United States Federal Census, California, San Francisco County, San Francisco, District 0230.*

"Katherine Williams."*1910 United States Federal Census, Washington, Spokane, Spokane Ward 1, District 0157.*

"Mary Elizabeth Boland." *U.S., Find a Grave® Index, 1600s-Current.*

"Michael Sixon Boland." *California, U.S., Death Index, 1940-1997.*

"Michael Sixon Boland." *U.S., Find a Grave® Index, 1600s-Current.*

"Robert Russell Yates." *California, U.S., Death Index, 1940-1997.*

"Robert Russell Yates." *U.S., World War II Draft Registration Cards, 1942, California, All, Minard, Rulo Elliott - Zingel, Theodore [Many Cards Out of Order, Mostly Deceased After Reg].*

"Robert R Yates." *1930 United States Federal Census, California, Alameda County, Piedmont, District 0337.* "Rosa Nemes," *California, U.S., Death Index, 1905-1939, 1930-1939, Surnames H-N.*

"Sally A Brown." *1950 United States Federal Census, California, Napa County, Calistoga, District 28-1.*

"Sally A Pincus." *California, U.S., Divorce Index, 1966-1984.*

"Walter H Fenner." *U.S., Find a Grave® Index, 1600s-Current.*

Archive.org

Suzanne B. Riess, interviewer. *Florence Treadwell, and Berkeley: Oral History Transcript and Related Material, 1973-1978.* Bancroft Library, 1973.

BAHA

Cerny, Susan. "The Temple of Wings: 2800 Buena Vista Way, Berkeley, CA." *BAHA Berkeley Landmarks.* accessed July 14, 2025, http://berkeleyheritage.com/berkeley_landmarks/temple_of_wings.html

"Temple of Wings, interior." Photograph, ca. 1915. Shipounoff Collection.

Thompson, Daniella. "Maybeck Made La Loma Park His Own Country." *BAHA, East Bay Then and Now*, April 28, 2009. accessed July 14, 2025, http://berkeleyheritage.com/eastbay_then-now/maybeck_country.html

Cerny, Susan. "Dance Theories of Isadora Duncan were Taught in Berkeley for Years." *The Berkeley Daily Planet,* January 26, 2002.

Drymalski, Paul H. "William Tell Saloon and Hotel." National Register of Historic Places Nomination Form, February 6, 1980.

Edmister, Al. "Stone Structures in Napa County, California, Stone Quarries and Beyond." Accessed July 17, 2025, https://quarriesandbeyond.org/states/ca/structures/ca-%20napa_stone_structs_in_napa_co.html

Fredericks, Robert. "Nineteenth Century Stonework in California's Napa Valley." *The California Geographer 35*.

Gunn, Harry Lawrence. *History of St. Helena*. Chicago: The S. J. Clarke Publishing Co., 1926, accessed February 21, 2021.

Ham, Stacie. "Survey and Evaluation of Masonry Arch Bridges." Caltrans, 2003. Accessed July 17, 2025, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/masonry-arch-bridges-2003-a11y.pdf

Hansen, Mariam. "St. Helena's Chinese Heritage." St. Helena Historical Society, 2011.

Kyle, Douglas E. et. al., *Historic Spots in California*, Fifth Edition. Stanford University Press, 2002.

Newspapers.com

Edington, Astrid. "Over the Gate, The Very Young Set: Mary Anne Manley." *The Napa Valley Register,* May 28, 1955.

Letter and Notice of Retirement. *The Weekly Calistogian,* May 17, 2001.

Marriage Notice. *Napa Weekly Journal,* May 5, 1887.

Real Estate. *Napa Journal*, March 5, 1895.

"23 Applicants are Made into Citizens." *Ferndale Enterprise,* July 20, 1923.

"Alton L. Williams Passes Away." *Napa Journal*, January 19, 1918.

"Andrew Nemes, Long Time St. Helena Resident, Dies." *The St. Helena Star,* July 18, 1957.

"Back to Nature and the Greek." *The San Francisco Call and Post,* December 5, 1909.

"By Florence Treadwell Boynton." *The San Francisco Examiner*, October 23, 1910.

"C. C. Boynton Rites Will be Private." *The San Francisco Examiner,* August 22, 1960.

"Clubwoman to Give Recital." *The Fresno Morning Republican,* January 8, 1920.

"County Resorts Changing Hands." *The Weekly Calistogian,* August 16, 1956.

"Deaths: Boland." *The Sacramento Bee,* April 12, 1937.

"Dies After Lingering Illness." *The St. Helena Star,* August 7, 1936.

"Edward Rudolph Cuny." *The St, Helena Star,* March 25, 1971.

"Engagements." *The Oregon Daily Journal*, February 27, 1904.

"Eugene Sawtelle Dies in North." *Appeal-Democrat,* May 16, 1925.

"Final Rites Are Conducted for Banker in Napa." *The Sacramento Bee,* December 27, 1943.

"Former Resident Summoned: Alton L. Williams Passes Away in Oakland." *The St. Helena Star,* January 18, 1918.

"Former Scotians Reveal Weddings." *The Times Standard,* April 7, 1938.

"Funeral Notice: Yates." *The San Francisco Examiner,* September 1, 1957.

"George Savage's Estate." *Napa Journal,* April 30, 1909.

"Harriet Cuny." *The Napa Valley Register,* August 30, 1985.

"Have Sold County Home." *The St. Helena Star,*

"Heart Attack Fatal." *The St. Helena Star,* November 27, 1925.

"Here and There." *The Weekly Calistogian*, September 15, 1886.

"Inside Society: In Life, in Death, a Non-Conformist." *The San Francisco Examiner,* March 2, 1962.

"Lawyer Plans Change in Judicial System: Charles C. Boynton of Oakland to Lay Scheme Before Legislature." *The Recorder,* January 6, 1919.

"Leader Saloon in Vallejo Closed." *Napa Journal,* December 15, 1908.

"'The Madrones,' Resort Near St. Helena." *The St. Helena Star*, May 11, 1934.

"Marriage Licenses." *The San Francisco Call and Post,* June 27, 1901.

"Michael Boland Passes Away." The St. Helena Star, May 2, 1941.

"Mrs. Fenner Services Held." *Santa Barbara News Press,* June 9, 1955.

"New Enterprise in Prospect." *The St. Helena Star,* May 6, 1932.

"New Rest Resort Opened." *The St. Helena Star,* July 15, 1932.

"Notice of Trustees' Sale of Real Estate." *The Saint Helena Star,* June 5, 1925.

"Open Air Motherhood." *The San Francisco Examiner,* October 23, 1910.

"Over Half Century of Banking." *The St. Helena Star*, September 26, 1924.

"Personal Mention." *The St Helena Star,* September 5, 1924.

"Puts Bullet Through Temple: Miss Florence M. Yates Ends Her Life with Revolver." *San Francisco Chronicle,* November 13, 1909.

"Real Estate Transfers." *The St. Helena Star,* June 18, 1926.

"Savage Place Sold." *The St. Helena Star*, September 17, 1900.

"Scotia Girl To Sing Thursday." *The Times Standard,* July 24, 1933.

"Spending Summer Here." *The St. Helena Star*, June 5, 1908.

"St. Helena News." *Napa Journal,* December 13, 1891.

"Sugar Loaf" Changes Hands." *The St. Helena Star*, July 6, 1917.

"Under New Management." *The St. Helena Star,* July 13, 1934.

"Was Former Resident." *The St. Helena Star,* February 29, 1924.

"Weddings." *The Oregon Daily Journal*, March 27, 1904.

"Will Make Home Here." *The St. Helena Star*, August 10, 1917.

California Historical Society, U.C. Digital Library. http://digitallibrary.usc.edu/cdm/ref/collection/p15799coll65/id/19436, (accessed May 14, 2024).

City of St. Helena. "Our History," Marguerite Hunt and Harry Lawrence Gunn, History of St. Helena, Chicago: The S. J. Clarke Publishing Co., 1926, accessed July 17, 2025, https://www.cityofsthelena.gov/379/Our-History.

Drymalski, Paul H., "William Tell Saloon and Hotel," National Register of Historic Places Nomination Form, February 6, 1980, 2

Kyle, Douglas E. Mildred Brooke Hoover, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe, *Historic Spots in California*, Fifth Edition. Stanford University Press, 2002.

Lapsley, James T. *Bottled Poetry, Napa Winemaking from Prohibition to the Modern Era*. University of California Press, Berkeley, California, 1997.

Library of Congress.

"Buckman Map of Napa County." Map, 1895.

"King and Morgan Map showing the Property." Map, 1881.

"Official Map of the County of Napa, California." 1876.

McAlester, Virginia, and Lee McAlester. *A Field Guild to American Houses*. New York, Alfred A. Knopf. Munro-Fraser, J.P. 2019.

McCormick, John Edmund. "The Forgotten Contributions of Napa Valley Chinese immigrants, 1870-1900." Master's Thesis, Harvard University, 2022.

Menefee, Augustus Campbell, *Historical and Descriptive Sketch Book of Napa, Sonoma, Lake and Mendocino*, Napa City: Reporter Publishing House, 1879.

Munns, Judith. "Historical Overview." City of St. Helena (Appendix A), 1978, A-2.

Napa County Historical Society

"Main Street from the corner of Spring Street." Photograph, 1900.

"Main Street in downtown St. Helena." Photograph, 1965.

"Past Perfect," http://napahistory.pastperfectonline.com/ (accessed April 28, 2024).

"Vineyard workers in St. Helena," Photograph, ca. 1880.

Napa Landmarks. "1978 Historic Resource Inventory." City of St. Helena.

National Park Service. National Register Bulletin: How to Apply the National Register Criteria for Evaluation. Washington, D.C.: United States Department of the Interior, 1997.

Olmsted, Nancy. *Vanished Waters, A History of San Francisco's Mission Bay*. San Francisco: Mission Creek Conservancy, 1986.

Page & Turnbull. City of St. Helena, Historic Resources Inventory, prepared for the City of St. Helena, 2006.

Smith and Elliott. "Illustrations of Napa County, California with Historical Sketch." Oakland, 1878.

Swett, Ira L. and Harry C. Aitken, Jr. *The Napa Valley Route, Electric Trains and Steamers*. Published by Ira L. Swett, Glendale, California, 1975

St. Helena Historical Society

The Electrolier, Vol. 12, May 2014, 2-4.

"Spring Street." Photograph, 1886.

"St. Helena's Chinese Heritage." St. Helena Historical Society, 2011

St. Helena Historical Society and Mariam Hansen. *St. Helena*. Arcadia Publishing, 2010.

Tremaine, Kim J. and John A. Lopez. "Rock Fences of Napa County: A Pilot Study, Termain & Associated." Archaeological Consultants, August 1998.

Tyler, Norman, Ted Ligibel, and Ilene R. Tyler. *Historic Preservation: An Introduction to Its History, Principles, and Practice*. New York: W.W. Norton & Co., 2009.

UC Santa Barbara

1952 Aerial of St. Helena, Flight CSH_1953, Frame 1K-102, October 13, 1952.

1959 Aerial of St. Helena, Flight CSI_1958, Frame 6V-117, April 15, 1959.

1965 Aerial of St. Helena, Flight CAS_65_130, Frame 64-246, July 2, 1965.

Webber, Lynn. *Old Napa Valley, The History to 1900. St. Helena, Calif.*: Wine Ventures Publishing, 1998.

Wichels, John. *Railroads in Napa County, Why They Came and Why They Failed*. Napa County Historical Society, Series 2, No. 3. Napa, California, 1979.

Appendix A:

DPR 523 Forms

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-28-000923 (update rock wall)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings Napa County Historic Landmark Designation
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 31 ***Resource Name or #:** Hirsch Ranch
P1. Other Identifier: Lyndhurst, Sugar Loaf, Amistad, The Madrones, AXR Winery
*__P2. Location:__ ☐ **Not for Publication** ☒ **Unrestricted**
***a. County** Napa **and**
***b. USGS 7.5' Quad** Calistoga **Date** 1993 **T** 8N; **R** 6W ; ☐ **of** ☐ **of Sec** un ; MD **B.M.**
c. Address 3199 St. Helena HWY N. City St. Helena Zip 94574
d. UTM: Zone 10S , 543160 mE/ 4264829 mN
e. Other Locational Data: The resource is within an 7.85-acre property, with the Assessor Parcel Number (APN) 022-080-025. It is located approximately 2.6 miles northwest of Main Street (Highway 29) in St. Helena, 421 feet west of Ehler Lane, and 0.5 miles south of Mill Creek.

***P3a. Description:** The resource includes the 1883 Hirsch House (AXR Winery), three 1932 cottages, a ca. 1995 barn, two pump houses (2000s), five above-ground water tanks (2000s), a rock wall (various ages), and landscape, including vineyards. The 1883 house is associated with National and Folk Victorian Architecture. (Continued on Continuation Sheet, Page 2).

P5a.

***P3b. Resource Attributes:** HP2. Single family property (1883 house); HP4: Ancillary buildings (three 1932 cottages); HP33. farm/ranch (Property); HP46. Walls/gates/fences (rock wall)
***P4.Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other
P5b. Description of Photo: 1883house, facing west)
***P6. Date Constructed/Age and Source:** ☒Historic ☐ Prehistoric ☐ Both see P3a; various sources
***P7. Owner and Address:** Withheld by owners
***P8. Recorded by:** Stacey De Shazo, M.A. Evans & De Shazo, Inc. 1141 Gravenstein Highway S, Sebastopol, California 95472
***P9. Date Recorded:** 4/4/2025
***P10. Survey Type:** Intensive

***P11. Report Citation:** Stacey De Shazo, et al (2025): A Historic Resource Evaluation, Local Assessment, and Standards Review of the Property at 3199 St Helen Hwy N., St. Helena, Napa County, California.

***Attachments:** ☐NONE ☒Location Map ☒Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List): _____

(Continued from Primary, page 1)

1883 HIRSCH HOUSE

The 1883 house is associated with National and Folk Victorian architecture and consists of at least four phases of construction (Figure 1). The first phase consists of the ca. 1883 one-and-a-half-story side-facing gable form, which is associated with National architecture. The second phase of construction consists of a one-story, hipped roof Folk Victorian addition, constructed on the east elevation of the ca. 1883 house in ca. 1905. In 1932, the porch addition was constructed on the east elevation of the ca. 1905 addition, the original, 1883 form was expanded with a broken gable. In the 1950s, a shed addition was constructed on the south elevation, and a gable monitor was added to the roof. The building has a raised foundation with a basement that is access from outside of the house. The walls are clad with tongue-in-groove wood siding, while the moderately sloped roof is clad with asphalt composite shingles. The 1883 section of the house has a side-facing, broken gable with moderate boxed eave overhangs and an incorporated porch. The roof of the ca. 1905 addition has a hipped roof with wide boxed eave overhangs with decorative brackets and wood paneling between each bracket. Within the field of the roof is a brick chimney. The ca. 1905 addition has an exposed, raised brick foundation. The 1932 additions consist of a hipped roof with clipped corners, and small boxed eave overhangs and a wraparound hipped addition around the 1883 section. In the 1950s, a hipped addition was constructed on the south elevation, and a front-facing gable monitor was added to the roof. Due to the various phases of construction, there are several window types seen on the building, including one-over-one, double-hung wood windows, tall and slender two-over-two, double-hung wood windows, ribbons of three eight-over-two, fixed wood windows, and fixed transom windows.

Figure 1. 1883 house with four phases on construction, with the 1883 section in yellow, ca. 1905 addition in red, 1932 additions in blue and 1950s additions in green.

East Elevation (Primary Façade)

The east elevation (Primary Façade) consists of the 1932 and 1950s additions (Figure 2). The 1932 addition consists of a porch, a pair of exterior stairs that extend from a central landing, and glazing. There is a central double wood door with multi-light glazing with a six-light fixed wood transom. Above the door is a low-sloped, front-facing gable portico roof that is supported by two wood columns located at the landing of the stairs. The stairs have wood balusters that match those of the landing. The door is centered between six ribbons of three, eight-over-two fixed wood windows, with six-light fixed wood transoms (Figure 3). At the northeast corner of the house, the wall is canted, and there is a single eight-over-two fixed wood window with a two-light fixed wood transom. On the east wall of the 1950s hipped addition is a single eight-over-two fixed wood window with a two-light fixed wood transom and a single wood door at the basement level.

Figure 2. East elevation, facing west.

Figure 3. East elevation, facing west.

South Elevation

The south elevation consists of sections of the 1883 house, ca. 1905 addition, 1932 addition and 1950s hipped addition (Figure 4). The 1932 addition has five eight-over-two, fixed wood windows, each of which has two-light fixed wood windows. Below these windows is a wood-paneled door at the basement level and an infilled window with a window air-conditioning unit. The 1950s hipped addition has two large one-over-one, double-hung wood windows (Figure 5). On the ca. 1905 addition, there are two slender two-over-two, double-hung wood windows (Figure 6). The 1883 section of the house consists of a ribbon of four, one-over-one, double-hung wood windows and a pair of wood doors with multi-light glazing (Figure 7). A partial facade deck extends from the door on the 1883 section of the house to the west wall of the 1950s hipped addition. There is also a single wood paneled door on the south wall of the 1932 addition that wraps around the original 1883 section of the house.

Figure 4. South elevation, facing northwest.

Figure 5. South elevation, facing northwest.

Figure 6. South and west elevations, facing northeast.

Figure 7. South elevation, facing northeast.

West Elevation

The west elevation consists of the 1883 house, sections of the ca. 1905 addition, a 1932 addition and the west wall of the 1950s addition (Figure 8). Within the 1950s addition is a single wood paneled door. The 1883 house has a single wood door with multi-light glazing, which is located beneath a partial façade porch that extends from the 1932 addition and is supported by two wood columns. Within the gable of the 1883 section of the house, there is a wood vent. There is no fenestration on the 1932 addition (Figure 9). Within the ca. 1905 addition, there are two slender two-over-two, double-hung wood windows (Figure 10).

Figure 8. West and south elevations of the 1883 house, with ca. 1905, 1932, and 1950s additions, facing northeast.

Figure 9. West and north elevations of 1883 house, with ca. 1905 and 1932 additions, facing southeast.

Figure 10. West and north elevations of the 1883 house, with ca. 1905 and 1932 additions, facing southeast.

North Elevation

The north elevation consists of the two sections of the 1932 additions and the ca. 1905 addition. The 1932 hipped addition that wraps around the side-facing gable form of the 1883 section of the house has five nine-over-two fixed wood windows and board and batten wood siding (Figure 11). The ca. 1905 addition has a slender two-over-two, double-hung wood window and a double door that provides access to the cellar (Figure 12). Within the 1932 addition, there are five eight-over-two fixed wood windows, each of which has a two-light wood transom, three slender two-over-two, double-hung wood windows, which were likely repurposed from the east elevation of the ca. 1905 addition during the 1932 renovation. Between the fixed windows and the double-hung windows, there is a high-placed six-light wood window. At the basement level, there is a double door.

Figure 11. North elevation of the 1883 house, with the 1932 hipped addition, facing south.

Figure 12. North elevation, with ca. 1905 and 1932 additions, facing southwest.

1932 COTTAGE

The 1932 cottage is not associated with an architectural style (Figure 13). The one-story house consists of a side-facing gable form with telescoping side-facing gables and a front-facing cross-gable. The building has a raised foundation and is clad with wood tongue-in-groove siding, while the moderately sloped roof is clad with composite shingles. The south elevation is the primary façade and consists of an off-centered multi-light door, set within a shed roof porch that is supported by three wood columns and wood balusters. Within the eaves, there are four, six-over-one, double-hung wood windows. The west elevation consists of a one-over-one, double-hung wood window within the smaller gable, and a six-over-one, double-hung wood window within the wall of the larger gable (Figure 14). The north elevation consists of four windows and a door, the details of which were not visible during the survey. The east elevation has a one-over-one, double-hung wood window within the wall of the smaller gable, and two six-over-one, double-hung wood windows, one within the wall of the larger gable and the eave wall of the front-facing gable (Figure 15 and Figure 16).

Figure 13. South elevation, facing north.

Figure 14. West elevation, facing east.

Figure 15. East and north elevations, facing southwest.

Figure 16. South and east elevations, facing northwest.

1932 COTTAGE

The 1932 cottage is not associated with an architectural style (Figure 17). The one-story building has a gable-and-wing form on a raised foundation. The building is clad with board and batten wood siding, while the moderately sloped roof is clad with composite asphalt shingles. The building has two porches, one that is incorporated within the eave of the side-facing wing, and the other beneath the shed addition on the west elevation. The north elevation is the primary façade and consists of a single multi-light wood door, with two fixed windows and a one-over-one, double-hung wood window within the eave of the wing. Within the gable are a one-over-one, double-hung wood window and a single wood paneled door with single light glazing and a small front-facing gable portico roof that is supported by wood brackets; within the peak is a wood vent. The east elevation consists of two one-over-one, double-hung wood windows and a ribbon of six nine-over-two fixed wood windows (Figure 18 and Figure 19). The south elevation was not visible during the survey. The west elevation has a pair of one-over-one, double-hung wood windows, a high-placed wood casement window, a wood vent within the gable, and a sliding glass door within the eave (Figure 20).

Figure 17. North elevation, facing south.

Figure 18. East elevation, facing west.

Figure 19. East elevation, facing west.

Figure 20. West elevation, facing east.

1932 COTTAGE

The 1932 house is not associated with an architectural style (Figure 21). The one-story house consists of a gable and wing form. The building has a raised foundation and is clad with vertical wood siding, while the moderately sloped roof is clad with asphalt composite shingles. The north elevation is the primary façade and consists of a partial façade porch that is supported by three wood columns with a wood railing. Within the porch is a single wood door with multi-light glazing and a ribbon of six-light wood windows. Within the front-facing gable is a single wood door with multi-light glazing, with a front-facing gable roof supported by brackets (Figure 22). The west elevation consists of a ribbon of windows with a sliding vinyl window and two fixed vinyl windows (Figure 23). The south elevation consists of a single window, a one-over-one, double-hung vinyl window, a single wood door with multi-light glazing that opens onto a wood deck, and a large sliding window (Figure 24 and Figure 25). The east elevation does not have any fenestration on the gable elevation, while within the eave wall of the front-facing gable is a sliding vinyl window.

Figure 21. North elevation, facing south.

Figure 22. North and west elevations, facing southeast.

Figure 23. West elevation, facing east.

Figure 24. South elevation, facing north.

Figure 25. South and east elevations, facing northwest.

2001 BARN

The 2001 barn is not associated with an architectural style (Figure 26). The one-and-a-half-story building consists of a side-facing gable form with a front-facing cross-gable with exposed truss beams and supported by wood brackets. Within the peak of the roof is a front-facing gable monitor that has vents on each elevation. On the west elevation of the barn is a shed roof. The barn has a concrete slab-on-grade foundation. The building is clad with wood board and batten siding, while the roof is clad with composite shingles. The east elevation is the primary façade and consists of a wood double door, centered below the front-facing gable. The door is set between four high-placed, four-light windows. The north elevation does not have any fenestration or character-defining features (Figure 27). The west elevation was not visible during their survey, but it has a shed roof constructed on the façade. The south elevation does not have any fenestration or character-defining features (Figure 28).

Figure 26. East elevation of ca. 1988 barn, facing west.

Figure 27. East elevation and north elevations, facing southwest.

Figure 28. South and west elevations, facing northeast.

ASSOCIATED LANDSCAPE AND ROCK WALL

The landscape associated with the Property is not associated with any designed landscape. The property has a stone wall along the boundary and a small creek. Between the highway and the Property is a stone wall that has an entryway with stone pillars with lanterns (Figure 29 and Figure 30). Most of the stone walls consist of dry rubble masonry (Figure 31). At the stone entrance, there is a gravel driveway that snakes through vineyards to the 1883 house (Figure 32 and Figure 33). Although sections of the Property remain wooded, the eastern and southeastern sections of the Property consist of vineyards (Figure 34). At the end of the driveway, there is a parking lot, sections of which are concrete, while parts of it are paved with asphalt (Figure 35). North and 2001 barn, there is a pump house that has a shed roof and five large above-ground water tanks (Figure 36). Next to the pump house and water tanks, there is a pre-fabricated front-facing gable shed (Figure 37). At the north boundary of the Property is a stream (Figure 38). The Property has several types of trees, including walnuts, oak, and redwoods (Figure 39).

Figure 29. Stone entrance to the Property, facing west.

Figure 30. Detail of stone pillar at entrance with lantern, facing east.

Figure 31. Rock wall between the Property and St. Helena Highway.

Figure 32. Gravel driveway snaking between vineyards, facing east.

Figure 33. Gravel driveway snaking between vineyards, facing west.

Figure 34. Vineyards on Property, facing west.

Figure 35. Vineyards, trees and parking lots next to 1883 building.

Figure 36. Five above ground water tanks and shed.

Figure 37. Front-facing gable shed, next to five water tanks.

Figure 38. Stream through Property.

Figure 39. Redwoods on Property.

California Register of Historical Resources (CRHR) Evaluation

1. **(Event): Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage**

   The Property, including the 1883 house, is associated with early winemaking in California in the late nineteenth century. Despite this association, the Property does not have enough integrity to convey significance for this event, as much of the built environment has either been demolished or has been significantly altered, as seen in the remnants of the 1883 house. As such, the Property was not found to be associated with any event that made a significant contribution to California's history or cultural heritage.

   Therefore, the Property is not individually eligible for listing in the CRHR under Criterion 1.

2. **(Person): Is associated with the lives of persons important in our past**

   The ownership and occupancy history of the property, including the 1883 house, three 1932 cottages, ca. 1995 barn, and associated landscape with two pump houses, five water tanks, and stone walls, was thoroughly researched.

   The property is associated with several people of local importance, including August and Frederika Hirsch (1883-1895), early members of the wine-making industry in St. Helena, and Frederika was one of the first female winemakers. Although the Property is associated with the August and Frederika Hirsch, the Property lacks integrity for association, as only a portion of the original 1883 house remains, from their winery and vineyards.

   Additional influential people include Charles and Florence Boynton (1909-1919), the latter of whom was a social reformer and proponent of the Open-Air Motherhood movement; Carrie and Francis Alexander (1920-1924), the latter of whom was the acting president of the Carver National Bank in St. Helena. Although these couples are of local importance, the Property was their summer home, and not their primary residence. As such, the Property is not eligible for inclusion on the CRHR for association with a person.

   Therefore, the Property does not appear individually eligible for listing in the CRHR under Criterion 2.

3. **(Construction/Architecture): Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values**

   Architecture: The 1883 house is associated with the **National Architectural style**, with a period of significance of 1883, the year that the house was constructed, and with **Folk Victorian architecture**, with a period of significance of ca. 1905, the year that the addition was built.

Due to the four phases of construction, the 1883 house has two distinct architectural styles.

National Architectural style: The original 1883 house consists of a side-facing broken gable form that has undergone several renovations. Although the form remains, two of the elevations have been wholly absorbed by additions, while the other two have altered fenestration. As such, only the form associated with the style remains, and thus, the house does not maintain an association with the original National architectural design.

Folk Victorian style: The ca. 1905 addition is associated with Folk Victorian design. The addition has several characteristics associated with Folk Victorian design, including the slender, two-over-two, double-hung wood windows, brick chimney, wide eave overhangs with decorative brackets, wood paneling, and wood siding. Although the building maintains these characteristics, it is not a representative example of the style, as it has been altered significantly due to the 1932 and 1950s additions. While what remains is associated with the Folk Victorian style, the building is not a good or representative example of the style. As such, the 1883 house is not eligible for listing under Criterion 3.

The three 1932 cottages, ca. 1995 barn, and associated landscape are not associated with any architectural style or landscape design.

Stone Masonry Construction: Sections of the rock wall (various ages) within the property are associated with **Stone masonry in Napa County**, with a period of significance of the late 19th Century to the turn of the 20th Century. The rock wall, though some areas appear to have been constructed in the late 19th and early 20th century, most of the rock wall has been "restacked" with modern or reused stone. This includes the section directly east of the ca. 1905 house. As such, the rock wall, in and of itself, as a resource within the property, is not individually eligible for listing on the CRHR under Criterion C for association with Stone Masonry Construction.

Therefore, none of the built environment resources within the property are individually eligible for listing in the CRHR under Criterion 3.

4. **(Information potential): Has yielded, or may be likely to yield, information important in prehistory or history.**

Criterion 4 most commonly applies to resources that contain or are likely to contain information bearing on an important archaeological research question. While most often applied to archaeological sites, Criterion 4 can also apply to buildings that contain important information. For a building to be eligible under Criterion 4, it must be a principal source of important information, such as exhibiting a local variation on a standard design or construction technique can be eligible if a study can yield important information, such as how local availability of materials or construction expertise affected the evolution of local building development.

The 1883 house within the property does not appear to have the ability to convey information about either National or Folk Victorian architecture. In addition, none of the built environment within the property is the principal source of information. As such, the property is not eligible for listing in the CRHR under Criterion 4.

LOCAL ASSESSMENT

On October 17, 2007, the Napa County Conservation, Development, and Planning Commission approved the property for Historical Landmark Designation under application #P0-7-00565-LDMK. Per the public Notice of Historic Landmark Designation, "The Historic Landmark Status was granted to the August Hirsch main residence, cellar, and barn originally constructed in 1883. The two 19th-century cottages, rock wall, cistern, redwood grove, and oak trees are to be considered contributing accessory structures and landscape features." Based on this description, the primary contributing elements of the Historic Landmark include the 1883 house and cellar, and the 1883 barn (no longer extant), and the secondary contributing elements consist of two 19th-century cottages (no longer extant), the rock wall (altered), cistern (no longer extant), redwood grove (extant), and oak trees (extant).

EDS Assessment: Although the property has been altered since the Historic Landmark designation in 2007 (prior to the current ownership), the 1883 house appears intact from when it was listed in 2007 and therefore remains eligible for Historic Landmark Designation. However, it should be noted that, in 2009, the County approved the demolition of several of the landmark-listed buildings within the property, including the 1883 barn, and two ca. 19th-century cottages, as well as sections of the rock wall (replaced with modern stone), and other landscape elements. However, the property, including the 1883 house, remains eligible as a Historic Landmark, and the Property is a Historical Resource under CEQA.

State of California Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-28-000923
HRI#
Trinomial

Page 31 **of** 31 ***Resource Name or #** Hirsch Ranch

***Map Name:** Calistoga, Calif. ***Scale:** 1:24,000 ***Date of map:** 1993

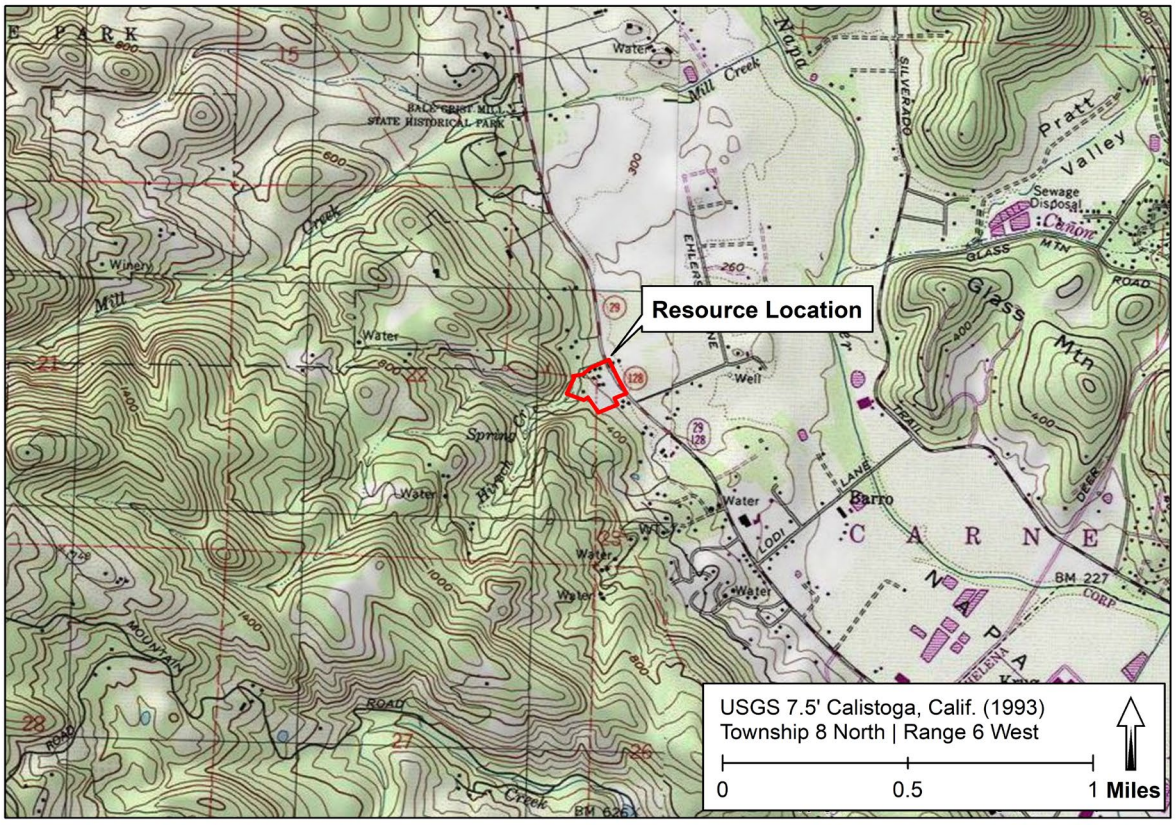
Resource Location Map

1883 House, three 1932 Cottages, and 2001 Barn
3199 St. Helena Highway
St. Helena, Napa County, CA
APN 022-080-025

Legend

Resource Area

EVANS & DE SHAZO
ARCHAEOLOGY
HISTORIC PRESERVATION



Appendix B:

Notice of Napa County Landmark Designation

RECORDING REQUESTED BY:
Napa County Department of Conservation, Development & Planning

WHEN RECORDED, MAIL TO:
Christopher & Pauline Tilley
3199 St. Helena Hwy.
St. Helena, CA 94574

2007-0038933

Recorded Official Records County of Napa JOHN TUTEUR Assessor-Recorder-Cou	REC FEE	16.00
	PHOTOWORK	8.00
	VB	
08:57AM 14-Dec-2007	Page 1 of 4	

Above Area For Recorder's Use Only

NOTICE OF HISTORIC LANDMARK DESIGNATION

The undersigned do hereby certify that they are the owners of the real property that is located in Napa County the legal description of which is attached hereto and made a part thereof as EXHIBIT "A".

The undersigned further acknowledges that on September 9, 2007, Christopher and Pauline Tilley filed Landmark Designation Request #P07-00656 to recognize as a Napa County Historic Landmark the property formerly known as the August Hirsch Winery, and particularly the primary residence, cellar & barn once used as a winery, located on the hereinafter legally described real property which is a 7.85 acre parcel on the west side of St. Helena Highway approximately 100 feet north of Ehlers Lane in an AW (Agricultural Watershed) zoning district, Assessor's Parcel Number: 022-080-025-000.

The undersigned further acknowledges that on October 17, 2007, the Napa County Conservation, Development and Planning Commission approved said request for a Napa County Historic Landmark Designation according to the following conditions:

1. That Historic Landmark status was granted to the August Hirsch main residence, cellar & barn originally constructed in 1883. The two 19th century cottages, rock wall, cistern, redwood grove and oak trees are to be considered contributing accessory structures and landscape features.

2. That the designation allows the Napa County Building Division to consider using the State Historical Building Code for any work proposed to be done to these structures.

3. That any such work is required to be done in a manner consistent with the latest edition of, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings*, Weeks and Grimmer.

4. That the Historic Landmark designation as stated herein, would be recorded to assure that succeeding owners are made aware of this status.

5. That all other conditions of approval for projects on this property shall remain in full force and effect.

Removal of the Historic Landmark status from the structure(s) or building(s) herein described may only be initiated by the Planning Commission upon written request by the property owner, and following the conduct of a public hearing with findings made by the Planning Commission pursuant the current Napa County zoning provisions for Landmark Preservation.

All subsequent instruments conveying this structure and/or the land there under shall contain this notice.

Christopher Tilley

Date: 12/7/07

Pauline Tilley

Date: 12/7/07

STATE OF ~~CALIFORNIA~~ Connecticut
COUNTY OF ~~NAPA~~ New London

On 12.07.07 *, before me,* DiAne M Rullan. *, a Notary Public, personally appeared* Christopher M Tilley + Pauline Tilley *,* ☐ *personally known to me - OR -* ☐ *proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of the person(s) acted, executed the instrument.*

DiAne M Rullan

WITNESS my hand and official seal.

DIAne M. Rullan
NOTARY PUBLIC
MY COMMISSION EXPIRES AUG. 31, 2012

OPTIONAL SECTION

TITLE OF DOCUMENT: Notice of Historic Landmark Designation

NUMBER OF PAGES: 3

DATE OF DOCUMENT: _____

OTHER SIGNERS OF DOCUMENT: _____

CAPACITY CLAIMED BY SIGNER
☐ Individual(s)
☐ Corporate Officer(s)
☐ Partner (s)
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Subscribing Witness
☐ Guardian/Conservator
☐ Other(s)

SIGNER IS REPRESENTING:
Name of Person(s) or Entity(ies)

END OF DOCUMENT

Exhibit A

BEGINNING at a ¾" iron pipe tagged LS 3801 set at the Northeast corner of Parcel One as shown on Map No. 3434 filed July 17, 1981 in Book 12 of Parcel Maps at Page 54 in the Office of the Recorder, said Napa County, from which a ¾" iron pipe with a 2-1/2" brass disk stamped "Department of Parks and Recreation Prop. Cor. LS 4280" set at the Northwest corner of said Parcel Map bears North 89° 03' 17" West 869.86 feet; thence South 36° 03' 50" East 34.88 feet to a ¾" iron pipe tagged LS 3801; thence South 23° 58' 24" West 250.89 feet to a ¾" iron pipe tagged LS 3801; thence South 70° 59' 16" East 262.98 feet to a ¾" iron pipe tagged LS 3801; thence North 53° 56' 10" East 66.80 feet to a ¾" iron pipe tagged LS 3801; thence South 36° 03' 50" East 263.19 feet to a ¾" iron pipe tagged LS 3801; thence North 66° 57' 40" East 264.43 feet to the Southwest corner of the property described in the Deed to Robert K. Penland, et ux, recorded in Book 298 of Official Records at Page 452 in said Recorder's Office; thence along the Southwesterly boundary of said Penland property North 29° 11' 20" West 100.00 feet to the Northwest corner thereof; thence along the Northwesterly boundary of said Penland property North 66° 57' 40" East 210.99 feet to a point on the Southwesterly right-of-way line of State Highway No. 29 on a 1430 foot radius curve concave to the Northeast; thence along said 1430 foot radius curve from a radial line that bears North 51° 02' 11" East, through a central angle of 14° 24' 19" for an arc length of 359.53 feet; thence continuing along said right-of-way line North 24° 33' 30" West 198.18 feet to a point thereon which bears the following three courses and distances from the point of beginning of this description: North 77° 37' 42" East 121.00 feet, North 50° 35' 24" East 162.71 feet and North 65° 43' 01" East 274.14 feet; thence from said point on said right-of-way line South 65° 43' 01" West 274.14 feet; thence South 50° 35' 24" West 162.71 feet; thence South 77° 37' 42" West 121.00 feet to the Point of Beginning.

APN: 022-080-025

F41

COUNTY of NAPA

CONSERVATION, DEVELOPMENT AND PLANNING

HILLARY GITELMAN
Director

JOHN MCDOWELL
Deputy Director

November 28, 2007

Christopher & Pauline Tilley
901 Skibo Lane
Mamaroneck, NY 10543

THIS DESIGNATION CAN MAKE ALTERATION MORE EXPENSIVE.

RE: Landmark Designation
FILE #: P07-00656-LDMK
APN: 022-080-025-000

Dear Mr. & Mrs. Tilley:

Please be advised that your request for Historic Landmark Designation under application **#P07-00656-LDMK** was **APPROVED** by the Napa County, Development & Planning Commission on **October 17, 2007,** based on the attached conditions, Napa County Department Comments, and applicable County regulations.

The designation becomes effective ten (10) working days from the approval date unless appealed to the Napa County Board of Supervisors pursuant to Chapter 2.88 of the Napa County Code, including payment of applicable fees. You may appeal the conditions of approval. If an appeal is filed by anyone, you will be notified.

You are hereby further notified, pursuant to Government Code Sec.66020 (d)(1), that the 90-day period, in which you would have to protest imposition of any fees, dedications, reservations, or other exactions that may have been attached as conditions of approval, has begun.

Should you have any questions, please contact me at thornish@co.napa.ca.us or at: (707) 299-1349.

Sincerely,

Hillary Gitelman
Director

Patricia Hornisher

By: Patricia Hornisher
Planner III

cc: John Tuteur, Napa County Assessor
Darrell Mayes, Chief Building Official

CONDITIONS OF APPROVAL
OCTOBER 17, 2007

V MADRONE WINERY (AKA TILLEY WINERY)
USE PERMIT # P07-00656
APN 022-080-025

1. **SCOPE:**
   - Historic Landmark designation is hereby granted to the August Hirsch main residence, cellar and barn. The two 19th century cottages, rock wall, cistern, redwood grove and oak trees as described in DPR Form 523L, are contributing accessory structures and landscape features.

   - The designation allows the Napa County Building Division to consider using the State Historical Building Code for any work proposed to be done to these structures. Any such work should follow the latest edition of the Secretary of Interior's Standards for Historic Preservation and Guidelines for Treatment of Historic Properties.

   - The Historic Landmark designation shall be recorded to assure that succeeding owners are made aware of this status.

2. **HISTORICAL STRUCTURES:**
   As directed by the Planning Commission at their meeting on October 17, 2007, the August Hirsch Winery of 1883 designation shall be placed on the Napa County Historic Resources Inventory and the letter of approval and relevant documentation for its placement on the California Register of Historic Places will be forwarded to the California State Office of Historic Preservation for placement on the California Historic Register.

3. **PREVIOUS CONDITIONS:**
   All other conditions of approval for projects on this property shall remain in full force and effect to which full compliance shall be required by the permittee. Any other changes shall require review and approval of a use permit modification by the County.

4. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES:**

   The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Departments and Agencies, including but not limited to:

   Napa County Building Department in their letter of September 28, 2007

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

5. **INDEMNIFICATION:**
   An indemnification agreement, in the form attached hereto, shall be signed and returned to the County within twenty (20) days of the granting of this approval.

6. **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 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. Costs shall be as established by Board Resolution in accordance with the hourly consulting rate established at the time of the monitoring. Violations of conditions of approval or mitigations measures caused by the permittee's contractors, employees, and guests are the responsibility of the permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies 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 it is so warranted, to commence revocation hearings in accordance with section 18.124.120 of the County Code.

“L”

Traffic Impact Study

Traffic Study Report

Proposed AXR Napa Valley Use Modification Project

Final Submittal

December 12, 2025

Prepared for:
The County of Napa
Planning, Building, and Environmental Services (PBES)
Department of Public Works (Engineering)
1195 Third St. Suite 101
Napa, CA 94559-3092

At the Request of:
AXR Napa Valley
3199 St. Helena Highway N.
St. Helena, CA 94574

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Executive Summary

The proposed AXR Napa Valley Use Modification project consists of moderate increases in production, visitation, employment, and marketing events to allow the Winery to respond to changing economic conditions. The Winery is located at 3199 St. Helena Highway (SR 29) in St. Helena, Napa County--- (**see Figure 1.1--Project Vicinity Map**). Wine production using primarily on-site grapes is proposed to increase from 20,000 to 35,000 gallons per year. Employment would increase by ten (10) full-time employees (weekday) and four (4) full-time employees on the weekend. Part-time employment would increase by five (5) employees (weekday) and be *reduced* by six (6) employees on the weekend. Daily visitation would increase by 40 guests per day from 20 visitors to 60 visitors. A maximum of 420 guests per week would visit the Winery. Finally, the requested marketing activities would include 31 annual events with a maximum attendance of 150 guests (three times per year). A VMT/TDM reduction plan is proposed with the development (even with minimal increases in proposed Use Modification traffic). Based on input from Napa County Traffic Engineering staff, four intersections along St. Helena Highway were analyzed for existing, near-term, and cumulative conditions with and without the proposed project. These included the Bale Lane, AXR Napa Valley driveways (north and south), and Lodi Lane intersections along St. Helena Highway. As part of overall project circulation improvements, a new northbound left-turn lane on St. Helena Highway would be constructed at the project's south driveway entrance. In addition, specific arterial segments of Bale Lane, St. Helena Highway, and Lodi Lane were evaluated for peak hour weekday operating conditions.

Based on analyses of Existing, Near-Term, and Cumulative traffic conditions with and without the project; the following findings and recommendations are presented:

1. Existing (No Project) Conditions

All study intersections along St. Helena Highway are currently operating at LOS C or better during both the weekday (Friday) PM peak hour and weekend (Saturday) midday peak hour for the stop-sign controlled movements from the minor streets onto St. Helena Highway.. Based on collision history analysis, the study intersections also experience accident rates slightly lower than the State average for similar facilities based on the number of "rear-end" and "broadside" accidents. None of the four study intersections qualify for the peak hour signal warrant under Existing Conditions

Arterial operation is acceptable (LOS D or better) on the Bale Lane, St. Helena Highway (north of Lodi Lane) and Lodi Lane segments during both the weekday PM peak and weekend midday peak hours.

2. Near-Term (No Project) Conditions

Under Near-Term Year 2025 (No Project) conditions, approved project traffic was added to existing traffic volumes to account for increased growth within the project study area. Specifically, two approved/pending projects were identified from the County's "Current Project List" located south of the project site in the Lodi Lane Area. These included both the "Inn at the Abbey" and "Duckhorn Vineyards." Combined, the two projects are expected to generate 50 weekday PM peak hour trips and 74 weekend (Saturday) peak hour trips. With background growth from the NVTA model (1.46%/year) and approved/pending project trips added to existing volumes, the four study intersections along St. Helena Highway would be operating at LOS D during both the weekday and weekend peak hours.

Based on increases in traffic volumes from Near-Term (No Project) traffic growth on St. Helena Highway the three arterial segments would be operating at LOS D or better during the Friday and Saturday peak hours.

3. Cumulative Year 2040 (No Project) Conditions

With Cumulative Year 2040 (No Project) conditions, cumulative volume projections for St. Helena Highway were reviewed from the Solano Napa Valley Transportation Authority (NVTA) Activity Based Model (SNABM). Using the growth in volumes between 2015 and 2040 in Napa County, overall growth would increase by 37% over a 25-year period or 1.46% per year.[1] Cumulative Year 2040 (No Project) conditions represent an approximate 17-year period or 24.82% increase in existing volumes to allow for both local and regional growth.

[1] Solano Transportation Authority (STA) | Napa Valley Transportation Authority (NVTA, Solano Napa Activity – Based Model (SNABM), Model Documentation, Table 28, August 27, 2020.

With Cumulative Year 2040 (No Project) traffic growth added to existing volumes, the three of the four study intersections along St. Helena Highway would be operating.at LOS D or better during the weekday (Friday) PM peak hour and the weekend (Saturday) midday peak hour with the exception of the Lodi Lane intersection. At this location, the Lodi Lane/SR 29 intersection operation is projected at LOS E (39.4 seconds of delay) during the Friday PM peak hour.

Based on increases in traffic volumes from Cumulative Year 2040 (No Project) traffic growth on St. Helena Highway the three arterial segments would be operating at LOS D or better during the Friday and Saturday peak hours.

Proposed Project Impacts

4. Trip Generation

The proposed project daily and peak hour trip generation was conservatively based on Napa County Trip Generation ratios for winery production, employment, and visitation (see **Appendix D**). Based on the most recent County ratios, the project is estimated to generate 92 net new daily trips with 25 weekday PM peak hour trips and 49 net new weekend daily trips with 18 Saturday midday peak hour trips.

5. Intersection/Arterial Impacts

With proposed project traffic, intersection operation along St. Helena Highway at Bale Lane, AXR Napa Valley driveways (north and south), and Lodi Lane would remain unchanged from "No Project" levels under Existing, Near-Term, and Cumulative Year 2040 conditions. Significant improvements in intersection LOS and safety at the project's south driveway would be realized due to the construction of the northbound left-turn on SR 29. The four study intersections would continue to operate at LOS D or better during both the weekday and weekend peak hours under Existing Plus Project and Near-Term Plus Project conditions. Under Cumulative Year 2040 Plus Project conditions, the Lodi Lane/SR 29 intersection would operate at LOS E during the weekday PM peak hour. However, the proposed project would contribute less than five (5) seconds of additional delay to the intersection. In addition, the proposed project trips at this intersection represent less than 10 percent of the anticipated growth during each peak hour. A review of previous transportation studies conducted for adjacent Use Modification projects along Lodi Lane and SR 29 recommend the following for the Lodi Lane/SR 29 intersection:

- It is recommended that the westbound approach at the Lodi Lane/SR 29 intersection be restriped to include a dedicated right-turn lane. The proportional fair share costs to the proposed project would be 1% or less and could be shared with other approved/pending projects (Inn at the Abbey & Duckhorn Vineyards).[2]

The Bale Lane, AXR Napa Valley Driveways (north and south), and Lodi Lane intersections at St. Helena Highway would not qualify for the peak hour signal warrant under any "with project" scenarios including Existing, Near-Term, and Cumulative Year 2040 conditions.

Arterial LOS would remain unchanged from "No Project" levels under Existing, Near-Term, and Cumulative Year 2040 conditions. All three roadway segments would operate at LOS D or better during the weekday and weekend peak hours.

Site Access/Design Parameters

6. Driveway Access

AXR Napa Valley is served by two (2) driveway connections to/from SR 29. The primary driveway (south driveway) is located at 3199 St. Helena Highway (SR 29). With proposed Use Modifications, driveway access to the AXR Napa Valley Winery would be improved to provide a northbound left-turn lane on SR 29 at the project's south driveway. As directed, all existing and proposed project trips will be inbound from the south driveway, circulate and/or park on the site, then exit outbound from the north project driveway. The south project driveway will be limited to inbound access only for northbound left-turns and southbound right-turns. The north project driveway will be limited to outbound access only for eastbound right-turn movements from the site(south on SR 29).

The south project driveway will be signed for outbound flow "Do Not Enter" (MUTCD, R5-1) for internal traffic flow with sign(s) facing west towards the main Winery on-site building to prevent outbound flow. For the north project driveway, current driveway signage and limited vehicle access (right-turns-only) outbound would remain unchanged from existing conditions. The north project driveway is currently signed for "No Left-Turn" (MUTCD, R3-2) and "Do Not

[2] W-Trans, Traffic Impact Study for the Duckhorn Vineyards Use Permit Modification, June 10, 2021.

Enter" (MUTCD, R5-1) for vehicles on SR 29. In addition, outbound motorists are instructed for "Right-Turns Only" (CA MUTCD, R3-5R).

The two project driveways working in tandem serve to provide three purposes:

1. Disperse project-generated daily and peak hour vehicle trips;
2. Improve vehicle safety and access at the south project driveway for northbound left-turn movements from the primary access highway (SR 29) by providing a dedicated left-turn lane;
3. Provide more uniform one-way traffic flow within the project site with clear inbound/outbound directions.

The five-year collision analysis conducted for the segment of State Route 29 adjacent to proposed project driveways indicates that there is not a vehicle collision issue associated with vehicle access to/from the highway. The roadway segment collision analysis evaluated SR 29 1,000 feet north and south of the AXR Napa Valley driveways. As shown in **Table 2.3,** the roadway segment experienced one (1) collision over the past five years with a calculated collision rate below the State average. The recorded collision was a "broadside" on the east side of the highway where a motorist was off the shoulder of the highway and was pulling back into through-traffic when the collision occurred. This type of maneuver would be difficult to resolve. However, the installation of a new left-turn lane at the project's south driveway will improve vehicle safety on SR 29 by removing left-turning vehicles into the project site from northbound through-traffic on St. Helena Highway at shown in **Figure 7.1**.

7. Left-Turn-Lane Analysis

At the County's request, a left-turn lane warrant analysis was conducted for the proposed project's southern driveway at State Route 29. (As noted, the proposed project will install a dedicated northbound left-turn lane at this driveway). Based on Napa County's Road and Street Standards for left-turn lane installation, the left-turn lane warrant evaluated for the south project driveway was based on average daily traffic (ADT) volumes generated at the proposed project driveway verses ADT volumes on State Route 29. Based on these Napa County ADT warrant graph criteria, a project will meet the left-turn lane warrant when the volumes fall above the plotted graph line on the chart. In the case of the proposed project, focused project ADT generated at the inbound south driveway would equal 116 daily trips with 15,700 daily trips on Deer Park Road and fall above the minimum ADT volumes for installation of a left-turn lane (see Napa County Left-Turn Lane Warrant Analysis—**Appendix F**).

8. Caltrans Review

Recent Caltrans review of the proposed project has focused on the placement of recommended driveway signing as well as the overall design exception request of the planned northbound left-turn on SR 29 at the site's south driveway (*Luana Chen, Caltrans District 4, Local Development Review, 9-9-25*). As a result, an encroachment permit will be submitted to Caltrans that will include the following two design components as follows:

- The location of the "Do Not Enter" sign for internal traffic flow at the south project driveway will be depicted on the drawings/plans submitted as part of the Caltrans encroachment permit application.
- A Design Standards Decision Document (DSDD) to justify any nonstandard features of the northbound left-turn lane design on SR 29 at the south project driveway will be submitted with the Caltrans encroachment permit application.

9. Vehicle Site Distance

Radar speed surveys on SR 29 were conducted for the roadway in the project area. The "critical" vehicle speed (the speed at which 85% of all surveyed vehicles travel at or below) along SR 29 was measured at 45 mph at the project driveway. The posted speed limit in the project driveway area is 50 mph. Caltrans' design standards indicate that measured vehicle speeds require a stopping sight distance of 430 feet both north and south of the driveway measured along the travel lanes of St. Helena Highway. Based on field measurements, sight distance from the AXR Napa Valley driveways to the north on the St. Helena Highway is approximately 520 feet (north driveway) and 700 feet (south driveway). Sight distance from the existing driveways to the south is in excess of 600 feet. Therefore, the sight distance recommendations would be met for the speed limit and measured vehicle speeds.

10. Internal Circulation

The existing AXR Napa Valley project driveways from St. Helena Highway provide vehicle access east-west (inbound/outbound) to the Winery tasting and production buildings (**see Figure 6.1—Project Site Plan**). The inbound south driveway extends a short distance (250-feet) in a northwest direction from the highway through vineyard areas to the main AXR Napa Valley building (tours and tastings). A large ADA parking space is located on the south side of the main Winery building. The south AXR Napa Valley driveway forms a circular connection with the outbound north AXR Napa Valley driveway immediately north of the main building. Guests can be picked-up/dropped-off from the driveway area in front of the main Winery building, but no vehicle parking is allowed in this area. The outbound north AXR Napa Valley driveway extends west past the main Winery building to provide access to the Winery production building (Barn) and parking areas. Vehicle parking is provided off the north project driveway as well as between the two Winery buildings.

Vehicle Miles Traveled

Based on Napa County VMT guidelines, the following criteria would screen the proposed AXR Napa Valley Use Modification project from further VMT analysis (see Section 8—Vehicle Miles Traveled). However, a TDM plan is suggested consistent with County policies and guidelines.

Given the largely rural nature of Napa County, a reasonable screening approach is to apply a combination of the concepts and guidelines expressed in both the OPR Technical Advisory and the Napa County TIS Guidelines. Development projects proposed in Napa County can use the following structure to determine what level of VMT analysis will be required:

A Project modifying an existing facility that would generate additional trips where the net cumulative result of all project modifications after January 1, 2022 would generate less than 110 net new daily passenger vehicle and truck trips.

a. Project is not required to prepare a TIS

b. Project is presumed to have a less-than-significant environmental impact for VMT

c. Applicant is encouraged to describe the measures they are taking and/or plan to take that would reduce the Project's trip generation and/or VMT

Based on the above Napa County VMT analysis and criteria, the proposed project is calculated to generate 92 net new daily trips on a weekday (maximum) and satisfies all requirements to be screened out and not require VMT analysis.

Transportation Demand Management

TDM Plan

The following measures are suggested and/or occurring to further reduce the demand of vehicles to/from the site. Given the nature of the proposed Use Modification with moderate increases in visitation, employment, and marketing events, large-scale TDM measures are not practical given the overall size of the Winery operations. However, specific AXR Napa Valley-focused TDM measures are described in some detail below.

Visitor Tours and Tastings/Marketing Events:

- When smaller marketing events are being held at the Winery (25 guests), the combination of tours/tastings and marketing events shall not exceed 60 daily visitors.
- When large marketing events occur seven times per year (75-150 guests), tours/tasting visitors shall not be allowed on those days.
- To the maximum extent feasible, scheduling of tours and tastings shall not occur during peak weekday travel times between 4:00-6:00 p.m.
- When making appointments for all guests and visitors, indicate the existing Caltrans access restrictions at the SR 29--AXR Napa Valley north project driveway (right-turn outbound only) with inbound flow only at the south project driveway. Refer them to the Winery's website for directions and instructions.

Shuttles, Hire Car, Limousines

- To the extent possible, shuttle and other high occupancy vehicles shall transport guests to marketing events or tours and tastings for groups of 25 persons or more, with all vehicles parking on-site in designated areas.

Employees:

In addition to the employee TDM measures currently embedded in Winery operations, the following is suggested:

- Staggered/Flextime employee work hours: The winery will make efforts to have employees who do not live on-site arrive and/or depart the premises outside of the peak commute periods. For example, wine production employees would be encouraged to arrive prior to 7:00 a.m. and to depart before 3:00 p.m. (before 12:00 p.m. on the weekends). The exception would be during the crush/harvest season. Employees working in the visitor-serving capacities would be encouraged to arrive after 9:00 a.m. and depart after 6:00 p.m. (after 4:00 p.m. on weekends);
- Carpool/Vanpool (Bay Area Commuter Benefits Program): Winery enrolls in program and notifies employees and subsidizes carpooling activities per program details;
- Provide and Maintain Bicycle Racks for Employees/Visitors: Provide and maintain bicycle racks for use by employees/visitors. Provide other resources associated with bicycle uses;
- Delivery Off-Peak Scheduling: The Winery will endeavor to schedule deliveries during off-peak commute times.

General:

- Ride Share/Car Free Operations: The winery will make efforts to encourage ride shares and “car free” tourism as described in the program of the Napa Valley Destination Council and Napa Valley Transportation Agency.
- Napa Valley Forward Program: The Winery can enter into an agreement with the agency’s designated commuting hub platform to provide information to the Winery’s traffic reduction efforts.

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1. Introduction

The following report provides a focused traffic impact analysis (TIA), vehicle miles traveled (VMT), and transportation demand management (TDM) plan for the proposed AXR Napa Valley Use Permit Modification project located at 3199 St. Helena Highway North (State Route 29) in St. Helena (see **Figure 1.1**—Project Vicinity Map). Review of the initial project work-scope was provided by Napa County Planning, Building, and Environmental Services (PBES), Department of Public Works.[3] As a result of Napa County comments, the analysis has been refined to reflect their concerns and direction associated with potential transportation impacts from proposed project Use Modifications. Specifically, a new northbound left-turn lane will be installed at the project site's south driveway to improve overall vehicle access and safety on St. Helena Highway.

Based on the most recent detailed project description, the use permit modification will involve increased activities in wine production, employment, visitation, and marketing events. Existing project access from St. Helena Highway (inbound) at the project driveways has historically been limited to right-turns only by historic agreements with Caltrans. However, as part of the revised project description, a northbound left-turn lane will be installed on SR 29 consistent with both Caltrans and Napa County Street and Roadway design standards. Therefore, one of the key tasks of the TIA is to evaluate the operation of the two major intersections providing access to the project site located on St. Helena Highway north and south of the existing project driveway for vehicle delay, queuing, and safety.

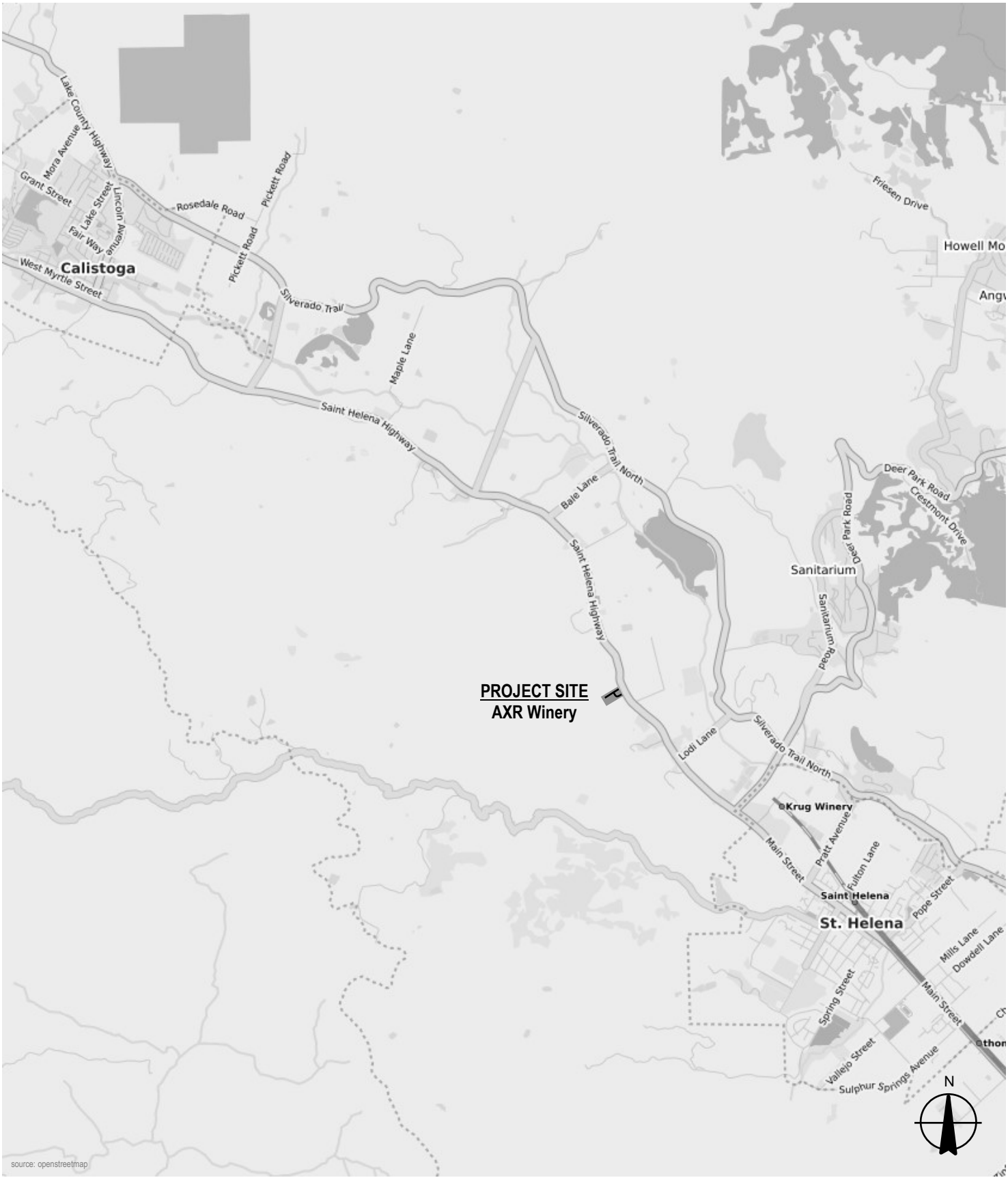
Based on Updated Napa County transportation guidelines, potential project impacts would represent the increase from current use permit activities and proposed project use modification changes. The resulting net increase in the proposed project daily trip generation will guide how overall impacts are assessed and aide County staff for the proposed project's environmental review.

Using recent Napa County transportation guidelines that include TIA/VMT/TDM policies (Napa County 2022), GHD has analyzed existing, near-term (approved), and cumulative conditions with and without the proposed project. In addition, a vehicle collision analysis has been conducted focusing on Lodi Lane Road and Bale Lane as primary north-south access intersection(s) and the along the adjacent roadway segments. Project site access, circulation, and vehicle sight distance have been evaluated using County standards. Consistent with County guidelines, proposed project vehicle miles traveled (VMT) was identified with recommended transportation demand management (TDM) measures.

The following key transportation components associated with project activities and transportation operations were evaluated:

- Existing Conditions (Year 2023) with/without Project: Weekday PM peak hour and weekend (Saturday) mid-day peak hour operations at the Bale Lane/St. Helena Highway, AXR Napa Valley Driveway/St. Helena Highway, Lodi Lane/St. Helena Highway, and associated roadway segments;
- Near-Term (2025) with/without Project. Operating conditions reflecting other approved projects in the study area encompassing Napa County and the City of St. Helena;
- Net increase in proposed project trip generation from current existing permitted conditions to proposed project use modification conditions including production, visitation, employment, and marketing events based on accepted Napa County trip generation ratios;
- Estimated increase in project vehicle miles travelled (VMT) using recommended vehicle trips length from the Napa County transportation guidelines;
- Project site access at the winery's 3199 St. Helena Highway north and south driveways with the planned northbound left-turn lane and circulation of vehicles within the winery areas;
- Cumulative year 2040 with/without project using growth projections along St. Helena Highway, Bale Lane, and Lodi Lane based on the Napa Valley Transportation Authority (NVTA) active model projections;

[3] Napa County PBES, Bremer Family Winery, P22-00086 Traffic Impact Study Scope of Services, Memorandum, Sayed Fakhry, PE, TE, TJKM Transportation Consultants, October 24, 2022.



GHD

Project Vicinity Map

Project No. 12610827

FIGURE 1.1

- Transportation Demand Management (TDM) plans to reduce overall vehicle trip lengths and trip generation tailored to specific Winery activities related to visitation and employment as well as other recommended County strategies.

Executive Summary/Mitigation: Based on the findings of the operational analysis for the proposed AXR Napa Valley Use Modification project, mitigation measures are recommended to provide acceptable operations during the design peak hour conditions. Mitigations may include, but are not limited to, signalization, lane geometry changes/additions, travel lane requirements, signage and striping, additional gate service lanes, transportation demand measures, and turn restrictions/wayfinding.

The following scenarios were evaluated for transportation analyses for the proposed AXR Napa Valley Use Modification Project:

- Existing Conditions (Year 2023)
- Existing plus Project Conditions
- Near-Term (Year 2025) No-Project Conditions
- Near-Term (Year 2025) plus Project Conditions
- Cumulative Year 2040 No-Project Conditions
- Cumulative Year 2040 plus Project Conditions

1.1 Project Description

Using the proposed project's most recent County use permit (major modification) application for winery uses the activities anticipated to increase over existing levels during harvest season include the following:

- The number of weekly visitors would increase from 20 persons per week to 60 persons per week;
- Maximum daily visitation would not exceed 60 persons per day and 420 persons per week;
- Winery production would increase by 15,000 gallons from 20,000 gallons per year to 35,000 gallons per year;
- There would be 31 marketing events per year as follows:
    - Two (2) events per month with up to 25 guests
    - Four (4) annual events with up to 75 guests
    - Three (3) annual events with up to 150 guests;
- The number of full-time employees would increase by 10 employees during the weekday and 4 employees during the weekend. Part-time employment would increase by 5 employees during the weekday and be reduced by 6 employees (8 part-time to 2 part-time) during the weekend.

Vehicle access to the project site is provided by two driveways (north and south) at 3199 St. Helena Highway. As noted, no inbound left-turn movements are currently allowed from the highway at these driveways based on existing Caltrans restrictions/signage. With proposed project improvements, a northbound left-turn lane will be constructed on SR 29 at the project's south driveway. It is noted that a small residential lane (Bea Lane) is located approximately 200-feet north of the proposed project's north driveway. Bea Lane provides access to residential and winery areas east of St. Helena Highway. However, no guests and/or employees use Bea Lane to access the AXR Napa Valley grounds (and are instructed as such).

2. Transportation Network

2.1 Project Setting

This section outlines both the roadway, intersection, pedestrian/bicycle network that provides both direct and indirect access to the AXR Napa Valley, and collision history at the primary study intersection/roadway. The Winery is located at 3199 St. Helena Highway approximately 2 miles north of downtown St. Helena. Bale Lane is located about 1.5 miles north of the project site with Lodi Lane located approximately 0.65 miles south of the project site. Both of these roadways provide east-west access between Silverado Trail and State Route 29 (SR 29 or St. Helena Highway). A brief description of each roadway follows:

2.1.1 Roadways

State Route 29 (SR-29) or St. Helena Highway is the primary north-south route through the Napa Valley extending from the City of Vallejo north to the City of Calistoga. The highway varies from four travel lanes (between Vallejo and Yountville) narrowing to two travel lanes north of Yountville. This two-lane roadway configuration continues for the majority of the highway. However, segments of SR 29 contain a two-way-left-turn-lane (TWLTL) between Mee Lane north to St. Helena. In the project study area, SR-29 has two travel lanes and wide shoulder areas with a 50-mph speed limit.

Bale Lane is located approximately 1.5 miles north of the project site and extends in an east-west direction between SR 29 and Silverado Trail. Bale Lane is a two-lane semi-rural roadway with unimproved shoulders and provides access to agricultural and residential areas north of the project site with a 45-mph speed limit..

Lodi Lane is located approximately 0.6 miles south of the project site and also extends in an east-west direction between SR 29 and Silverado Trail. Like Bale Lane, Lodi Lane is a two-lane semi-rural roadway with unimproved shoulders and provides access to agricultural and residential areas south of the project site with a 40-mph speed limit.

Silverado Trail is located approximately 0.80 miles northeast of the proposed project site and is one of the two primary north-south routes providing access through the Napa Valley. A two-lane rural throughway, Silverado Trail provides access to agricultural, winery, and commercial areas on the east side of the Napa Valley. Extending from the City of Napa north through St. Helena, Silverado Trail eventually extends to Calistoga with a 50-mph speed limit in the study area. Both Bale Lane and Lodi Lane provide convenient east-west connections from Silverado Trail north and south of the proposed project site (via SR 29)

2.1.2 Intersections

To update existing peak hour traffic operating conditions, new peak period multi-model traffic counts were conducted along SR 29 at the Bale Lane, AXR Napa Valley (north and south driveways), and Lodi Lane intersections in June 2023[4]. Based on Napa County guidelines, vehicle counts were conducted during the Friday PM commute period and a Saturday peak afternoon period at the following intersections:

- Bale Lane / SR 29
- AXR Napa Valley North Driveway/ SR 29
- AXR Napa Valley South Driveway / SR 29
- Lodi Lane / SR 29

The County requires two Friday intersection counts (4:00-6:00 p.m.) and two Saturday afternoon (1:00-3:00 p.m.) counts that are then averaged to provide a representative sampling of traffic flow volumes. The resultant “peak hour” of traffic flow on SR 29 typically occurs between 4:00-5:00 p.m. (Friday) and 2:00-3:00 p.m. (Saturday) along this highway segment. Traffic count data has been included in **Appendix A.** Peak period counts were conducted during the non-harvest/crush season (early June) and do not fully reflect peak traffic conditions on St. Helena Highway.

[4] All Traffic Data Systems, Peak period intersection counts along St. Helena Highway at Bale Lane, AXR Napa Valley, and Lodi Lane , Fridays (June 9 & 10, 2023) & Saturdays (June 16 & 17, 2023).

Therefore, Napa County guidelines indicate existing count volumes will be increased by 7% to represent harvest season conditions.[5] Existing (adjusted) AM and PM peak hour intersection volumes are shown in **Figure 2.1**.

2.1.3 Intersection Field Observations

The AXR Napa Valley is served by two (2) driveway connections to/from SR 29. The primary driveway (south driveway) is located at 3199 St. Helena Highway (SR 29). The driveway is signed from SR 29 for no inbound (northbound) left-turn movements into the driveway in accordance with Caltrans direction. Two "No Left-Turn" signs (CA Manual on Uniform Traffic Control Devices—MUTCD, R3-2 Signs) are present on both sides of highway facing south at the driveway entrance. Southbound vehicles on SR 29 can turn right at this driveway to ingress the site. Outbound vehicles from the driveway are allowed to turn left or right (northbound or southbound) onto SR 29.

A secondary AXR Napa Valley driveway (north driveway) is located approximately 200 feet north of the primary AXR Napa Valley driveway. As with the primary project driveway, it is signed for "No Left-Turn" (MUTCD, R3-2) and "Do Not Enter" (MUTCD, R5-1) for northbound vehicles on SR 29. In addition, outbound motorists are instructed for "Right-Turns Only" (CA MUTCD, R3-5R).

The Bale Lane and Lodi Lane intersections are stop-sign controlled for the westbound minor street approaches at SR 29. At both intersections, a separate left-turn lane pocket is provided on southbound SR 29 from the highway onto the minor street. Each southbound left-turn lane on SR 29 at Bale Lane and Lodi Lane has a storage capacity of approximately 100 feet (4 car lengths).

2.1.4 Average Daily Traffic (ADT) Volumes

In addition to intersection count volumes, ADT (24-hour) two-way roadway segment volumes were collected/obtained on the following roadway segments:[6] [7]

Bale Lane: East of SR 29

SR 29: North of Lodi Lane

Lodi Lane: East of SR 29

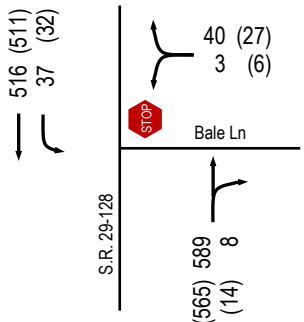
Again, existing ADT volumes were increased by 7% to account for harvest season conditions. As recorded, the SR 29 highway segment north of Lodi Lane is currently carrying 15,700 daily vehicles. The roadway segment on Bale Lane east of SR 29 is carrying 835 daily vehicles while the segment on Lodi Lane east of SR 29 is carrying 1,020 daily vehicles.

2.1.5 Pedestrians/Bicycles

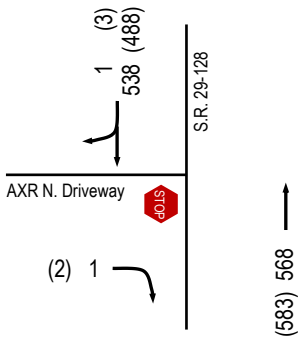
Based on the rural nature of the SR 29, Bale Lane, and Lodi Lane and their distance from St. Helena and Calistoga, observed pedestrian and bicycle facilities in the project study area were limited in nature. Based on field observations during data collection, there are no designated pedestrian/bicycle facilities on these roadways in the project study area. Bale Lane and Lodi Lane have no shoulders, curb or gutter, or sidewalks in the project vicinity. Pedestrian and bicycle counts conducted at the three study intersections revealed very minor use during the weekday PM peak and Saturday midday peak hours (1-2 peds/bikes). However, a large group of bicyclists (21 bicyclists) were observed during the Saturday midday peak hour southbound on SR 29 at Bale Lane, AXR Napa Valley north and south driveways, and Lodi Lane. Total pedestrian/bicycle at the three study intersections along SR 29 during the weekday PM and Saturday midday peak hours are shown in **Table 2.1**.

[5] Napa County PBES, Napa County Traffic Impact Study (TIS) Guidelines, February 2022.
[6] Counts Unlimited, Average Daily Traffic (ADT) counts, Bale Lane, and Lodi Lane (east of SR 29), June 9, 10 & June 16, 17, 2023.
[7] Caltrans, Highway Volumes, SR 29 north of Lodi Lane, Peak Month, 2023.

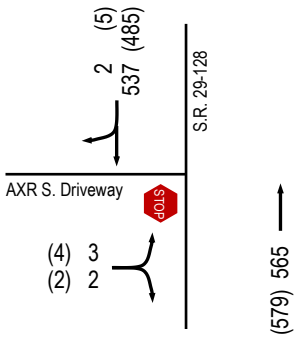
1 S.R. 29 - 128 / Bale Ln



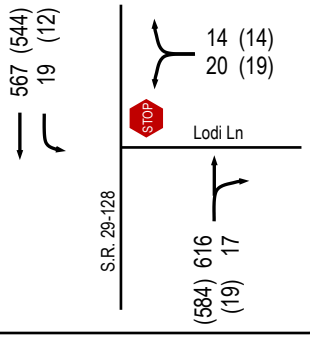
2 S.R. 29 - 128 / AXR N. Driveway

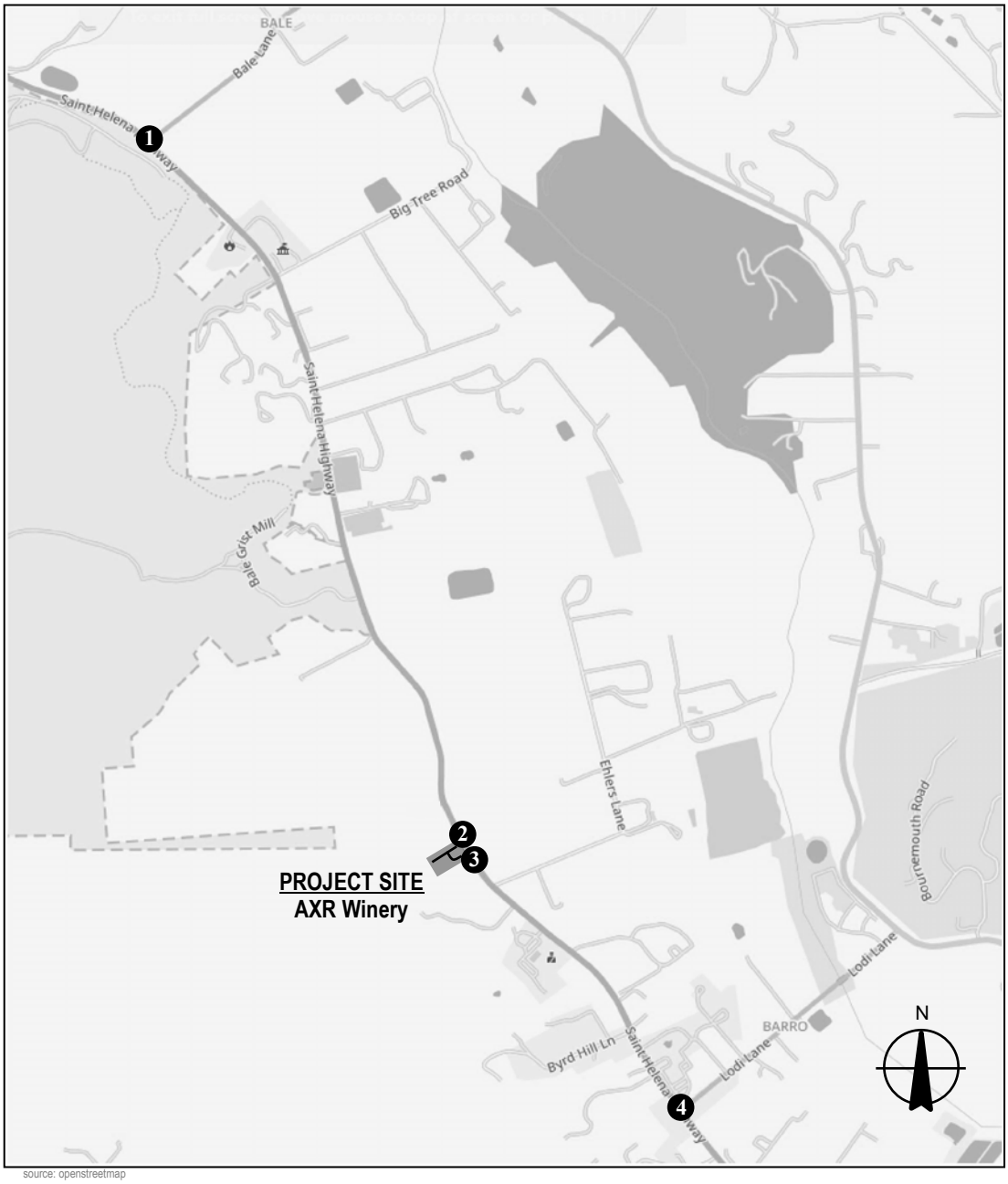


3 S.R. 29 - 128 / AXR S. Driveway



4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

GHD

Existing
Weekday P.M. and (Weekend Mid-day)
Peak Hour Intersection Volumes

Project No. 12610827

FIGURE 2.1

Table 2.1 Pedestrian and Bicycle Volumes, Friday PM and Saturday Midday Peak Hours

#	Intersection	Control Type	PM Peak Hour Pedestrian/Bicyclists	MD Peak Hour Pedestrian/Bicyclists
1	Bale Lane / St. Helena Highway	TWSC	2	21
2&3	AXR Napa Valley N&S Driveways / St. Helena Highway	TWSC	2	21
4	Lodi Lane / St. Helena Highway	TWSC	1	21

Source: Counts Unlimited, Weekday PM and Saturday Midday peak hour pedestrian/bicycle count data, Bale Lane, AXR Napa Valley Driveway, and Lodi Lane, June 17, 2023.

A review of the Napa Countywide Bike Plan reveals that Bale Lane is proposed to be designated as a Class III (Bike Route) facility with St. Helena Highway (SR 29) proposed as a Class II route in segments (Bike Lanes).[8]

2.1.6 Transit

Transit service in the regional area is currently provided by The Vine and is operated by the Napa Valley Transportation Authority (NVTA). The Vine operates both fixed-route and "flex route" service that provides access encompassing the City of Napa and other major towns along Highway 29 including Yountville, St. Helena, and Calistoga. . Currently, Route 10 "Up Valley Connector" provides transit service in the project vicinity along SR 29 with stops at Lodi Lane. Headways are approximately every hour during the weekdays (5:30 am – 9:43 PM) and Saturdays (7:00 am – 9:15 pm). In addition, The Vine does operate flexible service routes and para-transit routes in St. Helena with "on-demand" door-to-door services within ¾ of a mile of St. Helena.

2.2 Collision Analysis

A collision analysis was conducted for the study area to determine any trends or patterns that may indicate a safety issue at adjacent intersections and roadways in the study area. Collision rates are calculated based on records provided by the California Highway Patrol as published in their State-wide Integrated Traffic Records System (SWITRS) database. The most current five (5) year period from January 1, 2018, through December 31, 2022, was analyzed. Collision characteristics and rates for the primary existing intersections of Bale Lane, AXR Napa Valley Driveway, and Lodi Lane at SR 29 area shown in **Table 2.2**.

Based on a review of the collision data, there were no fatal or severe injury collisions recorded for the study locations in the past five years. In addition, the calculated collision rate for the study locations was compared to the average collision rate for similar facilities state-wide, as indicated in the *2019 Collision Data on California State Highways* (Caltrans). As presented in **Table 2.2**, the four project study intersections are experiencing collision rates lower than the 2019 California Average for similar facilities. In fact, the majority of collisions (3) were at the Bale Lane/SR 29 intersection with one "broadside", one "hit object", and one "head-on." These types of collisions are consistent with minor-street, stop-sign control intersections and the relatively high vehicle speed limit on SR 29. (It is noted that the "head-on" collision was actually a "broadside" and was mis-categorized).

In addition to intersection collision analysis, roadway segment collision analysis was also evaluated for SR 29 1,000 feet north and south of the AXR Napa Valley driveway. As shown in **Table 2.3,** the roadway segment experienced one (1) collision over the past five years with a calculated collision rate below the State average. The recorded collision was a "broadside" where a motorist was off the shoulder of the highway and was pulling back into through-traffic when the collision occurred. This type of maneuver would be difficult to resolve. However, the installation of a new left-turn lane at the project's south driveway will improve vehicle safety on SR 29 by removing left-turning vehicles into the project site from northbound through-traffic on St. Helena Highway at shown in **Figure 7.1**.

[8] Napa Valley Transportation Authority (NVTA), Napa Countywide Bike Plan, Planning Area—North Valley, 2019.

Table 2.2 Study Intersection Collision Analysis

Intersection ID	Intersection	By Severity					By Type							By Year					Bicycle Involved Collisions	Pedestrian Involved Collisions	Total Collisions (2018-2022)	24-Hr Entering Volume	Collision Rate (Per Million Entering Vehicles)	CA Average Collision Rate (Per Million Entering Vehicles)
		Fatal	Severe Injury	Injury (Other Visible)	Injury (Complaint of Pain)	Property Damage Only	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Vehicle/Pedestrian	Other	2018	2019	2020	2021	2022						
1	SR 29-128 / Bale Ln	0	0	0	1	2	1	0	0	1	1	0	0	1	0	1	1	0	0	0	3	11930	**0.14**	0.29
2	SR 29-128 / AXR Winery N&S Drives	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15700	**0.00**	0.29
3	SR 29-128 / Lodi Ln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12530	**0.00**	0.29

Table 2.3 Roadway Segment Collision Analysis

Segment ID	Segment	By Severity					By Type							By Year					Bicycle Involved Collisions	Pedestrian Involved Collisions	Total Collisions (2018-2022)	24-Hr Entering Volume	Collision Rate (Per Million Vehicle Miles)
		Fatal	Severe Injury	Injury (Other Visible)	Injury (Complaint of Pain)	Property Damage Only	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Vehicle/Pedestrian	Other	2018	2019	2020	2021	2022					
A	SR 29-128 (St. Helena Hwy) 1,000 ft. fronting AXR Winery	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	15700	**0.18**

2.3 Analysis Methodologies

Operational design standards are established using information in the Napa County Traffic Impact Study (TIS) Guidelines (Napa County, 2022), Napa Valley General Plan Circulation Element (Napa County, 2019) and the Highway Capacity Manual (HCM), Sixth Edition (TRB, 2016) for intersection capacities.

2.3.1 Intersection LOS Methodologies

Level of Service (LOS) was calculated for all intersection control types using the methods documented in the HCM, Sixth Edition (TRB, 2016). Level of service is a qualitative measure of traffic operating conditions, whereby a letter grade “A” through “F” is assigned to an intersection or roadway segment representing progressively worsening traffic conditions.

For two-way stop-controlled (TWSC) and/or “T-type” intersections such as the Bale Lane, AXR Napa Valley Driveway, and Lodi Lane intersections at SR 29, the intersection delay and LOS are represented by the stop-sign controlled approach (worst case) and is expressed in seconds of vehicle delay with a corresponding LOS range.

All unsignalized intersection operations analyses are conducted using procedures and methodologies contained in the HCM (TRB, 2016). These methodologies are applied using the Synchro/SimTraffic simulation software (Version 11).

2.3.2 Operational Design Standards

Operational design standards for acceptable intersection operations are based on the Napa County Traffic Impact Study (TIS) Guidelines. Should intersection operations be forecasted to perform below acceptable LOS and standards, measures are recommended to improve operations to acceptable LOS and standards as follows:

Intersections:

- The operational analyses of unsignalized intersections are considered substandard if project-related traffic would cause the worst approach (i.e., greatest delay) at an intersection to operate at LOS E or worse during one or more peak hours.

All study intersections were analyzed at a threshold of LOS D. Refer to **Table 2.4** for the intersection Level-of-Service descriptions and LOS criteria for signalized and unsignalized intersections based on Transportation Research Board (TRB, 2016).

Roadways:

Roadway segment LOS has been based on the Highway Capacity Manual (HCM) "Two-Lane Highway" automobile analysis. The HCM methodology involves roadway widths, terrain, heavy vehicles, directional and opposing vehicle flow, and potential passing zones. For two-lane highways, the LOS criteria can differ depending on the classification of the highway that falls into Class I, Class II, or Class III. Class I highways refer to regional routes connecting cities with high-speed travel. Class II highways are more recreational in nature with motorists not anticipating high vehicle speeds nor longer trips between regions. Finally, Class III highways can be a combination of both Class I or Class II highways the have a mix of both regional and local traffic volumes.

For the purpose of this analysis, all roadways study segments have been classified as Class II highways consistent with previous transportation analyses in the study area. The measure of effectiveness (MOE) is the average vehicle travel speed and percent time spent following or PTSF that yields an associated LOS for Class II facilities.

All roadway segments were analyzed for Class II LOS threshold of D or better as shown in **Table 2.5.**

Bicycle Facilities:

- The operational analysis of bicycle facilities is considered substandard if the project would result in potentially hazardous conditions for bicyclists or otherwise would substantially interfere with bicycle accessibility to the project site and adjoining areas.

Pedestrian Facilities

- The operational analyses of pedestrian facilities are considered substandard if the project would result in substantial overcrowding on sidewalks, would create potentially hazardous conditions for pedestrians or otherwise would substantially interfere with pedestrian accessibility to the project site and adjoining areas.

2.3.3 Technical Parameters for Intersection Operations

The following technical parameters were developed for this study:

- A Peak Hour Factor (PHF) will be calculated based on the traffic counts conducted for this study for each analysis location and the HCM (TRB, 2016). Intersection PHF's are used for existing and design year conditions. A default PHF of 0.93 is used for Design Year conditions and/or calculated PHF (whichever is more conservative).
- Peak hour truck percentages were calculated based on Heavy Vehicle counts conducted as part of the SR 29 intersection data collection and/or 5% based on County direction (GHD, 2022).
- Speeds on SR 29, Bale Lane, and Lodi Lane (used for intersection analysis) are based on the current posted speed limit.
- SR 29 mainline lane width of 12' will be used in the analysis.
- The intersection saturation flow rate is assumed to be 1,900 passenger cars per hour per lane based on the HCM (TRB, 2016).

All parameters not listed above should be assumed as default or calculated values based on the HCM (TRB, 2016).

Table 2.4 Intersection Level-of-Service (LOS) Delay Criteria

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle		
				Signalized	Unsignalized	All-Way
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made and nearly all drivers find freedom of operation.	<10.0	<10.0	<10.0
B	Stable Flow	10.0Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10.0 and <20.0	>10.0 and <15.0	>10.0 and <15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20.0 and <35.0	>15.0 and <25.0	>15.0 and <25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable	Maneuverability is severely limited during short periods due to temporary back-ups.	>35.0 and <55.0	>25.0 and <35.0	>25.0 and <35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55.0 and <80.0	>35.0 and <50.0	>35.0 and <50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0	>50.0

Table 2.5 Roadway Segment Level-of-Service (LOS) Delay Criteria

Automobile Level-of-Service Criteria	
LOS	Class II Highways PTSF %
A	≤40
B	>40-55
C	>55-70
D	>70-85
E	>85

PTSF = Percent Time Spent Following

2.4 Existing Intersection Operations

2.4.1 Intersection Level-of-Service

Existing weekday PM peak hour (Friday) and weekend midday peak hour (Saturday) study intersection operation were quantified using existing traffic volumes and existing lane geometry and control. Table 2.3 presents intersection operations for Existing Conditions. Detailed Synchro calculation sheets are included in **Appendix B**.

As presented in **Table 2.6**, the two-way-stop-controlled (TWSC) intersections of Bale Lane, AXR Napa Valley Driveways (north and south), and Lodi Lane at SR 29 are currently operating at acceptable levels (LOS D or better) during the PM peak hour and Saturday Midday peak hour. The westbound approach of Lodi Lane was observed to experience longs vehicle delays for the left-turn movement onto SR 29 not completely reflected in the LOS calculation. However, there is a combined westbound left and right-turn lane on Lodi Lane that provides for a slightly better LOS using both movement delays.

2.4.2 Roadway Segment Level-of-Service

With Existing traffic volumes, all roadway segments are operating at acceptable levels-of-service (LOS C or better) during the AM and PM peak hours. As shown in **Table 2.7,** roadway segments along Bale Lane and Lodi Lane are operating at LOS A during the AM and PM commute periods. SR 29 north of Lodi Lane is operating at LOS C during the same time periods. Field observations indicate SR 29 experiences relatively free-flow conditions in the segment north and south of the AXR Napa Valley driveway.

Table 2.6 Existing Intersection Level-of-Service (LOS), Weekday PM Peak & Weekend Midday Peak Hour

ID	Intersection	Peak Hour	Target LOS	Exisiting		
				Control	Delay	LOS
1	Bale Lane/St. Helena Highway	PM	D	TWSC	14.6	B
		MD	D		15.7	C
2	AXR Napa Valley N. Driveway / St. Helena Highway	PM	D	TWSC	12.1	B
		MD	D		11.6	B
3	AXR Napa Valley S. Driveway / St. Helena Highway	PM	D	TWSC	18.7	C
		MD	D		18.8	C
4	Lodi Lane / St. Helena Highway	PM	D	TWSC	23.8	C
		MD	D		21.6	C
BOLD Indicate LOS of E or worse 1 Intersection LOS based on Synchro-Simtraffic (Version 11.0); 2 Delay reported from HCM 6 (TRB, 2016) methodology, TWSC = Two-Way-Stop-Control, PM = Friday Weekday Peak, MD = Saturday Midday Peak						

Table 2.7 Existing Roadway Segment Level-of-Service (LOS), Weekday PM Peak & Weekend Midday Peak Hour

Study Segment Direction	Friday PM Peak PTSF	LOS	Saturday Midday Peak PTSF	LOS
1. Bale Ln. - E. of SR 29				
Eastbound	10.8	A	10.8	A
Westbound	10.5	A	8.6	A
2. SR 29 - N. of Lodi Ln.				
Northbound	62.1	C	62.8	C
Southbound	60.7	C	58.2	C
3. Lodi Ln. - E. of SR 29				
Eastbound	14.0	A	12.7	A
Westbound	13.5	A	13.5	A

PTSF = Percent time spent following

2.4.3 Signal Warrant Evaluation

Based on the California Manual on Uniform Traffic Control Devices (CAMUTCD) peak hour signal warrant criteria, the unsignalized study intersections of Bale Lane, AXR Napa Valley Driveways, and Lodi Lane were evaluated for signal warrant.[9] The peak hour warrant(s) is one of several standards to help determine if installation of a traffic signal is appropriate. Qualifying for signalization using the peak hour warrants does not necessarily mean a signal should be installed. The decision to install a traffic signal should be based on further studies utilizing additional warrants as presented in the CAMUTCD. At this time, none of the project study intersections qualify for signalization under the peak hour warrant (the warrant graphs are provided in **Appendix C**).

3. Near-Term (No Project) Conditions

3.1.1 Methodology

Both near-term conditions (approved, no project) and cumulative volume projections for Bale Lane, SR 29, and Lodi Lane were reviewed from the Solano - Napa Activity Based Model (SNABM). Using the growth in volumes between 2015 and 2040 in Napa County, overall growth would increase by 37% over a 25-year period or 1.46% per year.[10] Near-Term (No Project) conditions represent an approximate 2-year period (Year 2025) to allow for completion of approved projects.

In addition to the SNABM traffic growth projections, local approved/pending projects in the immediate study area have been included in overall traffic growth based on Napa County TIS Guidelines. Based on directions from Napa County Planning staff, there are two ongoing development projects that could affect traffic volumes along St. Helena Highway and Lodi Lane and include the following:

- **The Inn at the Abbey (P19-00038)**—3010 St. Helena Highway, St. Helena. Approximately 0.6 miles south of the project site, new Hotel with 79-rooms.
- **Duckhorn Winery (P19-00097)**—1000 Lodi Lane, Angwin. Approximately 3.5 miles northeast of the project site; annual production of 30,000 gallons, 4 full-time employees, 1 part-time employee, average of 12 visitors per day.

[9] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Peak hour signal warrant (#3), 2014 Edition (Revised March 27, 2020).
[10] Solano Transportation Authority (STA) | Napa Valley Transportation Authority (NVTA, Solano Napa Activity – Based Model (SNABM), Model Documentation, Table 28, August 27, 2020.

3.1.2 Near-Term (Approved Project) Trip Generation

Based on Napa County's Winery Trip Generation Worksheet for use modifications, the approved project's daily and peak hour vehicle trips have been calculated as follows:

The Inn at the Abbey: Weekday: 645 daily trips, 33 PM peak hour trips
Weekend: 645 daily trips, 57 Midday peak hour trips

Duckhorn Winery: Weekday: 120 daily trips, 17 PM peak hour trips
Weekend: 112 daily trips, 17 Midday peak hour trips

Approved project trip generation was taken directly from the *Traffic Impact Study, Duckhorn Vineyards Winery Use Permit Modification, County of Napa.*[11]

Both approved/pending project sites are located south and east of the proposed project site in the Lodi Lane area. Excluding local traffic associated with employment, deliveries, and visitation; the majority of traffic flow would be to/from the south via SR 29 and Silverado Trail to Lodi Lane. Peak hour approved/pending project trips were assigned to the roadways based on existing traffic flows and previous transportation studies conducted for the developments.

Near-term (No Project) volumes for the weekday (Friday) PM peak hour and weekend (Saturday) midday peak hour are shown in **Figure 3.1**

3.1.3 Near-Term (No Project) Intersection Operations

With Near-Term (No Project) volumes, study intersection LOS has been calculated and shown in **Table 3.1.** As calculated, all intersections would continue to operate at acceptable LOS (LOS D or better) during the Friday PM peak hour and Saturday midday peak hour. .

Table 3.1 Near-Term (No Project) Intersection Level-of-Service (LOS), Weekday PM Peak & Weekend Midday Peak Hour

ID	Intersection	Peak Hour	Target LOS	Exisiting			Near-Term (No Project)		
				Control	Delay	LOS	Control	Delay	LOS
1	Bale Lane/St. Helena Highway	PM	D	TWSC	14.6	B	TWSC	15.1	C
		MD	D		15.7	C		16.1	C
2	AXR Napa Valley N. Driveway / St. Helena Highway	PM	D	TWSC	12.1	B	TWSC	12.2	B
		MD	D		11.6	B		11.7	B
3	AXR Napa Valley S. Driveway / St. Helena Highway	PM	D	TWSC	18.7	C	TWSC	19.3	C
		MD	D		18.8	C		19.3	C
4	Lodi Lane / St. Helena Highway	PM	D	TWSC	23.8	C	TWSC	26.2	D
		MD	D		21.6	C		24.1	C

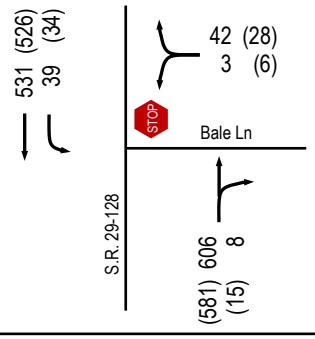
BOLD Indicate LOS of E or worse

1 Intersection LOS based on Synchro-Simtraffic (Version 11.0);

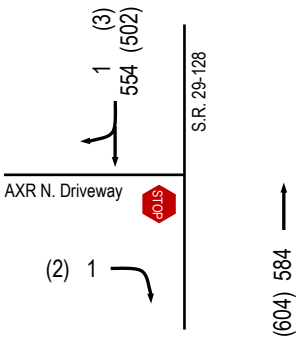
2 Delay reported from HCM 6 (TRB, 2016) methodology, TWSC = Two-Way-Stop-Control, PM = Friday Weekday Peak, MD = Saturday Midday Peak

[11] W-Trans, Traffic Impact Study for the Duckhorn Vineyards Use Permit Modification, County of Napa, June 10, 2021.

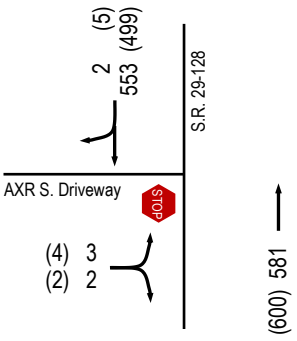
1 S.R. 29 - 128 / Bale Ln



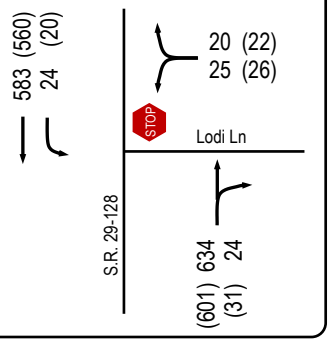
2 S.R. 29 - 128 / AXR N. Driveway

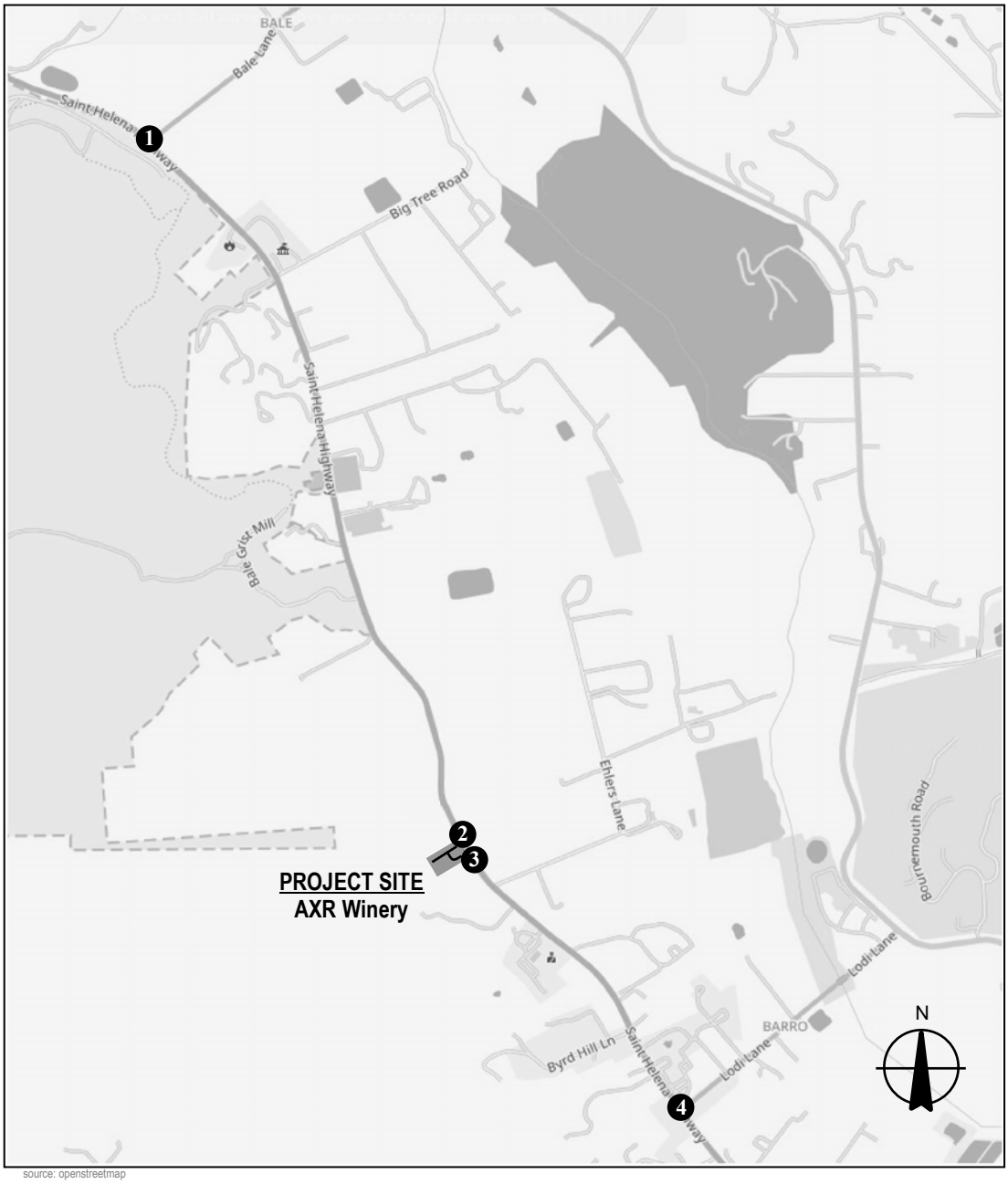


3 S.R. 29 - 128 / AXR S. Driveway



4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

GHD

Near Term No Project
Weekday P.M. and (Weekend Mid-day)
Peak Hour Intersection Volumes

Project No. 12610827

FIGURE 3.1

3.1.4 Roadway Segment Operations

With Near-Term (No Project) traffic volumes, all roadway segments would continue to operate at acceptable levels-of-service (LOS C or better) during the AM and PM peak hours. As shown in **Table 3.2,** roadway segments along Bale Lane and Lodi Lane are operating at LOS A during the AM and PM commute periods. SR 29 north of Lodi Lane is operating at LOS C during the same time periods. Field observations indicate SR 29 experiences relatively free-flow conditions in the segment north and south of the AXR Napa Valley driveway.

Table 3.2 Near-Term (No Project) Roadway Study Segment (LOS), Weekday PM Peak & Weekend Midday Peak Hour

Study Segment Direction	Friday PM Peak PTSF	LOS	Saturday Midday Peak PTSF	LOS
1. Bale Ln. - E. of SR 29				
Eastbound	11.2	A	11.4	A
Westbound	10.8	A	8.8	A
2. SR 29 - N. of Lodi Ln.				
Northbound	62.8	C	63.7	C
Southbound	61.4	C	58.9	C
3. Lodi Ln. - E. of SR 29				
Eastbound	16.8	A	17.5	A
Westbound	16.1	A	16.8	A

3.1.5 Signal Warrant Evaluation

With Near-Term (No Project) volumes, the unsignalized study intersections of Bale Lane, AXR Napa Valley Driveway (north and south), and Lodi Lane intersections at SR 29 were evaluated for signalization.[12] At this time, the project study intersection does not qualify for signalization under the peak hour warrant (the warrant graphs are provided in the **Appendix C**).

4. Cumulative Year 2040 (No Project) Conditions

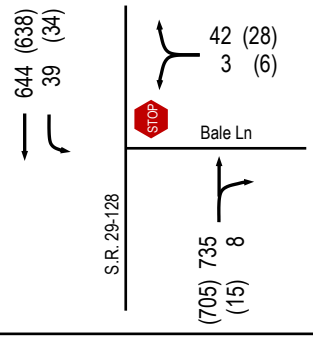
4.1.1 Methodology

As noted under Near-Term (No Project) conditions, cumulative volume projections for Bale Lane, SR 29, and Lodi Lane were reviewed from the Solano - Napa Activity Based Model (SNABM). Using the growth in volumes between 2015 and 2040 in Napa County, overall growth would increase by 37% over a 25-year period or 1.46% per year on State Route 29. Existing AM and PM peak hour volumes were increased by 24.82% for the future horizon year 2040. Please note, minor street volumes along Bale Lane and Lodi Lane were not included in model projections. Therefore, approved/pending development volumes applies to these roadways given their minor status and their limited opportunities for development.

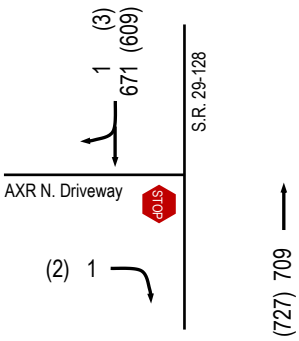
Cumulative Year 2040 (No Project) volumes for the weekday (Friday) PM peak hour and weekend (Saturday) midday peak hour are shown in **Figure 4.1.**

[12] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Peak hour signal warrant (#3), 2014 Edition (Revised March 27, 2020).

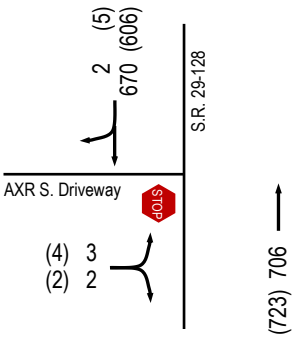
1 S.R. 29 - 128 / Bale Ln



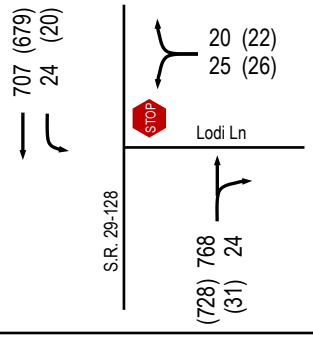
2 S.R. 29 - 128 / AXR N. Driveway

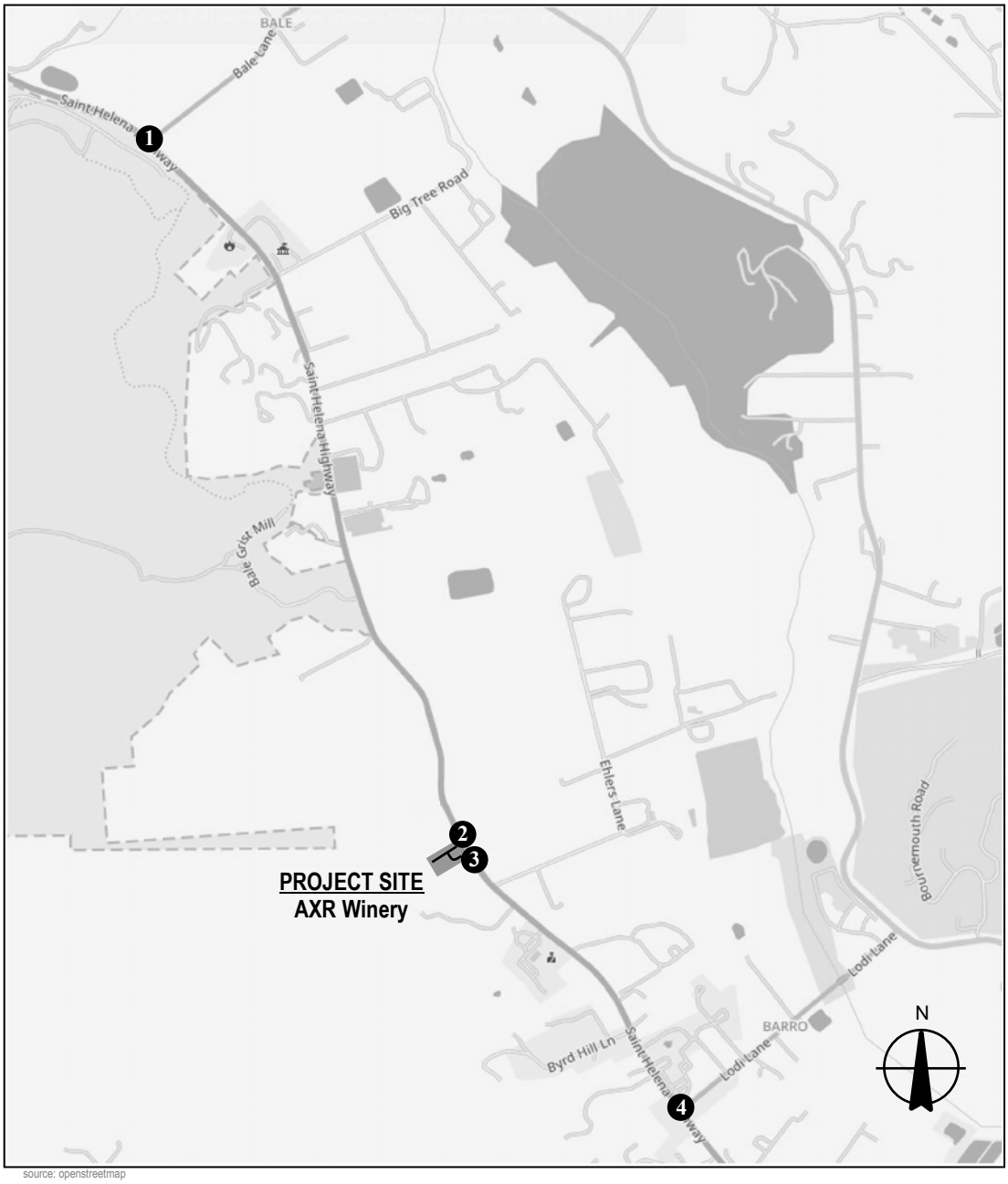


3 S.R. 29 - 128 / AXR S. Driveway



4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

GHD

Cumulative Year 2040 No Project Weekday P.M. and (Weekend Mid-day) Peak Hour Intersection Volumes

Project No. 12610827

FIGURE 4.1

4.1.2 Cumulative Year 2040 Intersection Operations

With generated Cumulative Year 2040 (No Project) volumes, study intersection LOS for the AM and PM peak hour were calculated and are shown in **Table 4.1.** As calculated, the study intersection of Lodi Lane/SR 29 would be operating at unacceptable levels (LOS E—39.4 seconds of delay) for the minor street, stop-sign controlled left and right-turn movements from Lodi Lane onto SR 29 during the Friday PM peak hour. All remaining study intersections along SR 29 at Bale Lane and the AXR Napa Valley driveways (north and south) would be operating at acceptable levels (LOS D or better) during the weekday and weekend peak hours.

Table 4.4.1 Cumulative Year 2040 (No Project) Intersection Level-of-Service (LOS), Weekday PM Peak & Weekend Midday Peak Hour

ID	Intersection	Peak Hour	Target LOS	Exisiting			Near-Term (No Project)			Cumulative Yr. 2040 (No Project)		
				Control	Delay	LOS	Control	Delay	LOS	Control	Delay	LOS
1	Bale Lane/St. Helena Highway	PM	D	TWSC	14.6	B	TWSC	15.1	C	TWSC	17.8	C
		MD	D		15.7	C		16.1	C		19.8	C
2	AXR Napa Valley N. Driveway / St. Helena Highway	PM	D	TWSC	12.1	B	TWSC	12.2	B	TWSC	13.6	B
		MD	D		11.6	B		11.7	B		12.8	B
3	AXR Napa Valley S. Driveway / St. Helena Highway	PM	D	TWSC	18.7	C	TWSC	19.3	C	TWSC	24.9	C
		MD	D		18.8	C		19.3	C		24.8	C
4	Lodi Lane / St. Helena Highway	PM	D	TWSC	23.8	C	TWSC	26.2	D	TWSC	**39.4**	**E**
		MD	D		21.6	C		24.1	C		34.8	D

BOLD Indicate LOS of E or worse

1 Intersection LOS based on Synchro-Simtraffic (Version 11.0);

2 Delay reported from HCM 6 (TRB, 2016) methodology, TWSC = Two-Way-Stop-Control, PM = Friday Weekday Peak, MD = Saturday Midday Peak

4.1.3 Roadway Segment Operations

With Cumulative Year 2040 (No Project) traffic volumes, all roadway segments would continue to operate at acceptable levels-of-service (LOS D or better) during the AM and PM peak hours. As shown in **Table 4.2,** roadway segments along Bale Lane and Lodi Lane would be operating at LOS A during the AM and PM commute periods. SR 29 north of Lodi Lane would operate at LOS D during the same time periods.

Table 4.2 Cumulative Year 2040 (No Project) Roadway Segment LOS, Weekday PM Peak & Weekend Midday Peak Hour

Study Segment Direction	Friday PM Peak PTSF	LOS	Saturday Midday Peak PTSF	LOS
1. Bale Ln. - E. of SR 29				
Eastbound	11.2	A	11.4	A
Westbound	10.8	A	8.8	A
2. SR 29 - N. of Lodi Ln.				
Northbound	67.9	D	68.5	D
Southbound	63.9	D	63.9	D
3. Lodi Ln. - E. of SR 29				
Eastbound	16.8	A	17.5	A
Westbound	16.1	A	16.8	A

4.1.4 Signal Warrant Evaluation

With Cumulative Year 2040 (No Project) volumes, the unsignalized intersections of Bale Lane, AXR Napa Valley, and Lodi Lane do not qualify for signalization under the peak hour warrant (the warrant graphs are provided in Appendix **C**).

5. Napa County Significance Criteria

The County of Napa's significance criteria has been based on the Napa County Traffic Impact Study (TIS) Guidelines (*Napa County, 2022*). Some of the key significance criteria applicable to proposed project development would be as follows as described in Table 5 of the TIS Guidelines:

On-Site Circulation

- Site design for circulation, access, and/or parking areas fail to meet County Road and Street Standards or industry standard design guidelines;
- A project fails to provide adequate or safe accessibility for service and delivery trucks on-site (including access to truck loading areas) or for passenger drop-off and pick-up areas.

Off-Site Traffic Operations

- Per Attachment B, a roadway segment or intersection operates acceptably according to Policy CIR-38 under a no project scenario, and the addition of project traffic causes overall traffic operations on the facility to operate unacceptably;
- A roadway segment or intersection operates unacceptably according to Policy CIR-38 under a no project scenario and the project adds a certain amount of traffic;
- Project-generated Vehicle Miles Traveled (VMT) exceeds the standards described in the General Plan Policy CIR-7.

Intersection Traffic Control

- The addition of project traffic causes an all-way-stop-controlled or side-street stop-controlled intersection to meet Caltrans signal warrant criteria. All such intersections will first be evaluated with roundabout intersection control. The project team should also consider potential right-of-way constraints at intersections where roundabouts are being considered.

Expanding on significance criteria for roadway segments and intersections, the following Level-of-Service (LOS) criteria would apply:

Unsignalized Intersections:

- LOS D or better deteriorates to LOS E or F with Project Trips; or
- LOS E or F, and Project trips increase the total entering volume by one percent or more. For side-street stop-controlled intersections, based on the delay for each stop-controlled approach that operates at LOS E or F

Arterial

- LOS D or better deteriorates to LOS E or F with Project Trips; or
- LOS E or F, and Project trips increases the total segment volume by one percent or more.

Cumulative

- Project contributes five percent or more to total growth in volume entering at failing intersections;
- Project contributes five percent or more to total growth in volume on a failing arterial road segment.

Vehicle Miles Traveled (VMT)

The County identifies “screening” criteria for small winery projects that generate less than 110 net new daily trips as follows:

A Project modifying an existing facility that would generate additional trips where the net cumulative result of all project modifications after January 1, 2022 would generate less than 110net new daily passenger vehicle and truck trips.

- Project is not required to prepare a TIS
- Project is presumed to have a less-than-significant environmental impact for VMT
- Applicant is encouraged to describe the measures they are taking and/or plan to take that would reduce the Project’s trip generation and/or VMT

Based on initial project modification estimates, it is likely the proposed project’s use modification would qualify for the County’s reasonable VMT screening approach (see Section 8--VMT)

6. Project Impacts

6.1 Project Description/Purpose

Based on the most recent detailed project description for the AXR Napa Valley, the use permit modification will involve moderate increases in wine production, employment, and visitation activities. In addition, the Winery’s marketing plan would be modified to hold 31 annual events consistent with current Winery activities. Since the number of annual marketing events would represent slightly more than two (2) events per month, the associated vehicle trips generated by that marketing event has been included in the proposed project’s weekly trip generation (25 guests). Proposed project access from SR 29 (St. Helena Highway) is currently limited for inbound vehicle traffic to right-turns only based on existing enforcement signs and Caltrans agreements. Specific project components can be described as follows:

Visitation: The number of daily visitors would increase by 40 guests from 20 persons per day to 60 persons per day; The maximum weekly visitation would not exceed 420 guests per week;

Production: Winery production would increase by 15,000 gallons from 20,000 gallons per year to 35,000 gallons per year;

Employment: The number of full-time employees would increase by 10 employees during the weekday and 4 employees during the weekend. Part-time employment would increase by 5 employees during the weekday and be reduced by 6 employees (8 part-time to 2 part-time) during the weekend.

Marketing Events: There would be 31 marketing events per year as follows:

- Two (2) events per month with up to 25 guests
- Four (4) annual events with up to 75 guests
- Three (3) annual events with up to 150 guests;

Vehicle access to the project site is provided by two driveways (north and south) at 3199 St. Helena Highway. A new northbound (inbound) left-turn lane will be installed at the project's south driveway on SR 29 as part of overall project circulation improvements. The north project driveway at SR 29 will be limited to right-turns-only for outbound traffic (current operation) as per . existing Caltrans restrictions/signage.[13] It is noted that a small residential lane (Bea Lane) is located approximately 200-feet north of the proposed project's north driveway. Bea Lane provides access to residential and winery areas west of St. Helena Highway. However, no guests and/or employees use Bea Lane to access the AXR Napa Valley grounds (and are instructed as such). The proposed project site plan is shown in **Figure 6.1**

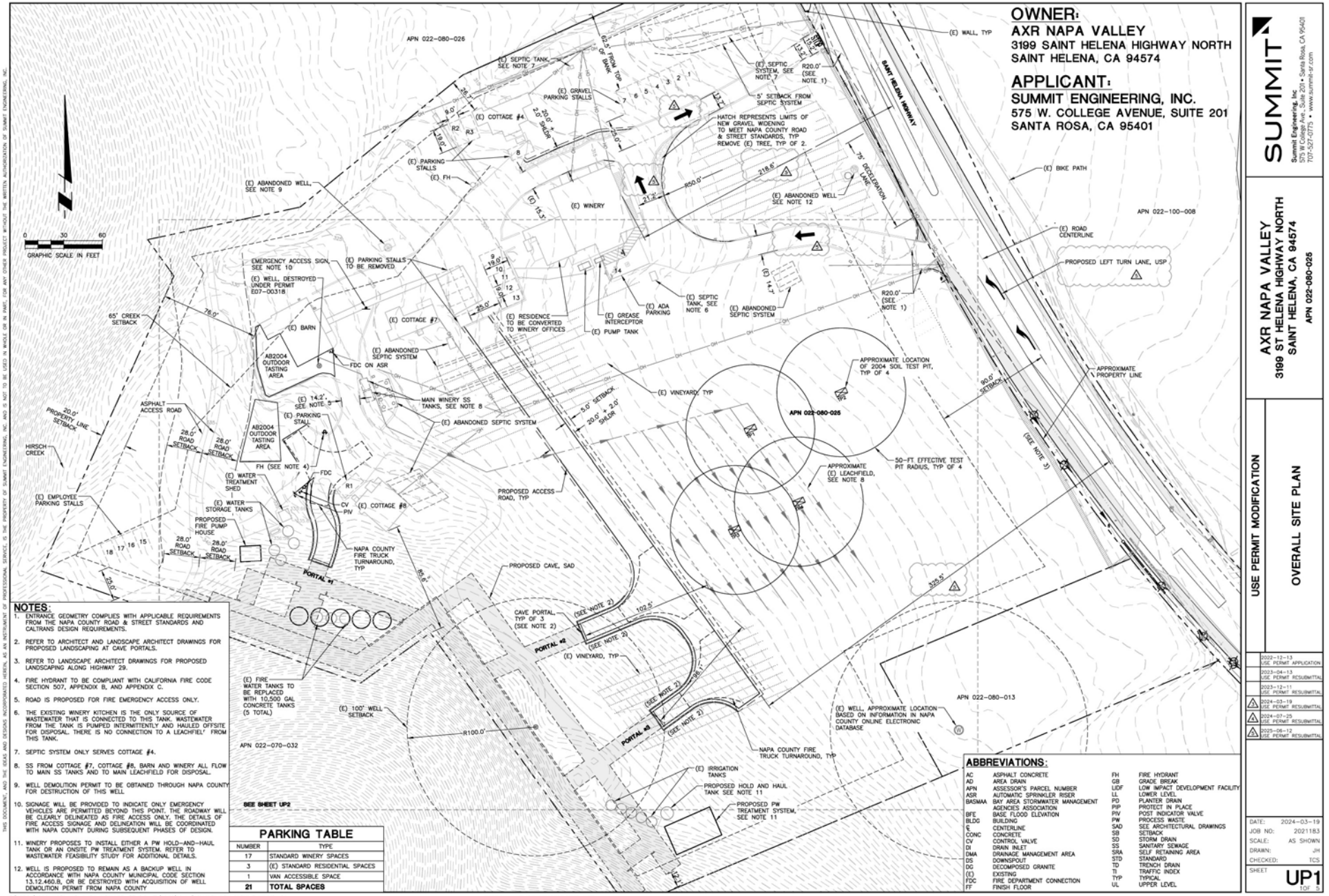
Daily operations for the proposed AXR Napa Valley project would involve an on-site winery operation with a maximum annual production of 35,000 gallons. All fruit would be processed on-site during the year with the majority occurring during the harvest/crush season. A maximum of 60 daily visitors is expected during the Monday-Sunday period. The maximum weekly visitation for tours and tastings would not exceed 420 guests per week and would be monitored by winery staff (as they currently do now). Visitor hours would be limited to between 10:00 a.m.–5:00 p.m. and would be by appointment only. Employment would increase by 14 full-time employees (10 weekday and 4 weekend). However, part-time employment would increase by 5 employees on the weekday but decrease by 6 employees on the weekend. Finally, marketing events would be spread out over the course of the year with the most frequent event occurring twice per month with 25 guests. The largest marketing event would be held three times per year with 150 guests. In addition, the Winery participates in other off-site industry and County-wide events including the Napa Valley Auction, Napa Valley Film Festival, and other such events. Specific AXR Napa Valley marketing events would be held outside of normal peak weekday and weekend travel periods starting at 11:00 a.m. and extending through 10:00 p.m. to encourage off-peak ingress/egress.

6.2 Project Trip Generation

Based on proposed Use Modifications associated with AXR Napa Valley activities, the total net increase in weekday and weekend daily and peak hour traffic volumes have been calculated and are shown in **Table 6.1.** Daily and peak hour trip generation has been based on the most recent Napa County PBES Winery Trip Generation Worksheets (see **Appendix D**). County daily and peak hour trip ratios account for production, visitation, employment, and marketing components associated with proposed use modification activities. The overall increase in proposed AXR Napa Valley Use Modification trips would be the net increase in daily and peak hours trips from current permitted levels to proposed use modification levels.

Project trip generation has been based on the approximate 6-11 week harvest season (worst case). The proposed project is expected to generate an average of 92 weekday (Friday) daily trips with 25 PM peak hour trips. During the weekend (Saturday), the project would generate 49 daily trips with 18 midday peak ho. trips. On an annual basis, the project is estimated to generate 25,610 net new trips per year. It is noted that a discussion of proposed project vehicle miles traveled (VMT) as a result of use modification activities is provided in Section 8—VMT.

[13] Caltrans, No (inbound) left or right-turn movements nor outbound left-turn movements allowed at AXR Napa Valley north driveway on SR 29, Encroachment permit #04066MC2098).



GHD

Project Site Plan (Coverage and Development)

Project No. 12610827

FIGURE 6.1

N

Table 6.1 AXR Napa Valley Daily and Peak Hour Trip Generation

Net New Trips	Harvest	Non-Harvest
Maximum Weekday Traffic (Friday)		
Net New Weekday Daily Trips	92	79
Net New Weekday Peak Hour Trips	25	20
Maximum Weekend Traffic (Saturday)		
Net New Weekend Daily Trips	49	39
Net New Weekend Peak Hour Trips	18	10
Maximum Annual Traffic		
Net New Annual Trips	25,610	

Source: Napa County Planning, Building, Environmental Services (PBES), Use Permit/Major Modification Application, Winery Trip Generation Worksheets, Weekday and Weekend Daily and Peak Hour Trip Generation, December 19, 2022 (Appendix D).

6.3 Project Trip Assignment

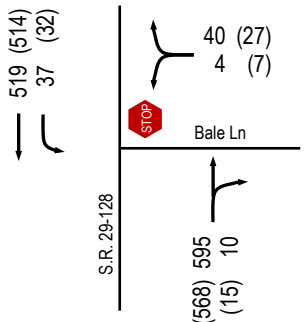
Based on observed turning percentages at the AXR Napa Valley driveways and north-south traffic flows along SR 29 during both the weekday PM peak hour and Saturday mid-day peak hours; project trips were distributed 55% to/from the south on SR 29 and 45% to/from the north on the same highway. Discussions with the project applicant indicate that more visitors to the Winery tend to originate from south Valley areas and points beyond than from the north.[14] The majority of guest visitation originates through the Napa Valley via SR 29 and Silverado Trail to access the Winery site.

Based on the planned installation of a northbound left-turn lane (inbound) at the project's south driveway; all inbound Winery-related trip generation on SR 29 would access the site via the south project driveway. All outbound traffic from the site would use the north project driveway to access SR 29. However, note that outbound project trips from the north driveway would be limited to right-turns-only.

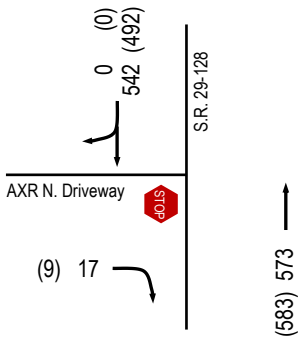
Existing plus Project Friday PM peak hour and Saturday midday peak hour trips have been shown in **Figure 6.2**

[14] Mr. Don Van Laeken, Personal communication, Guest visitation patterns, June 14, 2023.

1 S.R. 29 - 128 / Bale Ln



2 S.R. 29 - 128 / AXR N. Driveway



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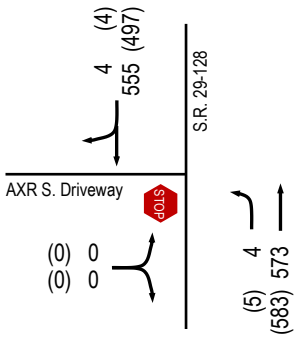
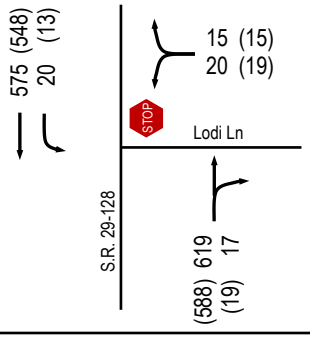
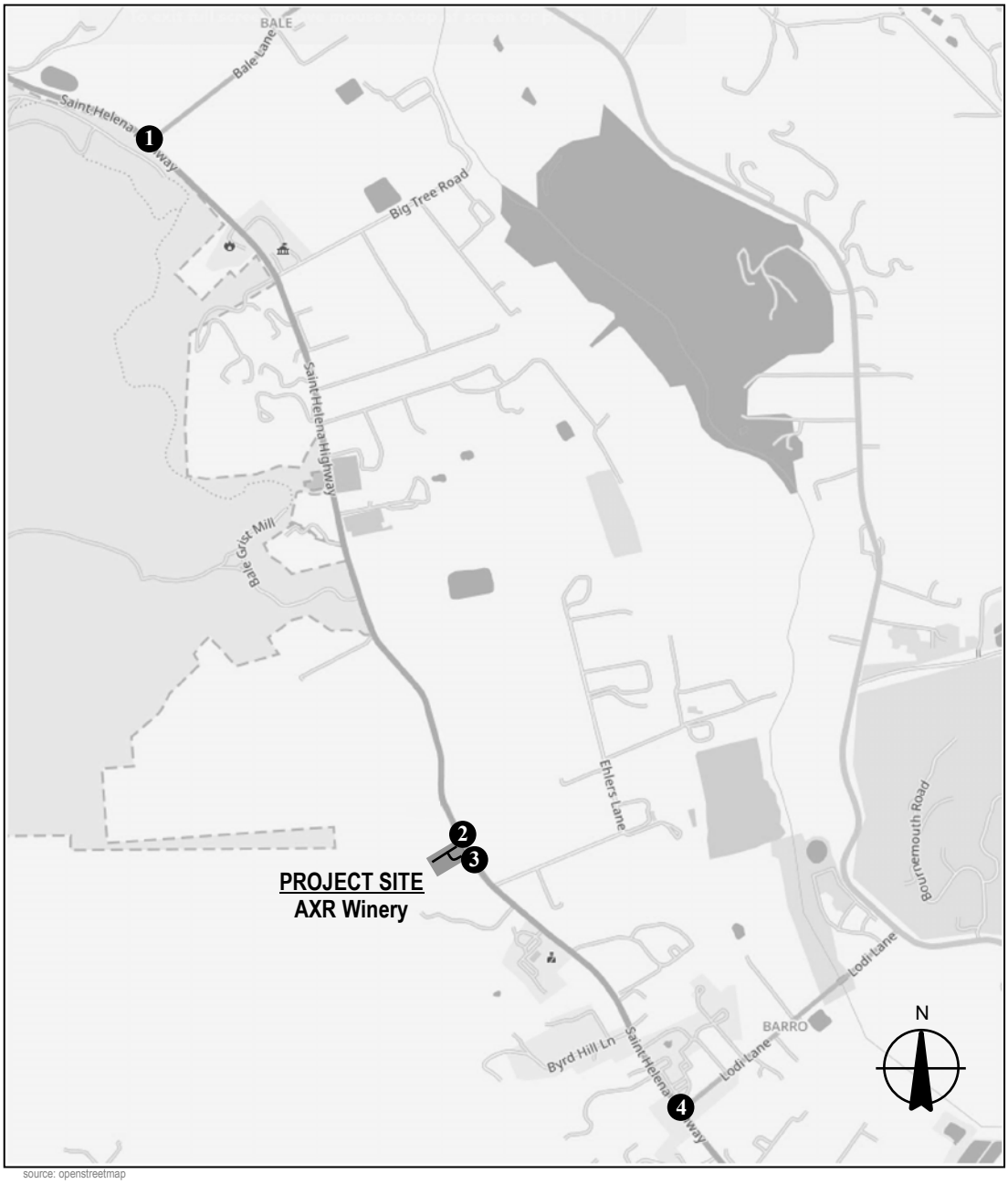


4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

GHD

Existing Plus Project
Weekday P.M. and (Weekend Mid-day)
Peak Hour Intersection Volumes

Project No. 12610827

FIGURE 6.2

6.4 Project Effects on Intersection LOS

6.4.1 Existing Plus Project Conditions

During the peak winery activity periods, the winery would generate 25 Friday PM peak hour weekday trips with 12 trips using SR 29 to/from north and 13 trips using SR 29 to/from the south (based on existing turn restrictions). During the Saturday mid-day peak hour the project would generate 18 midday peak hour trips with 8 trips to/from the north on SR 29 and the remaining 10 trips to/from the south. Weekday Friday PM peak hour and weekend Saturday mid-day peak hour intersection levels of service were evaluated with proposed project traffic and are shown in **Intersection LOS Summary Table 6.2.**

As shown in **Table 6.2**, the proposed AXR Napa Valley Use Modification project would continue to allow intersection operation of LOS C or better during both the Friday PM peak and Saturday midday peak hours.

Table 6.2 Summary Table: Existing, Near-Term, and Cumulative Year 2040 "Plus Project" Intersection LOS

ID	Intersection	Peak Hour	Target LOS	Existing plus Project			Near-Term plus Project			Cumulative Yr. 2040 plus Project		
				Control	Delay	LOS	Control	Delay	LOS	Control	Delay	LOS
1	Bale Lane/St. Helena Highway	PM	D	TWSC	15.1	C	TWSC	15.5	C	TWSC	18.7	C
		MD	D		16.2	C		16.6	C		20.6	C
2	AXR Napa Valley N. Driveway / St. Helena Highway	PM	D	TWSC	12.4	B	TWSC	12.5	B	TWSC	14.0	B
		MD	D		11.7	B		11.9	B		13.0	B
3	AXR Napa Valley S. Driveway / St. Helena Highway	PM	D	TWSC	8.7	A	TWSC	8.7	A	TWSC	9.2	A
		MD	D		8.5	A		8.5	A		9.0	A
4	Lodi Lane / St. Helena Highway	PM	D	TWSC	24.0	C	TWSC	26.5	D	TWSC	**40.2**	**E**
		MD	D		21.6	C		24.3	C		**35.4**	**E**

BOLD Indicate LOS of E or worse

1 Intersection LOS based on Synchro-Simtraffic (Version 11.0);

2 Delay reported from HCM 6 (TRB, 2016) methodology, TWSC = Two-Way-Stop-Control, PM = Friday Weekday Peak, MD = Saturday Midday Peak

6.4.2 Near-Term Plus Project Conditions

Near-Term Plus Project weekday Friday PM peak hour and weekend Saturday midday peak hour volumes are shown in **Figure 6.3**

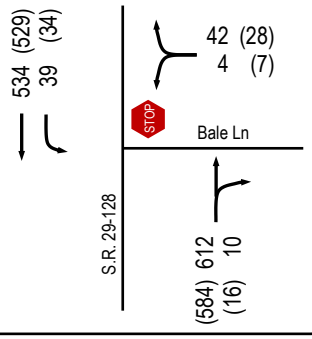
As shown in **Summary Table 6.2**, the proposed AXR Napa Valley Use Modification project would allow intersection operation of LOS D or better during both the Friday PM peak and Saturday midday peak hours with Near-Term Plus Project volumes.

6.4.3 Cumulative Year 2040 Plus Project Conditions

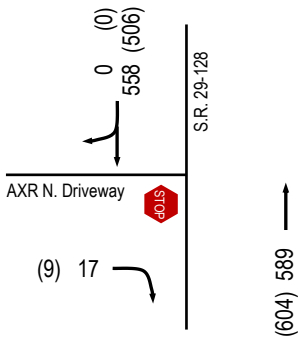
Cumulative Year 2040 Plus Project weekday Friday PM peak hour and weekend Saturday midday peak hour volumes are shown in **Figure 6.4**

As shown in **LOS Summary Table 6.2**, with proposed AXR Napa Valley Use Modification project traffic the Lodi Lane/SR 29 intersection's westbound minor-street stop controlled movements from Lodi Lane would continue to operate at unacceptable levels (LOS E) during the Friday PM peak and Saturday midday peak hours with Cumulative Year 2040 Plus Project volumes. However, the proposed project would contribute less than five (5) seconds of additional delay. In addition, the proposed project's trips at this intersection represent less than 10 percent of the anticipated growth during each peak hour. A review of previous transportation studies conducted for adjacent Use Modification projects along Lodi Lane and SR 29 recommend the following for the Lodi Lane/SR 29 intersection:

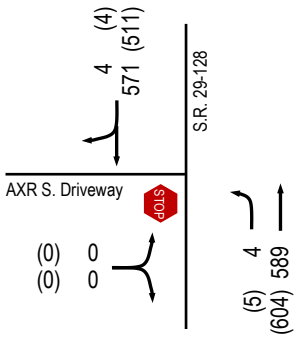
1 S.R. 29 - 128 / Bale Ln



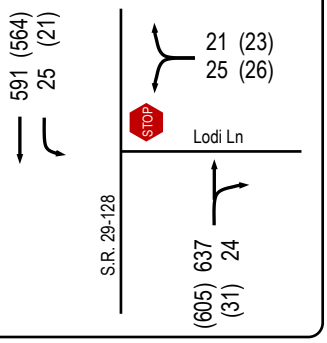
2 S.R. 29 - 128 / AXR N. Driveway

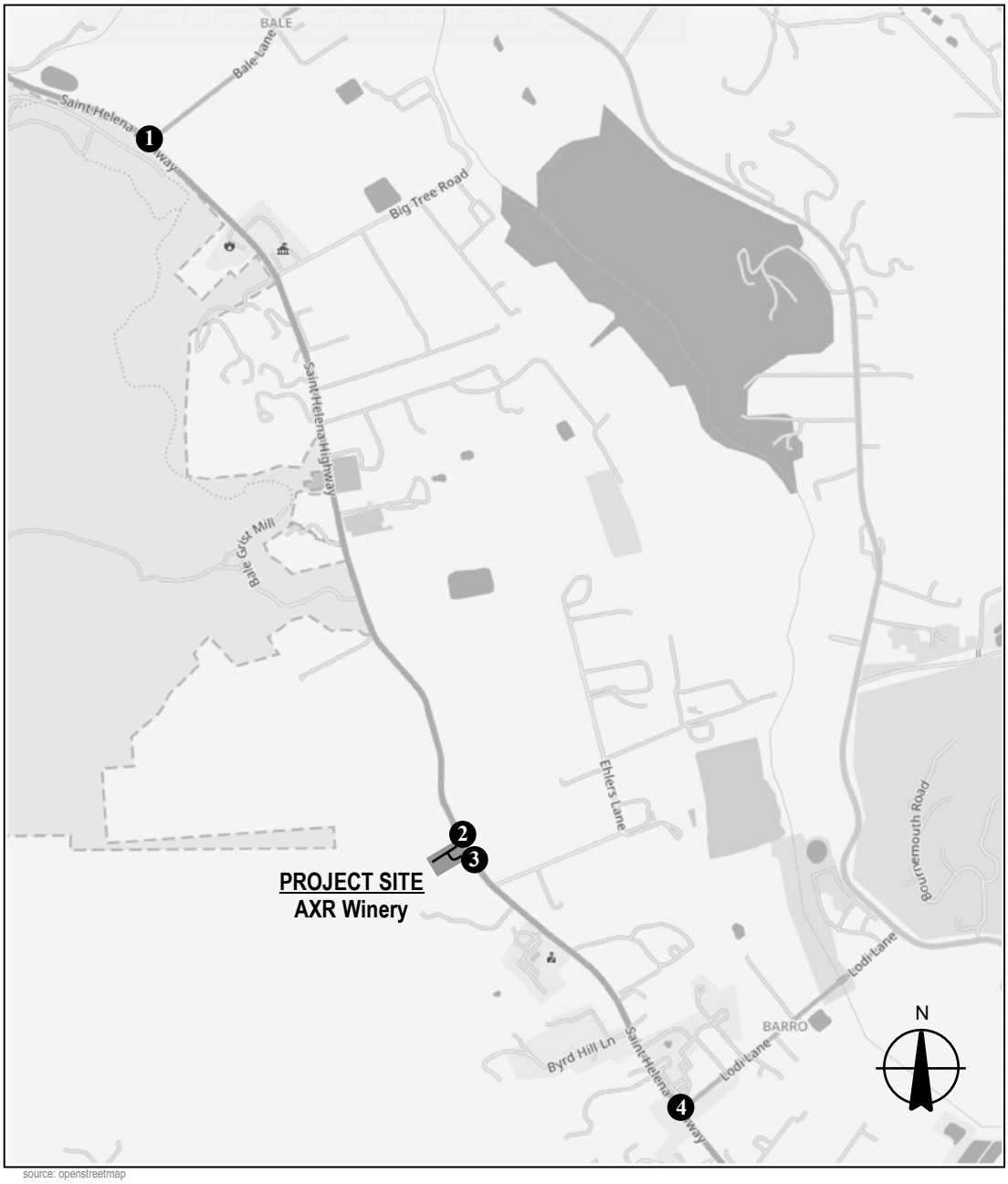


3 S.R. 29 - 128 / AXR S. Driveway



4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

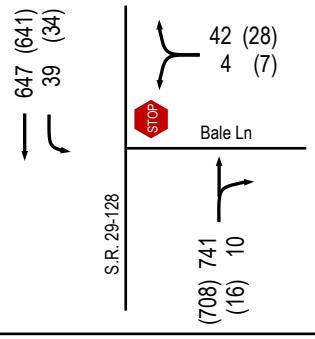
GHD

Near Term Plus Project
Weekday P.M. and (Weekend Mid-day)
Peak Hour Intersection Volumes

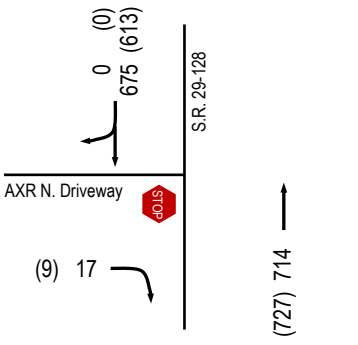
Project No. 12610827

FIGURE 6.3

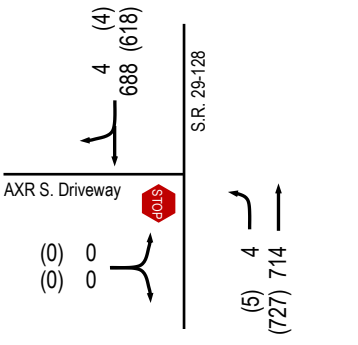
1 S.R. 29 - 128 / Bale Ln



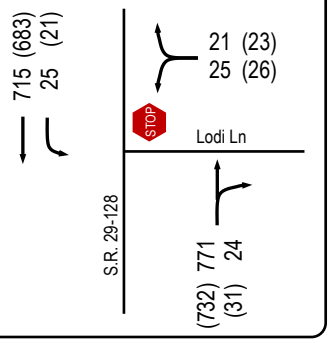
2 S.R. 29 - 128 / AXR N. Driveway

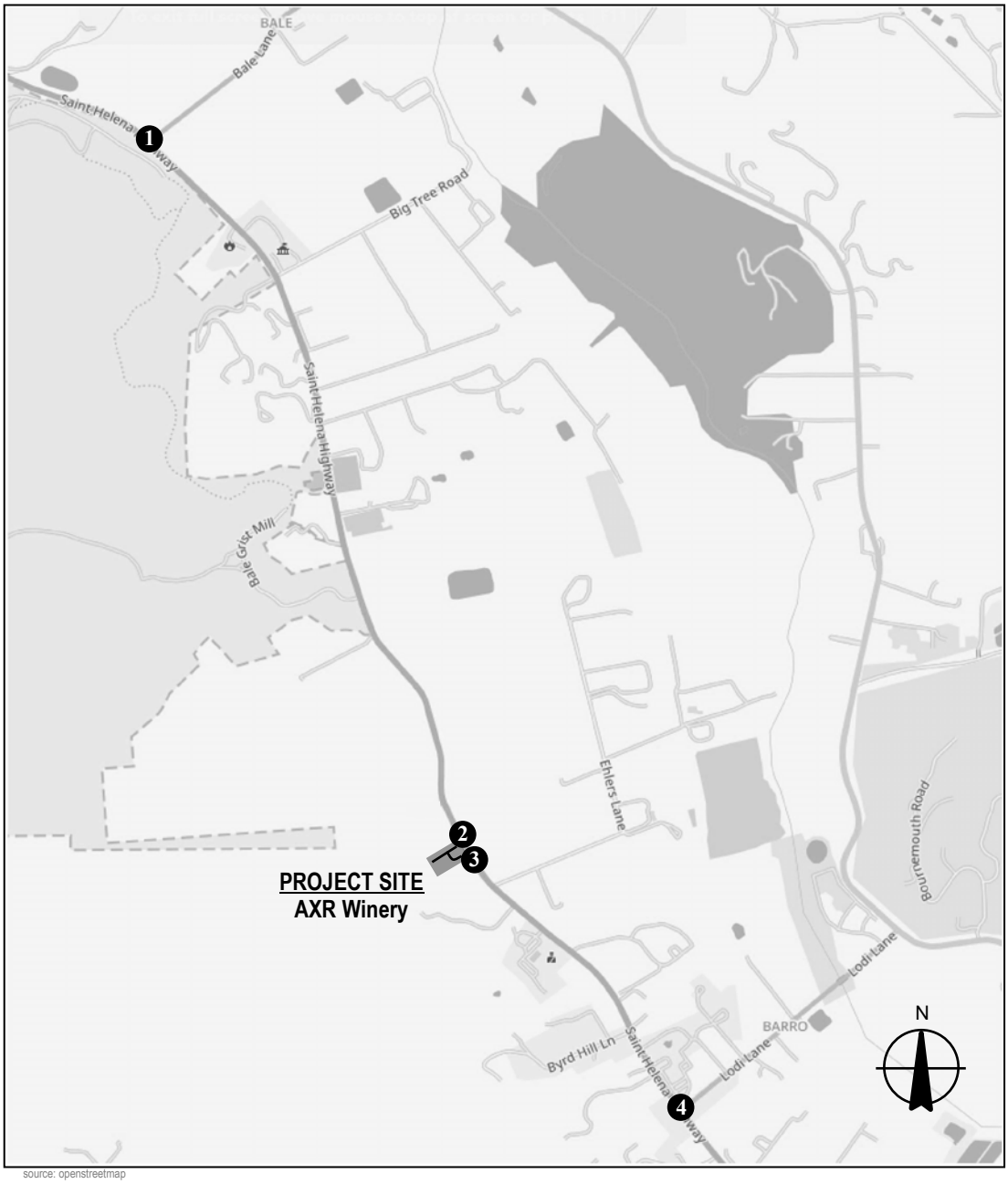


3 S.R. 29 - 128 / AXR S. Driveway



4 S.R. 29 - 128 / Lodi Ln





source: openstreetmap

Legend

XX - Weekday PM Peak Hour Volumes
(XX) - Weekend Peak Hour Volumes
Turn Lane
STOP Stop Sign

GHD

Cumulative Year 2040 Plus Project
Weekday P.M. and (Weekend Mid-day)
Peak Hour Intersection Volumes

Project No. 12610827

FIGURE 6.4

- It is recommended that the westbound approach at the Lodi Lane/SR 29 intersection be restriped to include a dedicated right-turn lane. The proportional fair share costs to the proposed project would be 1% or less and could be shared with other approved/pending projects (Inn at the Abbey & Duckhorn Vineyards).[15]

All remaining project study intersections at Bale Lane and the AXR Napa Valley north and south driveway intersections at SR 29 would operate acceptably (LOS D or better) with Cumulative Year 2040 Plus Project volumes.

6.4.4 Signal Warrant Evaluation

Under all "with project" scenarios that in Existing, Near-Term, and Cumulative Year 2040 volumes, the unsignalized study intersections of Bale Lane, AXR Napa Valley driveways (north and south), and Lodi Lane at SR 29 would not qualify for signalization using the peak hour warrant criteria (the warrant graphs are provided in the **Appendix C**).

6.5 Project Effects on Roadway Segment LOS

6.5.1 Existing Plus Project Conditions

Under Existing plus Project Conditions, all six roadway segments would operate at LOS D or better during both peak hours. As shown in **Table 6.3**, percent time spent following (PTSF) and roadway segment LOS are presented.

Table 6.3 Existing Plus Project Roadway Segment LOS, Weekday PM Peak & Weekend Midday Peak Hour

Study Segment	Friday PM Peak		Saturday Midday Peak	
	E (NP)	E+Prj.	E (NP)	E+Prj.
Direction	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS
1. Bale Ln. - E. of SR 29				
Eastbound	10.8 A	10.8 A	10.8 A	10.9 A
Westbound	10.5 A	11.2 A	8.6 A	9.4 A
2. SR 29 - N. of Lodi Ln.				
Northbound	62.1 C	62.5 C	62.8 C	63.0 D
Southbound	60.7 C	60.9 C	58.2 C	58.5 C
3. Lodi Ln. - E. of SR 29				
Eastbound	14.0 A	14.2 A	12.7 A	13.0 A
Westbound	13.5 A	13.5 A	13.5 A	14.0 A

E = Existing, (NP) = No Project, PTSF = Percent Time Spent Following

6.5.2 Near-Term Plus Project Conditions

Under Near-Term plus Project Conditions, all six roadway segments would operate at LOS D or better during both peak hours. As shown in **Table 6.4**, percent time spent following (PTSF) and roadway segment LOS are presented.

[15] W-Trans, Traffic Impact Study for the Duckhorn Vineyards Use Permit Modification, June 10, 2021.

6.5.3 Cumulative Year 2040 Plus Project Conditions

Under Cumulative Year 2040 plus Project Conditions, all six roadway segments would operate at LOS D or better during both peak hours. As shown in **Table 6.5**, percent time spent following (PTSF) and roadway segment LOS are presented.

Table 6.4 Near-Term Plus Project Roadway Segment LOS, Weekday PM Peak & Weekend Midday Peak Hour

Study Segment	Friday PM Peak		Saturday Midday Peak	
	N-T (NP)	N-T+Prj.	N-T (NP)	N-T+Prj.
Direction	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS
1. Bale Ln. - E. of SR 29				
Eastbound	11.2 A	11.2 A	11.4 A	11.4 A
Westbound	10.8 A	11.5 A	8.8 A	9.6 A
2. SR 29 - N. of Lodi Ln.				
Northbound	62.8 C	63.2 D	63.7 D	63.9 D
Southbound	61.4 C	61.7 C	58.9 C	59.2 C
3. Lodi Ln. - E. of SR 29				
Eastbound	16.8 A	17.0 A	17.5 A	17.7 A
Westbound	16.1 A	16.1 A	16.8 A	16.8 A

E = Existing, (NP) = No Project, PTSF = Percent Time Spent Following

Table 6.5 Cumulative Year 2040 Plus Project Roadway Segment LOS, Weekday PM Peak & Weekend Midday Peak Hour

Study Segment	Friday PM Peak		Saturday Midday Peak	
	C (NP)	C+Prj.	C (NP)	C+Prj.
Direction	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS	PTSF/ LOS
1. Bale Ln. - E. of SR 29				
Eastbound	11.2 A	11.2 A	11.4 A	11.4 A
Westbound	10.8 A	10.8 A	8.8 A	8.8 A
2. SR 29 - N. of Lodi Ln.				
Northbound	67.9 D	68.2 D	68.5 D	68.7 D
Southbound	63.9 D	66.6 D	63.9 D	64.2 D
3. Lodi Ln. - E. of SR 29				
Eastbound	16.8 A	16.8 A	17.5 A	16.5 A
Westbound	16.1 A	16.1 A	16.8 A	15.2 A

E = Existing, (NP) = No Project, PTSF = Percent Time Spent Following

7. Site Access/Design Parameters

7.1.1 Driveway Access

AXR Napa Valley is served by two (2) driveway connections to/from SR 29. The primary driveway (south driveway) is located at 3199 St. Helena Highway (SR 29). With proposed Use Modifications, driveway access to the AXR Napa Valley Winery would be improved to provide a northbound left-turn lane on SR 29 at the project's south driveway. As directed, all existing and proposed project trips will be inbound from the south driveway, circulate and/or park on the site, then exit outbound from the north project driveway. The south project driveway will be limited to inbound access only for northbound left-turns and southbound right-turns. The north project driveway will be limited to outbound access only for eastbound right-turn movements from the site(south on SR 29).

The south project driveway will be signed for "Do Not Enter" (MUTCD, R5-1) for internal traffic flow with signs facing west towards the main Winery on-site building to prevent outbound flow. For the north project driveway, current driveway signage and limited vehicle access (right-turns-only) outbound would remain unchanged from existing conditions. The north project driveway is currently signed for "No Left-Turn" (MUTCD, R3-2) and "Do Not Enter" (MUTCD, R5-1) for vehicles on SR 29. In addition, outbound motorists are instructed for "Right-Turns Only" (CA MUTCD, R3-5R). Planned project circulation in/out of the site in shown in **Figure 6.1.**

The two project driveways working in tandem serve to provide three purposes:

4. Disperse project-generated daily and peak hour vehicle trips;
5. Improve vehicle safety and access at the south project driveway for northbound left-turn movements from the primary access highway (SR 29) by providing a dedicated left-turn lane;
6. Provide more uniform one-way traffic flow within the project site with clear inbound/outbound directions.

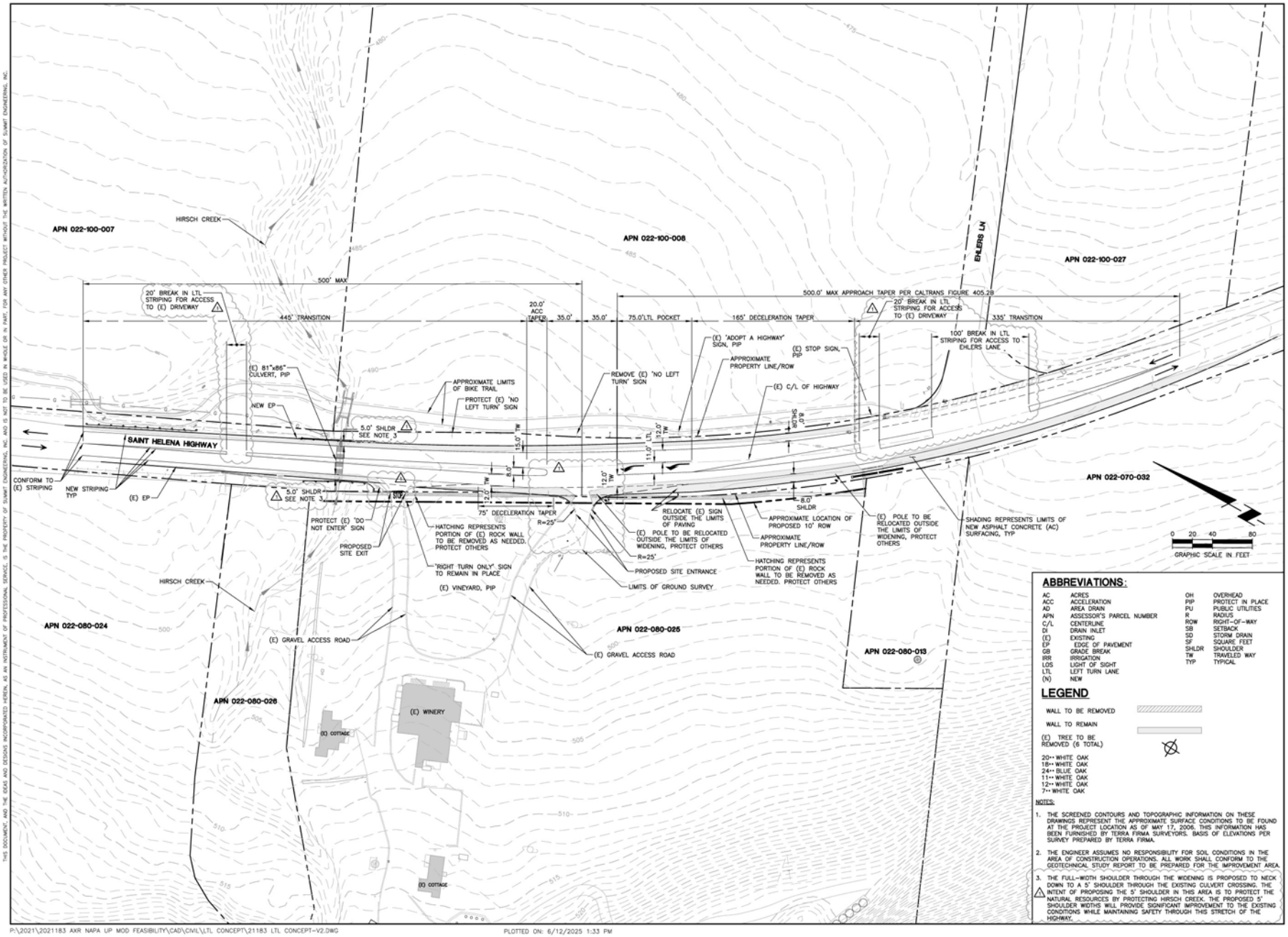
The five-year collision analysis conducted for the segment of State Route 29 adjacent to proposed project driveways indicates that there is not a vehicle collision issue associated with vehicle access to/from the highway. The roadway segment collision analysis evaluated SR 29 1,000 feet north and south of the AXR Napa Valley driveways. As shown in **Table 2.3,** the roadway segment experienced one (1) collision over the past five years with a calculated collision rate below the State average. The recorded collision was a "broadside" on the east side of the highway where a motorist was off the shoulder of the highway and was pulling back into through-traffic when the collision occurred. This type of maneuver would be difficult to resolve. However, the installation of a new left-turn lane at the project's south driveway will improve vehicle safety on SR 29 by removing left-turning vehicles into the project site from northbound through-traffic on St. Helena Highway as shown in **Figure 7.1.**

7.1.2 Left-Turn Lane Warrant Analysis

At the County's request, a left-turn lane warrant analysis was conducted for the proposed project's southern driveway at State Route 29. (As noted, the proposed project will install a dedicated northbound left-turn lane at this driveway). Based on Napa County's Road and Street Standards for left-turn lane installation, the left-turn lane warrant evaluated for the south project driveway was based on average daily traffic (ADT) volumes generated at the proposed project driveway verses ADT volumes on State Route 29. Based on these Napa County ADT warrant graph criteria, a project will meet the left-turn lane warrant when the volumes fall above the plotted graph line on the chart. In the case of the proposed project, focused project ADT generated at the inbound south driveway would equal 116 daily trips with 15,700 daily trips on Deer Park Road and fall above the minimum ADT volumes for installation of a left-turn lane (see Napa County Left-Turn Lane Warrant Analysis—**Appendix F**).

7.1.3 Vehicle Sight Distance

Vehicle sight distance for the existing AXR Napa Valley driveways (north and south) were evaluated as part of field work associated with the transportation analysis for the proposed project (GHD*, June 2023*). The required vehicle visibility or "corner sight distance" is a function of travel speeds on SR 29 (St. Helena Highway). Caltrans design standards indicate that for appropriate corner sight distance, "a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle in the right lane of the



ABBREVIATIONS:

AC	ACRES	OH	OVERHEAD
ACC	ACCELERATION	PIP	PROTECT IN PLACE
AD	AREA DRAIN	PU	PUBLIC UTILITIES
APN	ASSESSOR'S PARCEL NUMBER	R	RADIUS
C/L	CENTERLINE	ROW	RIGHT-OF-WAY
DI	DRAIN INLET	SB	SETBACK
(E)	EXISTING	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
GB	GRADE BREAK	SHLDR	SHOULDER
IRR	IRRIGATION	TW	TRAVELED WAY
LOS	LIGHT OF SIGHT	TYP	TYPICAL
LTL	LEFT TURN LANE		
(N)	NEW		

LEGEND

WALL TO BE REMOVED

WALL TO REMAIN

(E) TREE TO BE REMOVED (6 TOTAL)

20"• WHITE OAK
18"• WHITE OAK
24"• BLUE OAK
11"• WHITE OAK
12"• WHITE OAK
7"• WHITE OAK

NOTES:

1. THE SCREENED CONTOURS AND TOPOGRAPHIC INFORMATION ON THESE DRAWINGS REPRESENT THE APPROXIMATE SURFACE CONDITIONS TO BE FOUND AT THE PROJECT LOCATION AS OF MAY 17, 2006. THIS INFORMATION HAS BEEN FURNISHED BY TERRA FIRMA SURVEYORS. BASIS OF ELEVATIONS PER SURVEY PREPARED BY TERRA FIRMA.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR SOIL CONDITIONS IN THE AREA OF CONSTRUCTION OPERATIONS. ALL WORK SHALL CONFORM TO THE GEOTECHNICAL STUDY REPORT TO BE PREPARED FOR THE IMPROVEMENT AREA.
3. THE FULL-WIDTH SHOULDER THROUGH THE WIDENING IS PROPOSED TO NECK DOWN TO A 5' SHOULDER THROUGH THE EXISTING CULVERT CROSSING. THE INTENT OF PROPOSING THE 5' SHOULDER IN THIS AREA IS TO PROTECT THE NATURAL RESOURCES BY PROTECTING HIRSCH CREEK. THE PROPOSED 5' SHOULDER WIDTHS WILL PROVIDE SIGNIFICANT IMPROVEMENT TO THE EXISTING CONDITIONS WHILE MAINTAINING SAFETY THROUGH THIS STRETCH OF THE HIGHWAY.

SUMMIT

Summit Engineering, Inc.
5741 Primrose Ave., Suite 201 • Santa Rosa, CA 95401
707-527-0775 • www.summit-sr.com

AXR NAPA VALLEY
3199 ST HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574
APN 022-080-025

LEFT TURN LANE CONCEPT

PRELIMINARY LAYOUT PLAN
STRIPING AND SIGNAGE PLAN

2/11/25	ISSUED FOR CLIENT REVIEW
4/03/25	ISSUED FOR CLIENT REVIEW
6/12/25	PLAN CHECK RESPONSE

DATE: 2025-02-13
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: BV
CHECKED: MS
SHEET C1
1 OF 3

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P:\2021\2021183 AXR NAPA UP MOD FEASIBILITY\CAD\CIVIL\LTL CONCEPT\21183 LTL CONCEPT-V2.DWG PLOTTED ON: 6/12/2025 1:33 PM

main highway". However, Caltrans design guidelines also indicate that the minimum corner sight distance “shall be equal to the stopping sight distance” where possible.

Radar speed surveys on SR 29 were conducted for the roadway in the project area.[17] The "critical" vehicle speed (the speed at which 85% of all surveyed vehicles travel at or below) along SR 29 was measured at 45 mph at the project driveway. It is noted that during the period of data collection (June 2023), ongoing construction along SR 29 (shoulder/culvert) temporarily reduced the existing speed limit by covering roadway speed limit signs and indicating 40-45 mph in certain segments of SR 29. However, the posted speed limit in the project driveway area is 50-mph in the segment adjacent to AXR Napa Valley. Caltrans’ design standards indicate that measured vehicle speeds require a stopping sight distance of 430-feet both north and south of the driveway measured along the travel lanes of St. Helena Highway based on a 50-mph speed limit.[18] Based on field measurements, sight distance from the AXR Napa Valley driveways to the north on the St. Helena Highway is approximately 520 feet (north driveway) and 700 feet (south driveway). Sight distance from the existing driveways to the south is in excess of 600 feet. Therefore, the sight distance recommendations would be met for the speed limit and measured vehicle speeds.

7.1.4 Internal Circulation

The existing AXR Napa Valley project driveways from St. Helena Highway provide vehicle access east-westinbound/outbound) to the Winery tasting and production buildings (**see Figure 6.1—Project Site Plan**). The inbound south driveway extends a short distance (250-feet) in a northwest direction from the highway through vineyard areas to the main AXR Napa Valley building (tours and tastings). A large ADA parking space is located on the south side of the main Winery building. The south AXR Napa Valley driveway forms a circular connection with the outbound north AXR Napa Valley driveway immediately north of the main building. Guests can be picked-up/dropped-off from the driveway area in front of the main Winery building, but no vehicle parking is allowed in this area. The outbound north AXR Napa Valley driveway extends west past the main Winery building to provide access to the Winery production building (Barn) and parking areas. Vehicle parking is provided off the north project driveway as well as between the two Winery buildings.

The Napa Countywide Bicycle Plan has been completed and adopted by the Napa Valley Transportation Authority (NVTA) and the County.[19] The plan encourages new developments to incorporate bicycle friendly designs. As noted, St. Helena Highway is proposed as a Class II bike lane past the proposed project site. It is expected that some visitors may occasionally arrive by bicycle to access the proposed project. The project would provide bicycle racks for visitors to the proposed winery.

7.1.5 Caltrans Review

Recent Caltrans review of the proposed project has focused on the placement of recommended driveway signing as well as the overall design exception request of the planned northbound left-turn on SR 29 at the site’s south driveway (*Luana Chen, Caltrans District 4, Local Development Review, 9-9-25*). As a result, an encroachment permit will be submitted to Caltrans that will include the following two design components as follows:

- The location of the “Do Not Enter” sign for internal traffic flow at the south project driveway will be depicted on the drawings/plans submitted as part of the Caltrans encroachment permit application.
- A Design Standards Decision Document (DSDD) to justify any nonstandard features of the northbound left-turn lane design on SR 29 at the south project driveway will be submitted with the Caltrans encroachment permit application.

[17] GHD Inc, Radar vehicle speed surveys, St. Helena Highway (SR 29), June 10, 2023.
[18] Caltrans, Highway Design Manual, Table 405.1A, Corner (Stopping) Sight Distance, Table 201.1, Sight Distance Standards, July 1, 2020.
[19] Napa County, Countywide Bicycle Plan (2012), Planning Area-North Valley, May 2012.

8. Vehicle Miles Traveled (VMT)

The following VMT guidelines and recommendations are sited directly from the Napa County Traffic Study (TIS) Guidelines (*Attachment C—VMT Analysis Approach for Development Projects in Napa County*).[20]

8.1.1 VMT Policies

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 approach outlined here includes a set of screening criteria intended to comply with this action item.

8.1.2 Baseline VMT Screening Process

It is common that an existing facility, whether a winery or another type of use, may apply to the County for some type of modification. Modifications may involve expansion of operating hours or of production quantities, changes to the number of events or visitors permitted, construction of new or expanded buildings, modifications to existing buildings to allow for more intensive use, and so on. In many cases, the requested modification would trigger more vehicle trips to/from the project site.

For the purposes of VMT analysis, the County will consider the baseline trip generation for all existing facilities to be the trip generation of the facility under entitled operating characteristics as of January 1,2022. When an existing facility applies for a modification, the trip generation associated with that modification will be calculated as the change between the facility's entitled operations on January 1, 2022and the expected operations once the proposed modification is complete.

At any point in the future, if the facility has added more than 110 daily passenger vehicle trips, during any period beyond the level of its trip generation on January 1, 2022, then it will be subject to the "VMT Analysis Requirements for Projects Based on Trip Generation" described below. Please note that crossing this threshold of adding 110 daily passenger vehicle trips may occur in the first project modification requested after January 1, 2022, or it may occur after multiple project modifications which will be treated cumulatively.

Given the largely rural nature of Napa County, a reasonable screening approach is to apply a combination of the concepts and guidelines expressed in both the OPR Technical Advisory and the Napa County TIS Guidelines. Development projects proposed in Napa County can use the following structure to determine what level of VMT analysis will be required:

A Project modifying an existing facility that would generate additional trips where the net cumulative result of all project modifications after January 1, 2022 would generate less than 110 net new daily passenger vehicle and truck trips.

a. Project is not required to prepare a TIS

b. Project is presumed to have a less-than-significant environmental impact for VMT

[20] Napa County PBES, Napa County Traffic Impact Study Guidelines, Attachment J, February 2022.

c. Applicant is encouraged to describe the measures they are taking and/or plan to take that would reduce the Project's trip generation and/or VMT

Based on the above Napa County VMT analysis and criteria, the proposed project is calculated to generate 92 net new daily trips on a weekday (maximum) and satisfies all requirements to be screened out and not require VMT analysis.

9. Transportation Demand Management (TDM)

TDM Plan

The following measures are suggested and/or occurring to further reduce the demand of vehicles to/from the site. Given the nature of the proposed Use Modification with moderate increases in visitation, employment, and marketing events, large-scale TDM measures are not practical given the overall size of the Winery operations. However, specific AXR Napa Valley-focused TDM measures are described in some detail below.

Visitor Tours and Tastings/Marketing Events:

- When smaller marketing events are being held at the Winery (25 guests), the combination of tours/tastings and marketing events shall not exceed 60 daily visitors.
- When large marketing events occur seven times per year (75-150 guests), tours/tasting visitors shall not be allowed on those days.
- To the maximum extent feasible, scheduling of tours and tastings shall not occur during peak weekday travel times between 4:00-6:00 p.m.
- When making appointments for all guests and visitors, indicate the existing Caltrans access restrictions at the SR 29--AXR Napa Valley north project driveway (right-turn outbound only) with inbound flow only at the south project driveway. Refer them to Winery's website for directions and instructions.

Shuttles, Hire Car, Limousines

- To the maximum extent possible, shuttle and other high occupancy vehicles shall transport guests to marketing events or tours and tastings for groups of 25 persons or more, with all vehicles parking on-site in designated areas.

Employees:

In addition to the employee TDM measures currently embedded in Winery operations, the following is suggested:

- Staggered/Flextime employee work hours: The winery will make efforts to have employees who do not live on-site arrive and/or depart the premises outside of the peak commute periods. For example, wine production employees would be encouraged to arrive prior to 7:00 a.m. and to depart before 3:00 p.m. (before 12:00 p.m. on the weekends). The exception would be during the crush/harvest season. Employees working in the visitor-serving capacities would be encouraged to arrive after 9:00 a.m. and depart after 6:00 p.m. (after 4:00 p.m. on weekends);
- Carpool/Vanpool (Bay Area Commuter Benefits Program): Winery enrolls in program and notifies employees and subsidizes carpooling activities per program details;
- Provide and Maintain Bicycle Racks for Employees/Visitors: Provide and maintain bicycle racks for use by employees/visitors. Provide other resources associated with bicycle uses;
- Delivery Off-Peak Scheduling: The Winery will endeavor to schedule deliveries during off-peak commute times.
-

General:

- Ride Share/Car Free Operations: The winery will make efforts to encourage ride shares and “car free” tourism as described in the program of the Napa Valley Destination Council and Napa Valley Transportation Agency.
- Napa Valley Forward Program: The Winery can enter into an agreement with the agency’s designated commuting hub platform to provide information to the Winery’s traffic reduction efforts.

Appendix A

Traffic Count Data

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	7	119	126	0	14	14	141	1	142	282
04:15 PM	2	116	118	1	7	8	133	1	134	260
04:30 PM	7	115	122	0	7	7	127	2	129	258
04:45 PM	10	131	141	1	12	13	130	1	131	285
Total	26	481	507	2	40	42	531	5	536	1085
05:00 PM	8	103	111	0	4	4	134	1	135	250
05:15 PM	6	112	118	0	14	14	137	0	137	269
05:30 PM	6	91	97	1	9	10	101	0	101	208
05:45 PM	11	104	115	2	6	8	112	2	114	237
Total	31	410	441	3	33	36	484	3	487	964
Grand Total	57	891	948	5	73	78	1015	8	1023	2049
Apprch %	6	94		6.4	93.6		99.2	0.8		
Total %	2.8	43.5	46.3	0.2	3.6	3.8	49.5	0.4	49.9	

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	7	119	126	0	**14**	**14**	**141**	1	**142**	282
04:15 PM	2	116	118	**1**	7	8	133	1	134	260
04:30 PM	7	115	122	0	7	7	127	**2**	129	258
04:45 PM	**10**	**131**	**141**	1	12	13	130	1	131	**285**
Total Volume	26	481	507	2	40	42	531	5	536	1085
% App. Total	5.1	94.9		4.8	95.2		99.1	0.9		
PHF	.650	.918	.899	.500	.714	.750	.941	.625	.944	.952

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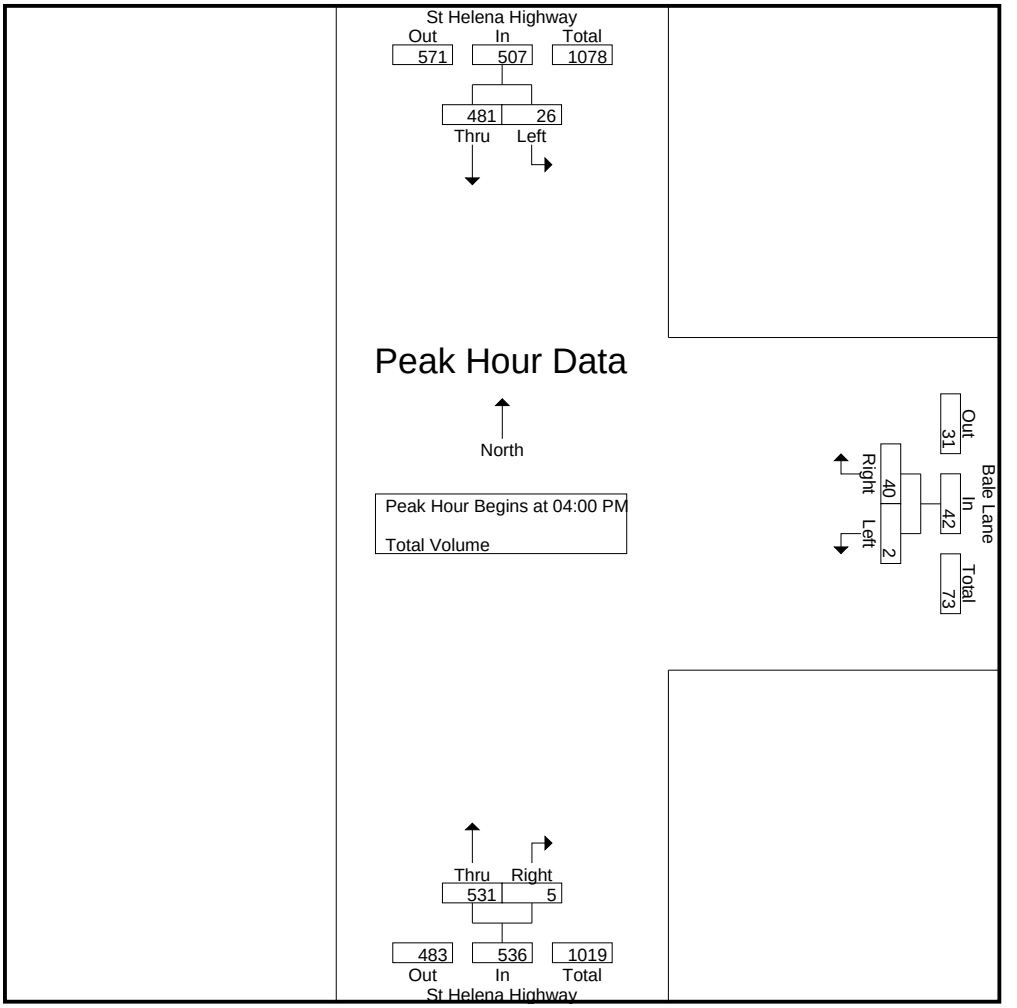
County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	7	119	126	0	**14**	**14**	**141**	1	**142**
+15 mins.	2	116	118	**1**	7	8	133	1	134
+30 mins.	7	115	122	0	7	7	127	**2**	129
+45 mins.	**10**	**131**	**141**	1	12	13	130	1	131
Total Volume	26	481	507	2	40	42	531	5	536
% App. Total	5.1	94.9		4.8	95.2		99.1	0.9	
PHF	.650	.918	.899	.500	.714	.750	.941	.625	.944

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County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
01:00 PM	3	93	96	0	6	6	112	0	112	214
01:15 PM	5	117	122	0	6	6	128	5	133	261
01:30 PM	4	119	123	1	8	9	137	5	142	274
01:45 PM	7	107	114	0	6	6	124	4	128	248
Total	19	436	455	1	26	27	501	14	515	997
02:00 PM	5	108	113	4	5	9	133	4	137	259
02:15 PM	3	114	117	1	6	7	119	0	119	243
02:30 PM	3	107	110	0	9	9	130	1	131	250
02:45 PM	4	119	123	1	7	8	122	1	123	254
Total	15	448	463	6	27	33	504	6	510	1006
Grand Total	34	884	918	7	53	60	1005	20	1025	2003
Apprch %	3.7	96.3		11.7	88.3		98	2		
Total %	1.7	44.1	45.8	0.3	2.6	3	50.2	1	51.2	

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:15 PM										
01:15 PM	5	117	122	0	6	6	128	**5**	133	261
01:30 PM	4	**119**	**123**	1	**8**	**9**	**137**	5	**142**	**274**
01:45 PM	**7**	107	114	0	6	6	124	4	128	248
02:00 PM	5	108	113	**4**	5	9	133	4	137	259
Total Volume	21	451	472	5	25	30	522	18	540	1042
% App. Total	4.4	95.6		16.7	83.3		96.7	3.3		
PHF	.750	.947	.959	.313	.781	.833	.953	.900	.951	.951

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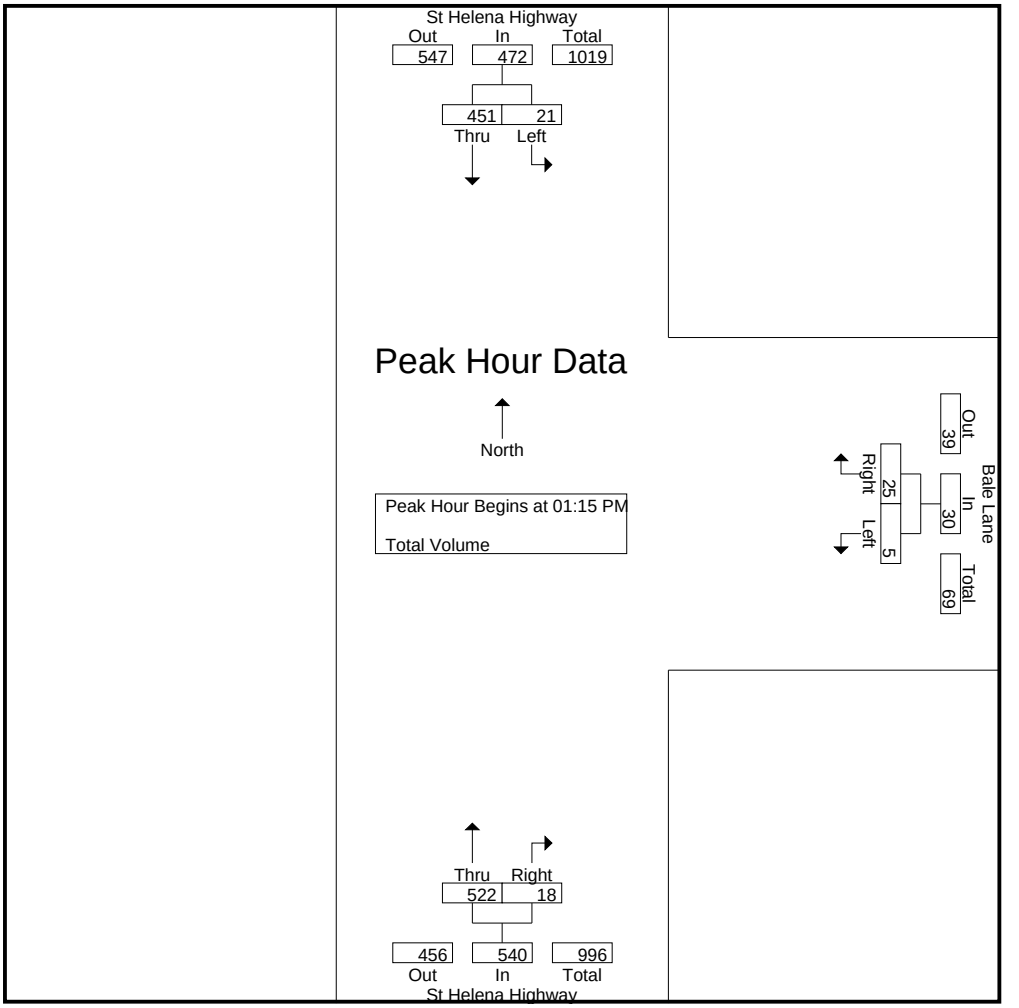
County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:15 PM			02:00 PM			01:15 PM		
+0 mins.	5	117	122	**4**	5	**9**	128	**5**	133
+15 mins.	4	**119**	**123**	1	6	7	**137**	5	**142**
+30 mins.	**7**	107	114	0	**9**	9	124	4	128
+45 mins.	5	108	113	1	7	8	133	4	137
Total Volume	21	451	472	6	27	33	522	18	540
% App. Total	4.4	95.6		18.2	81.8		96.7	3.3	
PHF	.750	.947	.959	.375	.750	.917	.953	.900	.951

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County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-16
Site Code : 22323578
Start Date : 6/16/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	15	145	160	3	12	15	139	3	142	317
04:15 PM	7	103	110	0	12	12	162	3	165	287
04:30 PM	11	116	127	0	6	6	134	2	136	269
04:45 PM	11	119	130	0	4	4	136	1	137	271
Total	44	483	527	3	34	37	571	9	580	1144
05:00 PM	3	126	129	1	7	8	149	0	149	286
05:15 PM	12	121	133	1	7	8	145	5	150	291
05:30 PM	7	98	105	0	8	8	136	3	139	252
05:45 PM	6	110	116	1	7	8	115	6	121	245
Total	28	455	483	3	29	32	545	14	559	1074
Grand Total	72	938	1010	6	63	69	1116	23	1139	2218
Apprch %	7.1	92.9		8.7	91.3		98	2		
Total %	3.2	42.3	45.5	0.3	2.8	3.1	50.3	1	51.4	

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**15**	**145**	**160**	**3**	**12**	**15**	139	**3**	142	**317**
04:15 PM	7	103	110	0	12	12	**162**	3	**165**	287
04:30 PM	11	116	127	0	6	6	134	2	136	269
04:45 PM	11	119	130	0	4	4	136	1	137	271
Total Volume	44	483	527	3	34	37	571	9	580	1144
% App. Total	8.3	91.7		8.1	91.9		98.4	1.6		
PHF	.733	.833	.823	.250	.708	.617	.881	.750	.879	.902

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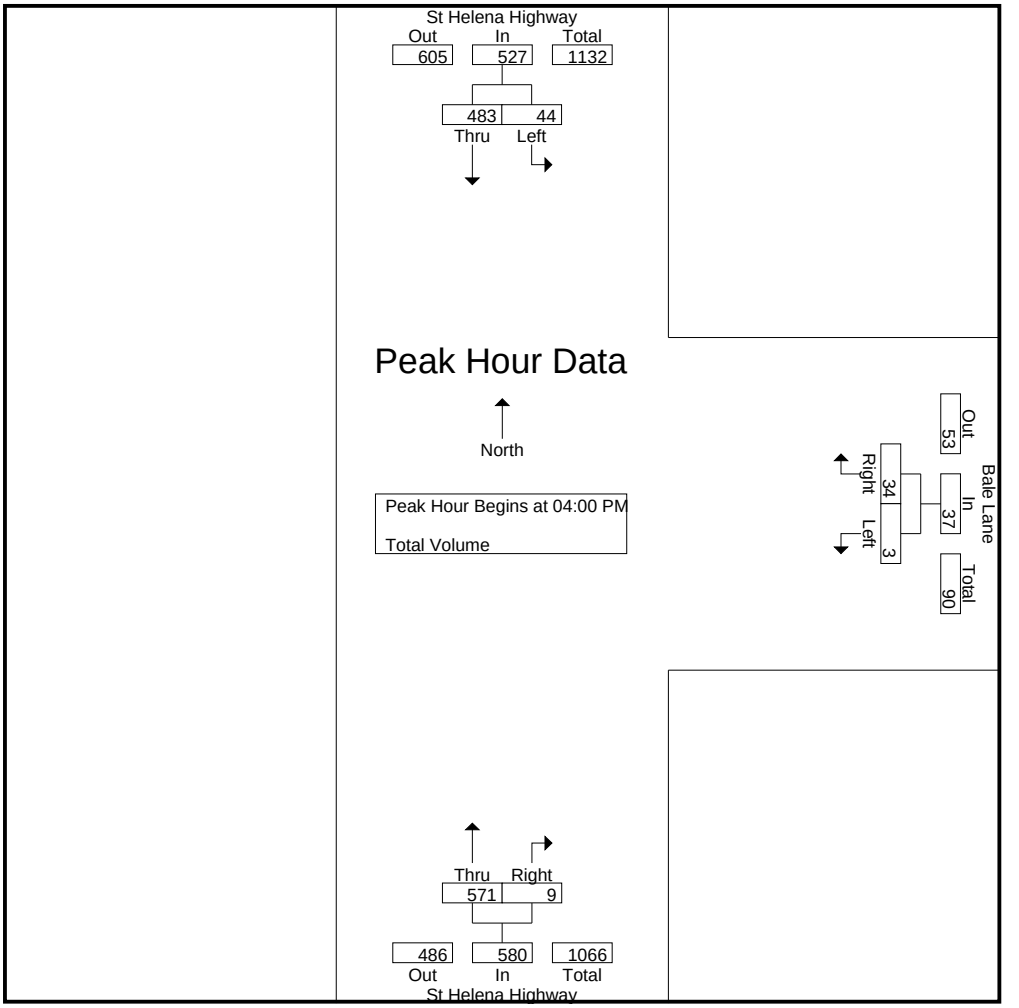
County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-16
Site Code : 22323578
Start Date : 6/16/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:15 PM		
+0 mins.	**15**	**145**	**160**	**3**	**12**	**15**	**162**	**3**	**165**
+15 mins.	7	103	110	0	12	12	134	2	136
+30 mins.	11	116	127	0	6	6	136	1	137
+45 mins.	11	119	130	0	4	4	149	0	149
Total Volume	44	483	527	3	34	37	581	6	587
% App. Total	8.3	91.7		8.1	91.9		99	1	
PHF	.733	.833	.823	.250	.708	.617	.897	.500	.889

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County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-17
Site Code : 22323578
Start Date : 6/17/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
01:00 PM	3	119	122	1	10	11	117	2	119	252
01:15 PM	3	118	121	4	11	15	120	1	121	257
01:30 PM	7	127	134	1	10	11	127	1	128	273
01:45 PM	7	107	114	1	7	8	120	1	121	243
Total	20	471	491	7	38	45	484	5	489	1025
02:00 PM	3	124	127	0	9	9	140	2	142	278
02:15 PM	13	123	136	2	7	9	113	2	115	260
02:30 PM	10	131	141	2	3	5	145	1	146	292
02:45 PM	13	127	140	3	6	9	136	2	138	287
Total	39	505	544	7	25	32	534	7	541	1117
Grand Total	59	976	1035	14	63	77	1018	12	1030	2142
Apprch %	5.7	94.3		18.2	81.8		98.8	1.2		
Total %	2.8	45.6	48.3	0.7	2.9	3.6	47.5	0.6	48.1	

	St Helena Highway Southbound			Bale Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	3	124	127	0	**9**	**9**	140	**2**	142	278
02:15 PM	**13**	123	136	2	7	9	113	2	115	260
02:30 PM	10	**131**	**141**	2	3	5	**145**	1	**146**	**292**
02:45 PM	13	127	140	**3**	6	9	136	2	138	287
Total Volume	39	505	544	7	25	32	534	7	541	1117
% App. Total	7.2	92.8		21.9	78.1		98.7	1.3		
PHF	.750	.964	.965	.583	.694	.889	.921	.875	.926	.956

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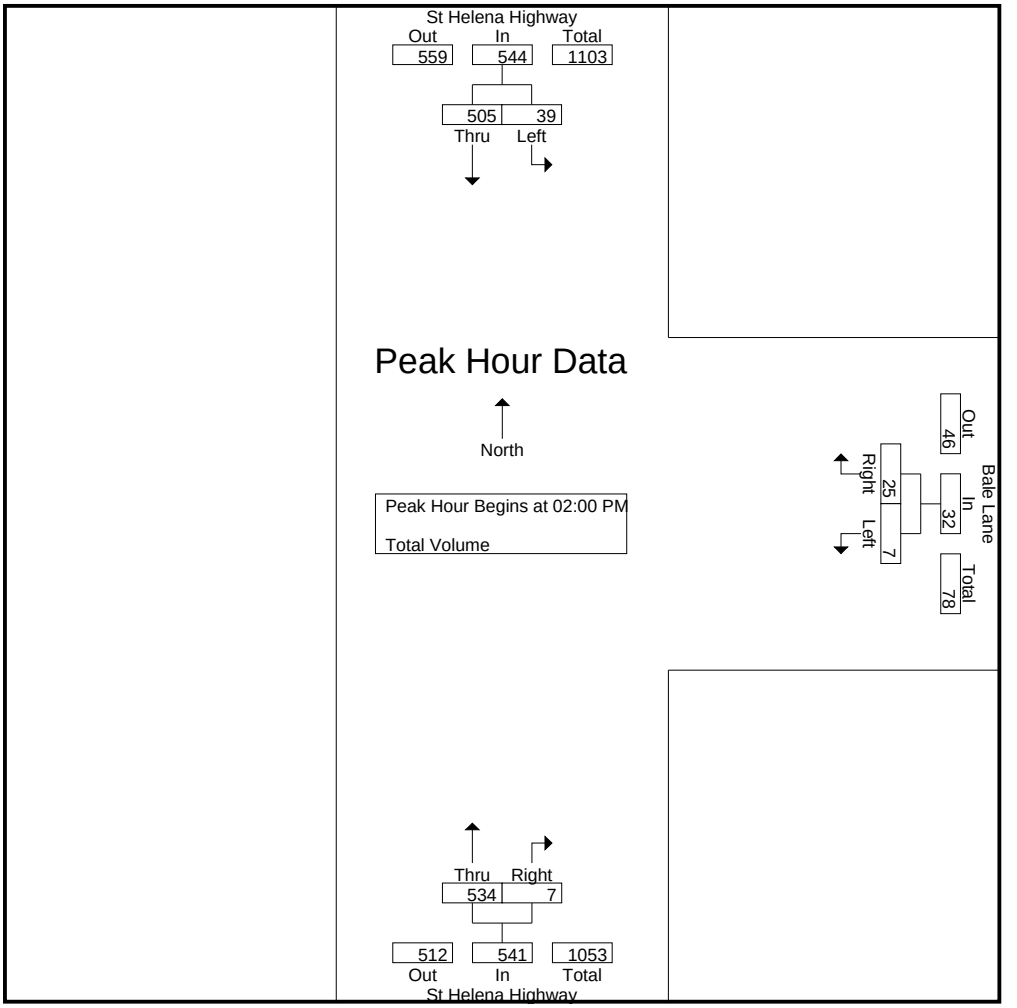
County of Napa
N/S: St Helena Highway
E/W: Bale Lane
Weather: Clear

File Name : 01_CNP_St H_Bale 6-17
Site Code : 22323578
Start Date : 6/17/2023
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM			01:00 PM			02:00 PM		
+0 mins.	3	124	127	1	10	11	140	**2**	142
+15 mins.	**13**	123	136	**4**	**11**	**15**	113	2	115
+30 mins.	10	**131**	**141**	1	10	11	**145**	1	**146**
+45 mins.	13	127	140	1	7	8	136	2	138
Total Volume	39	505	544	7	38	45	534	7	541
% App. Total	7.2	92.8		15.6	84.4		98.7	1.3	
PHF	.750	.964	.965	.438	.864	.750	.921	.875	.926

Location: County of Napa
N/S: St Helena Highway
E/W: Bale Lane

PEDESTRIANS

Date: 6/9/2023
Day: Friday

	North Leg St Helena Highway	East Leg Bale Lane	South Leg St Helena Highway	West Leg Bale Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/10/2023
Day: Saturday

	North Leg St Helena Highway	East Leg Bale Lane	South Leg St Helena Highway	West Leg Bale Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/16/2023
Day: Friday

	North Leg St Helena Highway	East Leg Bale Lane	South Leg St Helena Highway	West Leg Bale Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/17/2023
Day: Saturday

	North Leg St Helena Highway	East Leg Bale Lane	South Leg St Helena Highway	West Leg Bale Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	2	0	2
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

Location: County of Napa
N/S: St Helena Highway
E/W: Bale Lane

BICYCLES

Date: 6/9/2023
Day: Friday

	Southbound St Helena Highway			Westbound Bale Lane			Northbound St Helena Highway			Eastbound Bale Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

Date: 6/10/2023
Day: Saturday

	Southbound St Helena Highway			Westbound Bale Lane			Northbound St Helena Highway			Eastbound Bale Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	1	0	0	0	0	1	0	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	1	0	1	0	0	0	0	1	0	0	0	3

Date: 6/16/2023
Day: Friday

	Southbound St Helena Highway			Westbound Bale Lane			Northbound St Helena Highway			Eastbound Bale Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	1	0	0	0	0	2

Date: 6/17/2023
Day: Saturday

	Southbound St Helena Highway			Westbound Bale Lane			Northbound St Helena Highway			Eastbound Bale Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
1:30 PM	0	11	0	0	0	0	0	0	0	0	0	0	11
1:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	16	0	0	0	0	0	3	2	0	0	0	21

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County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway
Weather: Clear

File Name : 03_CNP_St H_DW 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			St Helena Highway Northbound			AXR Winery Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	135	0	135	0	140	140	0	0	0	275
04:15 PM	120	0	120	0	133	133	0	0	0	253
04:30 PM	115	0	115	0	128	128	0	1	1	244
04:45 PM	133	0	133	0	130	130	0	1	1	264
Total	503	0	503	0	531	531	0	2	2	1036
05:00 PM	120	0	120	0	136	136	0	0	0	256
05:15 PM	108	0	108	1	136	137	0	1	1	246
05:30 PM	101	0	101	0	101	101	0	0	0	202
05:45 PM	112	0	112	0	111	111	0	0	0	223
Total	441	0	441	1	484	485	0	1	1	927
Grand Total	944	0	944	1	1015	1016	0	3	3	1963
Apprch %	100	0		0.1	99.9		0	100		
Total %	48.1	0	48.1	0.1	51.7	51.8	0	0.2	0.2	

	St Helena Highway Southbound			St Helena Highway Northbound			AXR Winery Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**135**	0	**135**	0	**140**	**140**	0	0	0	**275**
04:15 PM	120	0	120	0	133	133	0	0	0	253
04:30 PM	115	0	115	0	128	128	0	**1**	**1**	244
04:45 PM	133	0	133	0	130	130	0	1	1	264
Total Volume	503	0	503	0	531	531	0	2	2	1036
% App. Total	100	0		0	100		0	100		
PHF	.931	.000	.931	.000	.948	.948	.000	.500	.500	.942

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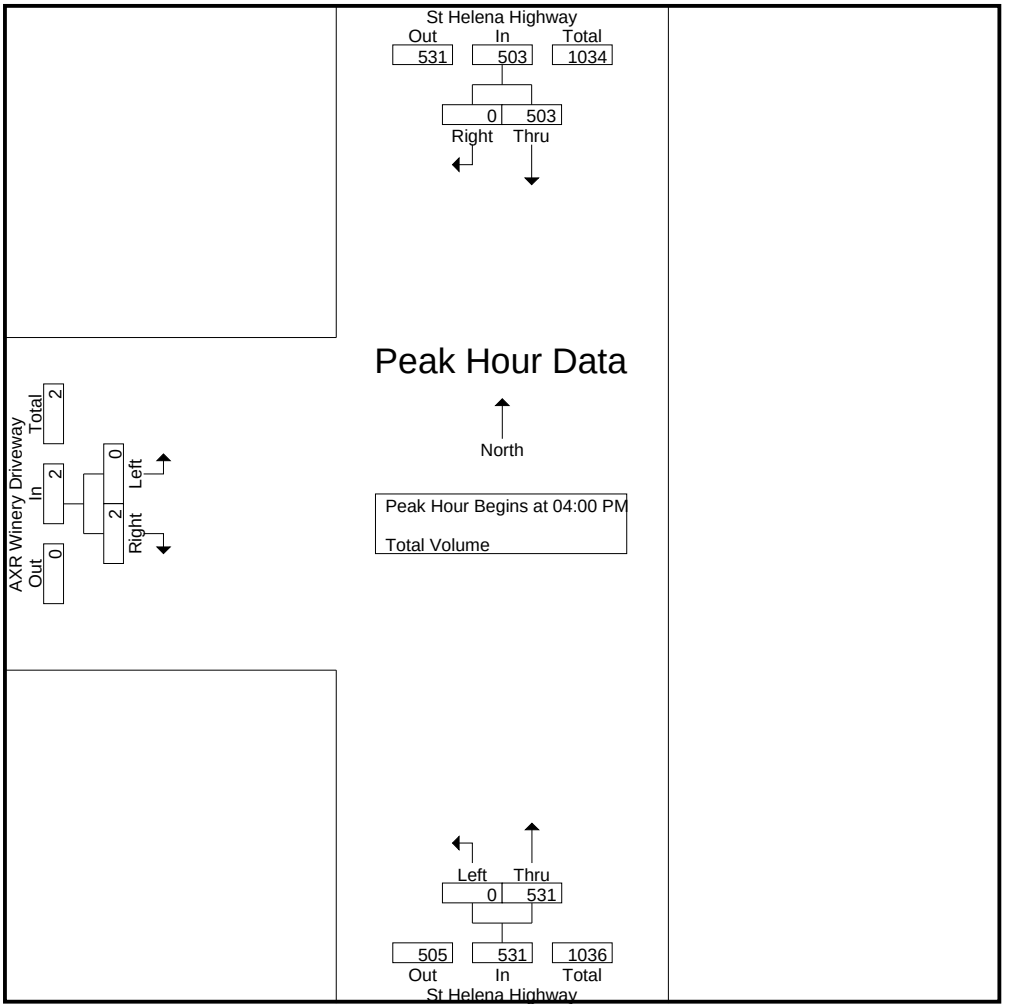
County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway
Weather: Clear

File Name : 03_CNP_St H_DW 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	**135**	0	**135**	0	**140**	**140**	0	**1**	**1**
+15 mins.	120	0	120	0	133	133	0	1	1
+30 mins.	115	0	115	0	128	128	0	0	0
+45 mins.	133	0	133	0	130	130	0	1	1
Total Volume	503	0	503	0	531	531	0	3	3
% App. Total	100	0		0	100		0	100	
PHF	.931	.000	.931	.000	.948	.948	.000	.750	.750

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County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway
Weather: Clear

File Name : 03_CNP_St H_DW 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			St Helena Highway Northbound			AXR Winery Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
01:00 PM	107	1	108	1	116	117	1	0	1	226
01:15 PM	113	0	113	0	136	136	0	0	0	249
01:30 PM	112	0	112	1	142	143	0	0	0	255
01:45 PM	124	0	124	1	129	130	0	0	0	254
Total	456	1	457	3	523	526	1	0	1	984
02:00 PM	107	0	107	0	138	138	0	0	0	245
02:15 PM	107	1	108	0	122	122	0	0	0	230
02:30 PM	124	0	124	1	135	136	0	1	1	261
02:45 PM	115	0	115	0	125	125	0	1	1	241
Total	453	1	454	1	520	521	0	2	2	977
Grand Total	909	2	911	4	1043	1047	1	2	3	1961
Apprch %	99.8	0.2		0.4	99.6		33.3	66.7		
Total %	46.4	0.1	46.5	0.2	53.2	53.4	0.1	0.1	0.2	

	St Helena Highway Southbound			St Helena Highway Northbound			AXR Winery Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:15 PM										
01:15 PM	113	0	113	0	136	136	0	0	0	249
01:30 PM	112	0	112	**1**	**142**	**143**	0	0	0	**255**
01:45 PM	**124**	0	**124**	1	129	130	0	0	0	254
02:00 PM	107	0	107	0	138	138	0	0	0	245
Total Volume	456	0	456	2	545	547	0	0	0	1003
% App. Total	100	0		0.4	99.6		0	0		
PHF	.919	.000	.919	.500	.960	.956	.000	.000	.000	.983

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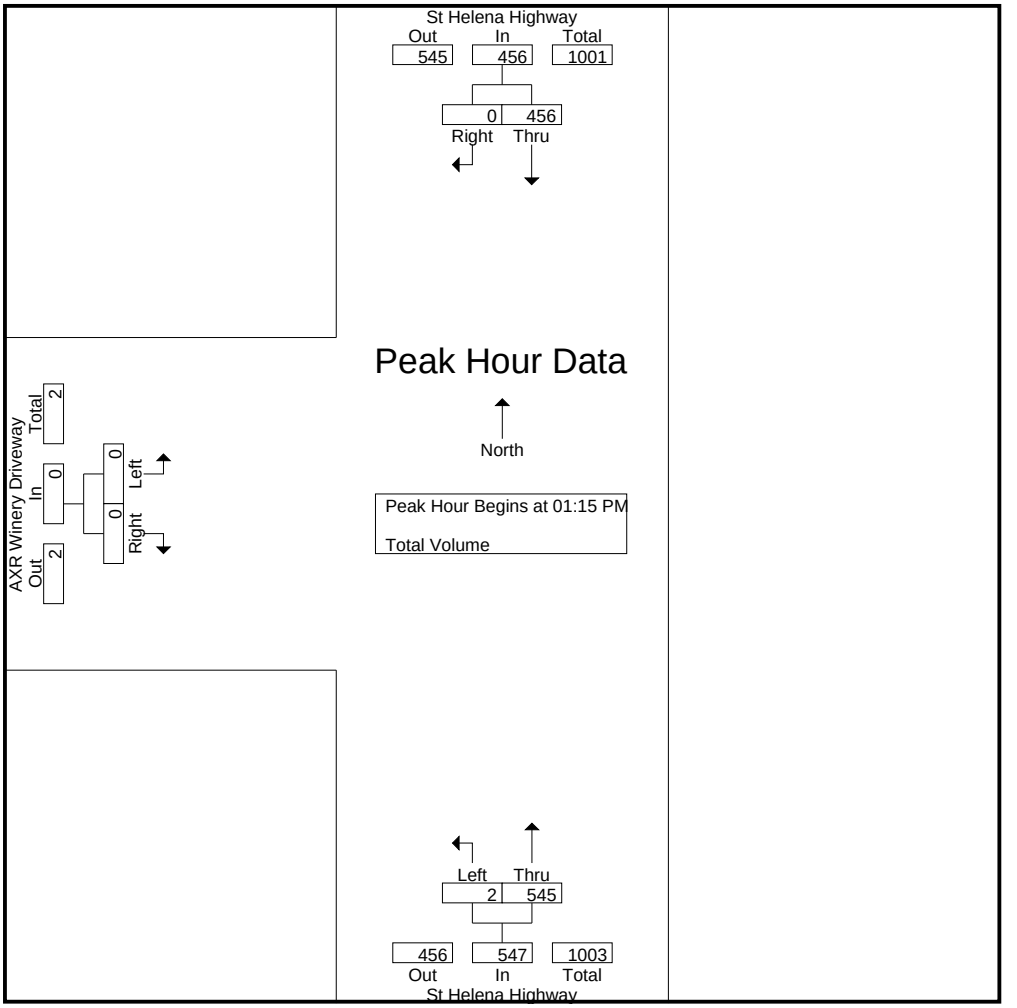
County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway
Weather: Clear

File Name : 03_CNP_St H_DW 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:45 PM			01:15 PM			02:00 PM		
+0 mins.	**124**	0	**124**	0	136	136	0	0	0
+15 mins.	107	0	107	**1**	**142**	**143**	0	0	0
+30 mins.	107	**1**	108	1	129	130	0	**1**	**1**
+45 mins.	124	0	124	0	138	138	0	1	1
Total Volume	462	1	463	2	545	547	0	2	2
% App. Total	99.8	0.2		0.4	99.6		0	100	
PHF	.931	.250	.933	.500	.960	.956	.000	.500	.500

Location: County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway

PEDESTRIANS

Date: 6/9/2023
Day: Friday

	North Leg St Helena Highway	East Leg Dead End	South Leg St Helena Highway	West Leg AXR Winery Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/10/2023
Day: Saturday

	North Leg St Helena Highway	East Leg Dead End	South Leg St Helena Highway	West Leg AXR Winery Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Napa
N/S: St Helena Highway
E/W: AXR Winery Driveway

BICYCLES

Date: 6/9/2023
Day: Friday

	Southbound St Helena Highway			Westbound Dead End			Northbound St Helena Highway			Eastbound AXR Winery Driveway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

Date: 6/10/2023
Day: Saturday

	Southbound St Helena Highway			Westbound Dead End			Northbound St Helena Highway			Eastbound AXR Winery Driveway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

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County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	4	137	141	3	5	8	125	1	126	275
04:15 PM	2	131	133	7	2	9	145	3	148	290
04:30 PM	5	126	131	3	2	5	135	4	139	275
04:45 PM	5	136	141	5	6	11	131	4	135	287
Total	16	530	546	18	15	33	536	12	548	1127
05:00 PM	7	126	133	7	4	11	142	2	144	288
05:15 PM	2	131	133	4	3	7	121	2	123	263
05:30 PM	0	107	107	4	1	5	108	5	113	225
05:45 PM	1	112	113	4	2	6	111	3	114	233
Total	10	476	486	19	10	29	482	12	494	1009
Grand Total	26	1006	1032	37	25	62	1018	24	1042	2136
Apprch %	2.5	97.5		59.7	40.3		97.7	2.3		
Total %	1.2	47.1	48.3	1.7	1.2	2.9	47.7	1.1	48.8	

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	2	131	133	**7**	2	9	**145**	3	**148**	**290**
04:30 PM	5	126	131	3	2	5	135	**4**	139	275
04:45 PM	5	**136**	**141**	5	**6**	**11**	131	4	135	287
05:00 PM	**7**	126	133	7	4	11	142	2	144	288
Total Volume	19	519	538	22	14	36	553	13	566	1140
% App. Total	3.5	96.5		61.1	38.9		97.7	2.3		
PHF	.679	.954	.954	.786	.583	.818	.953	.813	.956	.983

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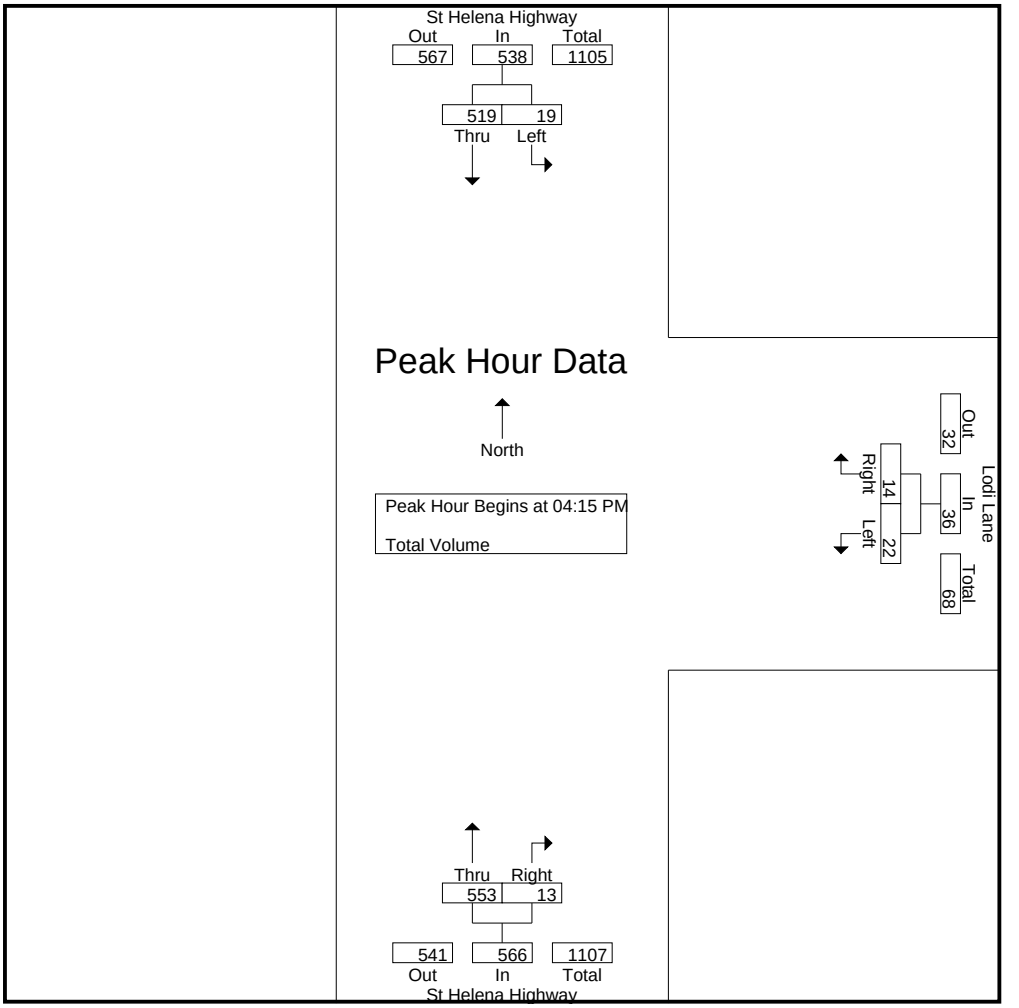
County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-9
Site Code : 22323578
Start Date : 6/9/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:15 PM		
+0 mins.	4	**137**	**141**	**7**	2	9	**145**	3	**148**
+15 mins.	2	131	133	3	2	5	135	**4**	139
+30 mins.	**5**	126	131	5	**6**	**11**	131	4	135
+45 mins.	5	136	141	7	4	11	142	2	144
Total Volume	16	530	546	22	14	36	553	13	566
% App. Total	2.9	97.1		61.1	38.9		97.7	2.3	
PHF	.800	.967	.968	.786	.583	.818	.953	.813	.956

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County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
01:00 PM	3	122	125	6	4	10	119	8	127	262
01:15 PM	2	111	113	3	2	5	138	3	141	259
01:30 PM	1	110	111	6	3	9	144	4	148	268
01:45 PM	4	119	123	3	2	5	142	3	145	273
Total	10	462	472	18	11	29	543	18	561	1062
02:00 PM	3	109	112	3	2	5	135	2	137	254
02:15 PM	3	114	117	2	2	4	133	4	137	258
02:30 PM	2	130	132	3	2	5	131	2	133	270
02:45 PM	2	128	130	2	5	7	138	5	143	280
Total	10	481	491	10	11	21	537	13	550	1062
Grand Total	20	943	963	28	22	50	1080	31	1111	2124
Apprch %	2.1	97.9		56	44		97.2	2.8		
Total %	0.9	44.4	45.3	1.3	1	2.4	50.8	1.5	52.3	

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	3	**122**	**125**	**6**	**4**	**10**	119	**8**	127	262
01:15 PM	2	111	113	3	2	5	138	3	141	259
01:30 PM	1	110	111	6	3	9	**144**	4	**148**	268
01:45 PM	**4**	119	123	3	2	5	142	3	145	**273**
Total Volume	10	462	472	18	11	29	543	18	561	1062
% App. Total	2.1	97.9		62.1	37.9		96.8	3.2		
PHF	.625	.947	.944	.750	.688	.725	.943	.563	.948	.973

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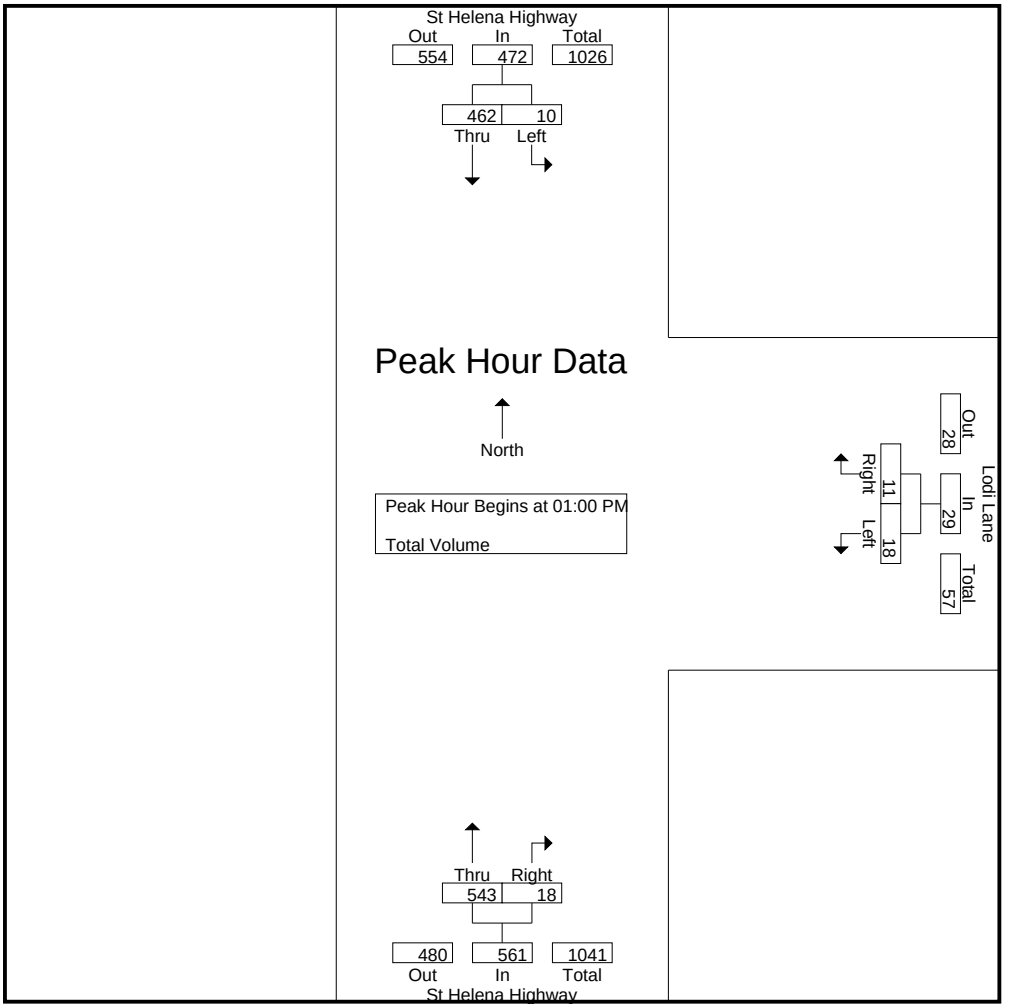
County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-10
Site Code : 22323578
Start Date : 6/10/2023
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM			01:00 PM			01:15 PM		
+0 mins.	**3**	109	112	**6**	**4**	**10**	138	3	141
+15 mins.	3	114	117	3	2	5	**144**	**4**	**148**
+30 mins.	2	**130**	**132**	6	3	9	142	3	145
+45 mins.	2	128	130	3	2	5	135	2	137
Total Volume	10	481	491	18	11	29	559	12	571
% App. Total	2	98		62.1	37.9		97.9	2.1	
PHF	.833	.925	.930	.750	.688	.725	.970	.750	.965

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County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-16
Site Code : 22323578
Start Date : 6/16/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	4	154	158	4	1	5	146	5	151	314
04:15 PM	1	136	137	2	3	5	162	6	168	310
04:30 PM	5	125	130	6	1	7	145	5	150	287
04:45 PM	6	127	133	4	6	10	146	3	149	292
Total	16	542	558	16	11	27	599	19	618	1203
05:00 PM	2	124	126	3	5	8	138	3	141	275
05:15 PM	0	142	142	3	5	8	143	4	147	297
05:30 PM	4	120	124	4	1	5	145	3	148	277
05:45 PM	0	114	114	0	2	2	125	6	131	247
Total	6	500	506	10	13	23	551	16	567	1096
Grand Total	22	1042	1064	26	24	50	1150	35	1185	2299
Apprch %	2.1	97.9		52	48		97	3		
Total %	1	45.3	46.3	1.1	1	2.2	50	1.5	51.5	

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	4	**154**	**158**	4	1	5	146	5	151	**314**
04:15 PM	1	136	137	2	3	5	**162**	**6**	**168**	310
04:30 PM	5	125	130	**6**	1	7	145	5	150	287
04:45 PM	**6**	127	133	4	**6**	**10**	146	3	149	292
Total Volume	16	542	558	16	11	27	599	19	618	1203
% App. Total	2.9	97.1		59.3	40.7		96.9	3.1		
PHF	.667	.880	.883	.667	.458	.675	.924	.792	.920	.958

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County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-16
Site Code : 22323578
Start Date : 6/16/2023
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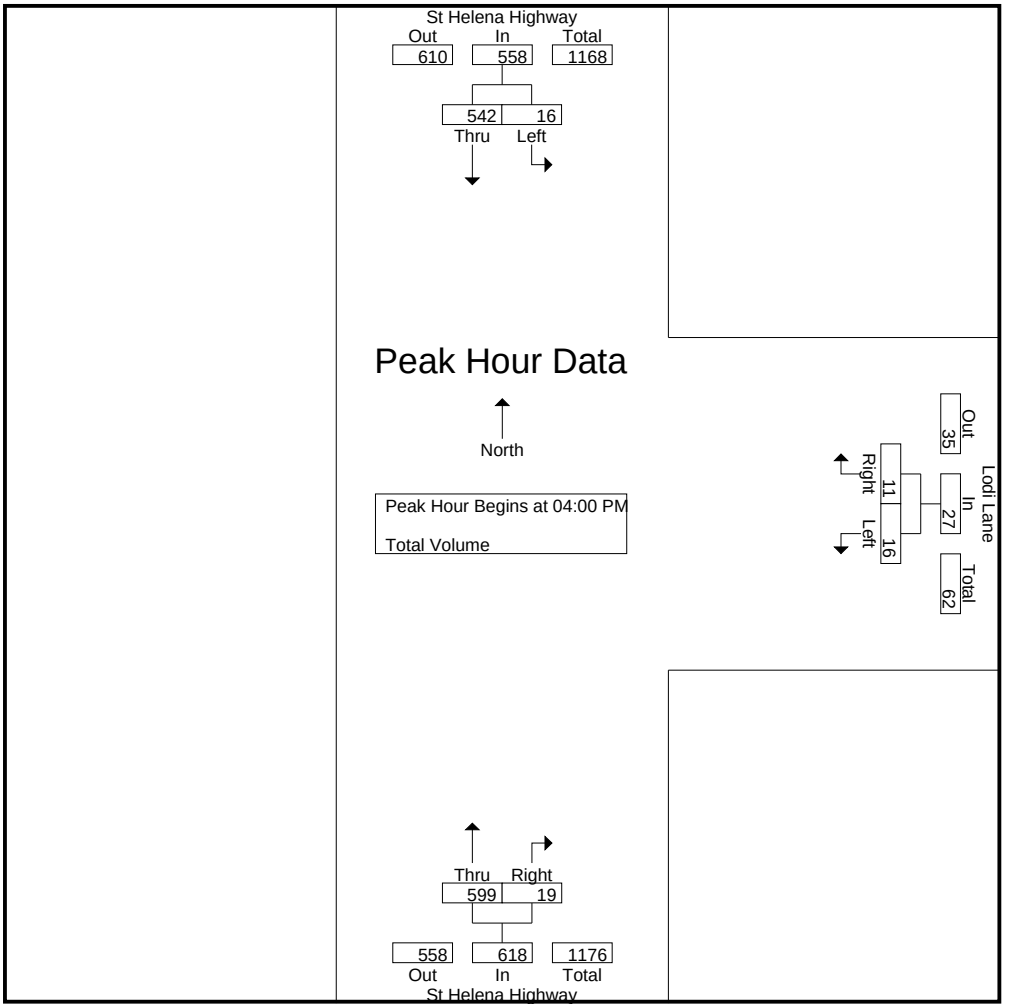

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:00 PM		
+0 mins.	4	**154**	**158**	**6**	1	7	146	5	151
+15 mins.	1	136	137	4	**6**	**10**	**162**	**6**	**168**
+30 mins.	5	125	130	3	5	8	145	5	150
+45 mins.	**6**	127	133	3	5	8	146	3	149
Total Volume	16	542	558	16	17	33	599	19	618
% App. Total	2.9	97.1		48.5	51.5		96.9	3.1	
PHF	.667	.880	.883	.667	.708	.825	.924	.792	.920

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County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-17
Site Code : 22323578
Start Date : 6/17/2023
Page No : 1

Groups Printed- Total Volume

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
01:00 PM	7	113	120	4	5	9	136	4	140	269
01:15 PM	5	122	127	3	2	5	129	3	132	264
01:30 PM	5	127	132	5	4	9	125	6	131	272
01:45 PM	6	129	135	4	3	7	129	3	132	274
Total	23	491	514	16	14	30	519	16	535	1079
02:00 PM	5	109	114	2	2	4	136	3	139	257
02:15 PM	1	145	146	3	4	7	130	3	133	286
02:30 PM	3	162	165	3	4	7	135	4	139	311
02:45 PM	4	139	143	10	5	15	149	8	157	315
Total	13	555	568	18	15	33	550	18	568	1169
Grand Total	36	1046	1082	34	29	63	1069	34	1103	2248
Apprch %	3.3	96.7		54	46		96.9	3.1		
Total %	1.6	46.5	48.1	1.5	1.3	2.8	47.6	1.5	49.1	

	St Helena Highway Southbound			Lodi Lane Westbound			St Helena Highway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	**5**	109	114	2	2	4	136	3	139	257
02:15 PM	1	145	146	3	4	7	130	3	133	286
02:30 PM	3	**162**	**165**	3	4	7	135	4	139	311
02:45 PM	4	139	143	**10**	**5**	**15**	**149**	**8**	**157**	**315**
Total Volume	13	555	568	18	15	33	550	18	568	1169
% App. Total	2.3	97.7		54.5	45.5		96.8	3.2		
PHF	.650	.856	.861	.450	.750	.550	.923	.563	.904	.928

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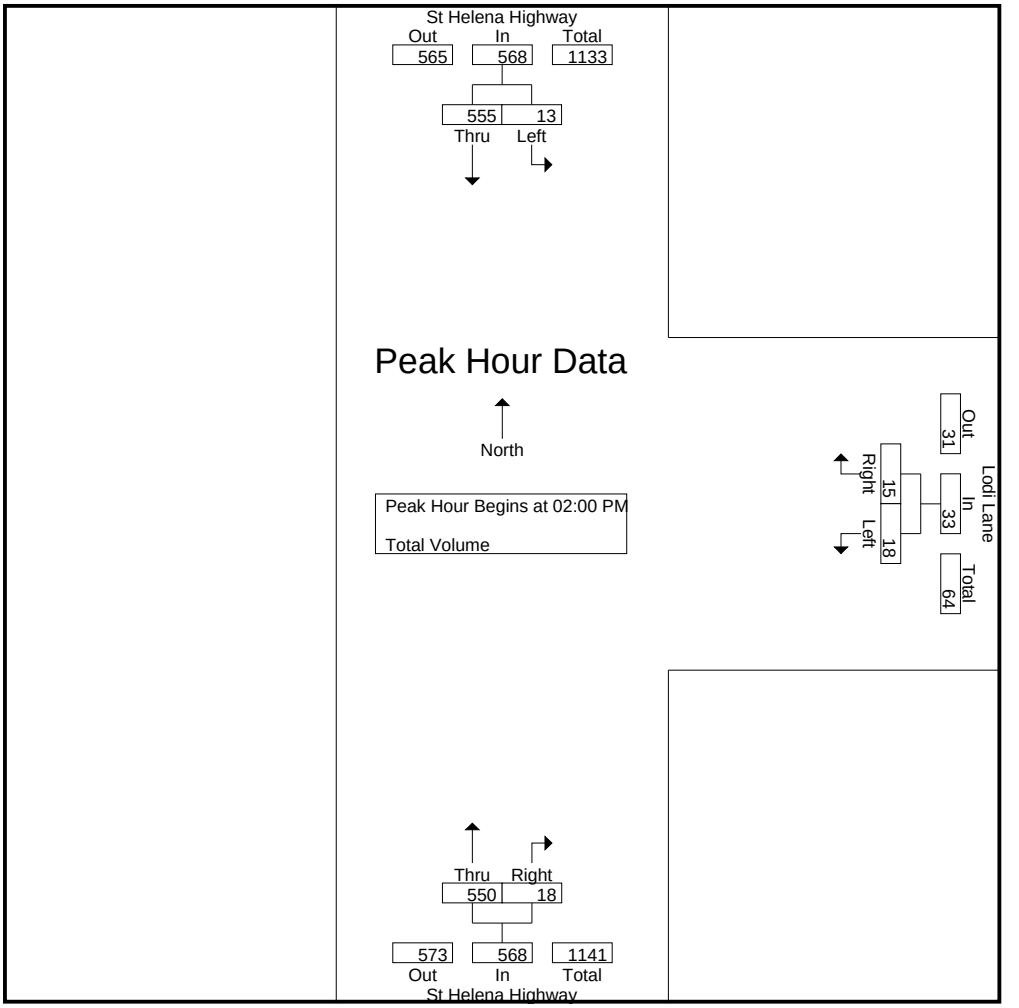
County of Napa
N/S: St Helena Highway
E/W: Lodi Lane
Weather: Clear

File Name : 02_CNP_St H_Lodi 6-17
Site Code : 22323578
Start Date : 6/17/2023
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	**5**	109	114	2	2	4	136	3	139
+15 mins.	1	145	146	3	4	7	130	3	133
+30 mins.	3	**162**	**165**	3	4	7	135	4	139
+45 mins.	4	139	143	**10**	**5**	**15**	**149**	**8**	**157**
Total Volume	13	555	568	18	15	33	550	18	568
% App. Total	2.3	97.7		54.5	45.5		96.8	3.2	
PHF	.650	.856	.861	.450	.750	.550	.923	.563	.904

Location: County of Napa
N/S: St Helena Highway
E/W: Lodi Lane

PEDESTRIANS

Date: 6/9/2023
Day: Friday

	North Leg St Helena Highway	East Leg Lodi Lane	South Leg St Helena Highway	West Leg Lodi Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/10/2023
Day: Saturday

	North Leg St Helena Highway	East Leg Lodi Lane	South Leg St Helena Highway	West Leg Lodi Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/16/2023
Day: Friday

	North Leg St Helena Highway	East Leg Lodi Lane	South Leg St Helena Highway	West Leg Lodi Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Date: 6/17/2023
Day: Saturday

	North Leg St Helena Highway	East Leg Lodi Lane	South Leg St Helena Highway	West Leg Lodi Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	1	1
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

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Location: County of Napa
N/S: St Helena Highway
E/W: Lodi Lane

BICYCLES

Date: 6/9/2023
Day: Friday

	Southbound St Helena Highway			Westbound Lodi Lane			Northbound St Helena Highway			Eastbound Lodi Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

Date: 6/10/2023
Day: Saturday

	Southbound St Helena Highway			Westbound Lodi Lane			Northbound St Helena Highway			Eastbound Lodi Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

Date: 6/16/2023
Day: Friday

	Southbound St Helena Highway			Westbound Lodi Lane			Northbound St Helena Highway			Eastbound Lodi Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	1	0	0	0	0	2

Date: 6/17/2023
Day: Saturday

	Southbound St Helena Highway			Westbound Lodi Lane			Northbound St Helena Highway			Eastbound Lodi Lane			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	14	0	0	0	0	0	0	0	0	0	0	14
1:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	16	0	0	0	0	0	5	0	0	0	0	21

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County of Napa
Bale Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP001A
Site Code: 223-23578

Start Time	6/9/23 Fri	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	13			1	7				
12:15		2	12			0	7				
12:30		0	8			0	8				
12:45		1	5	3	38	0	10	1	32	4	70
01:00		1	8			1	11				
01:15		1	3			1	10				
01:30		0	8			0	6				
01:45		1	9	3	28	0	19	2	46	5	74
02:00		0	15			0	16				
02:15		0	6			0	13				
02:30		1	10			1	13				
02:45		0	7	1	38	0	**28**	1	70	2	108
03:00		0	**10**			0	**23**				
03:15		1	**9**			1	**17**				
03:30		0	**12**			1	**18**				
03:45		2	**16**	3	47	0	9	2	67	5	114
04:00		1	4			1	11				
04:15		0	8			0	13				
04:30		1	6			1	7				
04:45		0	9	2	27	3	9	5	40	7	67
05:00		8	9			1	6				
05:15		14	8			2	9				
05:30		16	6			2	14				
05:45		17	7	55	30	2	8	7	37	62	67
06:00		10	12			4	8				
06:15		7	11			4	7				
06:30		17	4			5	6				
06:45		15	6	49	33	8	0	21	21	70	54
07:00		9	3			**8**	3				
07:15		7	5			**10**	8				
07:30		11	6			**12**	1				
07:45		**22**	3	49	17	**12**	6	42	18	91	35
08:00		**13**	2			5	5				
08:15		**12**	2			10	1				
08:30		**19**	2			7	4				
08:45		12	4	56	10	5	1	27	11	83	21
09:00		4	3			7	0				
09:15		15	5			7	4				
09:30		7	7			9	2				
09:45		9	5	35	20	9	1	32	7	67	27
10:00		4	3			11	1				
10:15		10	4			7	1				
10:30		9	2			7	0				
10:45		11	2	34	11	11	1	36	3	70	14
11:00		9	1			9	1				
11:15		7	1			7	1				
11:30		5	1			7	2				
11:45		11	0	32	3	13	3	36	7	68	10
Total		322	302	322	302	212	359	212	359	534	661
Combined Total		624		624		571		571		1195	
AM Peak	-	07:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	66	-	-	-	42	-	-	-	-	-
P.H.F.		0.750				0.875					
PM Peak	-	-	03:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	47	-	-	-	86	-	-	-	-
P.H.F.			0.734				0.768				
Percentage		51.6%	48.4%			37.1%	62.9%				

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County of Napa
Bale Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP001A
Site Code: 223-23578

Start Time	6/10/23 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	3			1	5				
12:15		0	10			1	5				
12:30		1	9			0	8				
12:45		0	6	1	28	0	12	2	30	3	58
01:00		0	5			0	12				
01:15		1	6			0	3				
01:30		1	**14**			0	12				
01:45		0	**7**	2	32	0	6	0	33	2	65
02:00		0	**10**			1	11				
02:15		1	**9**			0	9				
02:30		1	1			0	6				
02:45		0	5	2	25	0	7	1	33	3	58
03:00		0	7			1	9				
03:15		0	11			0	10				
03:30		0	6			1	3				
03:45		0	10	0	34	0	9	2	31	2	65
04:00		0	6			1	4				
04:15		0	10			0	**12**				
04:30		1	7			0	**9**				
04:45		1	3	2	26	0	**9**	1	34	3	60
05:00		2	9			0	**13**				
05:15		4	3			0	11				
05:30		6	6			1	7				
05:45		7	1	19	19	1	2	2	33	21	52
06:00		8	8			2	10				
06:15		5	6			2	8				
06:30		5	7			2	6				
06:45		8	5	26	26	2	3	8	27	34	53
07:00		4	9			4	5				
07:15		2	3			6	4				
07:30		8	5			3	4				
07:45		5	5	19	22	1	5	14	18	33	40
08:00		4	3			4	4				
08:15		4	5			4	1				
08:30		2	5			6	5				
08:45		4	7	14	20	3	5	17	15	31	35
09:00		7	4			8	3				
09:15		4	0			5	3				
09:30		10	2			1	2				
09:45		7	4	28	10	5	0	19	8	47	18
10:00		7	6			4	1				
10:15		7	3			5	2				
10:30		**12**	2			4	2				
10:45		**6**	1	32	12	8	0	21	5	53	17
11:00		**7**	3			**5**	1				
11:15		**11**	1			**7**	1				
11:30		4	0			**6**	2				
11:45		6	2	28	6	**14**	1	32	5	60	11
Total		173	260	173	260	119	272	119	272	292	532
Combined Total		433		433		391		391		824	
AM Peak	-	10:30	-	-	-	11:00	-	-	-	-	-
Vol.	-	36	-	-	-	32	-	-	-	-	-
P.H.F.		0.750				0.571					
PM Peak	-	-	01:30	-	-	-	04:15	-	-	-	-
Vol.	-	-	40	-	-	-	43	-	-	-	-
P.H.F.			0.714				0.827				
Percentage		40.0%	60.0%			30.4%	69.6%				
ADT/AADT		ADT 1,010		AADT 1,010							

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County of Napa
Bale Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP001B
Site Code: 223-23578

Start Time	6/16/23 Fri	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	12			1	9				
12:15		1	6			1	15				
12:30		1	11			1	9				
12:45		0	8	4	37	0	12	3	45	7	82
01:00		1	14			0	15				
01:15		1	5			1	10				
01:30		1	14			0	16				
01:45		1	10	4	43	0	13	1	54	5	97
02:00		0	7			0	10				
02:15		1	10			1	**19**				
02:30		1	10			0	**20**				
02:45		1	13	3	40	2	**18**	3	67	6	107
03:00		0	6			0	**14**				
03:15		0	16			0	17				
03:30		0	10			0	11				
03:45		0	**12**	0	44	0	13	0	55	0	99
04:00		0	**10**			2	12				
04:15		3	**16**			0	18				
04:30		1	**15**			0	8				
04:45		2	11	6	52	3	4	5	42	11	94
05:00		3	5			1	5				
05:15		4	10			3	10				
05:30		12	11			3	8				
05:45		14	8	33	34	7	11	14	34	47	68
06:00		10	9			5	7				
06:15		13	7			5	5				
06:30		8	3			8	4				
06:45		12	12	43	31	5	1	23	17	66	48
07:00		7	2			6	1				
07:15		**13**	7			**11**	8				
07:30		**13**	5			**12**	6				
07:45		**17**	4	50	18	**13**	3	42	18	92	36
08:00		**9**	2			**9**	0				
08:15		4	2			5	7				
08:30		7	5			8	4				
08:45		15	4	35	13	8	0	30	11	65	24
09:00		14	5			11	1				
09:15		12	7			6	3				
09:30		9	2			7	1				
09:45		4	2	39	16	3	1	27	6	66	22
10:00		3	6			3	1				
10:15		9	2			10	3				
10:30		10	2			6	2				
10:45		3	2	25	12	14	3	33	9	58	21
11:00		8	6			9	0				
11:15		8	3			13	1				
11:30		7	0			7	3				
11:45		14	0	37	9	8	3	37	7	74	16
Total		279	349	279	349	218	365	218	365	497	714
Combined Total		628		628		583		583		1211	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	52	-	-	-	45	-	-	-	-	-
P.H.F.		0.765				0.865					
PM Peak	-	-	03:45	-	-	-	02:15	-	-	-	-
Vol.	-	-	53	-	-	-	71	-	-	-	-
P.H.F.			0.828				0.888				
Percentage		44.4%	55.6%			37.4%	62.6%				

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County of Napa
Bale Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP001B
Site Code: 223-23578

Start Time	6/17/23 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	10			0	14				
12:15		0	6			0	2				
12:30		2	6			1	**10**				
12:45		0	10	4	32	1	**14**	2	40	6	72
01:00		1	2			0	**13**				
01:15		0	5			2	**11**				
01:30		1	5			0	10				
01:45		0	7	2	19	0	10	2	44	4	63
02:00		2	10			0	10				
02:15		0	**12**			0	10				
02:30		0	**9**			0	4				
02:45		0	**15**	2	46	0	4	0	28	2	74
03:00		0	**19**			0	12				
03:15		0	8			0	4				
03:30		0	8			0	9				
03:45		0	7	0	42	1	10	1	35	1	77
04:00		0	5			1	5				
04:15		0	6			0	6				
04:30		0	9			0	11				
04:45		3	9	3	29	0	6	1	28	4	57
05:00		3	4			1	3				
05:15		3	2			0	7				
05:30		4	5			1	13				
05:45		8	3	18	14	1	17	3	40	21	54
06:00		3	4			1	11				
06:15		6	7			2	4				
06:30		0	3			5	5				
06:45		9	4	18	18	1	7	9	27	27	45
07:00		2	2			4	8				
07:15		2	14			6	7				
07:30		3	5			1	5				
07:45		6	5	13	26	2	4	13	24	26	50
08:00		2	3			3	3				
08:15		8	3			2	3				
08:30		2	1			5	3				
08:45		6	5	18	12	5	2	15	11	33	23
09:00		4	4			6	3				
09:15		3	1			5	4				
09:30		3	3			8	0				
09:45		6	4	16	12	3	2	22	9	38	21
10:00		5	1			**10**	3				
10:15		5	4			**10**	3				
10:30		6	3			**6**	2				
10:45		8	1	24	9	**7**	0	33	8	57	17
11:00		**4**	0			3	3				
11:15		**8**	3			9	0				
11:30		**6**	2			6	1				
11:45		**9**	0	27	5	9	5	27	9	54	14
Total		145	264	145	264	128	303	128	303	273	567
Combined Total		409		409		431		431		840	
AM Peak	-	11:00	-	-	-	10:00	-	-	-	-	-
Vol.	-	27	-	-	-	33	-	-	-	-	-
P.H.F.		0.750				0.825					
PM Peak	-	-	02:15	-	-	-	00:30	-	-	-	-
Vol.	-	-	55	-	-	-	48	-	-	-	-
P.H.F.			0.724				0.857				
Percentage		35.5%	64.5%			29.7%	70.3%				
ADT/AADT		ADT 1,026		AADT 1,026							

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County of Napa
Lodi Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP002A
Site Code: 223-23578

Start Time	6/9/23 Fri	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	1			0	0				
12:15		0	6			0	18				
12:30		0	5			0	8				
12:45		0	14	0	26	0	8	0	34	0	60
01:00		0	4			1	11				
01:15		0	3			0	8				
01:30		1	6			1	11				
01:45		1	5	2	18	0	13	2	43	4	61
02:00		0	6			0	10				
02:15		0	7			0	13				
02:30		0	7			0	4				
02:45		0	12	0	32	0	14	0	41	0	73
03:00		1	5			0	**11**				
03:15		0	3			0	**14**				
03:30		0	6			0	**12**				
03:45		0	4	1	18	0	**16**	0	53	1	71
04:00		0	**11**			0	10				
04:15		0	**10**			0	9				
04:30		0	**3**			0	8				
04:45		0	**9**	0	33	0	7	0	34	0	67
05:00		1	4			1	10				
05:15		0	9			0	9				
05:30		5	4			7	6				
05:45		5	5	11	22	5	4	13	29	24	51
06:00		2	2			4	7				
06:15		3	5			2	2				
06:30		4	6			3	9				
06:45		5	8	14	21	5	3	14	21	28	42
07:00		6	4			5	7				
07:15		3	5			4	3				
07:30		8	3			4	3				
07:45		6	1	23	13	7	2	20	15	43	28
08:00		9	4			4	2				
08:15		3	8			7	2				
08:30		2	0			8	1				
08:45		9	5	23	17	9	2	28	7	51	24
09:00		9	3			**19**	1				
09:15		7	2			**6**	1				
09:30		6	6			**11**	1				
09:45		6	2	28	13	**10**	2	46	5	74	18
10:00		**11**	2			9	2				
10:15		**7**	3			9	1				
10:30		**9**	4			10	1				
10:45		**8**	1	35	10	5	1	33	5	68	15
11:00		6	3			11	3				
11:15		6	1			13	2				
11:30		9	3			10	0				
11:45		9	1	30	8	10	0	44	5	74	13
Total		167	231	167	231	200	292	200	292	367	523
Combined Total		398		398		492		492		890	
AM Peak	-	10:00	-	-	-	09:00	-	-	-	-	-
Vol.	-	35	-	-	-	46	-	-	-	-	-
P.H.F.		0.795				0.605					
PM Peak	-	-	04:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	33	-	-	-	53	-	-	-	-
P.H.F.			0.688				0.828				
Percentage		42.0%	58.0%			40.7%	59.3%				

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County of Napa
Lodi Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP002A
Site Code: 223-23578

Start Time	6/10/23 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	6			1	**14**				
12:15		0	5			0	**9**				
12:30		0	4			1	**7**				
12:45		0	5	2	20	0	**10**	2	40	4	60
01:00		0	12			0	12				
01:15		0	4			1	8				
01:30		0	4			0	7				
01:45		0	9	0	29	0	5	1	32	1	61
02:00		0	5			0	5				
02:15		0	6			0	3				
02:30		1	5			0	6				
02:45		1	5	2	21	0	6	0	20	2	41
03:00		0	5			0	8				
03:15		0	4			0	4				
03:30		1	3			1	8				
03:45		0	8	1	20	0	6	1	26	2	46
04:00		0	2			0	15				
04:15		0	6			0	7				
04:30		1	**11**			0	6				
04:45		1	**6**	2	25	0	6	0	34	2	59
05:00		1	**8**			1	12				
05:15		1	**7**			2	5				
05:30		1	5			1	10				
05:45		2	5	5	25	3	12	7	39	12	64
06:00		2	7			2	7				
06:15		2	5			0	4				
06:30		2	2			3	8				
06:45		2	8	8	22	1	5	6	24	14	46
07:00		0	5			2	6				
07:15		1	4			2	2				
07:30		2	3			5	3				
07:45		2	1	5	13	1	1	10	12	15	25
08:00		1	3			3	3				
08:15		**5**	1			4	2				
08:30		**5**	2			6	3				
08:45		**15**	3	26	9	3	0	16	8	42	17
09:00		**4**	6			**15**	3				
09:15		2	2			**8**	1				
09:30		6	4			**6**	1				
09:45		3	0	15	12	**7**	3	36	8	51	20
10:00		5	2			7	2				
10:15		3	9			7	1				
10:30		6	4			3	0				
10:45		7	3	21	18	5	1	22	4	43	22
11:00		7	1			10	1				
11:15		6	0			6	1				
11:30		3	0			6	1				
11:45		6	0	22	1	4	0	26	3	48	4
Total		109	215	109	215	127	250	127	250	236	465
Combined Total		324		324		377		377		701	
AM Peak	-	08:15	-	-	-	09:00	-	-	-	-	-
Vol.	-	29	-	-	-	36	-	-	-	-	-
P.H.F.		0.483				0.600					
PM Peak	-	-	04:30	-	-	-	12:00	-	-	-	-
Vol.	-	-	32	-	-	-	40	-	-	-	-
P.H.F.			0.727				0.714				
Percentage		33.6%	66.4%			33.7%	66.3%				
ADT/AADT		ADT 796		AADT 796							

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County of Napa
Lodi Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP002B
Site Code: 223-23578

Start Time	6/16/23 Fri	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	10			0	10				
12:15		0	8			0	6				
12:30		1	6			0	12				
12:45		0	13	2	37	0	7	0	35	2	72
01:00		1	5			0	7				
01:15		0	6			0	7				
01:30		0	3			0	7				
01:45		0	11	1	25	0	12	0	33	1	58
02:00		0	9			0	11				
02:15		0	3			1	12				
02:30		0	6			0	**11**				
02:45		0	12	0	30	0	**13**	1	47	1	77
03:00		0	5			0	**11**				
03:15		0	4			0	**14**				
03:30		0	10			2	6				
03:45		0	6	0	25	0	10	2	41	2	66
04:00		1	**13**			0	8				
04:15		0	**5**			0	3				
04:30		1	**12**			1	4				
04:45		0	**8**	2	38	0	11	1	26	3	64
05:00		0	10			0	15				
05:15		2	3			2	7				
05:30		6	10			4	6				
05:45		6	3	14	26	2	3	8	31	22	57
06:00		1	9			2	2				
06:15		2	7			0	2				
06:30		2	4			2	9				
06:45		7	4	12	24	7	7	11	20	23	44
07:00		6	3			5	10				
07:15		7	3			8	1				
07:30		3	3			3	4				
07:45		5	7	21	16	10	5	26	20	47	36
08:00		3	3			6	0				
08:15		**8**	3			**10**	7				
08:30		**6**	0			**5**	0				
08:45		**11**	2	28	8	**10**	1	31	8	59	16
09:00		**7**	2			**12**	2				
09:15		4	5			8	1				
09:30		6	4			3	1				
09:45		6	4	23	15	11	0	34	4	57	19
10:00		3	2			8	2				
10:15		6	2			10	3				
10:30		6	4			6	2				
10:45		5	0	20	8	8	0	32	7	52	15
11:00		7	4			7	0				
11:15		6	0			6	1				
11:30		7	1			12	0				
11:45		6	0	26	5	10	0	35	1	61	6
Total		149	257	149	257	181	273	181	273	330	530
Combined Total		406		406		454		454		860	
AM Peak	-	08:15	-	-	-	08:15	-	-	-	-	-
Vol.	-	32	-	-	-	37	-	-	-	-	-
P.H.F.		0.727				0.771					
PM Peak	-	-	04:00	-	-	-	02:30	-	-	-	-
Vol.	-	-	38	-	-	-	49	-	-	-	-
P.H.F.			0.731				0.875				
Percentage		36.7%	63.3%			39.9%	60.1%				

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County of Napa
Lodi Lane
E/ State Route 29
24 Hour Directional Volume Count

CNP002B
Site Code: 223-23578

Start Time	6/17/23 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	6			0	11				
12:15		1	2			0	5				
12:30		0	5			0	8				
12:45		0	5	2	18	0	11	0	35	2	53
01:00		0	10			0	12				
01:15		0	**11**			0	3				
01:30		1	**11**			1	9				
01:45		0	**6**	1	38	0	7	1	31	2	69
02:00		0	**11**			0	4				
02:15		0	9			1	9				
02:30		1	5			0	**6**				
02:45		0	9	1	34	0	**13**	1	32	2	66
03:00		0	8			0	**8**				
03:15		0	7			0	**10**				
03:30		0	5			0	4				
03:45		0	4	0	24	0	4	0	26	0	50
04:00		0	11			0	3				
04:15		0	5			0	8				
04:30		0	10			0	1				
04:45		0	7	0	33	0	8	0	20	0	53
05:00		0	1			0	9				
05:15		1	8			2	8				
05:30		0	3			3	7				
05:45		0	8	1	20	3	2	8	26	9	46
06:00		1	4			1	4				
06:15		0	2			0	3				
06:30		0	7			1	4				
06:45		3	3	4	16	0	4	2	15	6	31
07:00		4	4			1	8				
07:15		0	2			1	2				
07:30		1	3			4	1				
07:45		2	2	7	11	1	5	7	16	14	27
08:00		2	4			2	1				
08:15		1	4			2	4				
08:30		4	4			7	4				
08:45		**9**	1	16	13	5	1	16	10	32	23
09:00		**5**	5			9	5				
09:15		**4**	3			3	1				
09:30		**5**	8			5	1				
09:45		6	2	20	18	4	0	21	7	41	25
10:00		3	1			8	1				
10:15		5	5			5	3				
10:30		5	2			6	1				
10:45		3	3	16	11	7	0	26	5	42	16
11:00		5	2			**4**	0				
11:15		8	1			**6**	3				
11:30		3	1			**13**	0				
11:45		3	3	19	7	**10**	0	33	3	52	10
Total		87	243	87	243	115	226	115	226	202	469
Combined Total		330		330		341		341		671	
AM Peak	-	08:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	23	-	-	-	33	-	-	-	-	-
P.H.F.		0.639				0.635					
PM Peak	-	-	01:15	-	-	-	02:30	-	-	-	-
Vol.	-	-	39	-	-	-	37	-	-	-	-
P.H.F.			0.886				0.712				
Percentage		26.4%	73.6%			33.7%	66.3%				
ADT/AADT		ADT 766		AADT 766							

Appendix B

Synchro Intersection LOS Results

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	37	516	589	8	3	40
Future Vol, veh/h	37	516	589	8	3	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	42	580	627	9	3	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	636	0	-	0	1296	632
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	933	-	-	-	176	475
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	506	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	933	-	-	-	168	475
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	506	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	933	-	421
HCM Lane V/C Ratio	-	-	0.045	-	0.113
HCM Control Delay (s)	-	-	9	-	14.6
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	568	538	1
Future Vol, veh/h	0	1	0	568	538	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	617	585	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	586	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	510	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	510	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	510	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	12.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	0	565	537	2
Future Vol, veh/h	3	2	0	565	537	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	0	614	584	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1199	585	-	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	205	511	0	-	-	-
Stage 1	557	-	0	-	-	-
Stage 2	540	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	205	511	-	-	-	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	270	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	18.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	19	567	616	17	20	14
Future Vol, veh/h	19	567	616	17	20	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	20	597	648	18	24	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	666	0	-	0	1294	657
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	637	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	909	-	-	-	177	460
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	909	-	-	-	173	460
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	521	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	909	-	233
HCM Lane V/C Ratio	-	-	0.022	-	0.178
HCM Control Delay (s)	-	-	9	-	23.8
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.6

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	32	511	565	14	6	27
Future Vol, veh/h	32	511	565	14	6	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	36	574	601	15	7	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	616	0	-	0	1255	609
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	646	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	949	-	-	-	187	490
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	949	-	-	-	180	490
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	516	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	949	-	373
HCM Lane V/C Ratio	-	-	0.038	-	0.098
HCM Control Delay (s)	-	-	8.9	-	15.7
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	583	488	3
Future Vol, veh/h	0	2	0	583	488	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	634	530	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	532	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	547	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	547	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	547	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	11.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	2	0	579	485	5
Future Vol, veh/h	4	2	0	579	485	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	0	629	527	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1159	530	-	0	-	0
Stage 1	530	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	216	549	0	-	-	-
Stage 1	590	-	0	-	-	-
Stage 2	531	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	216	549	-	-	-	-
Mov Cap-2 Maneuver	216	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	271	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	18.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	12	544	584	19	19	14
Future Vol, veh/h	12	544	584	19	19	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	13	573	615	20	23	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	635	0	-	0	1224	625
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	934	-	-	-	195	479
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	543	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	934	-	-	-	192	479
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	543	-

Approach	SE	NW	SW
HCM Control Delay, s	0.2	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	934	-	257
HCM Lane V/C Ratio	-	-	0.014	-	0.157
HCM Control Delay (s)	-	-	8.9	-	21.6
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0	-	0.5

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	39	531	606	8	3	42
Future Vol, veh/h	39	531	606	8	3	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	44	597	645	9	3	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	654	0	-	0	1335	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	685	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	919	-	-	-	167	464
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	495	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	919	-	-	-	159	464
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	495	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	15
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	919	-	411
HCM Lane V/C Ratio	-	-	0.048	-	0.122
HCM Control Delay (s)	-	-	9.1	-	15
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	584	554	1
Future Vol, veh/h	0	1	0	584	554	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	635	602	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	603	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	499	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	499	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	499	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	0	581	553	2
Future Vol, veh/h	3	2	0	581	553	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	0	632	601	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1234	602	-	0	-	0
Stage 1	602	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	195	500	0	-	-	-
Stage 1	547	-	0	-	-	-
Stage 2	530	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	195	500	-	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	530	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	258	-	-
HCM Lane V/C Ratio	-	0.021	-	-
HCM Control Delay (s)	-	19.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	24	583	634	24	25	20
Future Vol, veh/h	24	583	634	24	25	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	25	614	667	25	30	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	692	0	-	0	1344	680
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	889	-	-	-	165	446
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	506	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	889	-	-	-	160	446
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	506	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	26.2
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	889	-	224
HCM Lane V/C Ratio	-	-	0.028	-	0.245
HCM Control Delay (s)	-	-	9.2	-	26.2
HCM Lane LOS	-	-	A	-	D
HCM 95th %tile Q(veh)	-	-	0.1	-	0.9

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	34	526	581	15	6	28
Future Vol, veh/h	34	526	581	15	6	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	38	591	618	16	7	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	634	0	-	0	1293	626
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	667	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	935	-	-	-	177	479
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	935	-	-	-	170	479
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	505	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	935	-	363
HCM Lane V/C Ratio	-	-	0.041	-	0.104
HCM Control Delay (s)	-	-	9	-	16.1
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	604	502	3
Future Vol, veh/h	0	2	0	604	502	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	657	546	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	548	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	536	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	536	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	536	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	11.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	2	0	600	499	5
Future Vol, veh/h	4	2	0	600	499	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	0	652	542	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1197	545	-	0	-	0
Stage 1	545	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	205	538	0	-	-	-
Stage 1	581	-	0	-	-	-
Stage 2	518	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	205	538	-	-	-	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	258	-	-
HCM Lane V/C Ratio	-	0.025	-	-
HCM Control Delay (s)	-	19.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	560	601	31	26	22
Future Vol, veh/h	20	560	601	31	26	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	21	589	633	33	32	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	666	0	-	0	1281	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	631	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	909	-	-	-	180	464
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	909	-	-	-	176	464
Mov Cap-2 Maneuver	-	-	-	-	176	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	525	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	909	-	246
HCM Lane V/C Ratio	-	-	0.023	-	0.238
HCM Control Delay (s)	-	-	9.1	-	24.1
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.9

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	39	644	735	8	3	42
Future Vol, veh/h	39	644	735	8	3	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	44	724	782	9	3	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	791	0	-	0	1599	787
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	812	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	816	-	-	-	115	387
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	431	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	816	-	-	-	109	387
Mov Cap-2 Maneuver	-	-	-	-	109	-
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	431	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	816	-	331
HCM Lane V/C Ratio	-	-	0.054	-	0.151
HCM Control Delay (s)	-	-	9.7	-	17.8
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.2	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	709	671	1
Future Vol, veh/h	0	1	0	709	671	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	771	729	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	730	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	422	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	422	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	422	-	-
HCM Lane V/C Ratio	-	0.003	-	-
HCM Control Delay (s)	-	13.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	0	706	670	2
Future Vol, veh/h	3	2	0	706	670	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	0	767	728	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1496	729	-	0	-	0
Stage 1	729	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	135	423	0	-	-	-
Stage 1	477	-	0	-	-	-
Stage 2	458	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	135	423	-	-	-	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	477	-	-	-	-	-
Stage 2	458	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	186	-	-
HCM Lane V/C Ratio	-	0.029	-	-
HCM Control Delay (s)	-	24.9	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	24	707	768	24	25	20
Future Vol, veh/h	24	707	768	24	25	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	25	744	808	25	30	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	833	0	-	0	1615	821
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	794	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	787	-	-	-	112	370
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	440	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	787	-	-	-	108	370
Mov Cap-2 Maneuver	-	-	-	-	108	-
Stage 1	-	-	-	-	413	-
Stage 2	-	-	-	-	440	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	39.4
HCM LOS			E

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	787	-	158
HCM Lane V/C Ratio	-	-	0.032	-	0.347
HCM Control Delay (s)	-	-	9.7	-	39.4
HCM Lane LOS	-	-	A	-	E
HCM 95th %tile Q(veh)	-	-	0.1	-	1.4

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	34	638	705	15	6	28
Future Vol, veh/h	34	638	705	15	6	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	38	717	750	16	7	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	766	0	-	0	1551	758
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	793	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	834	-	-	-	123	402
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	440	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	834	-	-	-	117	402
Mov Cap-2 Maneuver	-	-	-	-	117	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	440	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	834	-	281
HCM Lane V/C Ratio	-	-	0.046	-	0.134
HCM Control Delay (s)	-	-	9.5	-	19.8
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	727	609	3
Future Vol, veh/h	0	2	0	727	609	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	790	662	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	664	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	461	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	461	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	461	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	12.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	2	0	723	606	5
Future Vol, veh/h	4	2	0	723	606	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	0	786	659	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1448	662	-	0	-	0
Stage 1	662	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	145	462	0	-	-	-
Stage 1	513	-	0	-	-	-
Stage 2	449	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	145	462	-	-	-	-
Mov Cap-2 Maneuver	145	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	449	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	188	-	-
HCM Lane V/C Ratio	-	0.035	-	-
HCM Control Delay (s)	-	24.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	679	728	31	26	22
Future Vol, veh/h	20	679	728	31	26	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	21	715	766	33	32	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	799	0	-	0	1540	783
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	757	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	811	-	-	-	125	389
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	458	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	811	-	-	-	122	389
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	458	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	34.8
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	811	-	178
HCM Lane V/C Ratio	-	-	0.026	-	0.329
HCM Control Delay (s)	-	-	9.6	-	34.8
HCM Lane LOS	-	-	A	-	D
HCM 95th %tile Q(veh)	-	-	0.1	-	1.3

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	37	519	595	10	4	40
Future Vol, veh/h	37	519	595	10	4	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	42	583	633	11	4	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	644	0	-	0	1306	639
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	667	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	927	-	-	-	174	471
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	927	-	-	-	166	471
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	505	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	927	-	404
HCM Lane V/C Ratio	-	-	0.045	-	0.121
HCM Control Delay (s)	-	-	9.1	-	15.1
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	573	542	0
Future Vol, veh/h	0	17	0	573	542	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	623	589	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	589	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	508	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	508	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	508	-
HCM Lane V/C Ratio	-	0.036	-
HCM Control Delay (s)	-	12.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	4	573	555	4
Future Vol, veh/h	0	0	4	573	555	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	4	623	603	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	605	607	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	498	971	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	498	971	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	971	-	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.7	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	575	619	17	20	15
Future Vol, veh/h	20	575	619	17	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	21	605	652	18	24	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	670	0	-	0	1308	661
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	647	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	906	-	-	-	173	457
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	906	-	-	-	169	457
Mov Cap-2 Maneuver	-	-	-	-	169	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	516	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	24
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	906	-	232
HCM Lane V/C Ratio	-	-	0.023	-	0.184
HCM Control Delay (s)	-	-	9.1	-	24
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.7

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	32	514	568	15	7	27
Future Vol, veh/h	32	514	568	15	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	36	578	604	16	8	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	620	0	-	0	1262	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	650	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	946	-	-	-	185	488
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	946	-	-	-	178	488
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	514	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	946	-	359
HCM Lane V/C Ratio	-	-	0.038	-	0.105
HCM Control Delay (s)	-	-	9	-	16.2
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	583	492	0
Future Vol, veh/h	0	9	0	583	492	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	634	535	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	535	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	545	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	545	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	545	-
HCM Lane V/C Ratio	-	0.018	-
HCM Control Delay (s)	-	11.7	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	5	583	497	4
Future Vol, veh/h	0	0	5	583	497	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	5	634	540	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	542	544	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	540	1025	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	540	1025	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1025	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.5	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	13	548	588	19	19	15
Future Vol, veh/h	13	548	588	19	19	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	577	619	20	23	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	639	0	-	0	1234	629
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	931	-	-	-	192	477
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	931	-	-	-	189	477
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	539	-

Approach	SE	NW	SW
HCM Control Delay, s	0.2	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	931	-	258
HCM Lane V/C Ratio	-	-	0.015	-	0.161
HCM Control Delay (s)	-	-	8.9	-	21.6
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0	-	0.6

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	39	534	612	10	4	42
Future Vol, veh/h	39	534	612	10	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	44	600	651	11	4	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	662	0	-	0	1345	657
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	688	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	912	-	-	-	165	460
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	912	-	-	-	157	460
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	493	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	912	-	394
HCM Lane V/C Ratio	-	-	0.048	-	0.13
HCM Control Delay (s)	-	-	9.1	-	15.5
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.2	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	589	558	0
Future Vol, veh/h	0	17	0	589	558	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	640	607	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	607	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	496	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	496	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	496	-
HCM Lane V/C Ratio	-	0.037	-
HCM Control Delay (s)	-	12.5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	4	589	558	0
Future Vol, veh/h	0	0	4	589	558	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	4	640	607	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	607	607	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	496	971	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	496	971	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	971	-	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.7	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	25	591	637	24	25	21
Future Vol, veh/h	25	591	637	24	25	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	26	622	671	25	30	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	696	0	-	0	1358	684
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	674	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	886	-	-	-	162	444
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	886	-	-	-	157	444
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	501	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	26.5
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	886	-	223
HCM Lane V/C Ratio	-	-	0.03	-	0.252
HCM Control Delay (s)	-	-	9.2	-	26.5
HCM Lane LOS	-	-	A	-	D
HCM 95th %tile Q(veh)	-	-	0.1	-	1

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	34	529	584	16	7	28
Future Vol, veh/h	34	529	584	16	7	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	38	594	621	17	8	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	638	0	-	0	1300	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	670	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	932	-	-	-	175	476
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	503	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	932	-	-	-	168	476
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	503	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	932	-	348
HCM Lane V/C Ratio	-	-	0.041	-	0.112
HCM Control Delay (s)	-	-	9	-	16.6
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	604	506	0
Future Vol, veh/h	0	9	0	604	506	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	657	550	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	550	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	535	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	535	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	535	-
HCM Lane V/C Ratio	-	0.018	-
HCM Control Delay (s)	-	11.9	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	5	604	506	0
Future Vol, veh/h	0	0	5	604	506	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	5	657	550	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	550	550	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	535	1020	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	535	1020	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1020	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.5	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	21	564	601	31	26	22
Future Vol, veh/h	21	564	601	31	26	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	22	594	633	33	32	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	666	0	-	0	1288	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	638	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	909	-	-	-	178	464
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	909	-	-	-	174	464
Mov Cap-2 Maneuver	-	-	-	-	174	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	521	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	24.3
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	909	-	244
HCM Lane V/C Ratio	-	-	0.024	-	0.24
HCM Control Delay (s)	-	-	9.1	-	24.3
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.9

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	39	647	741	10	4	42
Future Vol, veh/h	39	647	741	10	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	44	727	788	11	4	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	799	0	-	0	1609	794
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	815	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	811	-	-	-	113	383
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	430	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	811	-	-	-	107	383
Mov Cap-2 Maneuver	-	-	-	-	107	-
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	430	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	18.7
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	811	-	313
HCM Lane V/C Ratio	-	-	0.054	-	0.163
HCM Control Delay (s)	-	-	9.7	-	18.7
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.2	-	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	714	675	0
Future Vol, veh/h	0	17	0	714	675	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	776	734	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	734	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	420	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	420	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	420	-
HCM Lane V/C Ratio	-	0.044	-
HCM Control Delay (s)	-	14	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	4	714	688	4
Future Vol, veh/h	0	0	4	714	688	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	4	776	748	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	750	752	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	411	858	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	411	858	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	858	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	9.2	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	25	715	771	24	25	21
Future Vol, veh/h	25	715	771	24	25	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	26	753	812	25	30	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	837	0	-	0	1630	825
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	805	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	784	-	-	-	110	368
Stage 1	-	-	-	-	425	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	784	-	-	-	106	368
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	435	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	40.2
HCM LOS			E

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	784	-	157
HCM Lane V/C Ratio	-	-	0.034	-	0.357
HCM Control Delay (s)	-	-	9.8	-	40.2
HCM Lane LOS	-	-	A	-	E
HCM 95th %tile Q(veh)	-	-	0.1	-	1.5

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	34	641	708	16	7	28
Future Vol, veh/h	34	641	708	16	7	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	94	94	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	38	720	753	17	8	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	770	0	-	0	1558	762
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	796	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	831	-	-	-	122	400
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	831	-	-	-	116	400
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	439	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	831	-	269
HCM Lane V/C Ratio	-	-	0.046	-	0.145
HCM Control Delay (s)	-	-	9.5	-	20.6
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	727	613	0
Future Vol, veh/h	0	9	0	727	613	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	790	666	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	666	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	459	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	459	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	459	-
HCM Lane V/C Ratio	-	0.021	-
HCM Control Delay (s)	-	13	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	5	727	618	4
Future Vol, veh/h	0	0	5	727	618	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	5	790	672	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	674	676	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	455	915	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	455	915	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	915	-	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-	-
HCM Control Delay (s)	9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	21	683	732	31	26	23
Future Vol, veh/h	21	683	732	31	26	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	82	82
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	22	719	771	33	32	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	804	0	-	0	1551	788
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	807	-	-	-	123	386
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	455	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	807	-	-	-	120	386
Mov Cap-2 Maneuver	-	-	-	-	120	-
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	455	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	807	-	177
HCM Lane V/C Ratio	-	-	0.027	-	0.338
HCM Control Delay (s)	-	-	9.6	-	35.4
HCM Lane LOS	-	-	A	-	E
HCM 95th %tile Q(veh)	-	-	0.1	-	1.4

Appendix C

Signal Warrant Sheets

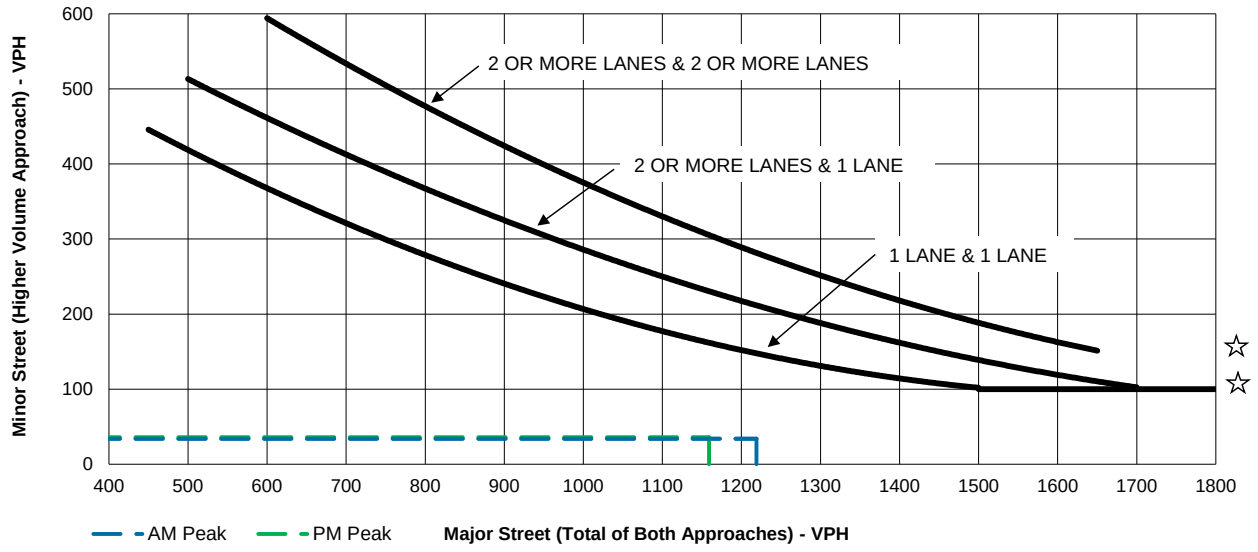
Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*

Warrant 3 | **Peak Hour Volume in Urban Areas**



☆ **NOTE:**
150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29	1	
Minor Approach	Lodi Lane	1	
	Friday PM: Green	Sat. Midday: Blue	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,219	1,159	
Minor St. Volume (higher volume approach):	34	36	
Warrant Met?:	**No**	**No**	

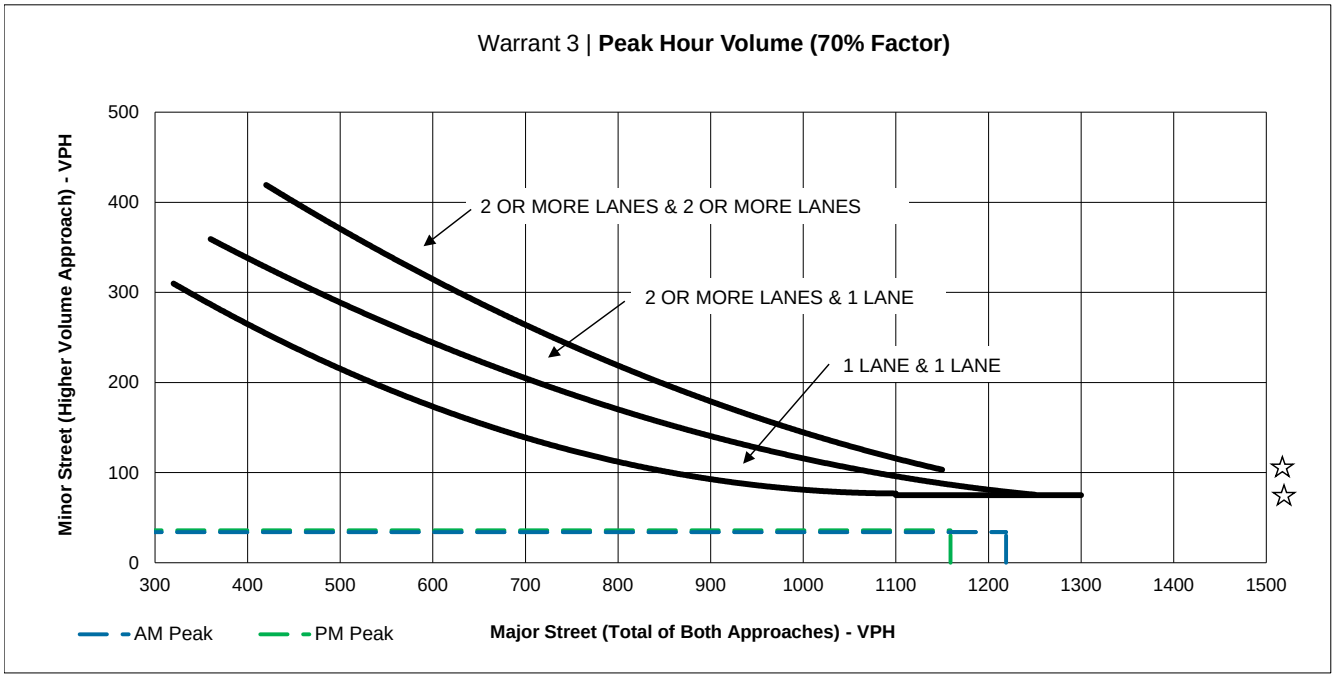
Fig 4C-3 (100% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



☆ NOTE:

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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29	1	
Minor Approach	Lodi Lane	1	
	Friday PM: Green	Sat. Midday: Blue	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,219	1,159	
Minor St. Volume (higher volume approach):	34	36	
Warrant Met?:	**NO**	**NO**	

Fig 4C-4 (70% Option)

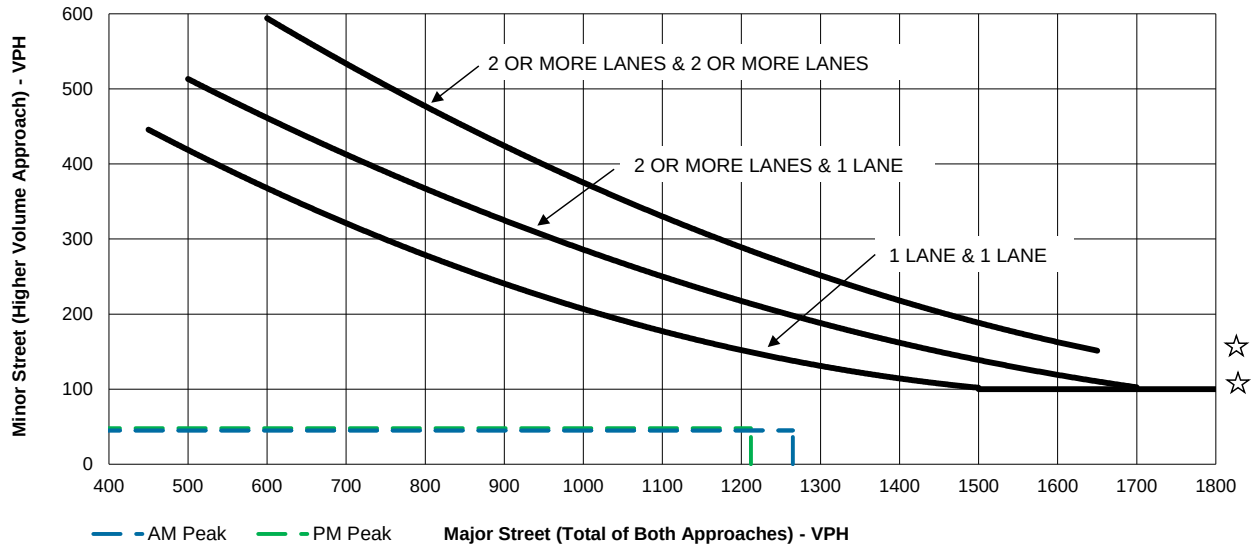
Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*

Warrant 3 | **Peak Hour Volume in Urban Areas**



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 NT	1	
Minor Approach	Lodi Lane NT	1	
	Friday PM: Blue	Sat. Midday: Greeen	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,265	1,212	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**No**	**No**	

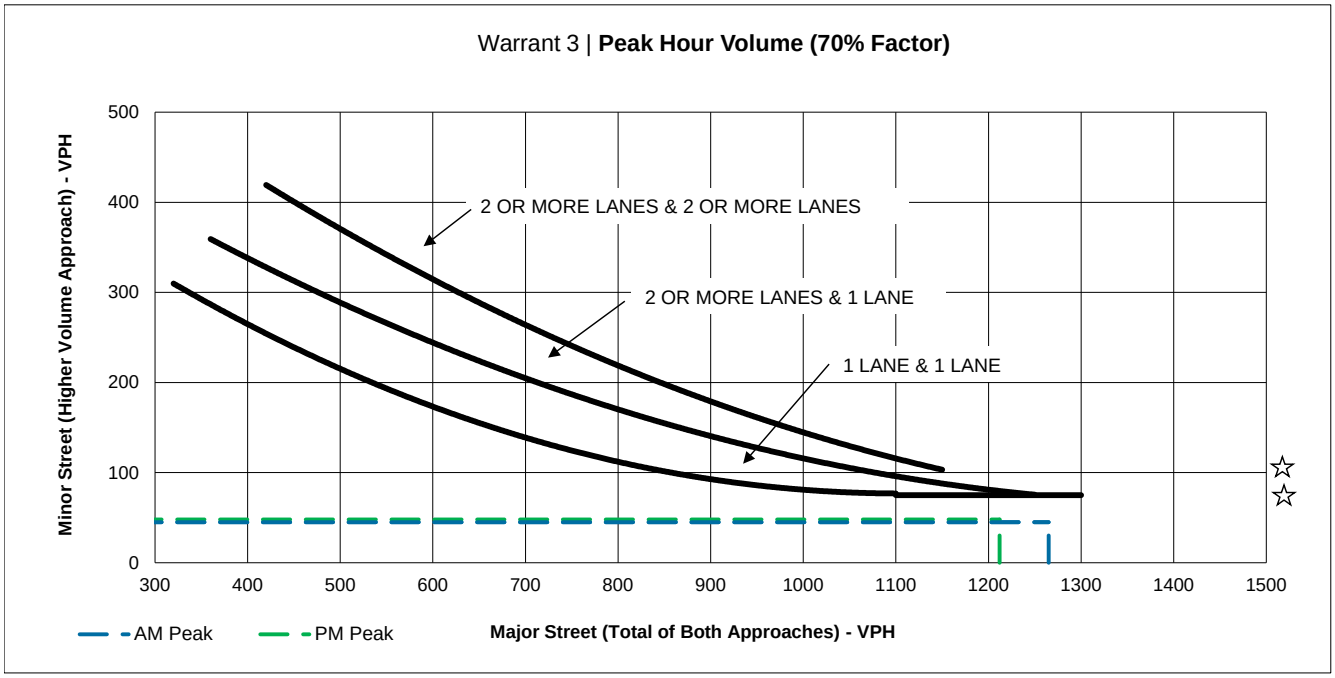
Fig 4C-3 (100% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 NT	2	
Minor Approach	Lodi Lane NT	1	
	AM Peak	PM Peak	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,265	1,212	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**NO**	**NO**	

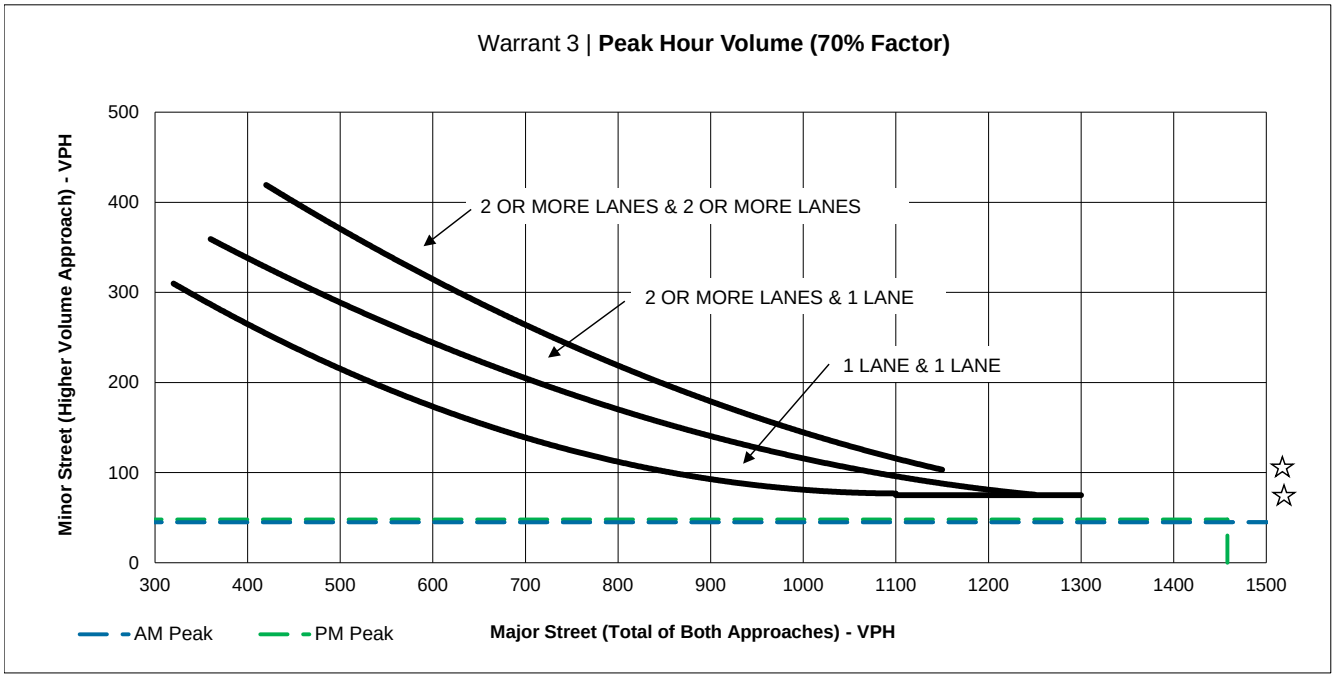
Fig 4C-4 (70% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 C	1	
Minor Approach	Lodi Ln. C	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,523	1,458	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**NO**	**NO**	

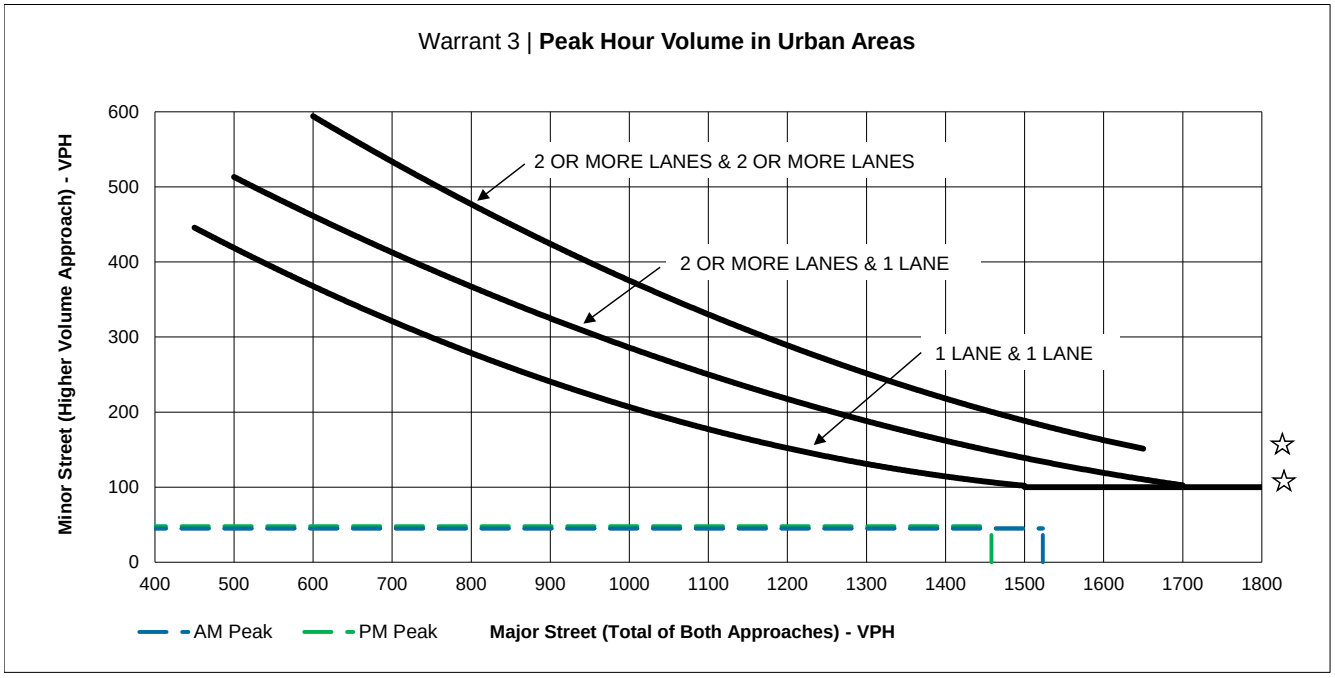
Fig 4C-4 (70% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 C	1	
Minor Approach	Lodi Lane C	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,523	1,458	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**No**	**No**	

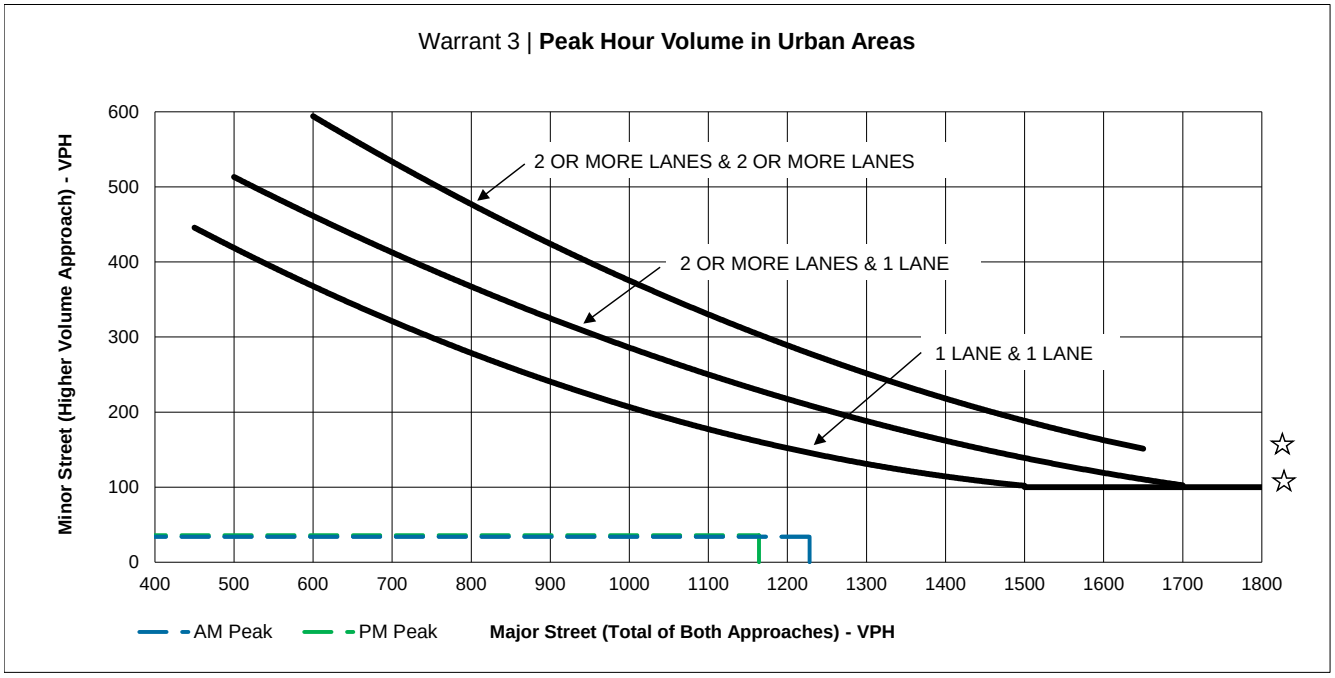
Fig 4C-3 (100% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 E+Prj	1	
Minor Approach	Lodi Lane E+Prj	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,228	1,164	
Minor St. Volume (higher volume approach):	34	36	
Warrant Met?:	**No**	**No**	

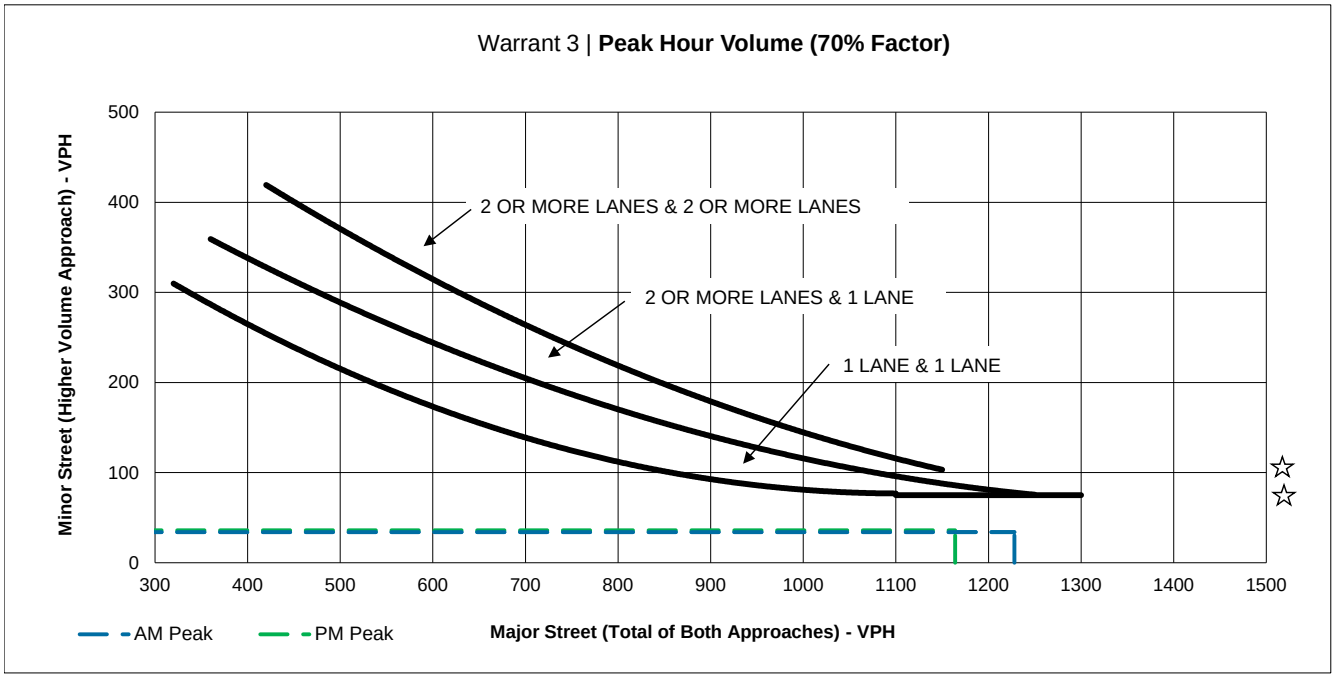
Fig 4C-3 (100% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 E+Prj.	1	
Minor Approach	:Lodi Ln. E+Prj	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,228	1,164	
Minor St. Volume (higher volume approach):	34	36	
Warrant Met?:	**NO**	**NO**	

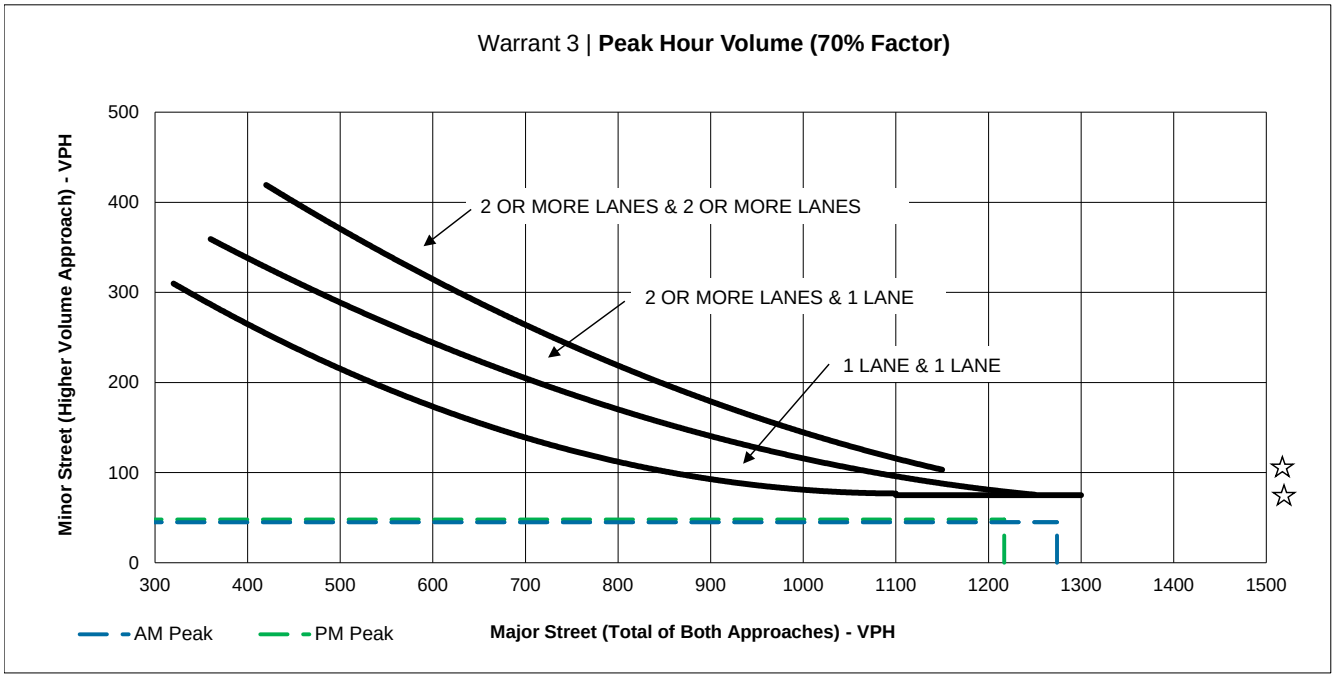
Fig 4C-4 (70% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 NT+Prj	2	
Minor Approach	Lodi Lane NT+Prj	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,274	1,217	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**NO**	**NO**	

Fig 4C-4 (70% Option)

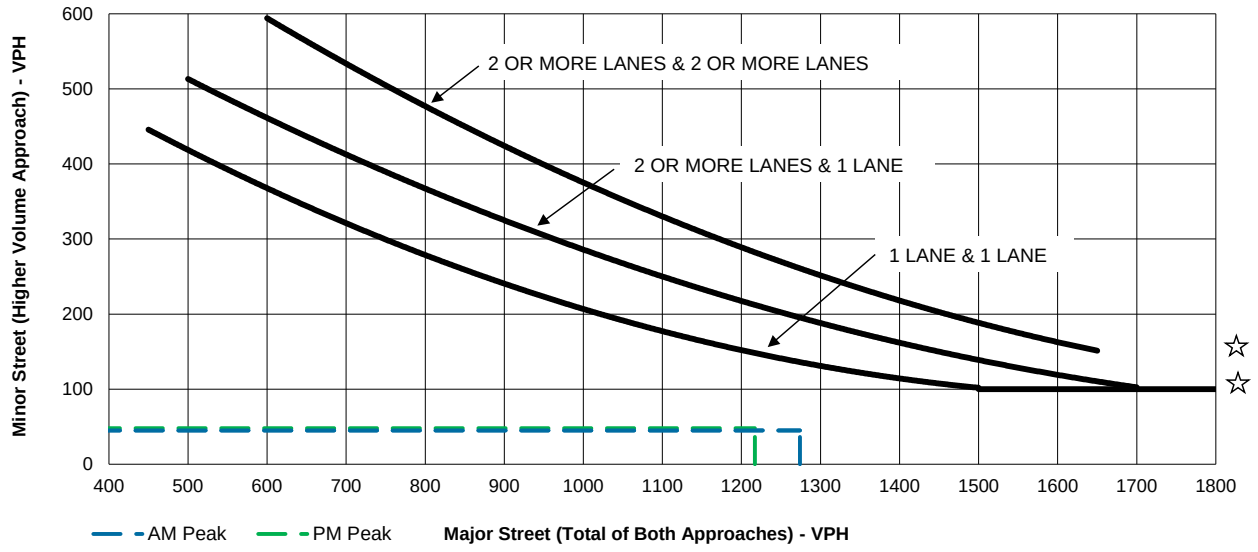
Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*

Warrant 3 | **Peak Hour Volume in Urban Areas**



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 NT+Prj	1	
Minor Approach	Lodi Lane NT+Prj	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,274	1,217	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**No**	**No**	

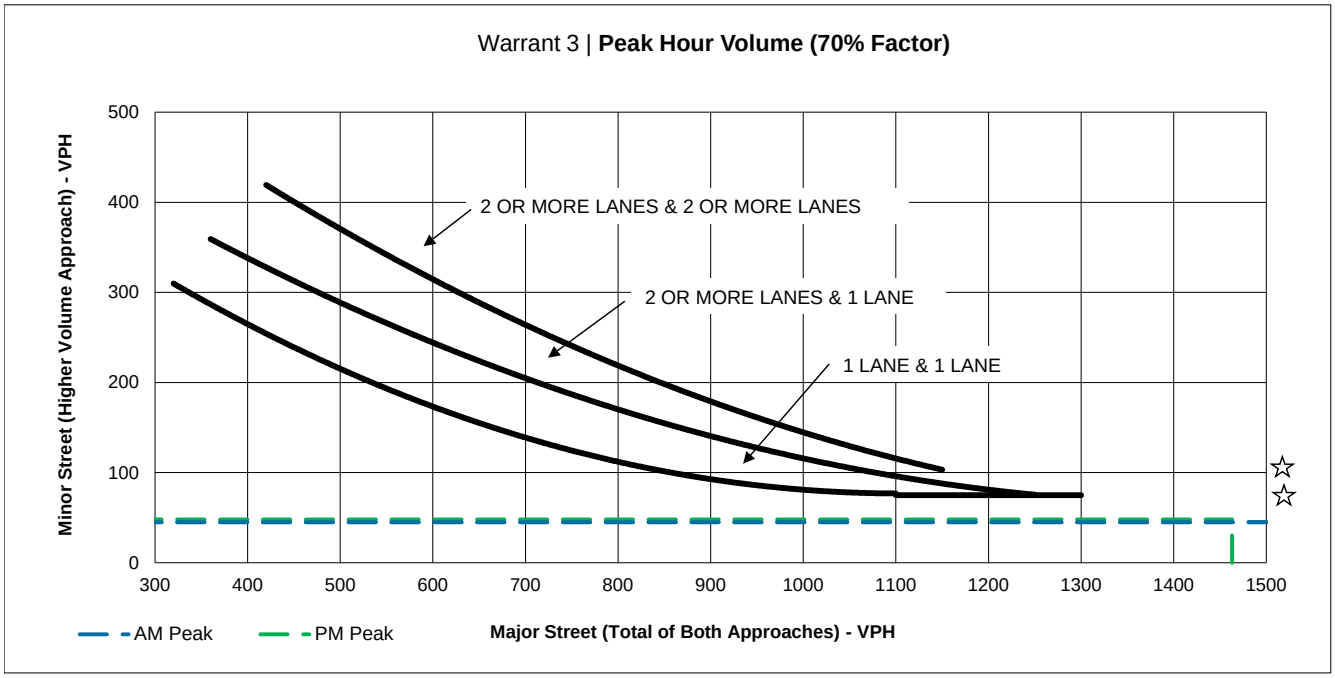
Fig 4C-3 (100% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
400	265	400	340	400	N/A
500	210	500	290	500	375
600	180	600	240	600	310
700	150	700	200	700	260
800	90	800	175	800	220
900	100	900	140	900	180
1000	85	1000	120	1000	150
1100	75	1100	95	1150	100
1200	75	1200	80	1200	100
1300	75	1250	75	1300	100

** Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation*



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 C+Prj	1	
Minor Approach	Lodi Lane C+Prj	1	
	Friday PM: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,532	1,463	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**NO**	**NO**	

Fig 4C-4 (70% Option)

Existing Conditions

Signal Warrant 3: Peak Hour

Both 1 Lane Approaches		2 or more Lane and One Lane Approaches		Both 2 or more Lane Approaches	
Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach	Major Street Total of Both Approaches	Minor Street High Volume Approach
500	420	500	505	500	N/A
600	360	600	460	600	590
700	325	700	420	700	540
800	285	800	360	800	475
900	245	900	325	900	425
1000	200	1000	285	1000	370
1100	175	1100	250	1100	340
1200	150	1200	220	1200	285
1300	130	1300	190	1300	250
1400	120	1400	155	1400	220
1500	100	1500	145	1500	180
1600	100	1600	120	1600	170
1700	100	1700	100	1650	150
1800	100	1800	100	1800	150

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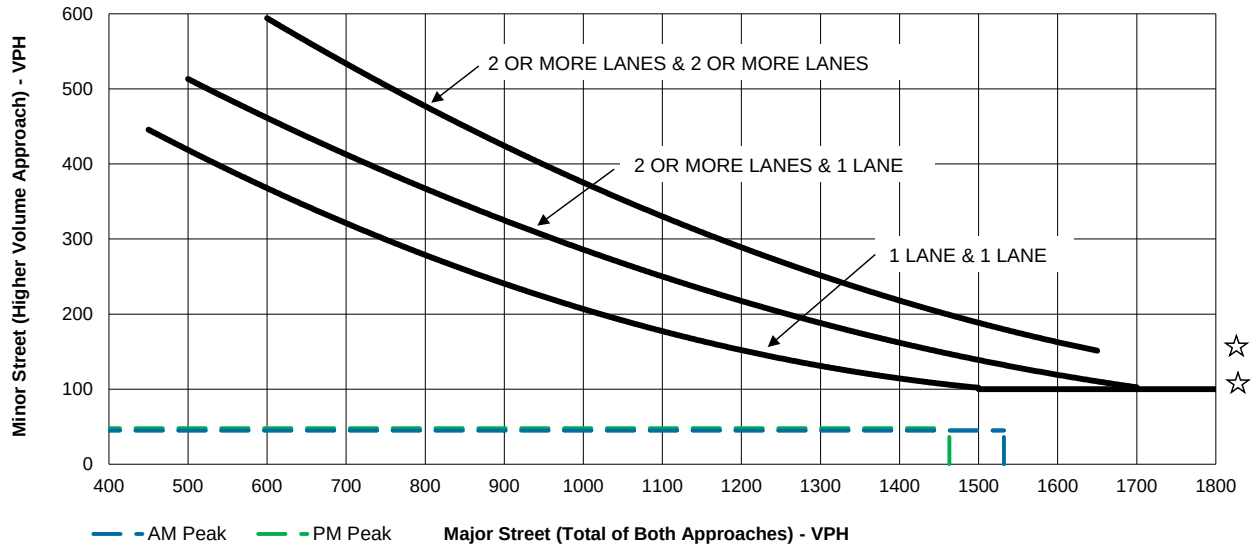
Warrant 3 | **Peak Hour Volume in Urban Areas**



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SCENARIO (AM/PM)			
		Number of Lanes	
Major Approach	SR 29 C+Prj	1	
Minor Approach	Lodi Lane C+Prj	1	
	Friday P)M: Blue	Sat. Midday: Green	**Volumes for higher minor street**
Major St. Volume (both approaches):	1,532	1,463	
Minor St. Volume (higher volume approach):	45	48	
Warrant Met?:	**No**	**No**	

Fig 4C-3 (100% Option)

Appendix D

AXR Napa Valley Winery Trip Generation

A Tradition of Stewardship
A Commitment to Service

WINERY TRIP GENERATION WORKSHEET

Planning, Building & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559-3082
(707) 253-4417

Clear Form

PROJECT DESCRIPTION

Winery Name: AXR Napa Valley **Date Prepared:** 12/19/22

Existing Entitled Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday	2	2
	Weekend	2	2
Number of Part Time Employees*	Weekday	0	2
	Weekend	8	2
Maximum Daily Visitation	Weekday	20	10
	Weekend	20	20
Annual Gallons of Production		20,000	20,000
Annual Tons of Grape Haul		125.0	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

Proposed Winery		Harvest	Non-Harvest
Number of Full Time Employees*	Weekday	12	12
	Weekend	6	4
Number of Part Time Employees*	Weekday	5	5
	Weekend	2	2
Maximum Daily Visitation	Weekday	60	40
	Weekend	60	40
Annual Gallons of Production		35,000	35,000
Annual Tons of Grape Haul		218.8	N/A
Number of Visitors at the Largest Event that occurs two or more times per month, on average	Weekday	25	25
	Weekend	25	25

*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).

AXR Napa Valley
TRIP GENERATION

Existing Winery					Harvest	Non-Harvest
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees	2	2	3.05 one way trips/employee	FT Employee Daily Trips	6.1	6.1
PT Employees	0	2	1.9 one way trips/employee	PT Employee Daily Trips	0.0	3.8
Max Visitors	20	10	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	15.4	7.7
Max Event	0	0	2.6 visitors/vehicle for 2 one way trips	Max Event Daily Trips	0.0	0.0
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekday Daily Trips	24	18
				Total Weekday Peak Hour Trips*	9	7
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees	2	2	3.05 one way trips/employee	FT Employee Daily Trips	6.1	6.1
PT Employees	8	2	1.9 one way trips/employee	PT Employee Daily Trips	15.2	3.8
Max Visitors	20	20	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	14.3	14.3
Max Event	0	0	2.8 visitors/vehicle for 2 one way trips	Max Event Daily Trips	0.0	0.0
Gallons of Production	20,000		0.000018 truck trips	Production Daily Trips	0.4	0.4
Tons of Grape Haul#	125.0		0.013889 truck trips	Grape Haul Daily Trips	1.7	0.0
				Total Weekend Daily Trips	38	25
				Total Weekend Peak Hour Trips*	16	12
Maximum Annual Traffic						
				Total Annual Trips**	7,914	

Proposed Winery					Harvest	Non-Harvest
Maximum Daily Weekday Traffic (Friday)						
	Harvest	*Non-Harvest*				
FT Employees	12	12	3.05 one way trips/employee	FT Employee Daily Trips	36.6	36.6
PT Employees	5	5	1.9 one way trips/employee	PT Employee Daily Trips	9.5	9.5
Max Visitors	60	40	2.6 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	46.2	30.8
Max Event	25	25	2.6 visitors/vehicle for 2 one way trips	Max Event Daily Trips	19.2	19.2
Gallons of Production	35,000		0.000018 truck trips	Production Daily Trips	0.6	0.6
Tons of Grape Haul#	218.8		0.013889 truck trips	Grape Haul Daily Trips	3.0	0.0
				Total Weekday Daily Trips	116	97
				Total Weekday Peak Hour Trips*	34	27
Maximum Daily Weekend Traffic (Saturday)						
	Harvest	*Non-Harvest*				
FT Employees	6	4	3.05 one way trips/employee	FT Employee Daily Trips	18.3	12.2
PT Employees	2	2	1.9 one way trips/employee	PT Employee Daily Trips	3.8	3.8
Max Visitors	60	40	2.8 visitors/vehicle for 2 one way trips	Max Visitor Daily Trips	42.9	28.6
Max Event	25	25	2.8 visitors/vehicle for 2 one way trips	Max Event Daily Trips	17.9	17.9
Gallons of Production	35,000		0.000018 truck trips	Production Daily Trips	0.6	0.6
Tons of Grape Haul#	218.8		0.013889 truck trips	Grape Haul Daily Trips	3.0	0.0
				Total Weekend Daily Trips	87	64
				Total Weekend Peak Hour Trips*	34	22
Maximum Annual Traffic						
				Total Annual Trips**	33,524	

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	92	79
	Net New Weekday Peak Hour Trips*	25	20
Maximum Weekend Traffic (Saturday)			
If total net new daily trips is greater than 40, a TIS is required	Net New Weekend Daily Trips	49	39
	Net New Weekend Peak Hour Trips*	18	10
Maximum Annual Traffic			
Please Prepare a Traffic Impact Study	Net New Annual Trips**	25,610	

#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 E

HCS Two-Lane Highway LOS Results

HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Eastbound
Project Description	Existing Conditions: Bale Lane Eastbound	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	49	Opposing Demand Flow Rate, veh/h	47
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71285	Speed Power Coefficient (p)	0.60374
PF Slope Coefficient (m)	-1.20580	PF Power Coefficient (p)	0.78100
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.8
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Peak Friday: Westbound
Project Description	Existing Conditions: Bale Lane Westbound	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	47	Opposing Demand Flow Rate, veh/h	49
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71448	Speed Power Coefficient (p)	0.60222
PF Slope Coefficient (m)	-1.20725	PF Power Coefficient (p)	0.78062
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.5
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Eastbound
Project Description	Existing Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	39	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	14.0
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Westbound
Project Description	Existing Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	13.5
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Northbound
Project Description	Existing Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	617	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.36

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	62.1
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	7.7
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	301	0.30	7.7	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Southbound
Project Description	Existing Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	585	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.34

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	60.7
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	7.1
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	285	0.28	7.1	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Existing Conditions: Bale Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	50	Opposing Demand Flow Rate, veh/h	36
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.70407	Speed Power Coefficient (p)	0.61206
PF Slope Coefficient (m)	-1.19793	PF Power Coefficient (p)	0.78303
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.8
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Existing Conditions; Bale Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	50
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71528	Speed Power Coefficient (p)	0.60147
PF Slope Coefficient (m)	-1.20796	PF Power Coefficient (p)	0.78044
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	8.6
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Existing Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	34	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	12.7
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Existing Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	13.5
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Northbound
Project Description	Existing Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	634	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.37

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	62.8
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.0
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	309	0.31	8.0	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Southbound
Project Description	Existing Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	530	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.31

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.2

Vehicle Results

Average Speed, mi/h	50.2	Percent Followers, %	58.2
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	6.1
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	259	0.24	6.1	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Eastbound
Project Description	Near-Term (NP): Bale Lane Eastbound	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	51	Opposing Demand Flow Rate, veh/h	49
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71448	Speed Power Coefficient (p)	0.60222
PF Slope Coefficient (m)	-1.20725	PF Power Coefficient (p)	0.78062
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.2
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Peak Friday: Westbound
Project Description	Near-Term (NP) Conditions: Bale Lane Westbound	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	49	Opposing Demand Flow Rate, veh/h	51
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71607	Speed Power Coefficient (p)	0.60074
PF Slope Coefficient (m)	-1.20867	PF Power Coefficient (p)	0.78026
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.8
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Eastbound
Project Description	Near-Term (NP) Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	52	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	16.8
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Westbound
Project Description	Near-Term (NP) Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	49	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	16.1
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Northbound
Project Description	Near-Term (NP) Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	635	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.37

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	62.8
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.0
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	310	0.31	8.0	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Southbound
Project Description	Near-Term (NP) Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	602	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.35

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	61.4
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	7.4
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	294	0.29	7.4	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Near-Term (NP): Bale Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	37
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.70500	Speed Power Coefficient (p)	0.61117
PF Slope Coefficient (m)	-1.19877	PF Power Coefficient (p)	0.78282
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.4
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	8	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Near-Term (NP) Conditions; Bale Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	53
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71763	Speed Power Coefficient (p)	0.59929
PF Slope Coefficient (m)	-1.21005	PF Power Coefficient (p)	0.77991
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	8.8
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Near-Term (NP) Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	55	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	17.5
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Near-Term (NP): Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	52	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	16.8
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Northbound
Project Description	Near-Term (NP) Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	657	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.39

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.7
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.4
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	320	0.33	8.4	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Southbound
Project Description	Near-Term (NP) Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	546	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.32

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.1

Vehicle Results

Average Speed, mi/h	50.1	Percent Followers, %	58.9
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	6.4
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	266	0.25	6.4	C

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Analyst	pjg	Date	6/3/2024
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Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Northbound
Project Description	Cumulative (NP) Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	771	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.45

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	10.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.7

Vehicle Results

Average Speed, mi/h	49.7	Percent Followers, %	67.9
Segment Travel Time, minutes	2.56	Follower Density (FD), followers/mi/ln	10.5
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	376	0.42	10.5	D

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HCS Two-Lane Highway Report

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Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Southbound
Project Description	Cumulative (NP) Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	662	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.39

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.9
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.5
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	323	0.33	8.5	D

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Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Northbound
Project Description	Cumulative (NP) Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	790	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.46

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	10.9
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.6

Vehicle Results

Average Speed, mi/h	49.6	Percent Followers, %	68.5
Segment Travel Time, minutes	2.56	Follower Density (FD), followers/mi/ln	10.9
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	386	0.44	10.9	D

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Analyst	pjg	Date	6/3/2024
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Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Southbound
Project Description	Cumulative (NP) Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	662	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.39

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.9
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.5
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	323	0.33	8.5	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Eastbound
Project Description	E+Prj Conditions: Bale Lane Eastbound	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	49	Opposing Demand Flow Rate, veh/h	51
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71607	Speed Power Coefficient (p)	0.60074
PF Slope Coefficient (m)	-1.20867	PF Power Coefficient (p)	0.78026
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.8
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	51	Opposing Demand Flow Rate, veh/h	49
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71448	Speed Power Coefficient (p)	0.60222
PF Slope Coefficient (m)	-1.20725	PF Power Coefficient (p)	0.78062
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.2
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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Project Description	E+Prj Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	40	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	14.2
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.1	A

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Project Description	E+Prj Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	13.5
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

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Project Description	E+Prj Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	626	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.37

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	62.5
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	7.8
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	305	0.31	7.8	C

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Project Description	E+Prj. Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	590	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.35

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	60.9
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	7.2
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	288	0.28	7.2	C

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Project Description	E+Prj. Conditions: Bale Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	50	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.70772	Speed Power Coefficient (p)	0.60858
PF Slope Coefficient (m)	-1.20122	PF Power Coefficient (p)	0.78218
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	10.9
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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Project Description	E+Prj. Conditions; Bale Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	40	Opposing Demand Flow Rate, veh/h	50
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71528	Speed Power Coefficient (p)	0.60147
PF Slope Coefficient (m)	-1.20796	PF Power Coefficient (p)	0.78044
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	9.4
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.1	A

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Project Description	E+Prj. Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	35	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	13.0
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

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Project Description	E+Prj. Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	39	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	14.0
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.1	A

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Project Description	E+Prj. Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	638	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.38

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.0
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.0
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	311	0.32	8.0	D

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Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	537	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.32

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.2

Vehicle Results

Average Speed, mi/h	50.2	Percent Followers, %	58.5
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	6.3
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	262	0.24	6.3	C

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Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	51	Opposing Demand Flow Rate, veh/h	53
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71763	Speed Power Coefficient (p)	0.59929
PF Slope Coefficient (m)	-1.21005	PF Power Coefficient (p)	0.77991
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.2
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.1	A

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Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	51
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71607	Speed Power Coefficient (p)	0.60074
PF Slope Coefficient (m)	-1.20867	PF Power Coefficient (p)	0.78026
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.5
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	8	0.00	0.1	A

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Project Description	Near-Term + Project Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	17.0
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	PM Friday Peak: Westbound
Project Description	Near-Term + Project Conditions: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	49	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	16.1
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Northbound
Project Description	Near-Term + Project Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	643	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.38

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.2
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.1
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	314	0.32	8.1	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Southbound
Project Description	Near-Term + Project Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	608	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.36

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.0

Vehicle Results

Average Speed, mi/h	50.0	Percent Followers, %	61.7
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	7.5
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	296	0.29	7.5	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Near-Term + Project: Bale Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	41
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.70860	Speed Power Coefficient (p)	0.60774
PF Slope Coefficient (m)	-1.20201	PF Power Coefficient (p)	0.78198
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	11.4
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	8	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Near-Term + Project Conditions; Bale Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3363
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	41	Opposing Demand Flow Rate, veh/h	53
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	46.2
Speed Slope Coefficient (m)	2.71763	Speed Power Coefficient (p)	0.59929
PF Slope Coefficient (m)	-1.21005	PF Power Coefficient (p)	0.77991
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3363	-	-	46.2

Vehicle Results

Average Speed, mi/h	46.2	Percent Followers, %	9.6
Segment Travel Time, minutes	0.83	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.1	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Eastbound
Project Description	Near-Term + Project Conditions: Lodi Lane EB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	57	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	17.7
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Westbound
Project Description	Near-Term + Project: Lodi Lane WB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2750
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	52	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.5
Speed Slope Coefficient (m)	2.72665	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.43821	PF Power Coefficient (p)	0.69593
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2750	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	16.8
Segment Travel Time, minutes	0.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.2	A

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Northbound
Project Description	Near-Term + Project Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	661	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.39

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	63.9
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.5
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	322	0.33	8.5	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Southbound
Project Description	Near-Term + Project Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	552	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.32

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	50.1

Vehicle Results

Average Speed, mi/h	50.1	Percent Followers, %	59.2
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	6.5
Vehicle LOS	C		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	269	0.25	6.5	C

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Northbound
Project Description	Cumulative + Project Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	779	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.46

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	10.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.7

Vehicle Results

Average Speed, mi/h	49.7	Percent Followers, %	68.2
Segment Travel Time, minutes	2.56	Follower Density (FD), followers/mi/ln	10.7
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	380	0.43	10.7	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Friday PM Peak: Southbound
Project Description	Cumulative + Project Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	735	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.43

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	9.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.7

Vehicle Results

Average Speed, mi/h	49.7	Percent Followers, %	66.6
Segment Travel Time, minutes	2.56	Follower Density (FD), followers/mi/ln	9.8
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	358	0.39	9.8	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Northbound
Project Description	Cumulative + Project Conditions: SR 29 NB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	795	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.47

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	11.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	49.6

Vehicle Results

Average Speed, mi/h	49.6	Percent Followers, %	68.7
Segment Travel Time, minutes	2.56	Follower Density (FD), followers/mi/ln	11.0
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	388	0.44	11.0	D

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HCS Two-Lane Highway Report

Project Information

Analyst	pjg	Date	6/3/2024
Agency	GHD	Analysis Year	2023
Jurisdiction	Napa County	Time Analyzed	Saturday Midday Peak: Southbound
Project Description	Cumulative + Project Conditions: SR 29 SB	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	11200
Lane Width, ft	12	Shoulder Width, ft	3
Speed Limit, mi/h	50	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	668	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.39

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.6
Speed Slope Coefficient (m)	3.45808	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36522	PF Power Coefficient (p)	0.70828
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	11200	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	64.2
Segment Travel Time, minutes	2.55	Follower Density (FD), followers/mi/ln	8.6
Vehicle LOS	D		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	326	0.34	8.6	D

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Appendix F

Left-Turn Lane Warrant Analysis

Technical Memorandum

October 14, 2025

To	Mark Schratz, Owner/Applicant Don Van Laeken, Owner/Applicant AXR Napa Valley	**Contact No.**	925 262-1903
Copy to	Hannah Spencer, Planner III, Napa County Jeff Redding, Planner Frank Penry, Senior Project Manager, PE, TE, PTOE Ahsan Kazmi, Senior Traffic Engineer, Napa County	**Email**	peter.galloway@ghd.com
From	Peter Galloway Senior Transportation Planner	**Project No.**	12610827
Project Name	AXR Napa Valley Use Modification (P22-00417)		
Subject	**Left-Turn Lane Warrant Analysis**		

Hi Mark and Don,

The following memorandum responds to recent Napa County and Caltrans transportation comments related to the planned project construction of a northbound left-turn lane at the AXR Napa Valley's south driveway. Specifically, comments from the Agencies indicated that no left-turn lane warrant analysis was provided for the planned left-turn lane as part of the updated TIA for the proposed project.[1] [2] In response to these comments, the following left-turn lane warrant information is provided to supplement the updated TIA for the proposed project.

Napa County Left-Turn Lane Warrant Methodology

The Napa County left-turn lane warrant is based on the requirements found in the *Napa County Road and Street Standards* (April 2023) as follows:

> Left-Turn Lane Warrants: Use Permits or modifications thereof shall trigger the application of the following warrants to determine the necessity for a left-turn lane for the proposed use.
>
> (a) Application of the Left-Turn Lane Warrant Graph based on road average daily traffic (ADT) and the projected ADT of the proposed use. The chart is a representation of probable conflict between turning traffic and advancing traffic. Private Road or Driveway ADT is the total average daily traffic utilizing the facility. A left-turn lane will not be considered for uses generating an ADT of 10 or less.

[1] Hannah Spencer, Planner III, Napa County Planning, AXR Napa Valley—Caltrans comments, 10-10-2025.
[2] Luana Chen, Caltrans, Associate Transportation Planner, Local Development Review, District 4, AXR Napa Valley transportation comments, 10-9-2025.

This Technical Memorandum is provided as an interim output under our agreement with AXR Napa Valley. It is provided to foster discussion in relation to technical matters associated with the project.

(b) If the corner sight distance in advancing direction, measured from the driveway, is less than required per Caltrans design standards (usually the posted speed limit multiplied by 11, read in feet) a left-turn lane shall be installed.

(c) If traffic conditions or turning movements pose a considerable threat to public safety, as determined by the Director of Public Works, a left-turn lane shall be installed.

The left-turn lane warrant evaluated for the south project driveway was based on subtask (a) or average daily traffic (ADT) volumes generated at the proposed project driveway verses ADT volumes on State Route 29. Based on these Napa County ADT warrant graph criteria, a project will meet the left-turn lane warrant when the volumes fall above the plotted graph line on the chart. In the case of the proposed project, focused project ADT generated at the inbound south driveway would equal 116 daily trips with 15,700 daily trips on Deer Park Road and fall above the minimum ADT volumes for installation of a left-turn lane (see Napa County Left-Turn Lane Warrant Graph—attached).

Caltrans/AASHTO Methodology:

Looking at other accepted left-turn warrant methodologies, there are two other sources that employ actual left-turn movements in evaluating the need for installation of a left-turn lane and these include the following references:

- **Caltrans:** *Guidelines for Reconstruction of Intersections* (1985);
- **American Association of State Highway Engineers (AASHTO)**, *Policy on the Geometric Design of Highways and Streets* (2018)

The Caltrans reference utilizes the long-established "Hamerlink" left-turn lane graphs that employ the advancing roadway volumes and left-turn lane percentage verses the opposing roadway volumes. More recent AASHTO volume graphs employ a similar methodology with corresponding speed increments for the roadway segment. Both methodologies evaluate the "peak hour" intersection turning movement volume at the subject intersection including the actual left-turn volume turning into the minor street or driveway and are categorized as "volume warrants for left-turn lanes at unsignalized grade intersections." These detailed left-turn lane warrants are typically used on two-lane roadway and highway segments where left-turn movements can impede through-traffic and/or create safety issues related to rear-end collisions. Dependent on the overall volume of left-turn movements (as a percentage of the through-movements), a left-turn lane could be warranted at an unsignalized intersection based on the amount of opposing traffic volumes. The AASHTO left-turn lane warrant methodology accounts for the volume of left-turn movements at the intersection and overall travel speeds on the roadway

AASHTO Warrant Analysis

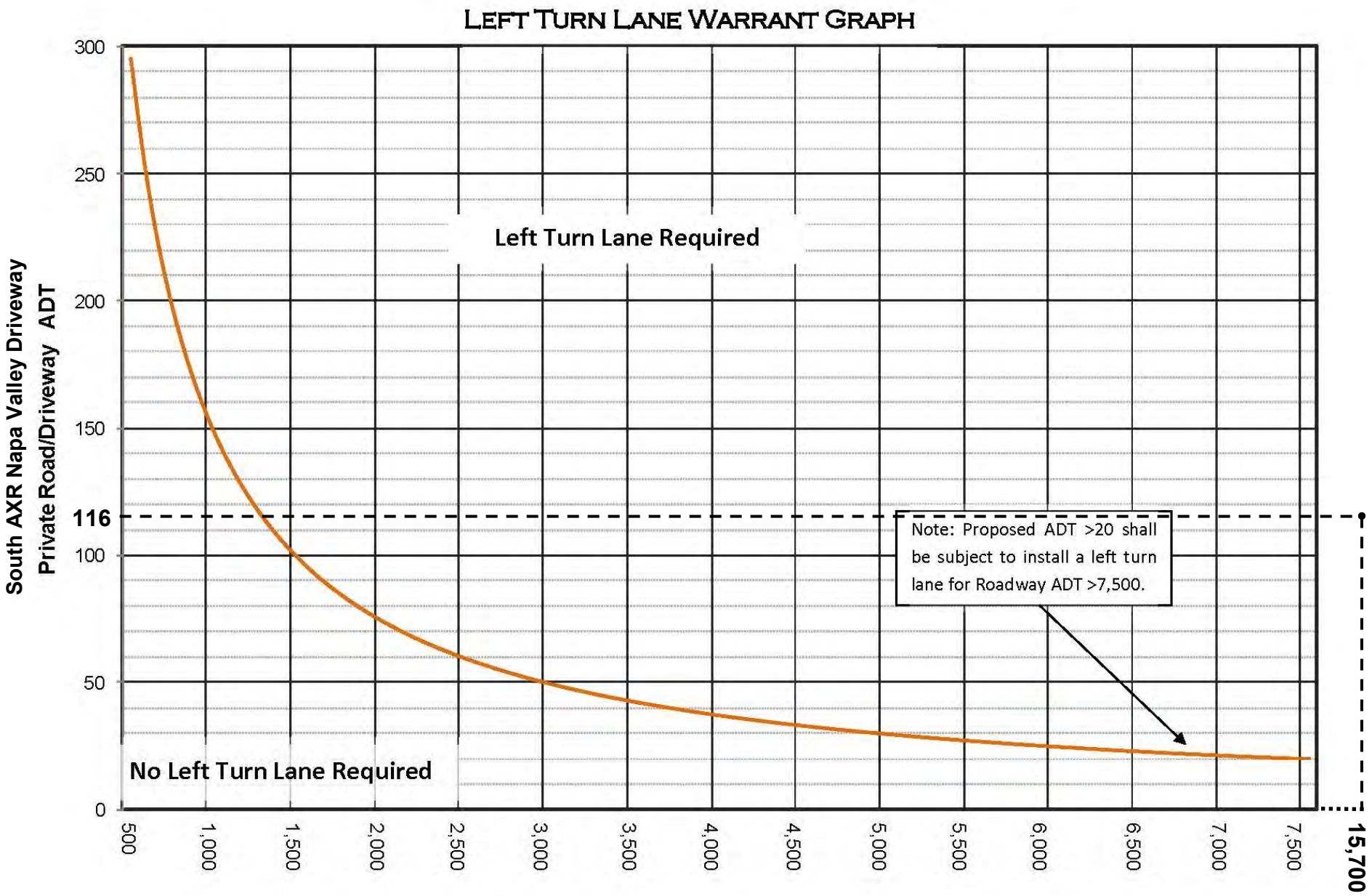
Using Existing plus Proposed project volumes for the weekday PM peak hour and weekend midday peak hour, the left-turn lane warrant for the South AXR Napa Valley Driveway/SR 29 intersection was evaluated using the AASHTO methodology for installation of a left-turn lane. Under Existing plus Project conditions, the installation of a separate northbound left-turn lane at the subject intersection would be warranted under AASHTO guidelines during either the Friday weekday PM peak or Saturday midday peak hours with 50 mph vehicle speeds on SR 29.[3] Currently, opposing (southbound) peak hour volumes on SR 29 at the South AXR Napa Valley Driveway are 559 (weekday) and 509 (weekend). Combined with the northbound left-turn movements at the south project driveway; volumes are well above the 100-vehicle threshold for installation of a left-turn lane using advancing volumes of 577 (weekday) and 588 (weekend)(see ASSHTO Warrant sheets-attached).[4]

[3] AASHTO Guide for Left-Turn Lanes on Two-Lane Highways is based on peak hour intersection volumes. The left-turn movements are categorized as a percentage (5, 10, 20, or 30 percent) of the overall "advancing" or southbound volumes on Deer Park Road. The "opposing" volumes are the northbound volumes on Deer Park Road.

[4] American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, Guide for Left-Turn Lanes on Two-Lane Highways, 7th Edition, 2018.

This Memorandum is provided as an output under our agreement with AXR Napa Valley. It is provided to foster discussion in relation to technical matters associated with the project.

AXR Napa Valley South Driveway
Existing Plus Project Conditions:



AXR Napa Valley Project:
Existing Plus Project Conditions:
Left Turn Lane Is Warranted

State Route 29

Source: Napa County Road & Street Standards, 2023

AXR Napa Valley: South Driveway / SR 29

Existing + Project, Weekday Friday PM Peak Hour

FRIDAY PM PEAK HOUR

Table 9-23 Guide for Left-Turn Lanes on Two-Lane Highways (*10*)

Metric					U.S. Customary				
Opposing Volume (veh/h)	Advancing Volume (veh/h)				Opposing Volume (veh/h)	Advancing Volume (veh/h)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns		5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
60-km/h Operating Speed					**40-mph Operating Speed**				
800	330	240	180	160	800	330	240	180	160
600	410	305	225	200	600	410	305	225	200
400	510	380	275	245	400	510	380	275	245
200	640	470	350	305	200	640	470	350	305
100	720	515	390	340	100	720	515	390	340
80-km/h Operating Speed					**50-mph Operating Speed**				
800	280	210	165	135	800	280	210	165	135
600	350	260	195	170	600	350	260	195	170
400	430	320	240	210	400	430	320	240	210
200	550	400	300	270	200	550	400	300	270
100	615	445	335	295	100	615	445	335	295
100-km/h Operating Speed					**60-mph Operating Speed**				
800	230	170	125	115	800	230	170	125	115
600	290	210	160	140	600	290	210	160	140
400	365	270	200	175	400	365	270	200	175
200	450	330	250	215	200	450	330	250	215
100	505	370	275	240	100	505	370	275	240

559 opposing volume

577 advancing volume

4 left turns / 577 = 1%

Left-turn Lane Warranted?: YES

Advancing volume of 577 with 1% left turns, and opposing volume of 559, is above minimum threshold of 100 opposing vehicles.

Source: American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 7th edition, 2018.

AXR Napa Valley: South Driveway / SR 29

Existing + Project, Weekend Saturday Mid-Day Peak Hour

SATURDAY MID-DAY PEAK HOUR

Table 9-23 Guide for Left-Turn Lanes on Two-Lane Highways (*10*)

Metric					U.S. Customary				
Opposing Volume (veh/h)	Advancing Volume (veh/h)				Opposing Volume (veh/h)	Advancing Volume (veh/h)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns		5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
60-km/h Operating Speed					40-mph Operating Speed				
800	330	240	180	160	800	330	240	180	160
600	410	305	225	200	600	410	305	225	200
400	510	380	275	245	400	510	380	275	245
200	640	470	350	305	200	640	470	350	305
100	720	515	390	340	100	720	515	390	340
80-km/h Operating Speed					50-mph Operating Speed				
800	280	210	165	135	800	280	210	165	135
600	350	260	195	170	600	350	260	195	170
400	430	320	240	210	400	430	320	240	210
200	550	400	300	270	200	550	400	300	270
100	615	445	335	295	100	615	445	335	295
100-km/h Operating Speed					60-mph Operating Speed				
800	230	170	125	115	800	230	170	125	115
600	290	210	160	140	600	290	210	160	140
400	365	270	200	175	400	365	270	200	175
200	450	330	250	215	200	450	330	250	215
100	505	370	275	240	100	505	370	275	240

501 opposing volume

588 advancing volume
5 left turns / 588 = 1%

Left-turn Lane Warranted?: YES
Advancing volume of 588 with 1% left turns, and opposing volume of 501, is above minimum threshold of 100 opposing vehicles.

Source: American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 7th edition, 2018.

“M”

Cave Portal Visibility Analysis

AXR Napa Valley Winery Permit No. P22-00417-UP, P26-00045-VAR, & P26-00044-VIEW
Planning Commission Hearing – June 3, 2026

#24_004.0
March 07, 2024

AXR Napa Valley
Attn: Don Van Laeken
3199 St. Helena Highway
North St. Helena, CA
94574
don@axrnapavalley.com

RE: AXR Winery, Cave Portal One – Visibility Findings

Dear Don:

As requested, on Monday, February 26, 2024, my Senior Associate (Rachel Brinkerhoff, PLA6186) and I performed a site visit to evaluate the visibility of the proposed Cave Portal One from the easement road/ driveway within the winery's parcel. The accompanying exhibit includes six (6) photos taken from the center of that easement road facing the portal location. At the time of our visit, a winery representative placed two (2) orange construction cones on top of a pile of gravel approximately 3-4' high at the approximate location where the internal driveway leading to portal #1 begins. As noted below the location of the proposed portal is to be located some 16' from this intersection, within the existing hillside. As evident in the photographs, the cones are not visible from any of the six (6) photo locations. Also evident is the abundance of existing trees and shrubs providing ample screening of the proposed portal.

We also reviewed the architectural plans prepared by Signum Architecture. We focused our attention on page G0.02 which includes the site plan that shows the location of portal #1 and page A40.1 which provides a section through the proposed portal detailing its effective height.

After reviewing the photos, walking the easement, and reviewing the architectural plans for the project, it is our professional opinion that portal #1 will be sufficiently screened so as not to be visible from the private driveway on the AXR property. The following factors led us to this conclusion:

1. The existing trees and shrubs between the existing driveway and the proposed portal #1 are healthy and adequate to screen the proposed portal from the view from the driveway in question. In our opinion, no additional planting is necessary;
2. The depth of the portal (some sixteen (16) feet from the end of the shotcrete wall) renders it invisible from the subject driveway;
3. The driveway that provides access to the portal slopes downward at an approximate 7% grade further reducing any portion of the portal height that could potentially be visible;
4. The design of the portal with its proposed overhang down slope reduces the effective height of the portal as shown on A40.1;

5. The sloping shotcrete walls along both sides of the driveway leading to portal #1 provide additional screening; and
6. Due to the orientation of the proposed portal, as depicted on sheet G0.04 of the architectural plans, it will not be visible from the subject driveway.

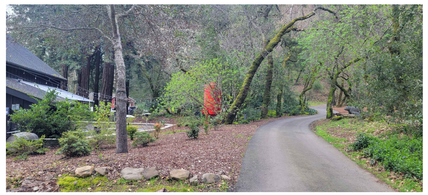
Respectfully submitted,

Susan Heiken, PLA 6296

Enclosures:

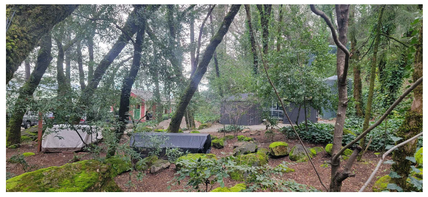
- Exhibit 1--Photographs taken from private driveway
- Revised Architectural Plans prepared by Signum Architectural, dated April 2023, incorporated by reference

1.



2.

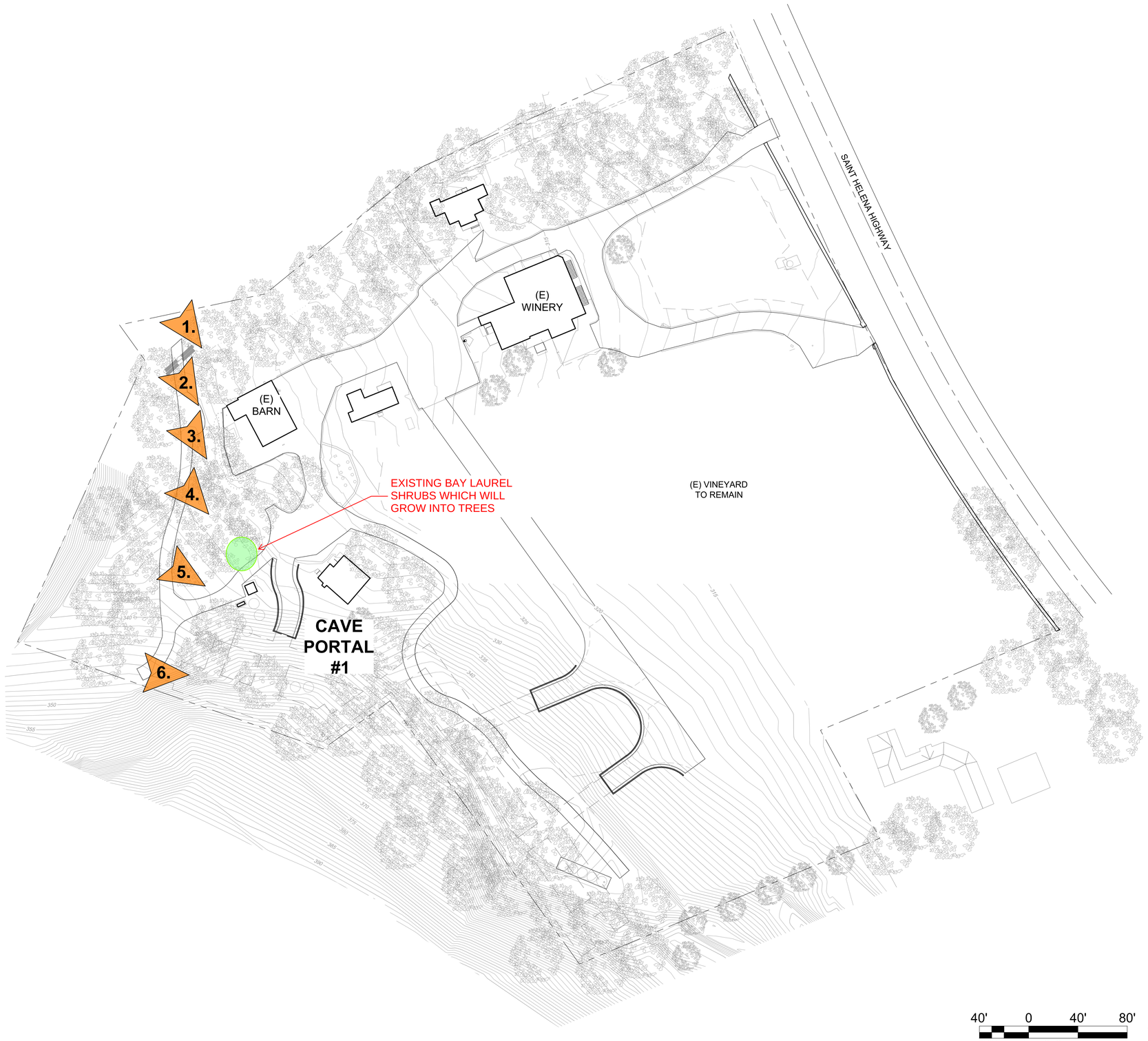
3.



4.

5.

6.



AXR WINERY NAPA VALLEY

NO.	DATE	REVISIONS	BY	APPD

STUDIO 1515 LANDSCAPE ARCHITECTURE

AXR WINERY NAPA VALLEY

CAVE PORTAL ONE VIEW EXHIBIT

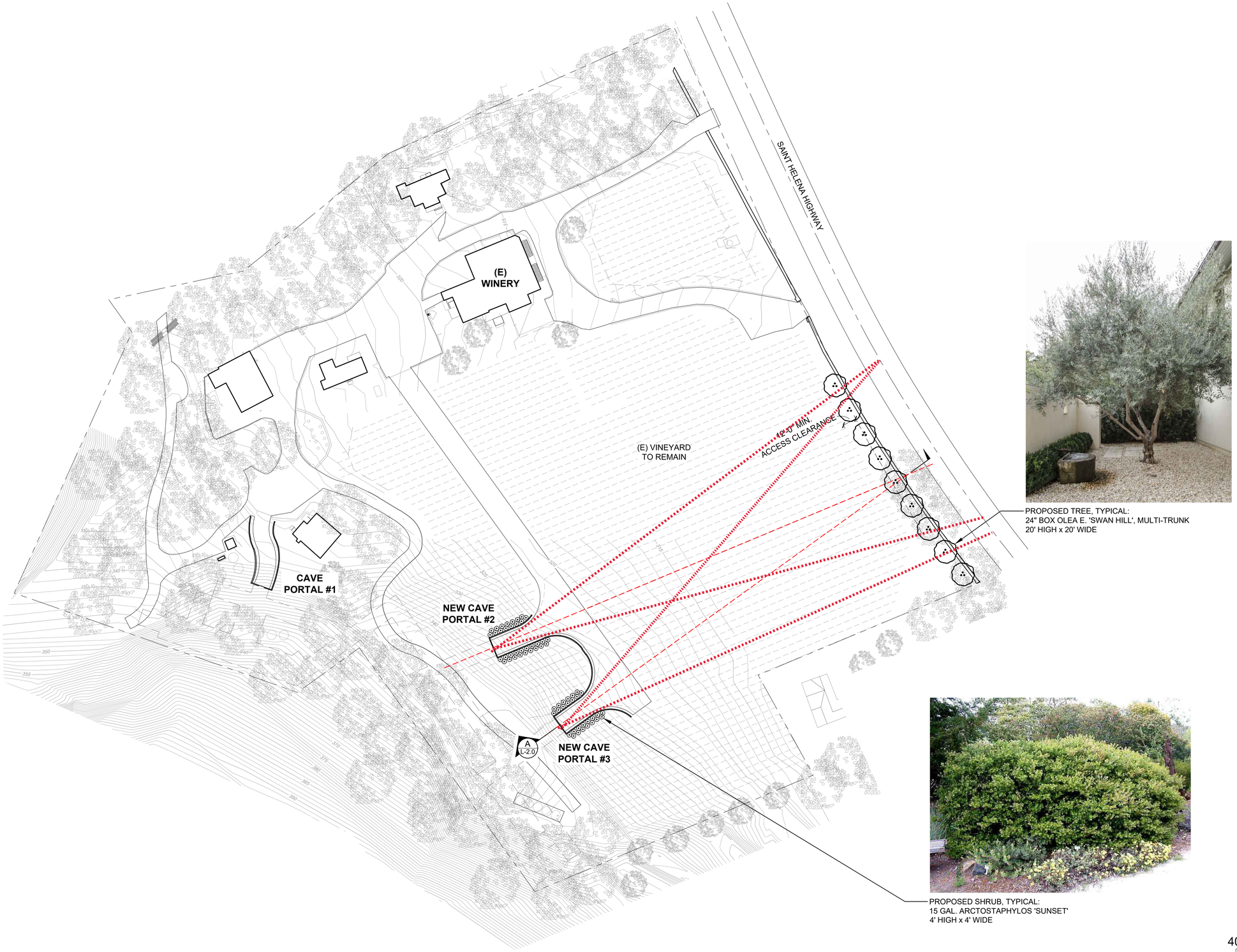
SAINT. HELENA, CALIFORNIA

LICENSED LANDSCAPE ARCHITECT Susan S. Heiken #6296 Signature 03/31/25 Renewal Date Date STATE OF CALIFORNIA

DATE	MARCH 1, 2024
DRAWN	TB
DESIGNED	RB
CHECKED	SH
JOB NO.	24_004.0
SHEET NO.	L-1.0

Copyright ©2023 Studio 1515 Landscape Architecture

PRELIMINARY — NOT FOR CONSTRUCTION



AXR WINERY NAPA VALLEY

NO.	DATE	REVISIONS	BY	APP'D

STUDIO 1515 LANDSCAPE ARCHITECTURE

AXR WINERY NAPA VALLEY

VIEWSHED LANDSCAPE PLAN

SAINT. HELENA, CALIFORNIA

LICENSED LANDSCAPE ARCHITECT Susan S. Heiken #3296 Signature 03/31/25 Renewal Date Date STATE OF CALIFORNIA

DATE	APRIL 4, 2023
DRAWN	TB
DESIGNED	RB
CHECKED	SH
JOB NO.	23_008.0

SHEET NO.

L-1.0

L-1.0

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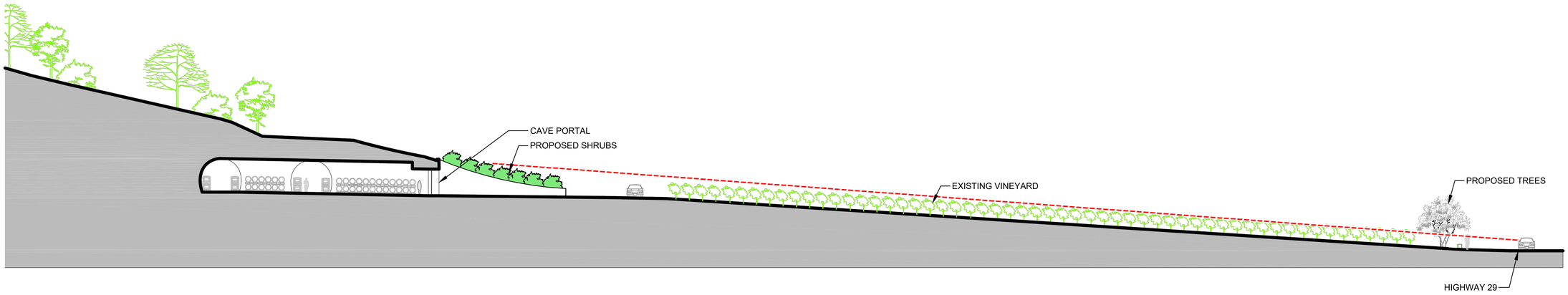
PRELIMINARY - NOT FOR CONSTRUCTION



A SECTION
SCALE: -

40' 0 40' 80'
SCALE: 1"=40'-0"

N

AXR
WINERY
NAPA VALLEY

NO.	DATE	REVISIONS	BY	APPD

STUDIO 1515
LANDSCAPE ARCHITECTURE

AXR WINERY NAPA VALLEY
VISUAL IMPACT ANALYSIS
SAINT. HELENA, CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
Susan S. Heiken #6296
Signature
03/31/25
Renewal Date
Date
STATE OF CALIFORNIA

DATE	APRIL 4, 2023
DRAWN	TB
DESIGNED	RB
CHECKED	SH
JOB NO.	23_008.0

SHEET NO.
L-2.0

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PRELIMINARY - NOT FOR CONSTRUCTION

“N”

Graphics (Proposed Project Plans, Formerly Approved P08-00099 Project Plans)

AXR NAPA VALLEY

USE PERMIT

3199 ST HELENA HIGHWAY NORTH
ST. HELENA, CA 94574
APN 022-080-025-000

GENERAL NOTES

1.1 APPLICABLE BUILDING CODES: TITLE 24

PART 1: 2019 BUILDING STANDARDS ADMINISTRATIVE CODE
~~PART 2.5: 2019 CALIFORNIA RESIDENTIAL BUILDING CODE~~
PART 3: 2019 CALIFORNIA ELECTRICAL CODE
PART 4: 2019 CALIFORNIA MECHANICAL CODE
PART 5: 2019 CALIFORNIA PLUMBING CODE
PART 6: 2019 CALIFORNIA ENERGY CODE
~~PART 7: 2019 CALIFORNIA ELEVATOR SAFETY CONSTRUCTION~~ CODE
~~PART 8: 2019 CALIFORNIA HISTORICAL BUILDING CODE~~
PART 9: 2019 CALIFORNIA FIRE CODE
PART 10: 2019 CALIFORNIA EXISTING BUILDING CODE
PART 11: 2019 CALIFORNIA GREEN BUILDING CODE
PART 12: 2019 CALIFORNIA REFERENCED STANDARDS CODE

1.2 THE CONTRACTOR SHALL PROVIDE WORKMAN'S COMPENSATION INSURANCE, LIABILITY INSURANCE AND A PERFORMANCE BOND IN THE AMOUNT OF THE COST OF CONSTRUCTION.

1.3 THE CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIAL FOR A MINIMUM OF ONE YEAR, EXCEPTION: ROOF SHALL BE GUARANTEED FROM LEAKAGE FOR A MINIMUM OF TWO YEARS OR AS SPECIFIED.

1.4 THE GENERAL CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY SIGNUM ARCHITECTURE OF DISCREPANCIES.

1.5 CONTRACTOR SHALL VERIFY EASEMENTS (PUBLIC OR PRIVATE) FOR SEWER, WATER, ELECTRICAL, TELEPHONE, CABLE T.V. AND GAS PRIOR TO STARTING CONSTRUCTION.

1.6 VERIFY ALL UTILITY DATA AND LOCATIONS PRIOR TO ANY WORK. ONSITE UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE AGENCY OR UTILITY COMPANY.

1.7 WRITTEN DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. DO NOT SCALE THE DRAWINGS. WHERE DISCREPANCIES OCCUR, NOTIFY SIGNUM ARCHITECTURE FOR CLARIFICATION.

1.8 ACCEPT NO INK OR PENCIL CORRECTIONS TO THESE DRAWINGS WITHOUT THE DESIGNER'S INITIAL OR SIGNATURE. SIGNUM ARCHITECTURE SHALL BE HELD HARMLESS FOR ALL CHANGES NOT IN CONFORMANCE WITH THIS PROVISION.

1.9 ALL USERS OF THESE DRAWINGS AGREE BY USING THESE DRAWINGS TO HOLD SIGNUM ARCHITECTURE HARMLESS FOR ANY AND ALL WORK THAT DOES NOT CONFORM TO REQUIREMENTS AND MINIMUM STANDARDS OF THE APPLICABLE BUILDING CODES, LOCAL ORDINANCES, AND ACCEPTABLE STANDARDS.

1.10 THESE DRAWINGS ARE THE PROPERTY OF SIGNUM ARCHITECTURE AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY WORK OTHER THAN AT THE LOCATION SHOWN ON THESE PLANS.

1.11 SIGNUM ARCHITECTURE SHALL HAVE NO CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR ANY SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

1.12 SIGNUM ARCHITECTURE ASSUMES NO RESPONSIBILITY FOR PERFORMANCE OF PRODUCTS OR MATERIALS SPECIFIED.

1.13 ITEMS REQUIRED BY TITLE 24 "ENERGY CONSERVATION STANDARDS" SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION (CEC). EQUIPMENT REQUIRING SCHEDULED MAINTENANCE FOR EFFICIENT OPERATION IS TO BE FURNISHED WITH COMPLETE PRINTED MAINTENANCE INSTRUCTIONS. (EDITION 2001)

1.14 ~~REFER TO THE PROJECT MANUAL FOR DETAILED SPECIFICATIONS, MASTER CONTROL SYSTEM INTERFACE REQUIREMENTS and INPUT/OUTPUT LIST and REQUIREMENTS.~~

1.15 THE CONTRACTOR SHALL FURNISH ALL SYSTEMS COMPLETE AND WITH ALL ACCESSORIES REQUIRED FOR INSTALLATION IN ACCORDANCE WITH EXCELLENT AND ACCEPTABLE TRADE PRACTICE.

WUI SUMMARY

EXTERIOR WALLS - per CRC Section R337.7.3 THE EXTERIOR WALL ASSEMBLY WILL BE NONCOMBUSTIBLE MATERIAL AND HEAVY TIMBER.

EXTERIOR DOOR & WINDOWS - per CRC Section R337.8.2.1 EXTERIOR WINDOWS AND EXTERIOR GLAZED DOORS SHALL BE CONSTRUCTED OF MULTI PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE

EXTERIOR WOOD DOORS per CRC Section R337.8.3 SHALL BE OF SOLID CORE WOOD CONSTRUCTION WITH A MIN. STILE AND RAIL THICKNESS OF 1 3/8" AND MIN. RAISED PANEL THICKNESS OF 1 1/4"

EAVE OVERHANGS - per CRC Section 337.7.4 THE EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL BE UNPROTECTED AS PERMITTED BY EXCEPTIONS 1-4.

VENTS - per CRC Section 337.6.3 EXCEPTION 1 & 2, BURNING EMBER AND FLAME RESISTANT EAVE AND CORNICE VENTS ("VULCAN VENT") SHALL BE USED TO RESIST BUILDING IGNITION FROM THE INTRUSION OF BURNING EMBERS AND FLAME THROUGH VENT OPENINGS.

DIRECTORY

OWNER
AXR WINERY
3199 ST HELENA HWY N
ST. HELENA, CA 94574

ARCHITECT
SIGNUM ARCHITECTURE, LLP
1050 ADAMS STREET, SUITE D
ST. HELENA, CA 94574
PHONE: (707) 963-8831
FAX: NA
CONTACT: JUANCARLOS FERNANDEZ
EMAIL: juancarlos@signumarchitecture.com

PLANNER
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EMAIL: jreddingalicp@comcast.net

CIVIL ENGINEER
SUMMIT ENGINEERING, INC.
575 W COLLEGE AVE. STE 201
SANTA ROSA, CA 95401
PHONE: (707) 527-0775
FAX: NA
CONTACT: JASON FLOWERS
EMAIL: JasonF@summit-er.com

VICINITY MAP

SHEET INDEX

GENERAL
G0.01 PROJECT INFORMATION & SHEET INDEX
G0.02 UP 2008 USE PERMIT SITE PLAN
G0.02 E EXISTING SITE PLAN
G0.02 P PROPOSED SITE PLAN
G0.03 VIEWSHED STUDY
G0.04 RENDERINGS
G0.05 EGRESS PLAN - CAVES

CIVIL
UP1 USE PERMIT SITE PLAN
UP2 PRELIMINARY GRADING & DRAINAGE PLAN
UP3 PRELIMINARY STORMWATER CONTROL PLAN
UP4A EXISTING WINERY COVERAGE & DEVELOPMENT AREAS
UP4B PROPOSED WINERY COVERAGE & DEVELOPMENT AREAS

ARCHITECTURAL
A2.00 UP PLAN - RESIDENCE - BASEMENT
A2.00 E PLAN - RESIDENCE - BASEMENT
A2.00 P PLAN - RESIDENCE - BASEMENT
A2.01 UP PLAN - WINERY - 01
A2.01 E PLAN - WINERY - 02
A2.01 P PLAN - WINERY - 03
A2.03 UP PLAN - BARREL STORAGE
A2.04 E PLAN - BARREL STORAGE
A2.05 P PLAN - TASTING ROOM/HOSPITALITY CENTER
A2.11 PLAN - CAVES

A3.01 ELEVATIONS - WINERY
A3.02 ELEVATIONS - WINERY
A3.03 ELEVATIONS - TASTING ROOM/HOSPITALITY CENTER
A3.11 ELEVATIONS - CAVES

A4.11 SECTIONS - CAVES

PROJECT DATA

ADDRESS:	3199 ST HELENA HWYL NORTH, ST. HELENA, CA 94574
ASSESSOR PARCEL #:	022-080-025-000
PARCEL SIZE:	7.85 ACRES
FLOOD ZONE:	PARCEL NOT IN FEMA FLOOD ZONE.
ZONING DISTRICT:	AW (AGRICULTURAL WATERSHED)
MAX. ALLOW. HT:	NO STRUCTURE MAY EXCEED TWO STORIES IN HEIGHT.
FIRE HAZARD	VERY HIGH FIRE HAZARD SEVERITY (SRA). SEVERITY ZONE: COMPLIANCE WITH CHAPTER 7 A OF THE CALIFORNIA BUILDING CODE IS REQUIRED FOR NEW CONSTRUCTION.
OCCUPANCY:	S-1
CONSTRUCTION:	TYPE 1 CAVE / SPRINKLERED
# STORIES:	N/A
SCOPE OF WORK:	EXCAVATE 17151 SF OF NEW PRODUCTION AND STORAGE CAVES AS ACCESSORY TO AXR WINERY: (3) ACCESS PORTALS, ALL TREES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.

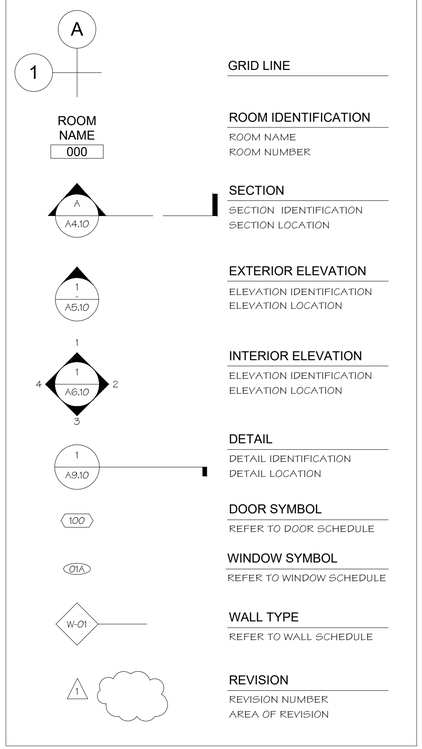
AREA CALCULATIONS

				ACCESSORY	PRODUCTION	TOTAL
EXISTING						
WINERY BUILDING						
LOWER LEVEL:						
CELLAR	2555 SF			0 SF	2555 SF	
MAIN LEVEL:						
ACCESSORY	1547 SF			1547 SF	0 SF	
PRODUCTION	1000 SF			0 SF	1000 SF	
BARREL STORAGE BUILDING (FORMER BARN)						
BARREL STORAGE BUILDING	1492 SF			0 SF	1492 SF	
CRUSH/FERMENTATION TANK PAD (INCLUDING COVERED WORK AREA)	1204 SF			0 SF	1204 SF	
			TOTAL	1547 SF	6251 SF	7798 SF
			EXISTING RATIO	~20% ACCESSORY	~80% PRODUCTION	100%
PROPOSED						
EXISTING WINERY BUILDING						
LOWER LEVEL:						
CELLAR	2555 SF			0 SF	2555 SF	
MAIN LEVEL:						
ACCESSORY	1547 SF			1547 SF	0 SF	
PRODUCTION	1000 SF			0 SF	1000 SF	
PROPOSED TASTING ROOM (FORMER BARREL STORAGE BUILDING)						
ACCESSORY (FORMER BARREL STORAGE BUILDING)	1492 SF			1492 SF	0 SF	
ACCESSORY OUTDOORS (FORMER CRUSH/FERMENTATION TANK PAD)	1204 SF			1204 SF	0 SF	
CAVES						
BARREL STORAGE	11993 SF				11993 SF	
CRUSH/ FERMENTATION TANK PAD	5197 SF				5197 SF	
			TOTAL	4243 SF	20745 SF	24988 SF
			PROPOSED RATIO	~17% ACCESSORY	~83% PRODUCTION	100%

ABBREVIATIONS

&	AND	ELEV	ELEVATION OR ELEVATOR	LB	POUND		
∠	ANGLE			LT	LIGHT	SA	SUPPLY AIR
@	AT	ELECT	ELECTRICAL			SC	SOLID CORE
℄	CENTERLINE	EMER	EMERGENCY	MACH	MACHINE	SCHED	SCHEDULE
[	CHANNEL	EPB	ELECTRICAL PANEL BOARD	MAINT	MAINTENANCE	SECT	SECTION
⌀	DIAMETER/ROUND			MAX	MAXIMUM	SED	SEE ELECTRICAL DRAWING
∥	PARALLEL	EQ	EQUAL	MB	MACHINE BOLT	SH	SHELF OR
⊥	PERPENDICULAR	EXP	EXPANSION	MC	MEDICINE CABINET		SPRINKLER HEAD
#	NUMBER	EXT	EXTERIOR	MECH	MECHANICAL	SHNGL	SHINGLE
				MEMB	MEMBRANE	SHR	SHOWER
AB	ANCHOR BOLT	FA	FIRE ALARM	MTL	METAL	SHT	SHEET
AC	ASPHALTIC CONCRETE	FAU	FORCED-AIR UNIT	MFR	MANUFACTURER	SIM	SIMILAR
ACOUST	ACOUSTICAL	FD	FLOOR DRAIN	MIN	MINIMUM	SL	SLIDING
AD	AREA DRAIN	FDN	FOUNDATION	MIR	MIRROR	SLD	SEE LANDSCAPE DRAWINGS
ADA	AMERICANS WITH DISABILITIES ACT	FE	FIRE EXTINGUISHER	MISC	MISCELLANEOUS	SMD	SEE MECHANICAL DRAWINGS
		FIN	FINISH	MO	MASONRY OPENING	SPD	SEE PLUMBING DRAWINGS
ADJ	ADJUSTABLE OR ADJACENT	FLR	FLOOR	MSRY	MASONRY	SPEC	SPECIFICATION OR SPECIAL
		FLUOR	FLUORESCENT	MTD	MOUNTED	SQ	SQUARE
AFF	ABOVE FINISHED FLR	FOC	FACE OF CONCRETE	MI	MALLEABLE IRON	SSD	SEE STRUCTURAL DRAWINGS
ALUM	ALUMINUM	FOF	FACE OF FINISH			S.STL	STAINLESS STEEL
ALT	ALTERNATE	FOS	FACE OF STUD	(N)	NEW	STD	STANDARD
APROX	APPROXIMATE	FOM	FACE OF MASONRY	NEC	NATIONAL ELECTRICAL CODE	STL	STEEL
ARCH	ARCHITECTURAL	FP	FIREPROOF			STOR	STORAGE
ASPH	ASPHALT	FS	FLOOR SINK	NFPA	NATIONAL FIRE PROTECTION ADMINISTR.	STRUC	STRUCTURAL
AV	AUDIO VISUAL	FT	FOOTFEET			SUSP	SUSPENDED
		FTG	FOOTING	NIC	NOT IN CONTACT	SV	SHEET VINYL
BD	BOARD	FURR	FURRING	NO	NUMBER	SW	SHEAR WALL
BLDG	BUILDING	FUT	FUTURE	NTS	NOT TO SCALE	SYM	SYMMETRICAL
BLK	BLOCK					SYS	SYSTEM
BLKG	BLOCKING	G	GAS	O/	OVER		
BM	BEAM	GA	GAUGE	OA	OVERALL	T	TREAD
BOT	BOTTOM	GALV	GALVANIZED	OBS	OBSCURE	TB	TOWEL BAR
		GB	GRAB BAR	OC	ON CENTER	TC	TOP OF CURB
CAB	CABINET	GD	GARBAGE DISPOSAL	OD	OUTSIDE DIMENSION	TEL	TELEPHONE
CB	CATCH BASIN	GEN	GENERAL	OH	OVERHANG	TEMP	TEMPERED
CBC	CALIFORNIA BUILDING CODE	GFI	GROUND FAULT INTERRUPTER	OPNG	OPENING	T&G	TONGUE & GROOVE
		GL	GLASS	OPP	OPPOSITE	THK	THICK
CEM	CEMENT	GRD	GROUND			TOC	TOP OF CONCRETE
CER.T.	CERAMIC TILE	GR	GRADE	PB	PANEL BOARD	TOW	TOP OF WALL
CG	CORNER GUARD	GSM	GALVANIZED SHEET METAL	PERM	PERMANENT	TPH	TOILET PAPER HOLDER
CI	CAST IRON	GYP	GYP'SUM	PL	PLATE OR PROPERTY LINE	TOP	TOP PLATE
CJ	CONTROL JOINT			P. LAM	PLASTIC LAMINATE	TRD	TREAD
CLG	CEILING	HB	HOSE BIB	PLAS	PLASTER	TV	TELEVISION
CLR	CLEAR	HD	HEAD	PLYWD	PLYWOOD	TYP	TYPICAL
CO	CASED OPENING	HDR	HEADER	PNL	PANEL		
COL	COLUMN	HGR	HANGER	PNT	PAINT	UBC	UNIFORM BUILDING CODE
CONC	CONCRETE	HT	HEIGHT	PRCST	PRECAST	UMC	UNIFORM MECHANICAL CODE
CONN	CONNECTION	HORIZ	HORIZONTAL	PSI	POUNDS PER SQ. INCH	UON	UNLESS OTHERWISE NOTED
CONTR	CONTRACTOR	HR	HOUR	PT	POINT		
CW	COLD WATER	HW	HOT WATER			VERT	VERTICAL
				(R)	REMOVE	VGDF	VERTICAL-GRAIN
DBL	DOUBLE	ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	R	RISER		DOUGLAS FIR
DET	DETAIL			RAD	RADIUS	VOL	VOLUME
DF	DOUGLAS FIR OR DRINKING FOUNTAIN	ID	INSIDE DIMENSION	RA	RETURN AIR		
				RD	ROOF DRAIN		
DIA	DIAMETER	IN	INCH	REC	RECESSED	WSCT	WAINSCOT
DIAG	DIAGONAL	INSUL	INSULATION	REF	REFERENCE	W	WASHER
DIM	DIMENSION	INT	INTERIOR	REFR	REFRIGERATOR	W/	WITH
DN	DOWN			REINF	REINFORCED	W/O	WITHOUT
DP	DAMPROOFING	JAN	JANITOR	REMOV	REMOVABLE	WC	WATERCLOSET
DR	DOOR	JT	JOINT	REQ	REQUIRED	WD	WOOD
DWR	DRAWER	JST	JOIST	RESIL	RESILIENT	WH	WATER HEATER
DS	DOWNSPOUT			RET	RETAINING	WNDW	WINDOW
DWG	DRAWING	KIT	KITCHEN	REG	REGULAR	WP.MEMB.	WATERPROOF MEMBRANE
				RGTR	REGISTER	WT	WEIGHT
(E)	EXISTING	LAB	LABORATORY	REV	REVISION	WR	WATER RESISTANT
EA	EACH	LAM	LAMINATE	RM	ROOM	WW	WELDED WIRE
EXP_JT.	EXPANSION JOINT	LAV	LAVATORY	RWD	REDWOOD		

SYMBOLS



GRID LINE

ROOM IDENTIFICATION
ROOM NAME
ROOM NUMBER

SECTION
SECTION IDENTIFICATION
SECTION LOCATION

EXTERIOR ELEVATION
ELEVATION IDENTIFICATION
ELEVATION LOCATION

INTERIOR ELEVATION
ELEVATION IDENTIFICATION
ELEVATION LOCATION

DETAIL
DETAIL IDENTIFICATION
DETAIL LOCATION

DOOR SYMBOL
REFER TO DOOR SCHEDULE

WINDOW SYMBOL
REFER TO WINDOW SCHEDULE

WALL TYPE
REFER TO WALL SCHEDULE

REVISION
REVISION NUMBER
AREA OF REVISION

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JUANCARLOS FERNANDEZ
PROJECT DESIGNER

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AXR NAPA VALLEY

3199 ST. HELENA HIGHWAY NORTH
ST. HELENA, CA 94574
APN 022-080-025

PROJECT NUMBER	2204
DATE	06/02/22
CHECKED BY	JC
DRAWN BY	JP/AR
SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

PROJECT INFORMATION

SHEET NUMBER

G0.01

USE PERMIT

SITE PLAN-PER 2008 USE PERMIT #P08-00099

SCALE: 1/32" = 1'-0"

1

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REVISIONS

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USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

USE PERMIT SITE PLAN

SHEET NUMBER

G0.02 (UP)

USE PERMIT

EXISTING SITE PLAN-AS PURCHASED IN 2017

SCALE: 1/32" = 1'-0"

1

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

EXISTING SITE PLAN

SHEET NUMBER

G0.02 E

USE PERMIT

PROPOSED SITE PLAN 1

SCALE: 1/32" = 1'-0"

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

PROPOSED SITE PLAN

SHEET NUMBER

G0.02 P

USE PERMIT

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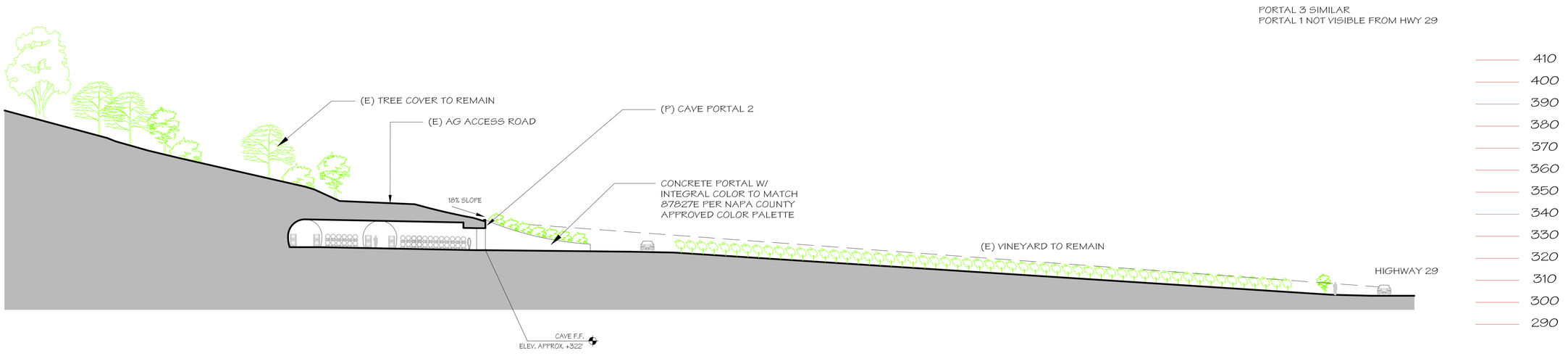

PORTAL 2 SECTION

VIEWSHED STUDY

SCALE: N.T.S.

1

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ST. HELENA, CA 94574
APN 022-080-025

PROJECT NUMBER	2204
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DRAWN BY	JP/AR
SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

CAVES VIEWSHED STUDY

SHEET NUMBER

G0.03

USE PERMIT

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PROPOSED VIEW FROM HIGHWAY 29

EXISTING VIEW FROM HIGHWAY 29

SITE VIEWS 1

SCALE: N.T.S.

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

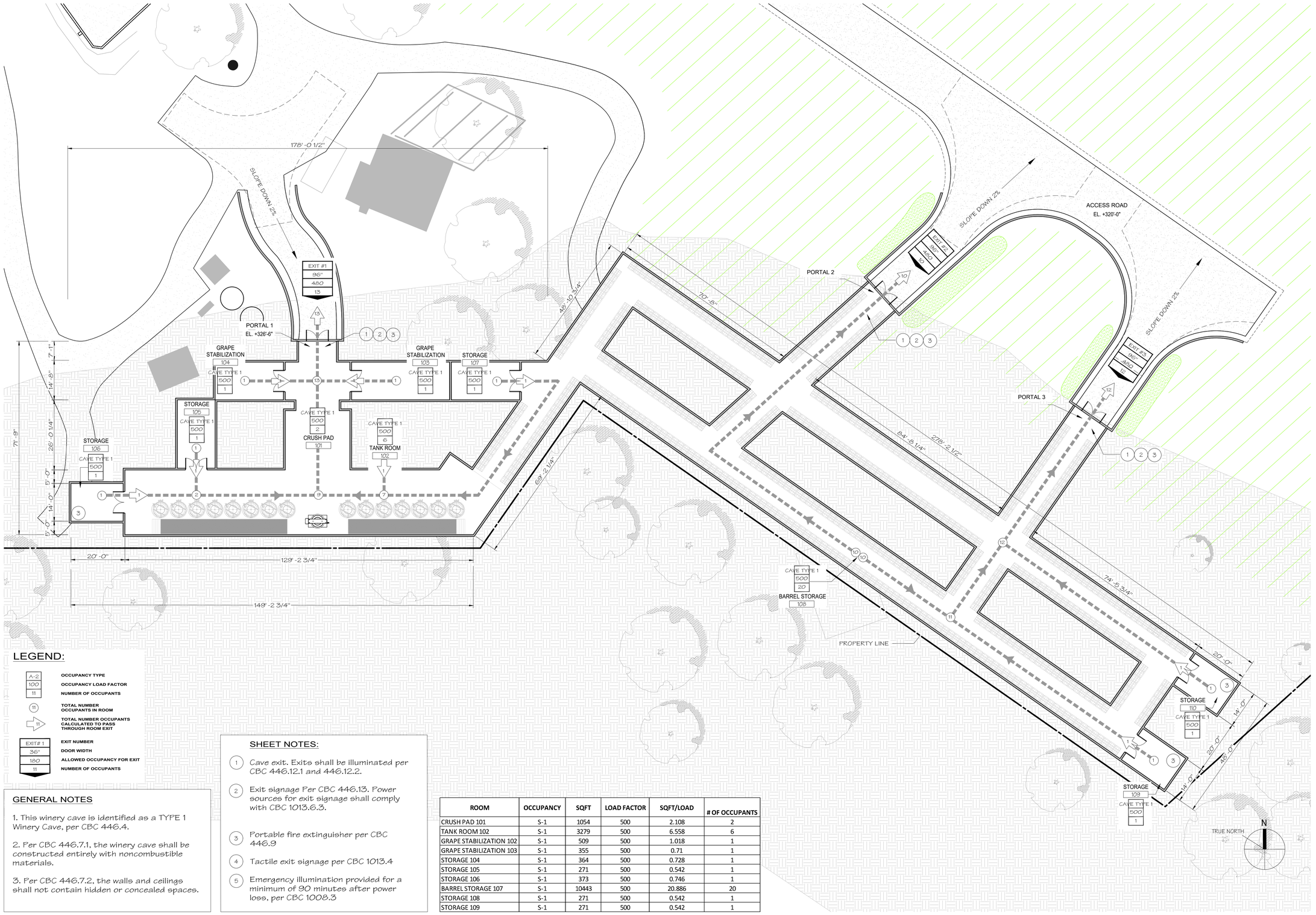
SHEET NAME

CAVE PORTAL RENDERING

SHEET NUMBER

G0.04

USE PERMIT



LEGEND:

- A-2 — OCCUPANCY TYPE
- 100 — OCCUPANCY LOAD FACTOR
- 11 — NUMBER OF OCCUPANTS
- (11) — TOTAL NUMBER OCCUPANTS IN ROOM
- 11 — TOTAL NUMBER OCCUPANTS CALCULATED TO PASS THROUGH ROOM EXIT
- EXIT# 1 — EXIT NUMBER
- 36" — DOOR WIDTH
- 180 — ALLOWED OCCUPANCY FOR EXIT
- 11 — NUMBER OF OCCUPANTS

GENERAL NOTES

1. This winery cave is identified as a TYPE 1 Winery Cave, per CBC 446.4.

2. Per CBC 446.7.1, the winery cave shall be constructed entirely with noncombustible materials.

3. Per CBC 446.7.2, the walls and ceilings shall not contain hidden or concealed spaces.

SHEET NOTES:

1. Cave exit. Exits shall be illuminated per CBC 446.12.1 and 446.12.2.
2. Exit signage Per CBC 446.13. Power sources for exit signage shall comply with CBC 1013.6.3.
3. Portable fire extinguisher per CBC 446.9
4. Tactile exit signage per CBC 1013.4
5. Emergency illumination provided for a minimum of 90 minutes after power loss, per CBC 1008.3

ROOM	OCCUPANCY	SQFT	LOAD FACTOR	SQFT/LOAD	# OF OCCUPANTS
CRUSH PAD 101	S-1	1054	500	2.108	2
TANK ROOM 102	S-1	3279	500	6.558	6
GRAPE STABILIZATION 102	S-1	509	500	1.018	1
GRAPE STABILIZATION 103	S-1	355	500	0.71	1
STORAGE 104	S-1	364	500	0.728	1
STORAGE 105	S-1	271	500	0.542	1
STORAGE 106	S-1	373	500	0.746	1
BARREL STORAGE 107	S-1	10443	500	20.886	20
STORAGE 108	S-1	271	500	0.542	1
STORAGE 109	S-1	271	500	0.542	1

EGRESS PLAN
SCALE: 1/16" = 1'-0"
1

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SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

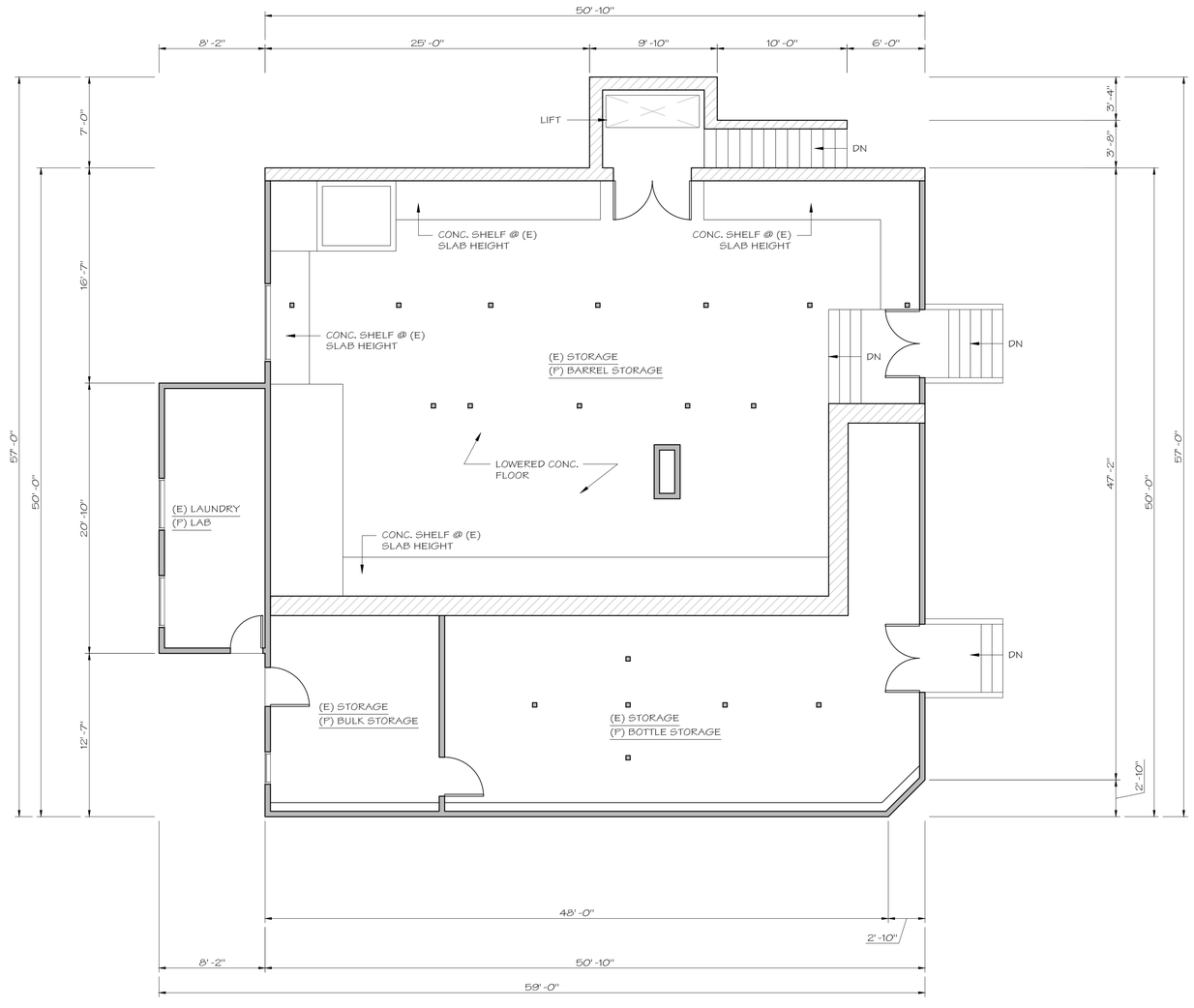
SHEET NAME

EGRESS PLAN CAVES

SHEET NUMBER

G0.05

USE PERMIT



North

WINERY BASEMENT PLAN-PER 2008 USE PERMIT #P08-00099

SCALE: 3/16" = 1'-0"

1

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SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

WINERY BASEMENT PLAN

SHEET NUMBER

A2.00 (UP)

USE PERMIT

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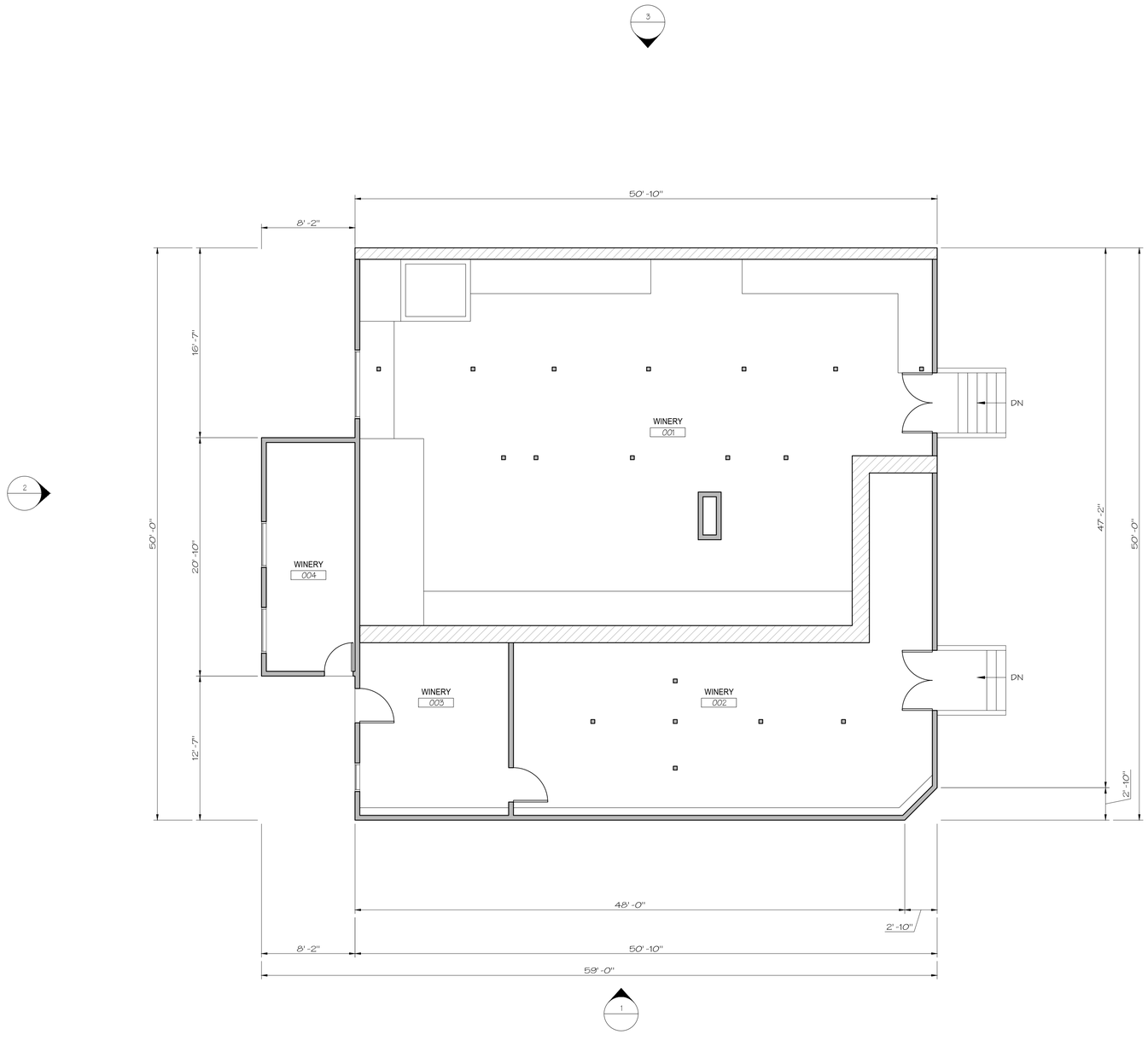

North

EXISTING WINERY BASEMENT PLAN-AS PURCHASED IN 2017 (1)

SCALE: 3/16" = 1'-0"

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SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

WINERY BASEMENT PLAN EXISTING

SHEET NUMBER

A2.00 (E)

USE PERMIT

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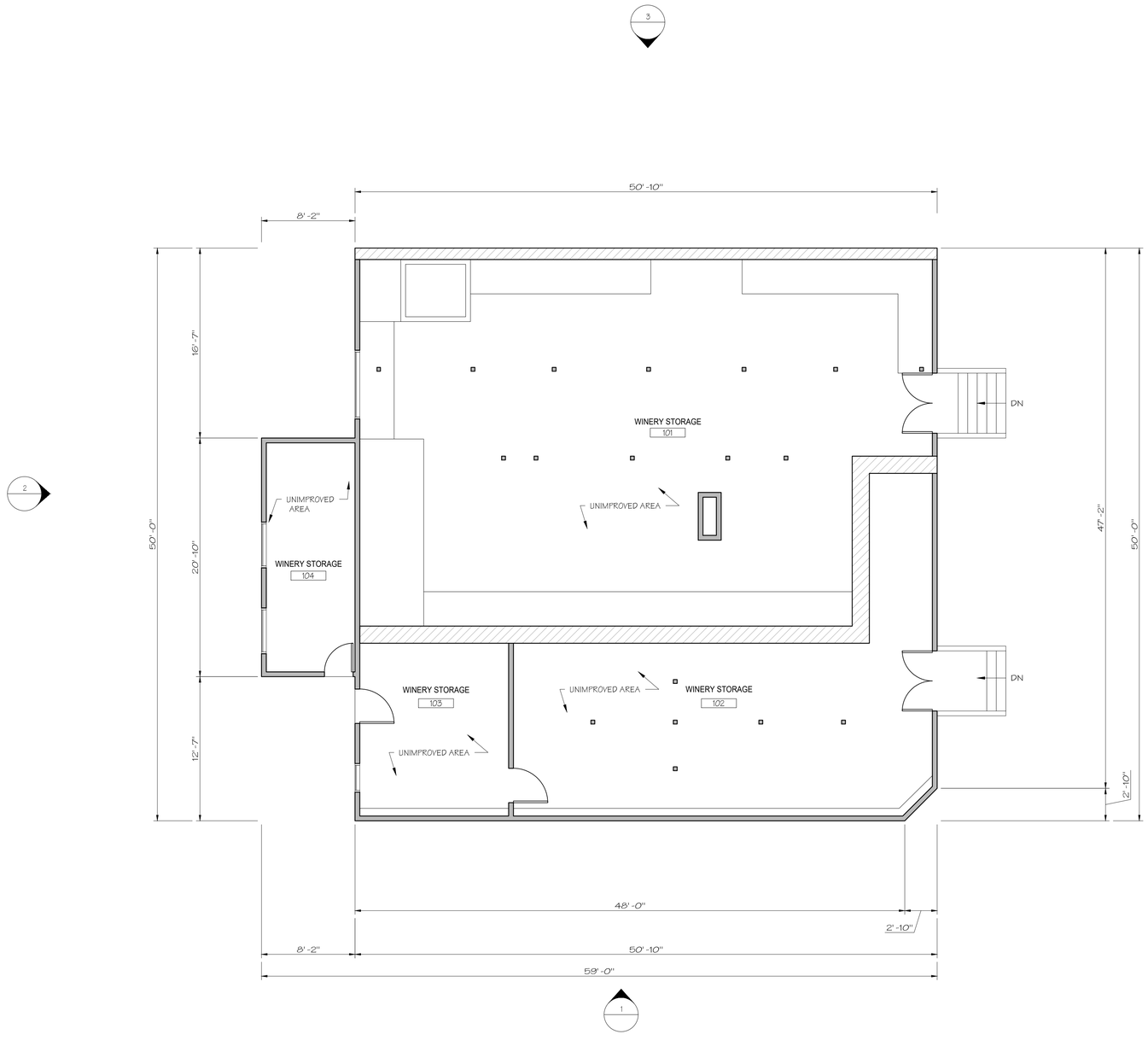

North

EXISTING TO REMAIN.
NO IMPROVED AREAS

PROPOSED WINERY BASEMENT PLAN 1

SCALE: 3/16" = 1'-0"

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USE PERMIT RESUBMITTAL	11/14/25

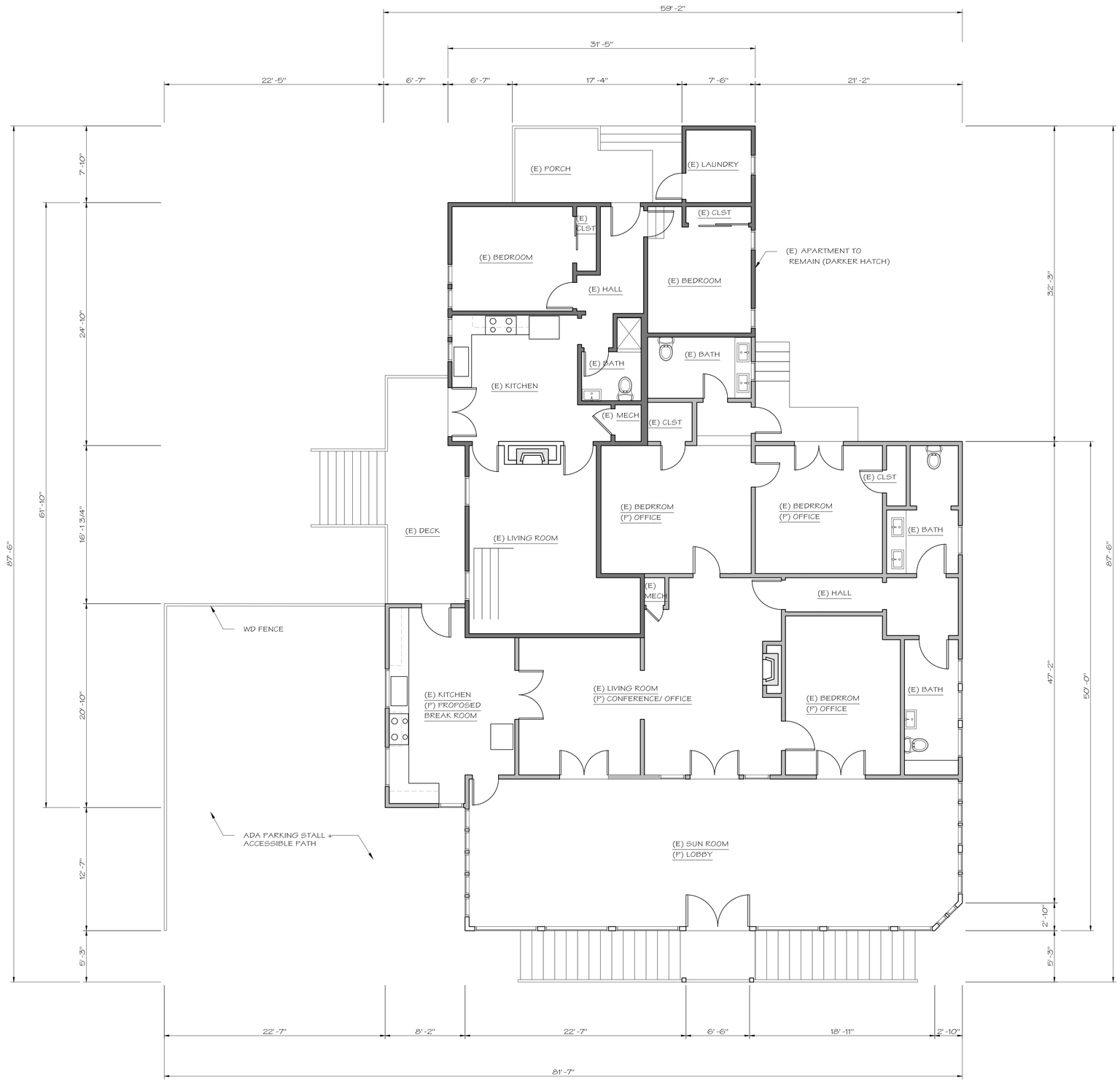
SHEET NAME

WINERY BASEMENT PLAN PROPOSED

SHEET NUMBER

A2.00 (P)

USE PERMIT



North

WINERY FLOOR PLAN-PER 2008 USE PERMIT #P08-00099

SCALE: 3/16" = 1'-0"

1

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

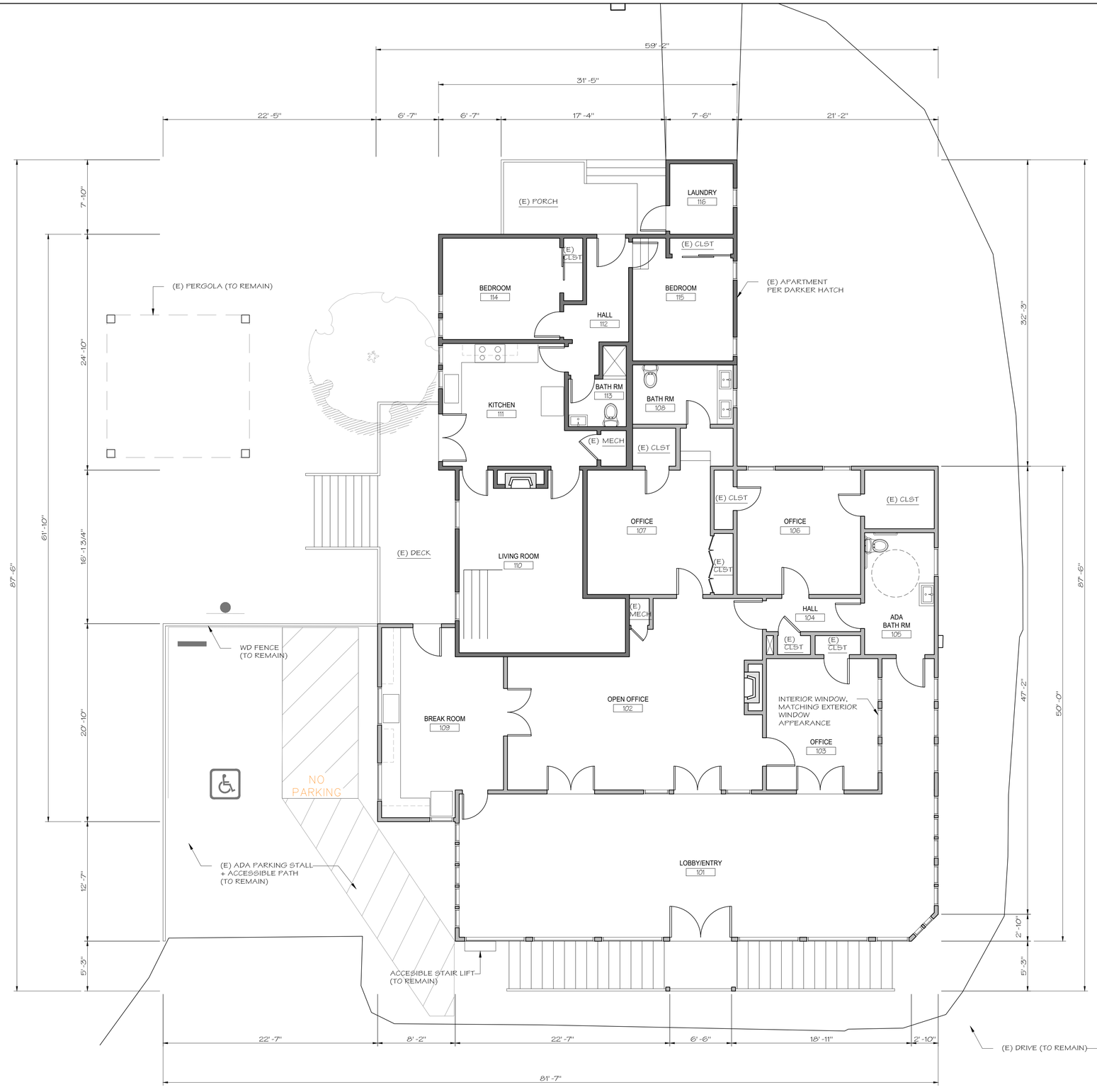
SHEET NAME

WINERY FLOOR PLAN

SHEET NUMBER

A2.01 (UP)

USE PERMIT



North

EXISTING WINERY FLOOR PLAN-AS PURCHASED IN 2017

SCALE: 3/16" = 1'-0"

1

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL △	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

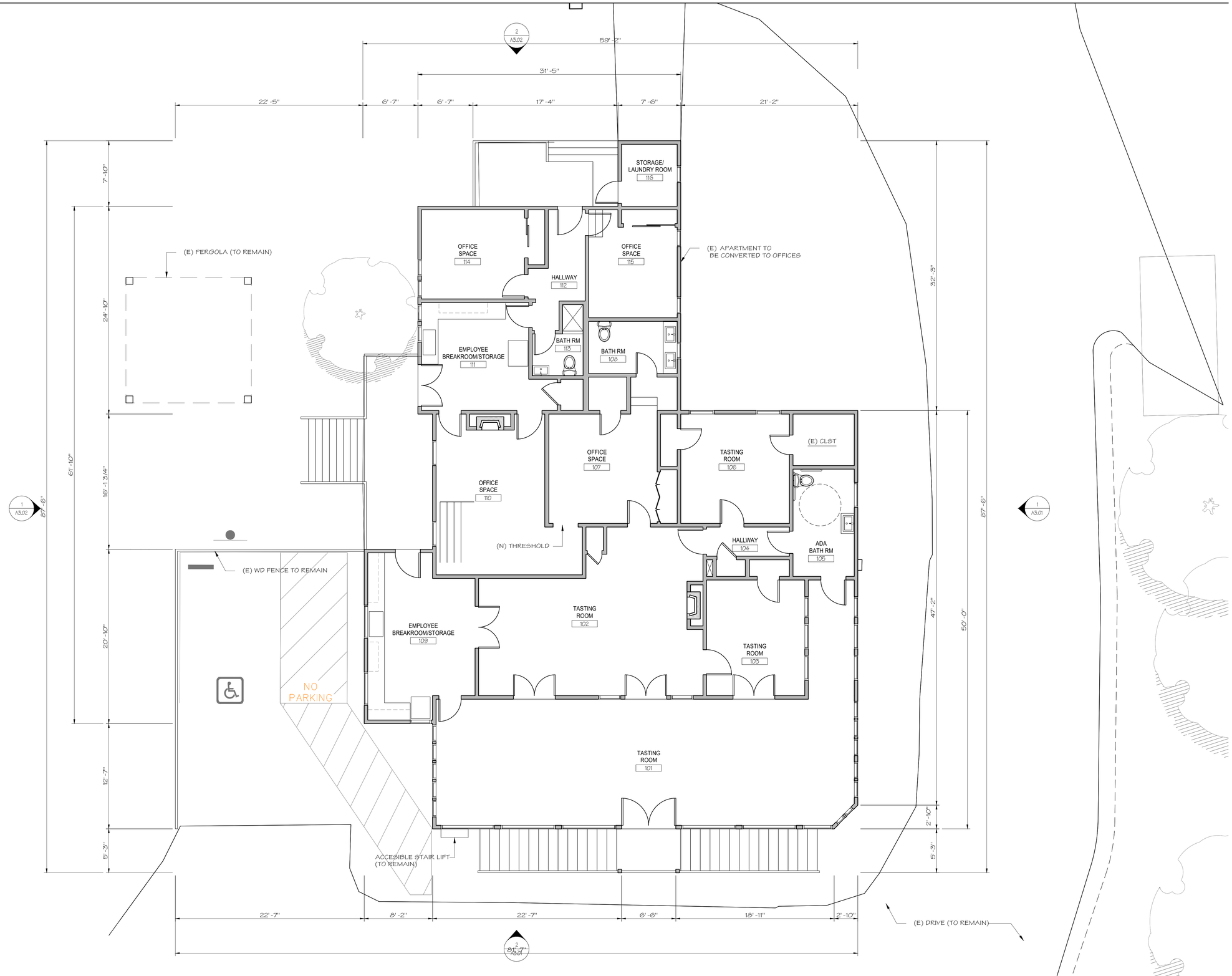
SHEET NAME

WINERY
FLOOR PLAN
EXISTING

SHEET NUMBER

A2.01 (E)

USE PERMIT



PROPOSED WINERY FLOOR PLAN 1

SCALE: 3/16" = 1'-0"

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USE PERMIT RESUBMITTAL	11/14/25

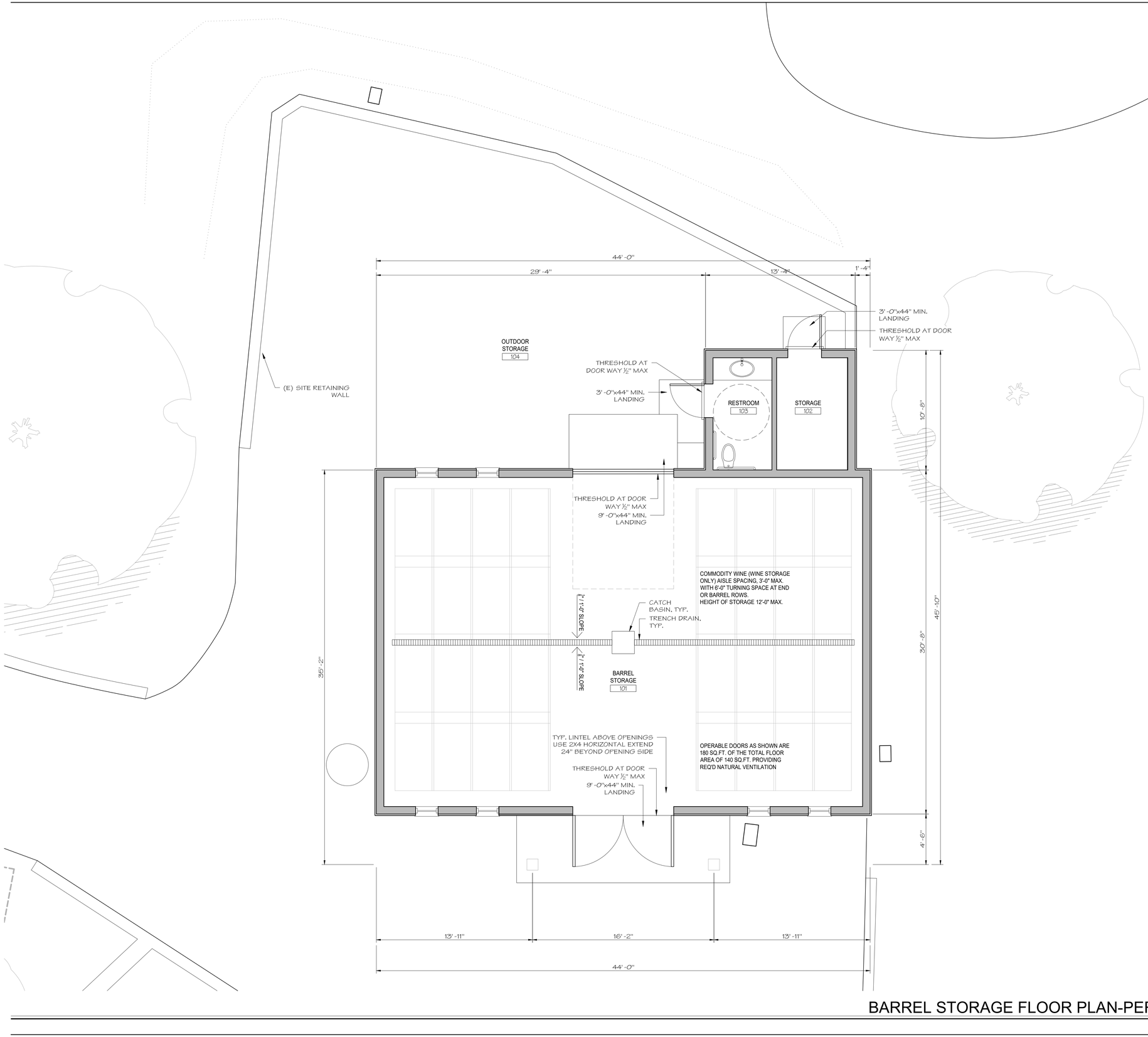
SHEET NAME

WINERY
FLOOR PLAN
PROPOSED

SHEET NUMBER

A2.01 (P)

USE PERMIT



North

BARREL STORAGE FLOOR PLAN-PER USE PERMIT #P08-00099

SCALE: 1/4" = 1'-0"

1

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

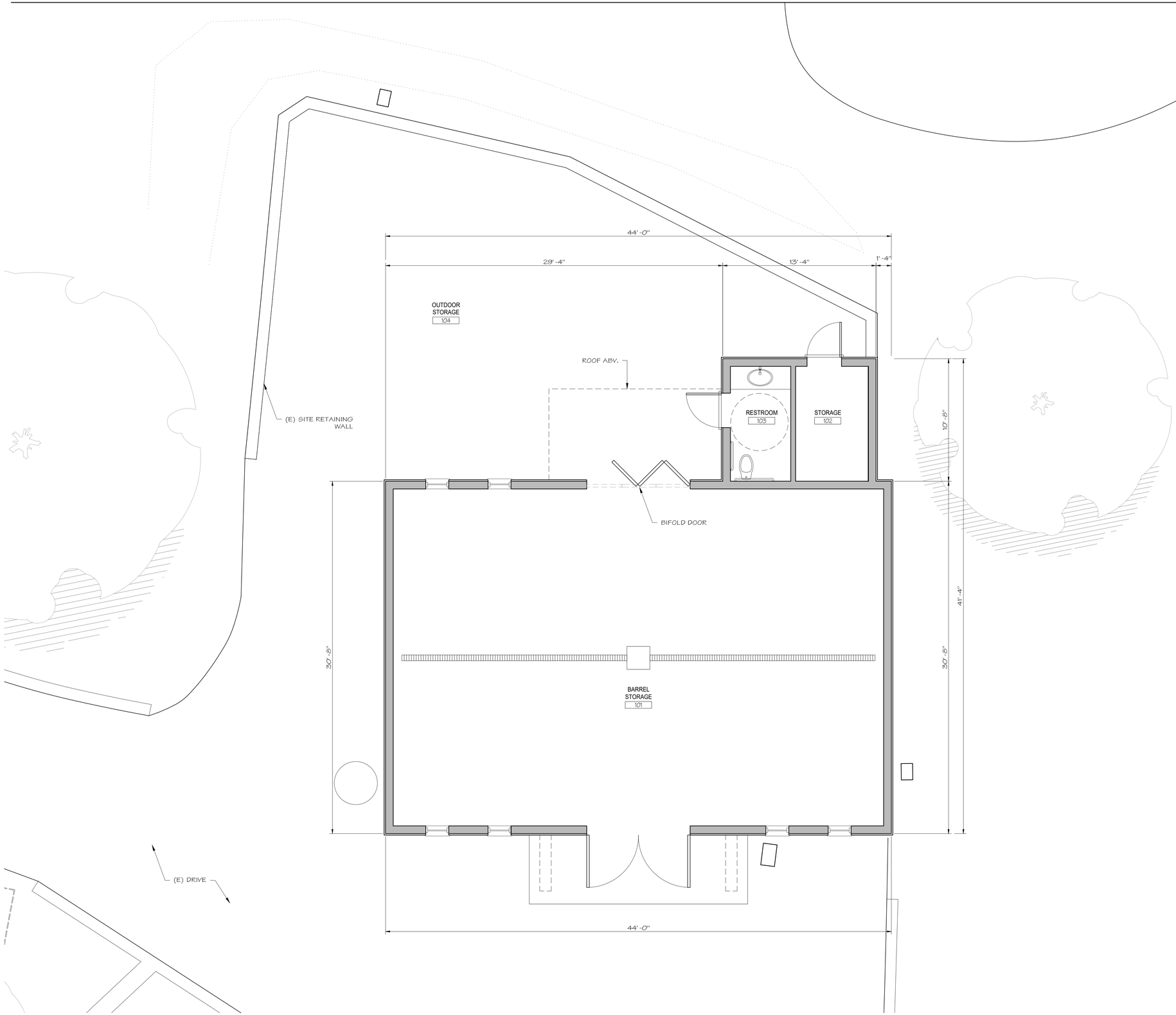
SHEET NAME

BARREL STORAGE FLOOR PLAN

SHEET NUMBER

A2.03 (UP)

USE PERMIT



EXISTING BARREL STORAGE FLOOR PLAN-AS PURCHASED IN 2017

SCALE: 1/4" = 1'-0"

1

North

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AXR NAPA VALLEY

3199 ST. HELENA HIGHWAY NORTH
ST. HELENA, CA 94574
APN 022-080-025

PROJECT NUMBER	2204
DATE	06/02/22
CHECKED BY	JC
DRAWN BY	JP/AR
SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

BARREL STORAGE FLOOR PLAN EXISTING

SHEET NUMBER

A2.03(E)

USE PERMIT

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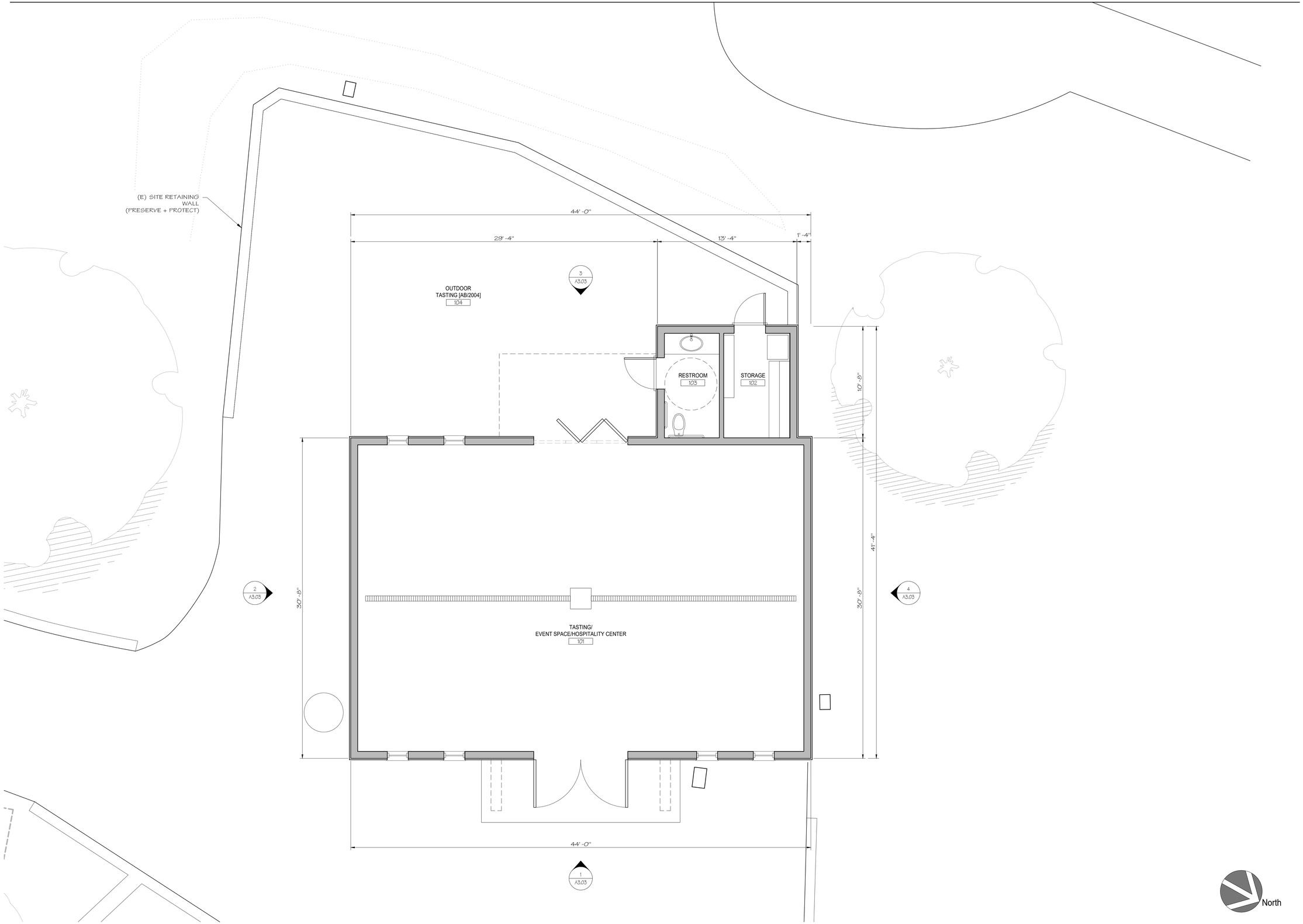

PROPOSED TASTING ROOM/HOSPITALITY CENTER FLOOR PLAN

SCALE: 1/4" = 1'-0"

1

JUANCARLOS FERNANDEZ
PROJECT DESIGNER

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SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

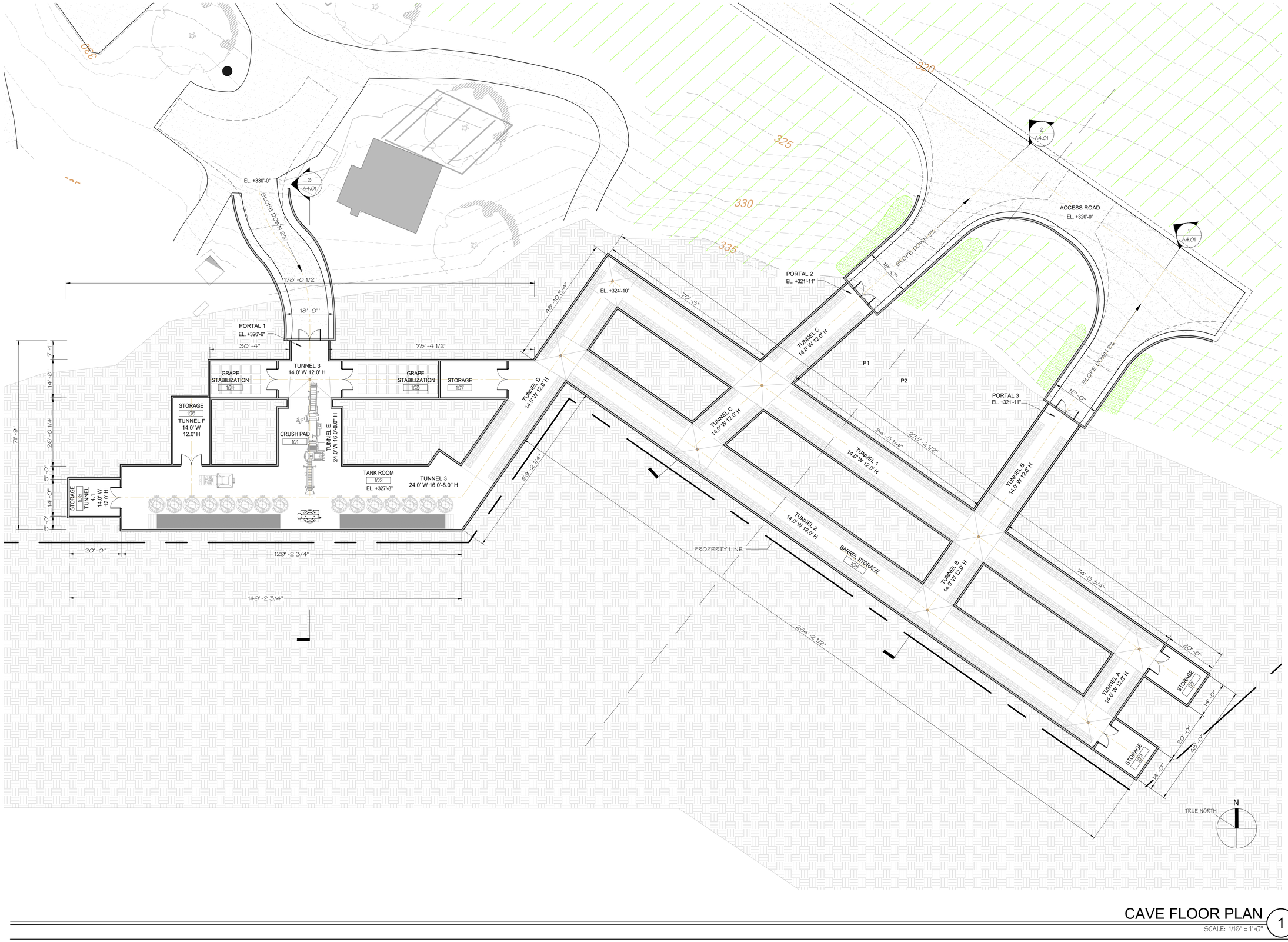
SHEET NAME

PROPOSED TASTING ROOM/ HOSPITALITY CENTER FLOOR PLAN

SHEET NUMBER

A2.03 (P)

USE PERMIT



CAVE FLOOR PLAN

SCALE: 1/16" = 1'-0"

1

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REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

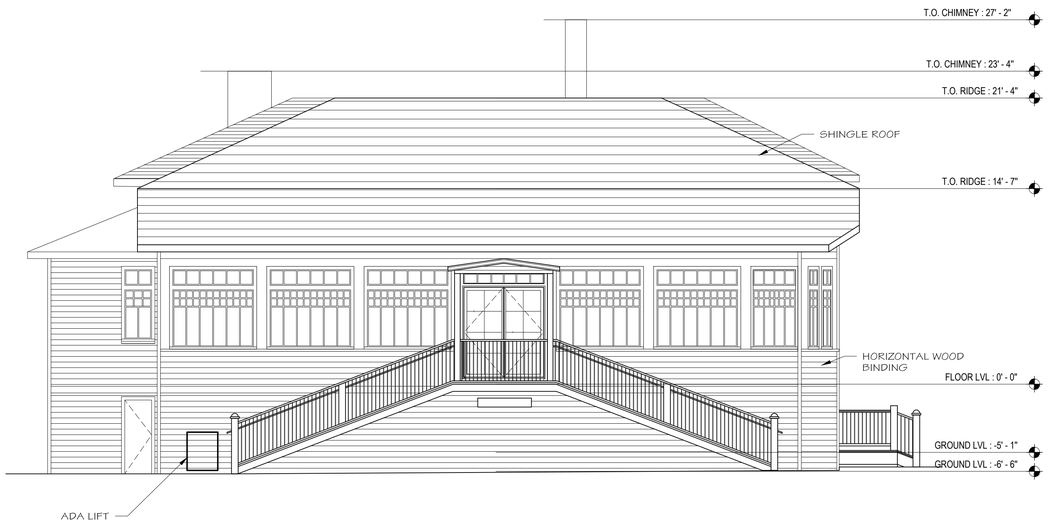
CAVE FLOOR PLAN

SHEET NUMBER

A2.11(P)

USE PERMIT

ELEVATIONS TO REMAIN AS EXISTING.
NO IMPROVEMENTS



EAST ELEVATION 2
SCALE: 3/16" = 1'-0"

NORTH ELEVATION 1
SCALE: 3/16" = 1'-0"

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SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

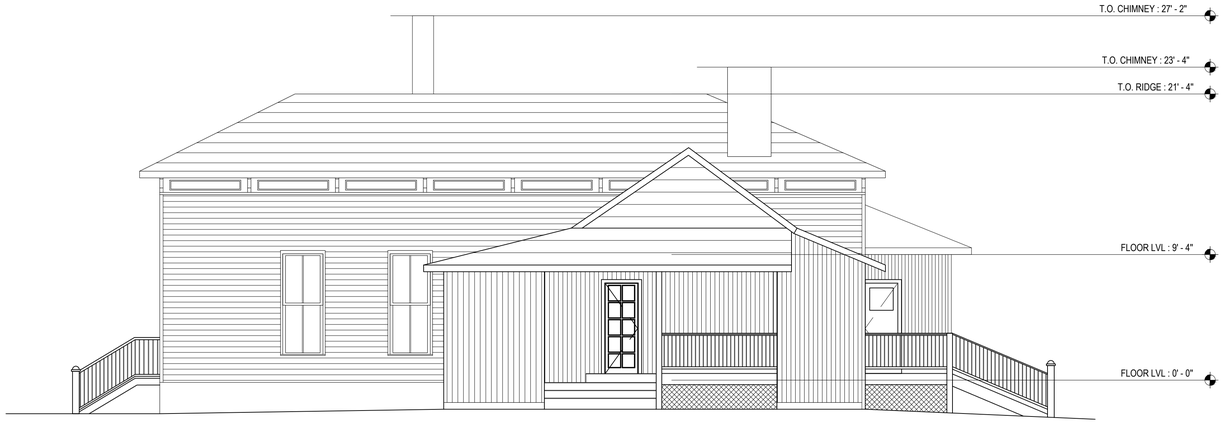
WINERY ELEVATIONS

SHEET NUMBER

A3.01

USE PERMIT

ELEVATIONS TO REMAIN AS EXISTING.
NO IMPROVEMENTS



WEST ELEVATION
SCALE: 3/16" = 1'-0"
2

SOUTH ELEVATION
SCALE: 3/16" = 1'-0"
1

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CHECKED BY	JC
DRAWN BY	JP/AR
SCALE	AS NOTED

REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

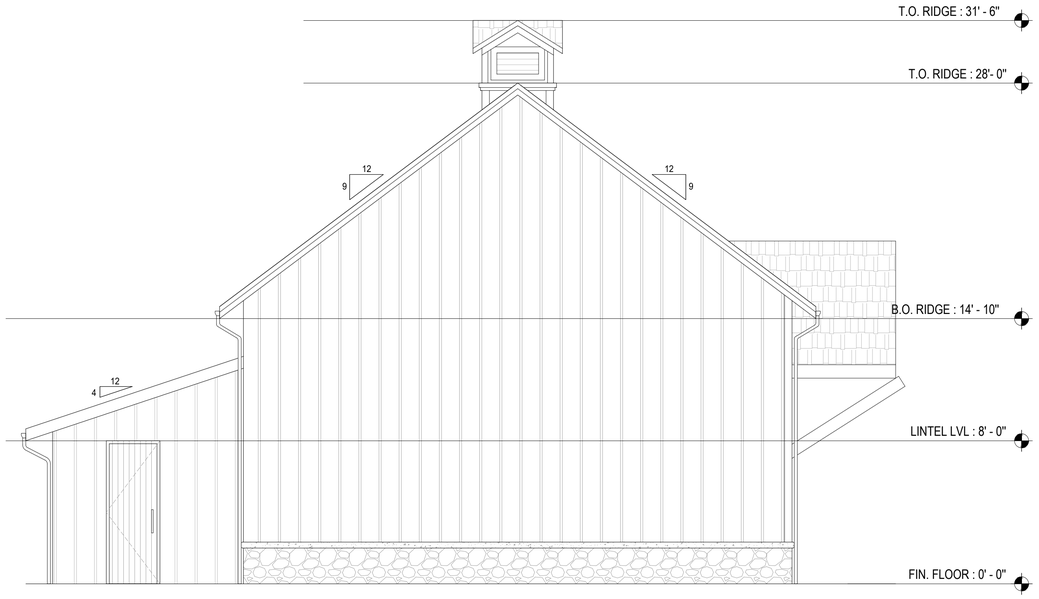
WINERY ELEVATIONS

SHEET NUMBER

A3.02

USE PERMIT

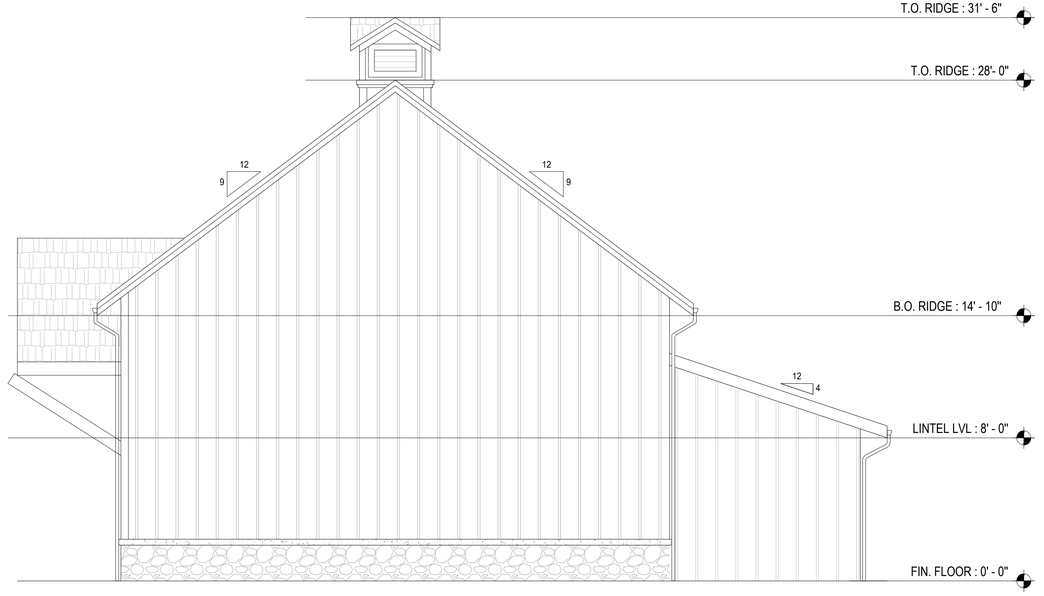
ELEVATIONS TO REMAIN AS EXISTING.
NO IMPROVEMENTS



SOUTH ELEVATION 2
SCALE: 1/4" = 1'-0"

WEST ELEVATION 3
SCALE: 1/4" = 1'-0"

EAST ELEVATION 1
SCALE: 1/4" = 1'-0"



NORTH ELEVATION 4
SCALE: 1/4" = 1'-0"

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SCALE	AS NOTED

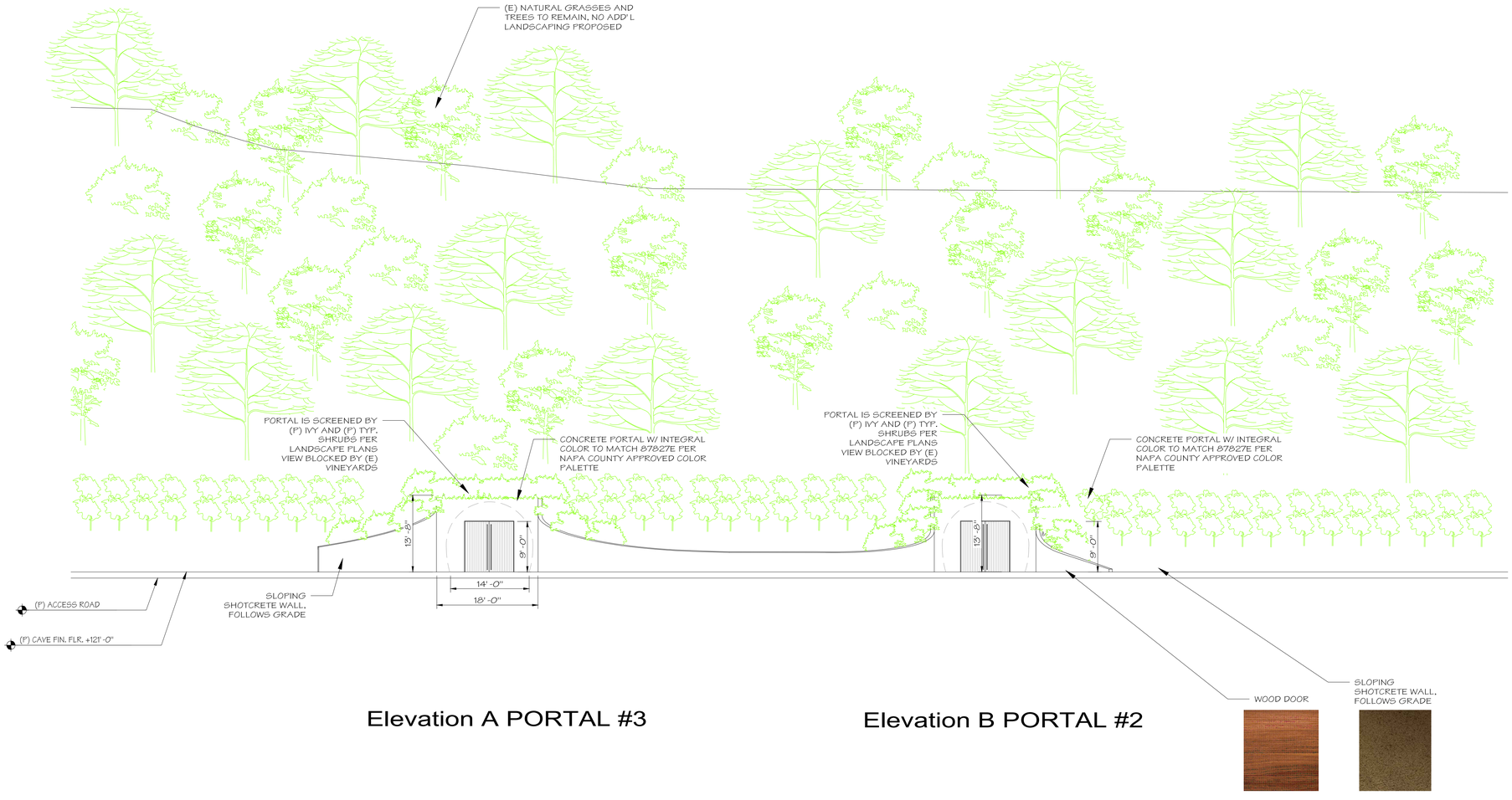
REVISIONS

USE PERMIT	04/07/23
USE PERMIT RESUBMITTAL 1	06/12/25
USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME
TASTING ROOM/ HOSPITALITY CENTER ELEVATIONS

SHEET NUMBER
A3.03

USE PERMIT



Elevation A PORTAL #3

Elevation B PORTAL #2

ELEVATIONS 1

SCALE: 3/32" = 1'-0"

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USE PERMIT RESUBMITTAL	11/14/25

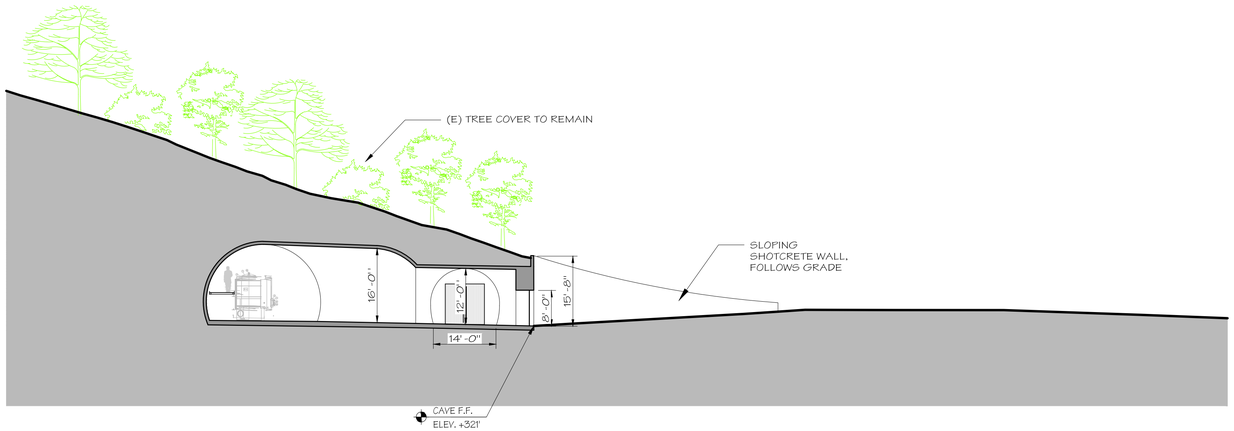
SHEET NAME

ELEVATIONS
CAVE PORTALS

SHEET NUMBER

A3.11

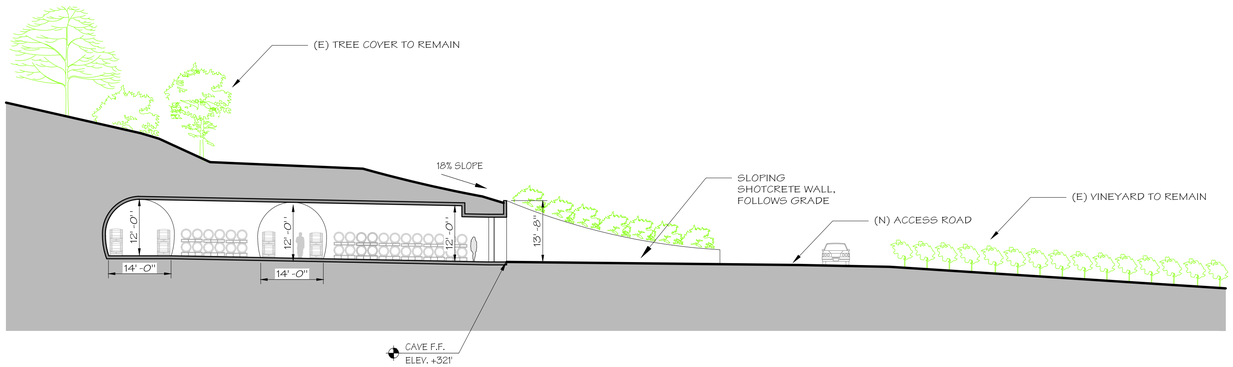
USE PERMIT



CAVE SECTION - PORTAL 1

SCALE: 1/32" = 1' -0"

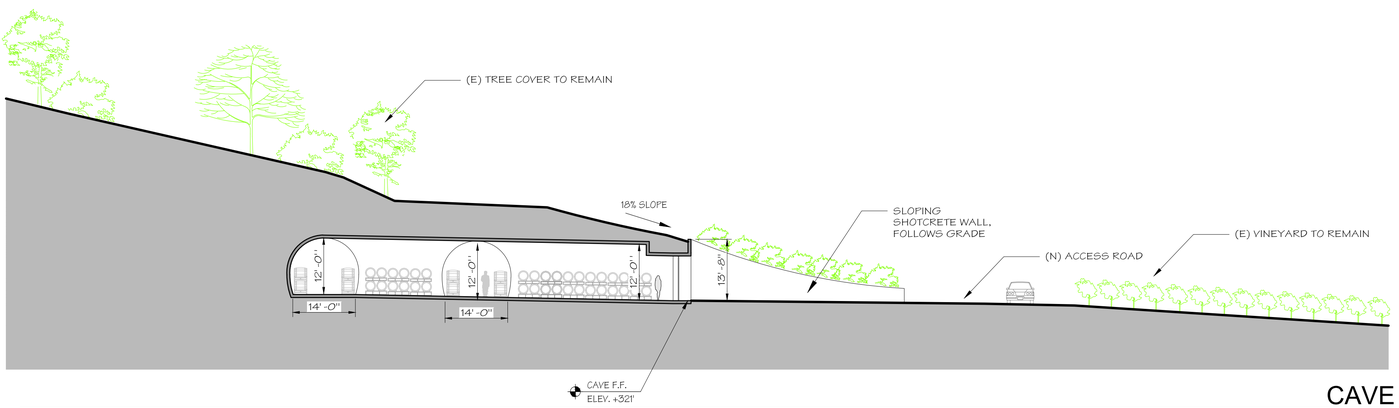
3



CAVE SECTION - PORTAL 2

SCALE: 1/32" = 1' -0"

2



CAVE SECTION - PORTAL 3

SCALE: 1/32" = 1' -0"

1

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REVISIONS

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USE PERMIT RESUBMITTAL	11/14/25

SHEET NAME

CAVE SECTIONS

SHEET NUMBER

A4.11

USE PERMIT

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OWNER:
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3199 SAINT HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574

APPLICANT:
SUMMIT ENGINEERING, INC.
575 W. COLLEGE AVENUE, SUITE 201
SANTA ROSA, CA 95401

0 30 60
GRAPHIC SCALE IN FEET

APN 022-080-026
APN 022-100-008
APN 022-080-025
APN 022-070-032
APN 022-080-013

(E) WALL, TYP
(E) BIKE PATH
(E) ROAD CENTERLINE
PROPOSED LEFT TURN LANE, USP
APPROXIMATE PROPERTY LINE
SAINT HELENA HIGHWAY
(E) SEPTIC TANK, SEE NOTE 7
(E) SEPTIC SYSTEM, SEE NOTE 7
62.5' FROM TOP OF BANK (SEE NOTE 13)
(E) GRAVEL PARKING STALLS
(E) COTTAGE #4
(E) PARKING STALLS
(E) FH
(E) EV CHARGING STATION
5' SETBACK FROM SEPTIC SYSTEM
HATCH REPRESENTS LIMITS OF NEW GRAVEL WIDENING TO MEET NAPA COUNTY ROAD & STREET STANDARDS, TYP
REMOVE (E) TREE, TYP OF 2.
R50.0'
218.6'
75' DECELERATION LANE
(E) ABANDONED WELL SEE NOTE 12
R20.0' (SEE NOTE 1)
(E) ABANDONED WELL, SEE NOTE 9
PROPOSED AB2004 OUTDOOR TASTING AREA
EMERGENCY ACCESS SIGN, SEE NOTE 10
(E) WINERY
(E) PARKING STALLS TO BE REMOVED
(E) WELL, DESTROYED UNDER PERMIT E07-00318
65' CREEK SETBACK
(E) BARREL STORAGE, TO BE CONVERTED TO HOSPITALITY
(E) COTTAGE #7
(E) APARTMENT TO BE CONVERTED TO WINERY OFFICES
(E) GREASE INTERCEPTOR
(E) PUMP TANK
(E) ADA PARKING
(E) SEPTIC TANK, SEE NOTE 6
(E) ABANDONED SEPTIC SYSTEM
(E) OUTDOOR STORAGE AREA, PROPOSED TO BE USED FORAB2004 OUTDOOR TASTING AREA
MAIN WINERY SS TANKS, SEE NOTE 8
FDC ON ASR
(E) 14.2' WIDTH SEE NOTE 5
(E) VINEYARD, TYP
APPROXIMATE LOCATION OF 2004 SOIL TEST PIT, TYP OF 4
90.0' SETBACK
(SEE NOTE 3)
20.0' PROPERTY LINE SETBACK
(E) ASPHALT ACCESS ROAD
28.0' ROAD SETBACK
20.5' ROAD SETBACK
HIRSCH CREEK
(E) PARKING STALL
PROPOSED AB2004 OUTDOOR TASTING AREA
FH (SEE NOTE 4)
FDC
(E) WATER TREATMENT SHED
(E) ABANDONED SEPTIC SYSTEM
PROPOSED ACCESS ROAD, TYP
(E) EMPLOYEE PARKING STALLS
(E) WATER STORAGE TANKS
PROPOSED FIRE PUMP HOUSE
28.1' ROAD SETBACK
28.3' ROAD SETBACK
CV
PIV
(E) COTTAGE #8
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
(E) AG ACCESS ROAD
PROPOSED CAVE, SAD
PORTAL #1
PORTAL #2
PORTAL #3
CAVE PORTAL, TYP OF 3 (SEE NOTE 2)
(SEE NOTE 2)
102.5'
96.1'
325.5'
(E) FIRE WATER TANKS TO BE REPLACED WITH 10,500 GAL CONCRETE TANKS (5 TOTAL)
100' WELL SETBACK
(E) WELL
100.0'
(E) WELL, APPROXIMATE LOCATION BASED ON INFORMATION IN NAPA COUNTY ONLINE ELECTRONIC DATABASE
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
(E) IRRIGATION TANKS
PROPOSED HOLD AND HAUL TANK SEE NOTE 11
PROPOSED PW TREATMENT SYSTEM, SEE NOTE 11
APPROXIMATE (E) LEACHFIELD, SEE NOTE 8
50-FT EFFECTIVE TEST PIT RADIUS, TYP OF 4
SEE SHEET UP2

NOTES:
1. ENTRANCE GEOMETRY COMPLIES WITH APPLICABLE REQUIREMENTS FROM THE NAPA COUNTY ROAD & STREET STANDARDS AND CALTRANS DESIGN REQUIREMENTS.
2. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING AT CAVE PORTALS.
3. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING ALONG HIGHWAY 29.
4. FIRE HYDRANT TO BE COMPLIANT WITH CALIFORNIA FIRE CODE SECTION 507, APPENDIX B, AND APPENDIX C.
5. ROAD IS PROPOSED FOR FIRE EMERGENCY ACCESS ONLY.
6. THE EXISTING WINERY KITCHEN IS THE ONLY SOURCE OF WASTEWATER THAT IS CONNECTED TO THIS TANK. WASTEWATER FROM THE TANK IS PUMPED INTERMITTENTLY AND HAULED OFFSITE FOR DISPOSAL. THERE IS NO CONNECTION TO A LEACHFIELD FROM THIS TANK.
7. SEPTIC SYSTEM ONLY SERVES COTTAGE #4.
8. SS FROM COTTAGE #7, COTTAGE #8, BARN AND WINERY ALL FLOW TO MAIN SS TANKS AND TO MAIN LEACHFIELD FOR DISPOSAL.
9. WELL DEMOLITION PERMIT TO BE OBTAINED THROUGH NAPA COUNTY FOR DESTRUCTION OF THIS WELL
10. SIGNAGE WILL BE PROVIDED TO INDICATE ONLY EMERGENCY VEHICLES ARE PERMITTED BEYOND THIS POINT. THE ROADWAY WILL BE CLEARLY DELINEATED AS FIRE ACCESS ONLY. THE DETAILS OF FIRE ACCESS SIGNAGE AND DELINEATION WILL BE COORDINATED WITH NAPA COUNTY DURING SUBSEQUENT PHASES OF DESIGN.
11. WINERY PROPOSES TO INSTALL EITHER A PW HOLD-AND-HAUL TANK OR AN ONSITE PW TREATMENT SYSTEM. REFER TO WASTEWATER FEASIBILITY STUDY FOR ADDITIONAL DETAILS.
12. WELL IS PROPOSED TO REMAIN AS A BACKUP WELL IN ACCORDANCE WITH NAPA COUNTY MUNICIPAL CODE SECTION 13.12.460.B, OR BE DESTROYED WITH ACQUISITION OF WELL DEMOLITION PERMIT FROM NAPA COUNTY.
13. THE SETBACK OF 62.5' INDICATED ON THE PLAN EXCEEDS THE REQUIRED STREAM SETBACK OF 55' BASED ON SLOPES OF 5% TO 15% PER NAPA COUNTY MUNICIPAL CODE SECTION 18.108.025.
14. EXISTING PARKING REFLECTS CONDITION OF SITE AS-PURCHASED IN 2017. SAD FOR DETAILS.

PARKING TABLE

NUMBER	TYPE
17	STANDARD WINERY SPACES
3	(E) STANDARD RESIDENTIAL SPACES
1	VAN ACCESSIBLE SPACE
21	**TOTAL SPACES**

ABBREVIATIONS:

AC	ASPHALT CONCRETE	FH	FIRE HYDRANT
AD	AREA DRAIN	GB	GRADE BREAK
APN	ASSESSOR'S PARCEL NUMBER	LIDF	LOW IMPACT DEVELOPMENT FACILITY
ASR	AUTOMATIC SPRINKLER RISER	LL	LOWER LEVEL
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION	PD	PLANTER DRAIN
		PIP	PROTECT IN PLACE
BFE	BASE FLOOD ELEVATION	PIV	POST INDICATOR VALVE
BLDG	BUILDING	PW	PROCESS WASTE
℄	CENTERLINE	SAD	SEE ARCHITECTURAL DRAWINGS
CONC	CONCRETE	SB	SETBACK
CV	CONTROL VALVE	SD	STORM DRAIN
DI	DRAIN INLET	SS	SANITARY SEWAGE
DMA	DRAINAGE MANAGEMENT AREA	SRA	SELF RETAINING AREA
DS	DOWNSPOUT	STD	STANDARD
DG	DECOMPOSED GRANITE	TD	TRENCH DRAIN
(E)	EXISTING	TI	TRAFFIC INDEX
FDC	FIRE DEPARTMENT CONNECTION	TYP	TYPICAL
FF	FINISH FLOOR	UL	UPPER LEVEL

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SAINT HELENA, CA 94574
APN 022-080-025

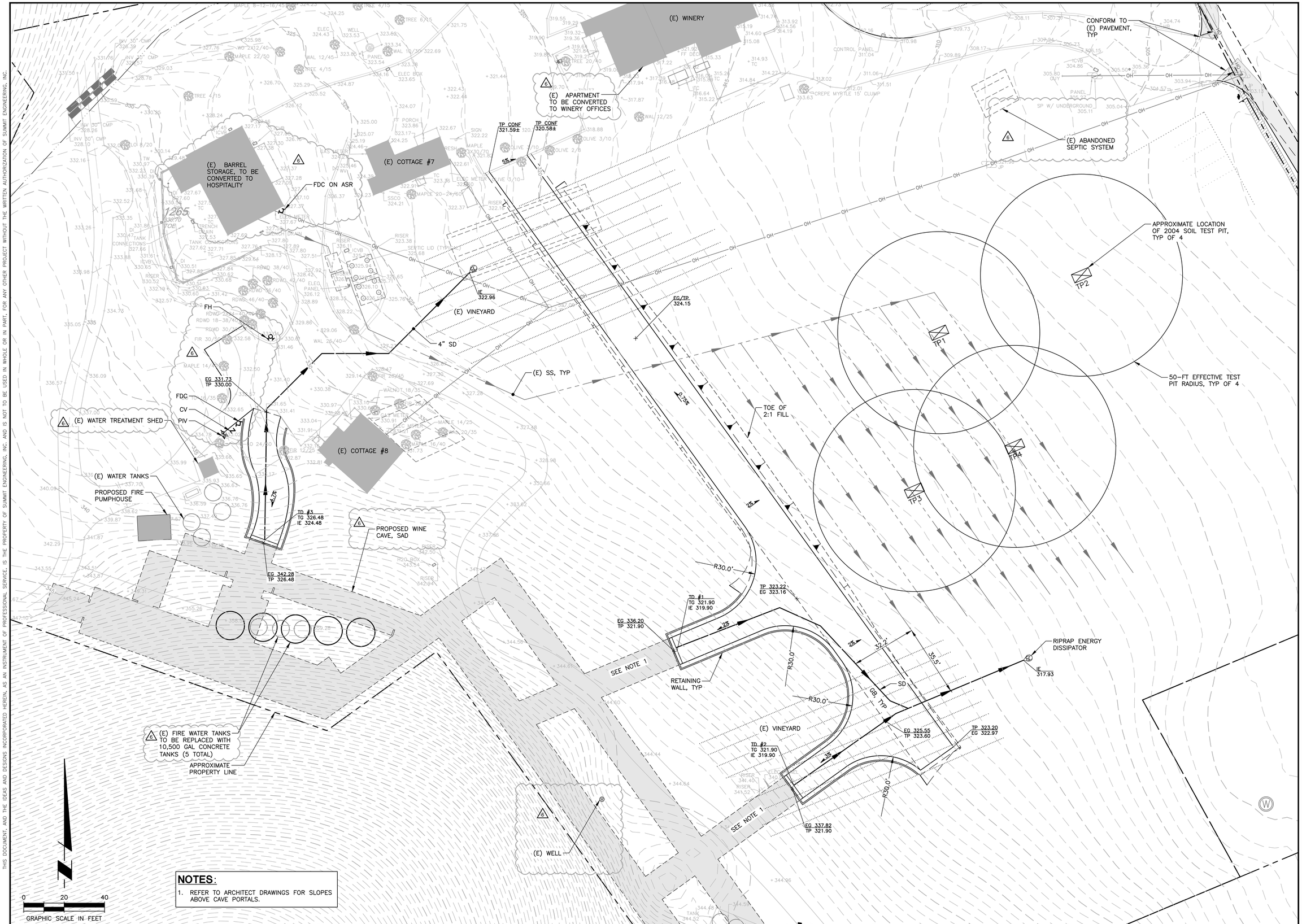
USE PERMIT MODIFICATION

OVERALL SITE PLAN

2023-04-13	USE PERMIT RESUBMITTAL
2023-12-11	USE PERMIT RESUBMITTAL
3 2024-03-19	USE PERMIT RESUBMITTAL
4 2024-07-25	USE PERMIT RESUBMITTAL
5 2025-06-12	USE PERMIT RESUBMITTAL
6 2025-11-14	USE PERMIT RESUBMITTAL

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS

SHEET UP1
1OF 5



NOTES:

1. REFER TO ARCHITECT DRAWINGS FOR SLOPES ABOVE CAVE PORTALS.

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3199 ST HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574
APN 022-080-025

USE PERMIT MODIFICATION

PERLIMINARY GRADING & DRAINAGE PLAN

	2023-04-13 USE PERMIT RESUBMITTAL
	2023-12-11 USE PERMIT RESUBMITTAL
3	2024-03-19 USE PERMIT RESUBMITTAL
4	2024-07-25 USE PERMIT RESUBMITTAL
5	2025-06-12 USE PERMIT RESUBMITTAL
6	2025-11-14 USE PERMIT RESUBMITTAL

DATE:	2024-03-19
JOB NO:	2021183
SCALE:	AS SHOWN
DRAWN:	JH
CHECKED:	TCS
SHEET	UP2

2 OF 5

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LEGEND:

- IMPERVIOUS SURFACING (DMA)
- SELF-RETAINING AREA (SRA)
- STORM DRAIN PIPE (6)

0 30 60

GRAPHIC SCALE IN FEET

SRA #3
332 SF

DMA 3
662 SF

SRA 1
96,432 SF

SRA #2
2127 SF

DMA 2
933 SF

DMA 1
9,889 SF

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AXR NAPA VALLEY
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SAINT HELENA, CA 94574
APN 022-080-025

USE PERMIT MODIFICATION

PRELIMINARY STORMWATER CONTROL PLAN

	2023-04-13 USE PERMIT RESUBMITTAL
	2023-12-11 USE PERMIT RESUBMITTAL
4	2024-03-19 USE PERMIT RESUBMITTAL
4	2024-07-25 USE PERMIT RESUBMITTAL
5	2025-06-12 USE PERMIT RESUBMITTAL
6	2025-11-14 USE PERMIT RESUBMITTAL

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS

SHEET UP3
3 OF 5

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0 30 60
GRAPHIC SCALE IN FEET

(E) COTTAGE #4
(E) WINERY
(E) BARREL STORAGE TO BE CONVERTED TO HOSPITALITY
(E) COTTAGE #7
(E) APARTMENT TO BE CONVERTED TO WINERY OFFICES
(E) COTTAGE #8

EXISTING CONDITIONS

PARCEL SIZE:

PARCEL SIZE = 7.85 ± ACRES

WINERY COVERAGE AREA:

WINERY COVERAGE AREA
= 34,862 SF (0.80 ACRES)

0.80 ACRES/7.85 ACRES = **10%** < 25% OR 0.80 ACRES < 15 ACRES (WHICHEVER IS LESS)

WINERY COVERAGE AREA – THE TOTAL SQUARE FOOT AREA OF ALL WINERY BUILDING FOOTPRINTS, ALL AGGREGATE PAVED OR IMPERVIOUS GROUND SURFACE AREAS OF THE PRODUCTION FACILITY WHICH INCLUDES ALL OUTSIDE WORK, TANK AND STORAGE AREAS (EXCEPT CAVES); ALL PAVED AREAS INCLUDING PARKING AND LOADING AREAS, WALKWAYS AND ACCESS DRIVEWAYS TO PUBLIC OR PRIVATE ROADS OR RIGHTS–OF–WAY; AND ALL ABOVE–GROUND WASTEWATER AND RUN–OFF TREATMENT SYSTEMS. SEE NAPA CODE S18.104.220

WINERY DEVELOPEMENT AREA:

WINERY DEVELOPMENT AREA
= 4306 SF (0.10 ACRES)

WINERY DEVELOPMENT AREA – ALL AGGREGATE PAVED OR IMPERVIOUS OR SEMI–PERMEABLE GROUND SURFACE AREAS OF THE PRODUCTION FACILITY WHICH INCLUDES ALL STORAGE AREAS (EXCEPT CAVES), OFFICES, LABORATORIES, KITCHENS, TASTING ROOMS AND PAVED PARKING AREAS FOR THE EXCLUSIVE USE OF WINERY EMPLOYEES. SEE NAPA COUNTY CODE S18.104.210

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APN 022-080-025

USE PERMIT MODIFICATION

EXISTING WINERY COVERAGE AND DEVELOPMENT AREAS

	2023-04-13 USE PERMIT RESUBMITTAL
	2023-12-11 USE PERMIT RESUBMITTAL
3	2024-03-19 USE PERMIT RESUBMITTAL
4	2024-07-25 USE PERMIT RESUBMITTAL
5	2025-06-12 USE PERMIT RESUBMITTAL
6	2025-11-14 USE PERMIT RESUBMITTAL

DATE: 2024-03-19
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: JH
CHECKED: TCS

SHEET
UP4A
4 OF 5

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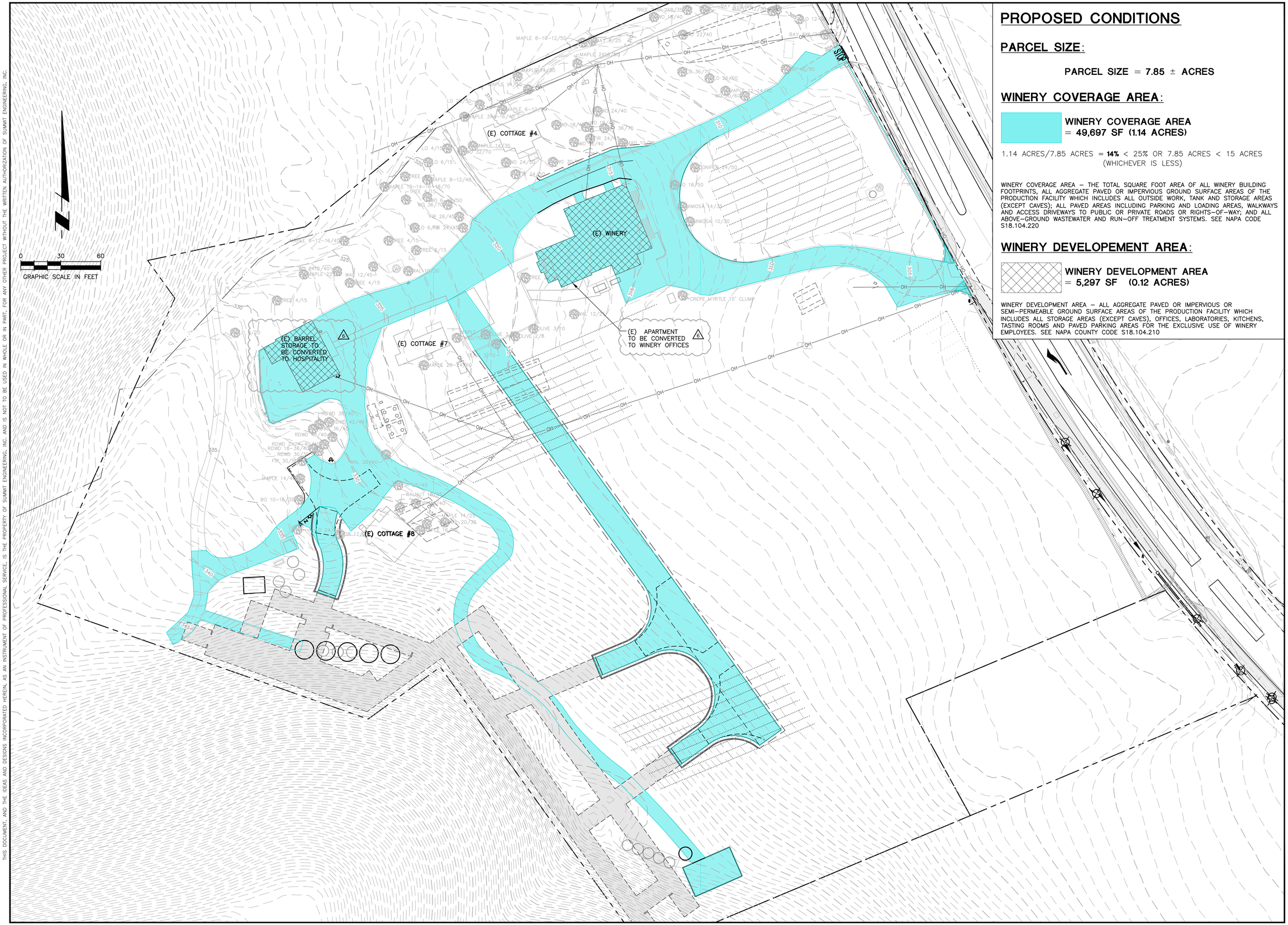

PROPOSED CONDITIONS

PARCEL SIZE:

PARCEL SIZE = 7.85 ± ACRES

WINERY COVERAGE AREA:

WINERY COVERAGE AREA
= 49,697 SF (1.14 ACRES)

1.14 ACRES/7.85 ACRES = **14%** < 25% OR 7.85 ACRES < 15 ACRES (WHICHEVER IS LESS)

WINERY COVERAGE AREA – THE TOTAL SQUARE FOOT AREA OF ALL WINERY BUILDING FOOTPRINTS, ALL AGGREGATE PAVED OR IMPERVIOUS GROUND SURFACE AREAS OF THE PRODUCTION FACILITY WHICH INCLUDES ALL OUTSIDE WORK, TANK AND STORAGE AREAS (EXCEPT CAVES); ALL PAVED AREAS INCLUDING PARKING AND LOADING AREAS, WALKWAYS AND ACCESS DRIVEWAYS TO PUBLIC OR PRIVATE ROADS OR RIGHTS–OF–WAY; AND ALL ABOVE–GROUND WASTEWATER AND RUN–OFF TREATMENT SYSTEMS. SEE NAPA CODE S18.104.220

WINERY DEVELOPEMENT AREA:

WINERY DEVELOPMENT AREA
= 5,297 SF (0.12 ACRES)

WINERY DEVELOPMENT AREA – ALL AGGREGATE PAVED OR IMPERVIOUS OR SEMI–PERMEABLE GROUND SURFACE AREAS OF THE PRODUCTION FACILITY WHICH INCLUDES ALL STORAGE AREAS (EXCEPT CAVES), OFFICES, LABORATORIES, KITCHENS, TASTING ROOMS AND PAVED PARKING AREAS FOR THE EXCLUSIVE USE OF WINERY EMPLOYEES. SEE NAPA COUNTY CODE S18.104.210

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USE PERMIT MODIFICATION

PROPOSED WINERY COVERAGE AND DEVELOPMENT AREAS

	2023–04–13 USE PERMIT RESUBMITTAL
	2023–12–11 USE PERMIT RESUBMITTAL
3	2024–03–19 USE PERMIT RESUBMITTAL
4	2024–07–25 USE PERMIT RESUBMITTAL
5	2025–06–12 USE PERMIT RESUBMITTAL
6	2025–11–14 USE PERMIT RESUBMITTAL

DATE: 2024–03–19
JOB NO: 2021183
SCALE: AS SHOWN
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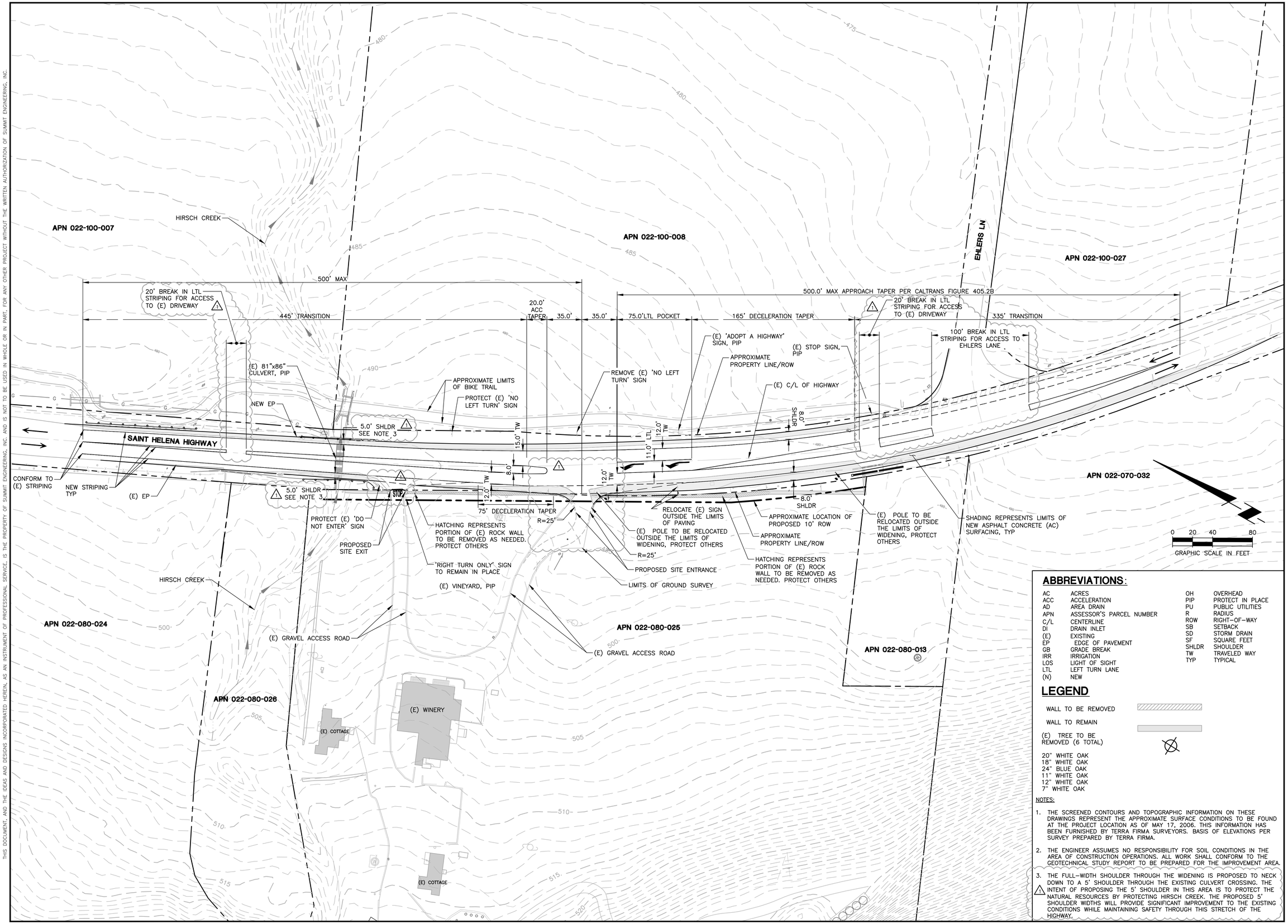
SHEET **UP4B**
5 OF 5



ABBREVIATIONS:

AC	ACRES	OH	OVERHEAD
ACC	ACCELERATION	PIP	PROTECT IN PLACE
AD	AREA DRAIN	PU	PUBLIC UTILITIES
APN	ASSESSOR'S PARCEL NUMBER	R	RADIUS
C/L	CENTERLINE	ROW	RIGHT-OF-WAY
DI	DRAIN INLET	SB	SETBACK
(E)	EXISTING	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
GB	GRADE BREAK	SHLDR	SHOULDER
IRR	IRRIGATION	TW	TRAVELED WAY
LOS	LIGHT OF SIGHT	TYP	TYPICAL
LTL	LEFT TURN LANE		
(N)	NEW		

LEGEND

WALL TO BE REMOVED

WALL TO REMAIN

(E) TREE TO BE REMOVED (6 TOTAL)

20" WHITE OAK
18" WHITE OAK
24" BLUE OAK
11" WHITE OAK
12" WHITE OAK
7" WHITE OAK

NOTES:

1. THE SCREENED CONTOURS AND TOPOGRAPHIC INFORMATION ON THESE DRAWINGS REPRESENT THE APPROXIMATE SURFACE CONDITIONS TO BE FOUND AT THE PROJECT LOCATION AS OF MAY 17, 2006. THIS INFORMATION HAS BEEN FURNISHED BY TERRA FIRMA SURVEYORS. BASIS OF ELEVATIONS PER SURVEY PREPARED BY TERRA FIRMA.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR SOIL CONDITIONS IN THE AREA OF CONSTRUCTION OPERATIONS. ALL WORK SHALL CONFORM TO THE GEOTECHNICAL STUDY REPORT TO BE PREPARED FOR THE IMPROVEMENT AREA.
3. ⚠1 THE FULL-WIDTH SHOULDER THROUGH THE WIDENING IS PROPOSED TO NECK DOWN TO A 5' SHOULDER THROUGH THE EXISTING CULVERT CROSSING. THE INTENT OF PROPOSING THE 5' SHOULDER IN THIS AREA IS TO PROTECT THE NATURAL RESOURCES BY PROTECTING HIRSCH CREEK. THE PROPOSED 5' SHOULDER WIDTHS WILL PROVIDE SIGNIFICANT IMPROVEMENT TO THE EXISTING CONDITIONS WHILE MAINTAINING SAFETY THROUGH THIS STRETCH OF THE HIGHWAY.

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APN 022-080-025

LEFT TURN LANE CONCEPT

PRELIMINARY LAYOUT PLAN
STRIPING AND SIGNAGE PLAN

2/11/25	ISSUED FOR CLIENT REVIEW
4/03/25	ISSUED FOR CLIENT REVIEW
6/12/25	PLAN CHECK RESPONSE

DATE: 2025-02-13
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: BV
CHECKED: MS
SHEET C1 1OF 3

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HIRSCH CREEK

SHADING REPRESENTS LIMITS OF NEW ASPHALT CONCRETE SURFACING, TYP

RELOCATE (E) GUARDRAIL OUTSIDE NEW EDGE OF PAVEMENT

(E) POWER POLE PIP

APPROXIMATE LIMITS OF BIKE TRAIL

APPROXIMATE ROW, TYP

CONFORM TO EXISTING

RESET (E) MH TO FINISHED GRADE

EDGE OF PAVED SHOULDER, TYP

RELOCATE (E) GUARDRAIL OUTSIDE NEW EDGE OF PAVEMENT

APPROXIMATE PROPERTY LINE/ROW

REMOVE (E) 'NO LEFT TURN' SIGN

PROTECT (E) 'NO LEFT TURN' SIGN

STOP LINE MARKING AND SIGNAGE

(E) POWER POLE, PIP

MATCHLINE SEE BELOW LEFT

CONFORM TO (E) STRIPING

12.0' TW

5.0' SHLDR

(E) CENTERLINE, TYP

NEW STRIPING TYP

SAINT HELENA HIGHWAY

8.0'

(E) FENCE, PIP

CONFORM TO EXISTING

EDGE OF PAVED SHOULDER, TYP

CONFORM TO (E)

(E) 18" CULVERT, PIP

RELOCATE (E) GUARDRAIL OUTSIDE NEW EDGE OF PAVEMENT

(E) CULVERT TO REMAIN, PIP

(E) ROCK WALL, PIP

PROTECT (E) 'DO NOT ENTER' SIGN

(E) POWER POLE PIP

(E) DRIVEWAY PIP

STOP

PROTECT (E) 'RIGHT ONLY' SIGN

HATCHING REPRESENTS LIMITS OF (E) ROCK WALL TO BE REMOVED AS NEEDED. PROTECT OTHERS

SHADING REPRESENTS LIMITS OF NEW ASPHALT CONCRETE SURFACING, TYP

REMOVE (E) 'NO LEFT TURN' SIGN

RELOCATE (E) LIGHT POST OUTSIDE THE LIMITS OF WIDENING

RELOCATE (E) ADDRESS SIGN

(E) POLE TO BE RELOCATED OUTSIDE THE LIMITS OF WIDENING

0 20 40

GRAPHIC SCALE IN FEET

MATCHLINE SEE ABOVE RIGHT

(E) 'ADOPT A HIGHWAY' SIGN, PIP

SHADING REPRESENTS APPROXIMATE LIMITS OF NEW ASPHALT CONCRETE SURFACING, TYP

APPROXIMATE LIMITS OF BIKE TRAIL, PIP

(E) POLE, PIP

PROTECT ALL UTILITY FEATURES IN PLACE, TYP

(E) STOP SIGN, PIP

CONFORM TO EXISTING

EHLERS LN

SAINT HELENA HIGHWAY

8.0' SHLDR

12.0' TW

11.0' LTL

REMOVE (E) TREE TYP OF 6, PROTECT ALL OTHERS

RELOCATE (E) SIGN OUTSIDE THE LIMITS OF PAVING

HATCHING REPRESENTS LIMITS OF (E) ROCK WALL TO BE REMOVED AS NEEDED. PROTECT OTHERS

(E) POLE TO BE RELOCATED

(E) SWALE TO BE REGRADED

DRAIN INLET

CONFORM TO EXISTING

INSTALL (N) 12" CULVERT

(E) 12" CULVERT TO BE REMOVED

CONFORM TO EXISTING

(E) SWALE TO BE REGRADED

(E) POLE, PIP

(E) CENTERLINE

APPROXIMATE ROW, TYP

EDGE OF TRAVELED WAY, TYP

EDGE OF PAVED SHOULDER, TYP

NEW STRIPING, TYP

SHADING REPRESENTS LIMITS OF NEW ASPHALT CONCRETE SURFACING, TYP

CONFORM TO (E) STRIPING

CONFORM TO EXISTING

CONFORM TO EXISTING

0 20 40

GRAPHIC SCALE IN FEET

LEGEND

WALL TO BE REMOVED

WALL TO REMAIN

(E) TREE TO BE REMOVED (6 TOTAL)

20" WHITE OAK
18" WHITE OAK
24" BLUE OAK
11" WHITE OAK
12" WHITE OAK
7" WHITE OAK

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APN 022-080-025

LEFT TURN LANE CONCEPT

PRELIMINARY GRADING & DRAINAGE PLAN

2/11/25	ISSUED FOR CLIENT REVIEW
4/03/25	ISSUED FOR CLIENT REVIEW
6/12/25	PLAN CHECK RESPONSE

DATE: 2025-002-13
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: BV
CHECKED: MS

SHEET C2
2 OF 3

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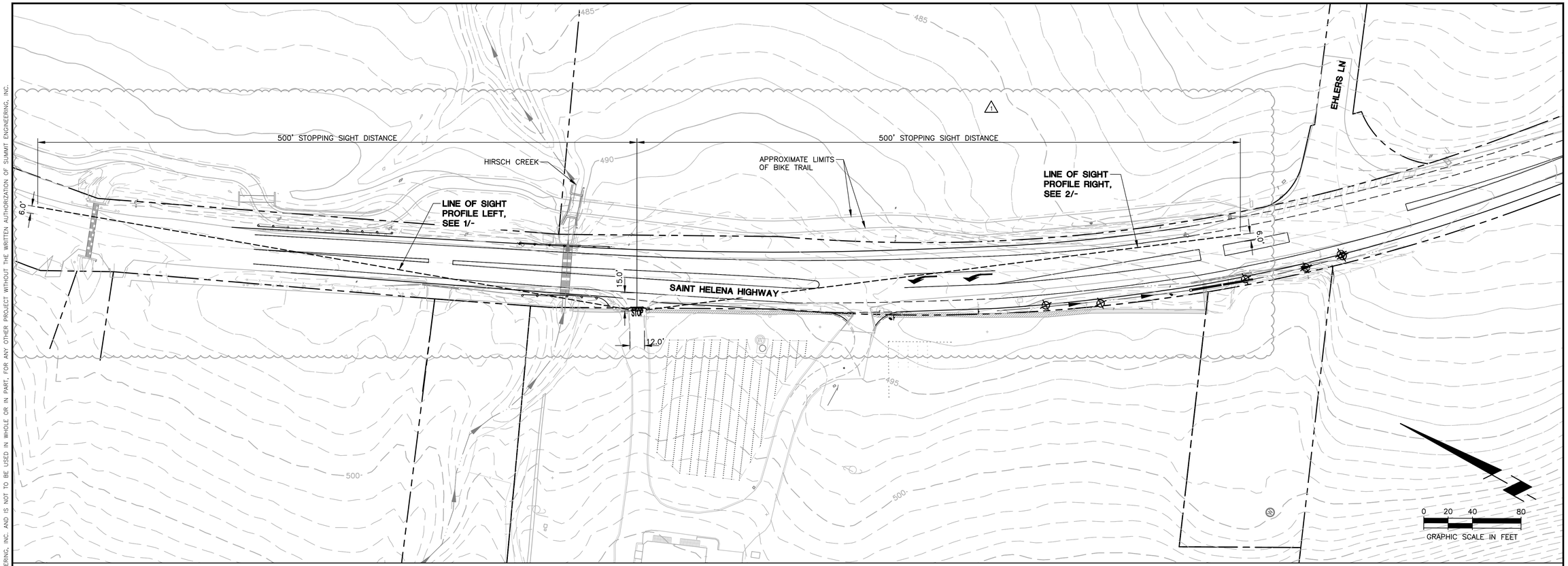
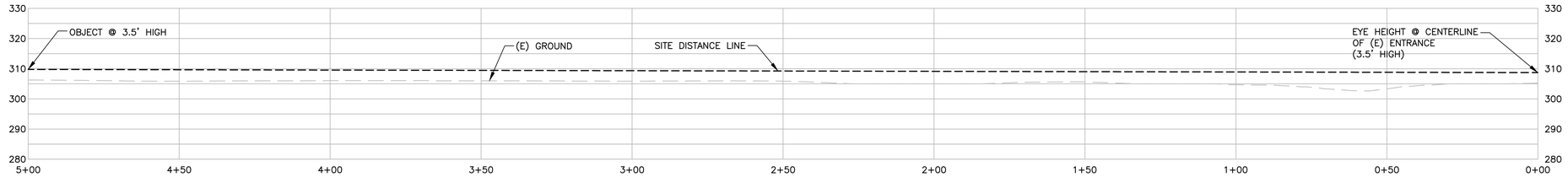
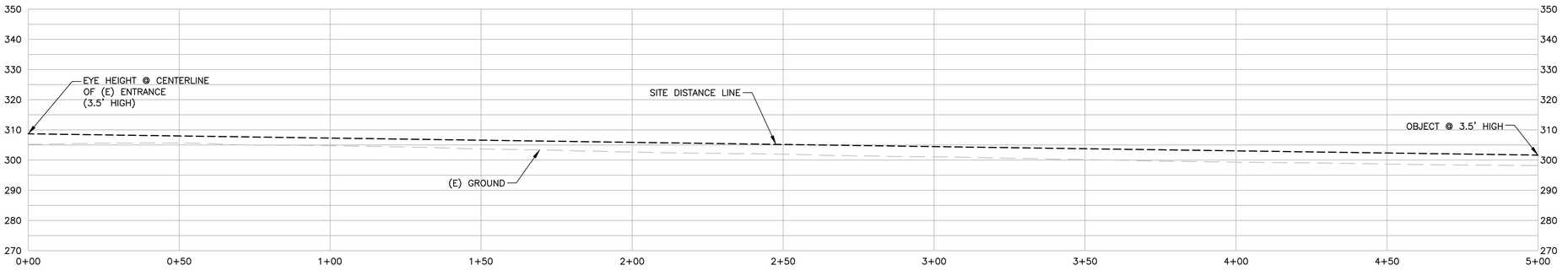




LINE OF SIGHT LEFT 1

SCALE: 1"=20' HORIZ
1"=20' VERT



LINE OF SIGHT RIGHT 2

SCALE: 1"=20' HORIZ
1"=20' VERT

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APN 022-080-025

LEFT TURN LANE CONCEPT

LINE OF SIGHT PLAN & PROFILE

2/11/25	ISSUED FOR CLIENT REVIEW
4/03/25	ISSUED FOR CLIENT REVIEW
6/12/25	PLAN CHECK RESPONSE

DATE: 2025-02-13
JOB NO: 2021183
SCALE: AS SHOWN
DRAWN: BV
CHECKED: MS

SHEET C3
3 OF 3

EVENT GUEST PARKING EXHIBIT
NOTES AND ASSUMPTIONS
1. ALL EMPLOYEES ARE ASSUMED TO PARK OFFSITE AND BE SHUTTLED TO THE WINERY. ALL NORMAL EMPLOYEE SPACES ARE AVAILABLE FOR GUESTS DURING EVENTS.
2. AREAS SHADED IN RED ARE AVAILABLE FOR GUEST PARKING DURING EVENTS.
3. AREAS SHADED IN RED ARE ANTICIPATED TO PROVIDE SUFFICIENT PARKING FOR 150 GUESTS BASED ON AN ASSUMED 2.5 GUESTS PER VEHICLE AND PARKING SPACE GEOMETRY PER NAPA COUNTY PUBLIC WORKS STANDARD DETAIL D-8 FOR OFF STREET PARKING

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0 30 60
GRAPHIC SCALE IN FEET

APN 022-080-026
APN 022-080-025
APN 022-100-008
APN 022-070-032
APN 022-080-013

PROPOSED VALET DROP-OFF AREA
(E) SEPTIC TANK, SEE NOTE 7
(E) GRAVEL PARKING STALLS
(E) COTTAGE #4
(E) PARKING STALLS
(E) FH
(E) EV CHARGING STATION
(E) ABANDONED WELL, SEE NOTE 9
PROPOSED AB2004 OUTDOOR TASTING AREA
EMERGENCY ACCESS SIGN, SEE NOTE 10
(E) PARKING STALLS TO BE REMOVED
(E) WELL, DESTROYED UNDER PERMIT E07-00318
(E) BARREL STORAGE, TO BE CONVERTED TO HOSPITALITY
(E) OUTDOOR STORAGE AREA, PROPOSED TO BE USED FORAB2004 OUTDOOR TASTING AREA
65' CREEK SETBACK
HIRSCH CREEK
20.0' PROPERTY LINE SETBACK
(E) ASPHALT ACCESS ROAD
28.0' ROAD SETBACK
20.5' ROAD SETBACK
(E) EMPLOYEE PARKING STALLS
PROPOSED AB2004 OUTDOOR TASTING AREA
(E) PARKING STALL
FH (SEE NOTE 4)
FDC
(E) WATER TREATMENT SHED
(E) WATER STORAGE TANKS
PROPOSED FIRE PUMP HOUSE
28.1' ROAD SETBACK
28.3' ROAD SETBACK
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
PORTAL #1
(E) FIRE WATER TANKS TO BE REPLACED WITH 10,500 GAL CONCRETE TANKS (5 TOTAL)
(E) WINERY
(E) COTTAGE #7
(E) COTTAGE #8
(E) APARTMENT TO BE CONVERTED TO WINERY OFFICES
(E) GREASE INTERCEPTOR
(E) PUMP TANK
(E) ADA PARKING
(E) SEPTIC TANK, SEE NOTE 6
(E) ABANDONED SEPTIC SYSTEM
MAIN WINERY SS TANKS, SEE NOTE 8
FDC ON ASR
(E) 14.2' WIDTH SEE NOTE 5
(E) ABANDONED SEPTIC SYSTEM
(E) VINEYARD, TYP
5.0' SETBACK
20.0' + 2.0' SHLDR
(E) ABANDONED SEPTIC SYSTEM
PROPOSED ACCESS ROAD, TYP
(E) AG ACCESS ROAD
PROPOSED CAVE, SAD
CAVE PORTAL, TYP OF 3 (SEE NOTE 2)
PORTAL #2
PORTAL #3
(SEE NOTE 2)
102.5'
96.1'
325.5'
(E) VINEYARD, TYP
(E) WELL
100' WELL SETBACK
100.0'
(E) WELL, APPROXIMATE LOCATION BASED ON INFORMATION IN NAPA COUNTY ONLINE ELECTRONIC DATABASE
NAPA COUNTY FIRE TRUCK TURNAROUND, TYP
(E) IRRIGATION TANKS
PROPOSED HOLD AND HAUL TANK SEE NOTE 11
PROPOSED PW TREATMENT SYSTEM, SEE NOTE 11
SEE SHEET UP2
APPROXIMATE LOCATION OF 2004 SOIL TEST PIT, TYP OF 4
50-FT EFFECTIVE TEST PIT RADIUS, TYP OF 4
APPROXIMATE (E) LEACHFIELD, SEE NOTE 8
(E) SEPTIC SYSTEM, SEE NOTE 7
R20.0' (SEE NOTE 1)
5' SETBACK FROM SEPTIC SYSTEM
HATCH REPRESENTS LIMITS OF NEW GRAVEL WIDENING TO MEET NAPA COUNTY ROAD & STREET STANDARDS, TYP REMOVE (E) TREE, TYP OF 2.
(E) ABANDONED WELL SEE NOTE 12
75' DECELERATION LANE
SAINT HELENA HIGHWAY
(E) WALL, TYP
(E) BIKE PATH
(E) ROAD CENTERLINE
PROPOSED LEFT TURN LANE, USP
APPROXIMATE PROPERTY LINE
90.0' SETBACK
(SEE NOTE 5)
(E) ABANDONED SEPTIC SYSTEM
(E) 14.7'
62.5' FROM TOP OF BANK (SEE NOTE 13)

NOTES:

1. ENTRANCE GEOMETRY COMPLIES WITH APPLICABLE REQUIREMENTS FROM THE NAPA COUNTY ROAD & STREET STANDARDS AND CALTRANS DESIGN REQUIREMENTS.
2. REFER TO ARCHITECT AND LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING AT CAVE PORTALS.
3. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR PROPOSED LANDSCAPING ALONG HIGHWAY 29.
4. FIRE HYDRANT TO BE COMPLIANT WITH CALIFORNIA FIRE CODE SECTION 507, APPENDIX B, AND APPENDIX C.
5. ROAD IS PROPOSED FOR FIRE EMERGENCY ACCESS ONLY.
6. THE EXISTING WINERY KITCHEN IS THE ONLY SOURCE OF WASTEWATER THAT IS CONNECTED TO THIS TANK. WASTEWATER FROM THE TANK IS PUMPED INTERMITTENTLY AND HAULED OFFSITE FOR DISPOSAL. THERE IS NO CONNECTION TO A LEACHFIELD FROM THIS TANK.
7. SEPTIC SYSTEM ONLY SERVES COTTAGE #4.
8. SS FROM COTTAGE #7, COTTAGE #8, BARN AND WINERY ALL FLOW TO MAIN SS TANKS AND TO MAIN LEACHFIELD FOR DISPOSAL.
9. WELL DEMOLITION PERMIT TO BE OBTAINED THROUGH NAPA COUNTY FOR DESTRUCTION OF THIS WELL
10. SIGNAGE WILL BE PROVIDED TO INDICATE ONLY EMERGENCY VEHICLES ARE PERMITTED BEYOND THIS POINT. THE ROADWAY WILL BE CLEARLY DELINEATED AS FIRE ACCESS ONLY. THE DETAILS OF FIRE ACCESS SIGNAGE AND DELINEATION WILL BE COORDINATED WITH NAPA COUNTY DURING SUBSEQUENT PHASES OF DESIGN.
11. WINERY PROPOSES TO INSTALL EITHER A PW HOLD-AND-HAUL TANK OR AN ONSITE PW TREATMENT SYSTEM. REFER TO WASTEWATER FEASIBILITY STUDY FOR ADDITIONAL DETAILS.
12. WELL IS PROPOSED TO REMAIN AS A BACKUP WELL IN ACCORDANCE WITH NAPA COUNTY MUNICIPAL CODE SECTION 13.12.460.B, OR BE DESTROYED WITH ACQUISITION OF WELL DEMOLITION PERMIT FROM NAPA COUNTY.
13. THE SETBACK OF 62.5' INDICATED ON THE PLAN EXCEEDS THE REQUIRED STREAM SETBACK OF 55' BASED ON SLOPES OF 5% TO 15% PER NAPA COUNTY MUNICIPAL CODE SECTION 18.108.025.
14. EXISTING PARKING REFLECTS CONDITION OF SITE AS-PURCHASED IN 2017. SAD FOR DETAILS.

PARKING TABLE

NUMBER	TYPE
17	STANDARD WINERY SPACES
3	(E) STANDARD RESIDENTIAL SPACES
1	VAN ACCESSIBLE SPACE
21	**TOTAL SPACES**

ABBREVIATIONS:

AC	ASPHALT CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ASR	AUTOMATIC SPRINKLER RISER
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION
BFE	BASE FLOOD ELEVATION
BLDG	BUILDING
℄	CENTERLINE
CONC	CONCRETE
CV	CONTROL VALVE
DI	DRAIN INLET
DMA	DRAINAGE MANAGEMENT AREA
DS	DOWNSPOUT
DG	DECOMPOSED GRANITE
(E)	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISH FLOOR
FH	FIRE HYDRANT
GB	GRADE BREAK
LIDF	LOW IMPACT DEVELOPMENT FACILITY
LL	LOWER LEVEL
PD	PLANTER DRAIN
PIP	PROTECT IN PLACE
PIV	POST INDICATOR VALVE
PW	PROCESS WASTE
SAD	SEE ARCHITECTURAL DRAWINGS
SB	SETBACK
SD	STORM DRAIN
SS	SANITARY SEWAGE
SRA	SELF RETAINING AREA
STD	STANDARD
TD	TRENCH DRAIN
TI	TRAFFIC INDEX
TYP	TYPICAL
UL	UPPER LEVEL

OWNER:
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3199 SAINT HELENA HIGHWAY NORTH
SAINT HELENA, CA 94574

APPLICANT:
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APN 022-080-025

USE PERMIT MODIFICATION

OVERALL SITE PLAN

1	2023-04-13 USE PERMIT RESUBMITTAL
2	2023-12-11 USE PERMIT RESUBMITTAL
3	2024-03-19 USE PERMIT RESUBMITTAL
4	2024-07-25 USE PERMIT RESUBMITTAL
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JOB NO: 2021183
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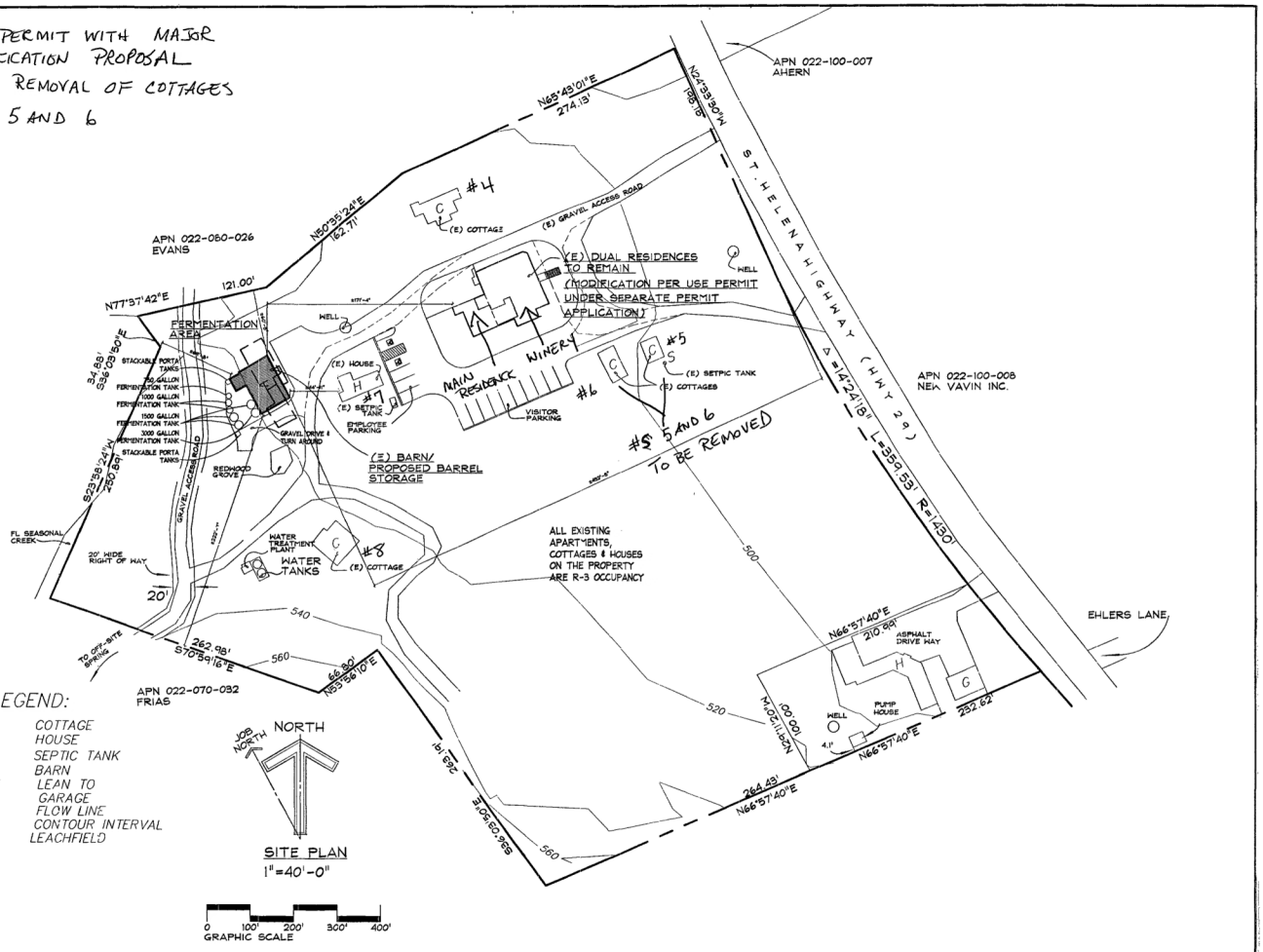
CHECKED: TCS

SHEET UP1
1OF 5

3. USE PERMIT WITH MAJOR MODIFICATION PROPOSAL WITH REMOVAL OF COTTAGES #s 5 AND 6



LEGEND:

C	COTTAGE
H	HOUSE
S	SEPTIC TANK
B	BARN
LT	LEAN TO
G	GARAGE
FL	FLOW LINE
CI	CONTOUR INTERVAL
L	LEACHFIELD

JOB NORTH / NORTH

SITE PLAN
1"=40'-0"

0 100' 200' 300' 400'
GRAPHIC SCALE

ARCHITECT:
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1472 RAILROAD AVE.
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CONSULTANTS:
VAL PIZZINI, ENG.
1400 GUERNEVILLE RD, STE. 12
SANTA ROSA, CA. 95403
VOICE 707.527-9822 FAX 707.527-9801

DATE:
05/23/07
11/05/07 PLAN CHECK
Drawn by: KJC

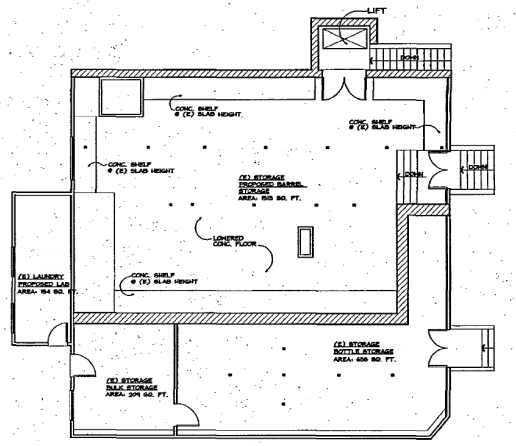
SHEET DESCRIPTION:
STRUCTURAL SPECS.
GENERAL NOTES
SITE PLAN
INDEX
ABBREVIATIONS

SITE LOCATION:
A.P.N.: 022-100-008
3199 N. ST. HELENA HWY.
ST. HELENA, CA 94574

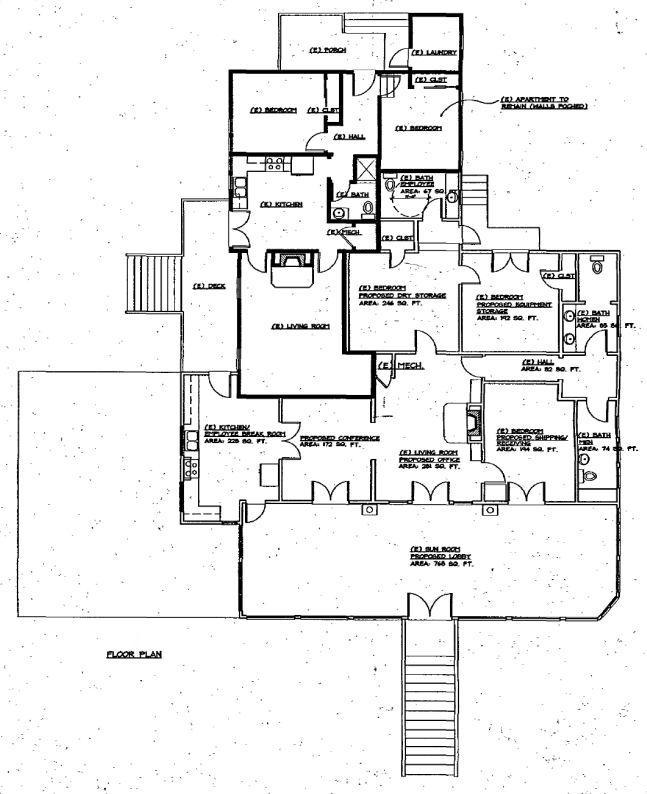
PROJECT:
TILLEY
BARREL STORAGE

SHEET NUMBER:
1.0

S:\Current Projects\Tilley 2\Barrel Storage\1.0 Tilley bbkcover.dwg, 3/21/2008 3:42:46 PM, 1:2.16

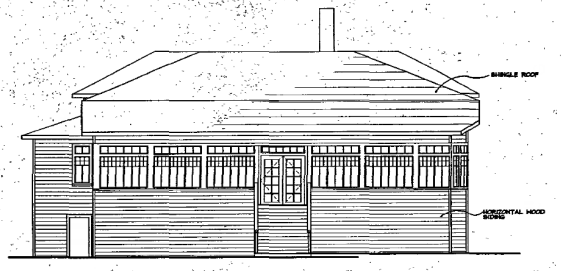


BASEMENT PLAN

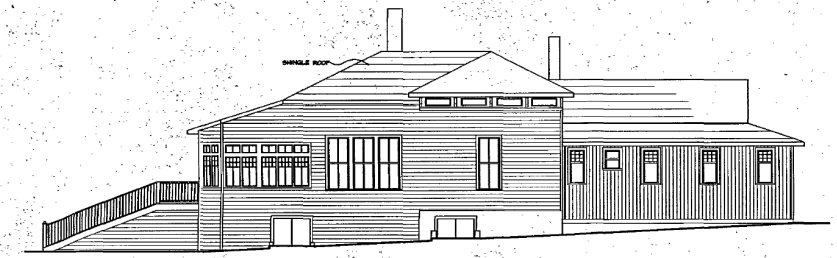


FLOOR PLAN

0 4 8 16

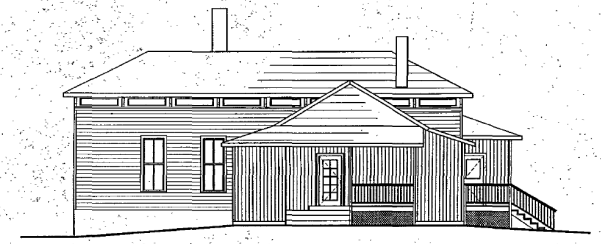


EAST ELEVATION



NORTH ELEVATION

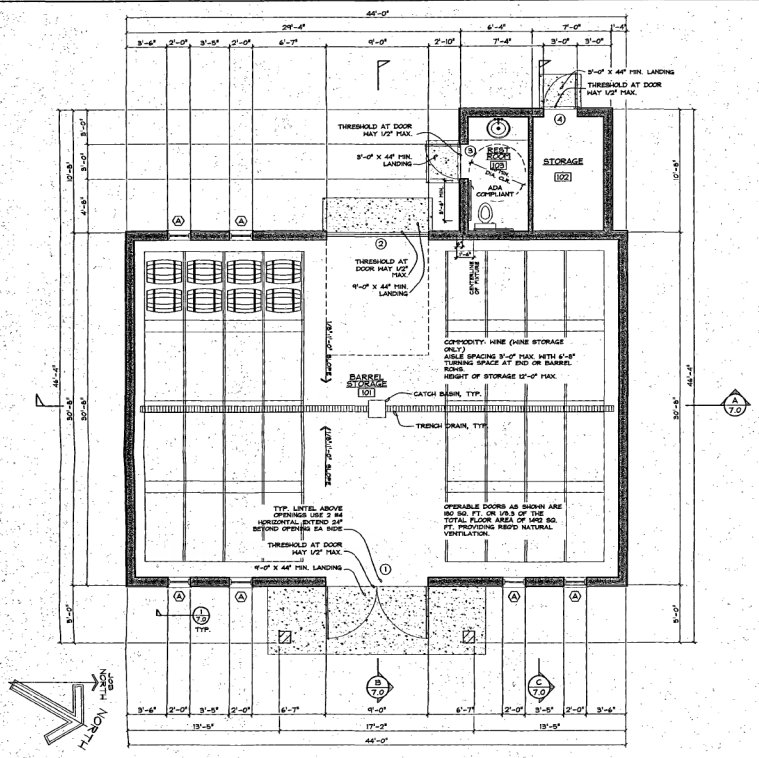
SOUTH ELEVATION



WEST ELEVATION

PROJECT:	TILLEY HOUSE
SITE LOCATION:	3199 N. ST. HELENA HWY ST. HELENA, CA
SHEET DESCRIPTION:	AS-BUILT FLOOR PLANS ELEVATIONS
DATE:	12/09/04
CONSULTANTS:	
ARCHITECT:	MARY SIKES & ASSOC. 1472 RAILROAD AVENUE ST. HELENA, CA 963-8063
SHEET NUMBER:	2

S:\Current Projects\Tilley 2\Use Permit (Original)\02TillPELEV.dwg, 9/19/2007 7:42:25 AM, 1:2



FLOOR PLAN
1/4"=1'-0"

DOOR SCHEDULE

#	SIZE	CORE	THICKNESS	TYPE
1	9'-0"x10'-0"	SC	1-3/4"	DOUBLE BARN STYLE
2	9'-0"x10'-0"	SC	1-3/4"	OVERHEAD SECTIONAL DOOR
3	3'-0"x8'-0"	SC	1-3/4"	EXTERIOR SHINGING
4	3'-0"x8'-0"	SC	1-3/4"	EXTERIOR SHINGING

WINDOW SCHEDULE

#	SIZE	TYPE	HEAD HEIGHT	MFR. MODEL NO.	NOTES	GLAZING	FRAME	QUANTITY
A	2'-0"x2'-0"	FIXED	12'-7"	LOWEN OR EQUAL	4 LITES	DOUBLE, LOW E	MTL CLAD FIR	6

NOTES:
1. ALL WINDOWS TO BE LOWEN OR EQUAL.
2. VERIFY ROUGH OPENINGS W/ MFR.

ARCHITECT:
MARY SIKES & ASSOC.
1472 RAILROAD AVE.
ST. HELENA, CA 94574
VOICE 707.965-8065 FAX 707.965-1066

CONSULTANTS:
VAL PIZZINI, ENG.
1400 GUERNEVILLE RD, STE. 12
SANTA ROSA, CA 95403
VOICE 707.527-9802 FAX 707.527-9801

DATE:
05/23/07
△ 08/27/07 FIRE REV.
Drawn by: KJC

SHEET DESCRIPTION:
FLOOR PLAN
DOOR SCHEDULE
WINDOW SCHEDULE

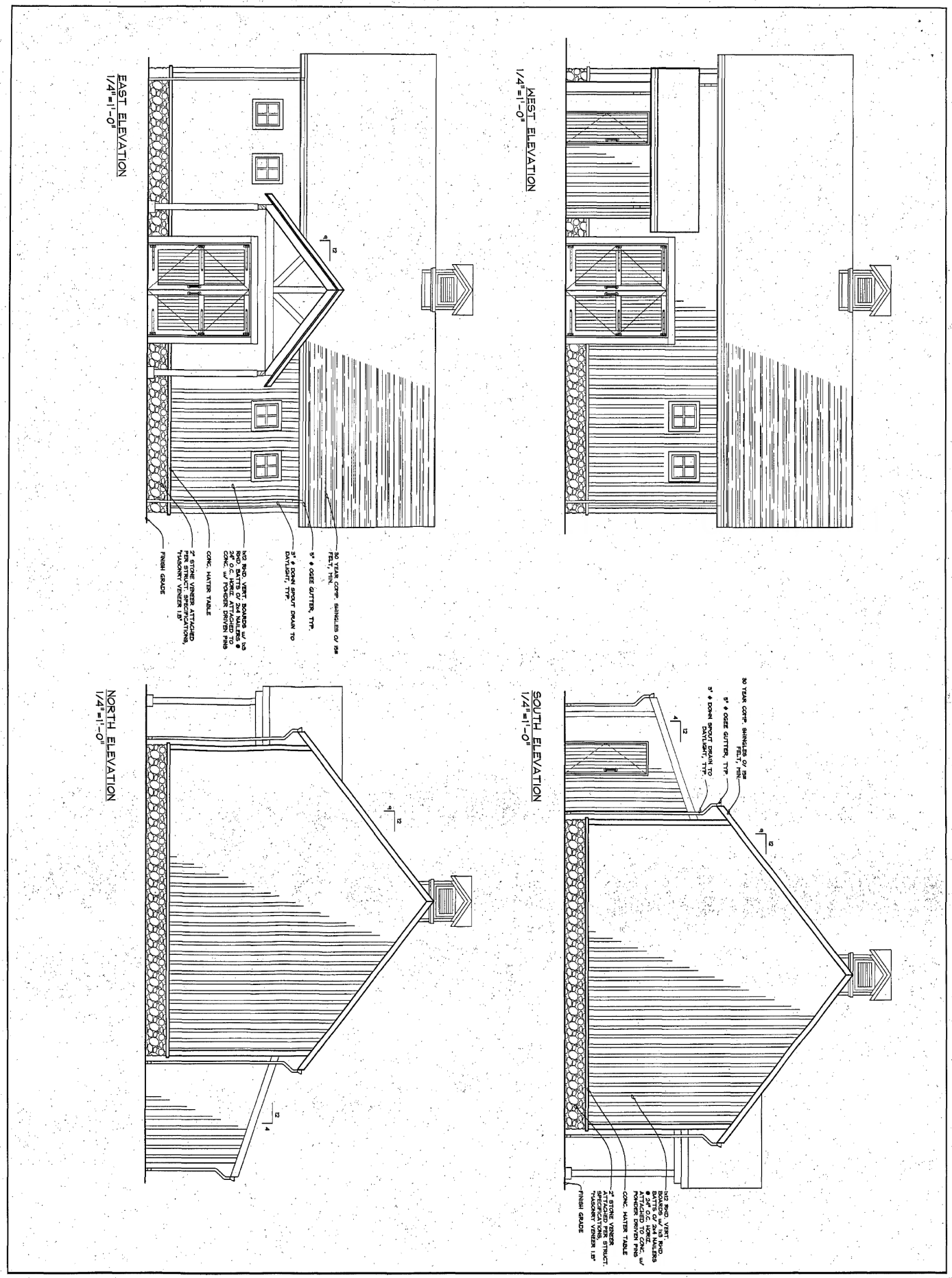
SITE LOCATION:
A.P.N.: 022-100-008
3199 N. ST. HELENA HWY.
ST. HELENA, CA 94574

PROJECT:
TILLEY
BARREL STORAGE

SHEET NUMBER:
3A

S:\Current Projects\Tilley 2\Use Permit (Modification)\3A Tilley bbl fp.dwg, 9/19/2007 7:44:26 AM, 1:2

S:\Current Projects\Tilley 2\Use Permit (Modification)\4A Tilley bbl elev.dwg, 9/19/2007 7:44:56 AM, 1:2



4A	PROJECT:	SITE LOCATION:	SHEET DESCRIPTION:	DATE:	CONSULTANTS:	ARCHITECT:
SHEET NUMBER:	TILLEY BARREL STORAGE	A.P.N.: 022-100-008 3199 N. ST. HELENA HWY. ST. HELENA, CA 94574	ELEVATIONS	05/23/07 ⚠ 08/27/07 FIRE REV Drawn by: KJC	VAL PIZZINI, ENG. 1400 GUERNEVILLE RD, STE. 12 SANTA ROSA, CA. 95405 VOICE 707.527-9802 FAX 707.527-9801	MARY SIKES & ASSOC. 1472 RAILROAD AVE. ST. HELENA, CA 94574 VOICE 707.963-8063 FAX 707.963-1066

“O”

Public Comments

3211 St. Helena Highway North, St Helena, CA 94574

Received
FEB 15 2024
Napa County Planning, Building & Environmental Services

Kelli Cahill
Planner III – Planning Division

Napa County
Planning, Building & Environment Services Department
1195 Third Street
Napa, CA 94559

Dear Mrs. Cahill:

I'm writing this letter in support of the project currently being proposed by our neighbors at AXR Winery. We appreciate that they will preserve their beautiful historic property while at the same time improving the property.

My family and I own three properties adjacent to the AXR Winery. Access to our properties is directly through the winery. We think the owners of AXR have done a wonderful job with the winery; we think their wine is excellent, and we strongly support their future plans.

Thank you,

Signature: S. Osborn Erickson

Date: 2/12/24

S. Osborn Erickson
3211 St. Helena Highway North
St. Helena, CA 94574
Telephone Number: (415) 377-0082

From: MeetingClerk
To: Spencer, Hannah
Subject: FW: Napa County - Notice of Public Hearing
Date: Thursday, April 30, 2026 1:06:25 PM

From: RICHARD W SVENDSEN <rsvendsen@sbcglobal.net>
Sent: Thursday, April 30, 2026 1:02 PM
To: MeetingClerk <MeetingClerk@countyofnapa.org>
Subject: Re: Napa County - Notice of Public Hearing

[External Email - Use Caution]

An absolute MO!
Sent from my iPhone

On Apr 30, 2026, at 7:31 AM, MeetingClerk <MeetingClerk@countyofnapa.org> wrote:

AXR NAPA VALLEY WINERY USE PERMIT MAJOR MODIFICATION, VARIANCE AND ADMINISTRATIVE VIEWSHED – P22-00417-MOD, P26-00045-VAR, P26-00044-VIEW

<image002.png>

Napa County - Meeting Clerk - AR
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

<P22-00417 PC-MND Public Hearing Notice.pdf>

Jeff,

Please see the email we received today from our neighbor whose property is nearest our vineyard to the south.
Parcel # 022-080-020-000, 3169 St Helena Hwy N, St Helena, CA 94574

Don Van Laeken
Owner
axr napa valley
estate | 707-302-8181
mobile | 925-699-1123
3199 st. helena hwy. n.
st. helena, ca 94574

#livefullyaxr

website | http://www.axrnapavalley.com
instagram | https://www.instagram.com/axrnapavalley
estate tour | https://vimeo.com/767104115
the story | https://vimeo.com/715004752

From: karthikeyan samynathan <ksamynathan@mac.com>
Subject: Re: AXR Napa Valley request
Date: September 24, 2025 at 11:34:39 AM PDT
To: Mark Schratz <mark@axrnapavalley.com>

I have zero issues with noise. Please let me know if I need to send them a letter directly!

Thanks

From:	Tom Winkle
To:	Spencer, Hannah
Cc:	Tom Winkle
Subject:	AXR Napa Valley Winery - Major Use Permit Modification, Variance, and Viewshed CEQA Filing
Date:	Tuesday, April 21, 2026 11:08:30 AM

[External Email - Use Caution]

Hello Hannah,

My team notified me of a recent CEQA filing associated with your organization and wanted to reach out directly in case our services could be of assistance.

For organizations responsible for environmental compliance and site management, efficiency and continuity are critical. Our company operates as a full-service environmental consultant and remediation contractor, providing both site assessment and remediation services under a single team.

Unlike firms that provide assessment and advisory services only, we both evaluate sites and carry out the remediation. This integrated approach reduces handoffs, limits re-scoping, and often results in tighter schedules and more controlled costs, particularly when coordinating with RWQCB, DTSC, or local oversight programs.

FREY Environmental supports Phase I and Phase II environmental site assessments, petroleum and non-petroleum remediation, and regulatory closure activities. We have supported sites across California for decades and have successfully closed thousands of cases statewide.

If you are already working with a consultant, we are also available to provide a second opinion or a comparative scope and cost review, which often identifies opportunities to streamline scope and reduce overall project cost.

A brief conversation would allow us to align on how FREY Environmental can support your current or ongoing environmental needs. Please feel free to share availability if it would be useful to connect.

Regards,

Tom

FREY Environmental, Inc.
2817 A Lafayette Avenue
Newport Beach, CA 92663

1336 Brommer Street, Ste. A-6
Santa Cruz, CA 95062

Cell: (949) 422-7935 (preferred)
TomWinkle@freyinc.com

3211 St. Helena Highway North, St Helena, CA 94574

Hannah Spencer
Planner III – Planning Division

Napa County
Planning, Building & Environment Services Department
1195 Third Street
Napa, CA 94559

Dear Ms. Spencer:

I'm writing this letter in support of the project currently being proposed by our neighbors at AXR Winery. We appreciate that they will preserve their beautiful historic property while at the same time improving the property.

My family and I own three properties adjacent to the AXR Winery. Access to our properties is directly through the winery. We think the owners of AXR have done a wonderful job with the winery; we think their wine is excellent, and we strongly support their future plans.

Thank you,

Signature: S Osborn Erickson

Date: 5/5/2026

S. Osborn Erickson
3211 St. Helena Highway North
St. Helena, CA 94574
Telephone Number: (415) 377-0082

Received
MAY 08 2026
Napa County Planning, Building & Environmental Services

M.C.

May 21, 2026

Dear Ms. Spencer,

We are writing in support of the project proposed by our neighbors at AXR Napa Valley.

As nearby neighbors on Ehlers Lane, we appreciate the thoughtful approach AXR has taken in balancing improvements to the property while maintaining the historic character and integrity of the estate. After reviewing the proposed plans and speaking with the team, we feel the project has been carefully considered and designed in a manner that is respectful to the surrounding neighborhood and community.

We support the project as proposed and have no objections to its approval.

Sincerely,

Torey and Dave Battuello
3350 Ehlers Lane
St Helena, Ca. 94574
707.888.1320

Napa County

Board Agenda Letter

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

Main: (707) 253-4580

Planning Commission | **Agenda Date:** 6/3/2026 | **File ID #:** 26-1204

TO: Napa County Planning Commission

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

REPORT BY: Michael Parker, Planning Manager

SUBJECT: Viewshed Protection Program and Defensible Space

RECOMMENDATION

Receive an informational presentation from the Planning Division of the Planning, Building, and Environmental Services (PBES) Department and the County Fire Marshal on the application and scope of the County's Viewshed Protection Program (NCC 18.106) and Defensible Space Ordinance (NCC 8.36).

EXECUTIVE SUMMARY

The purpose and intent of the County's Viewshed Protection Program (NCC 18.106) is to protect the public health, safety, and community welfare and to otherwise protect the scenic quality of the county both for visitors to the county as well as for its residents by ensuring that future improvements are compatible with existing land forms, particularly county ridgelines and that views of the county's many unique geologic features and the existing landscape fabric of the county's hillside areas are protected and preserved. These regulations are consistent with the goals and policies of the Napa County general plan, particularly as specified in the land use, open space and conservation, circulation and the scenic highways elements.

The purpose and intent of Napa County's Fire Protection - Fire Hazard Abatement Ordinance (NCC 8.36), also referred to as the Defensible Space Ordinance, is to protect the public health, safety, and general welfare of the public by reducing the risk of wildfire ignition and spread through the regulation and abatement of combustible vegetation, prohibited materials, and other fire hazards on private property. The ordinance is intended to promote defensible space around structures, enhance the safety of residents, visitors, and first responders, protect life and property from the threat of wildfire, and declare hazardous fire conditions to be public nuisances subject to abatement. These regulations are consistent with applicable state fire safety laws and supports the County's broader goals related

to public safety, wildfire resilience, environmental stewardship, and community protection.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: General Rule: This item is for discussion purposes only. It can be seen with certainty that there is no possibility the proposed action may have a significant effect on the environment and therefore CEQA is not applicable. [See Guidelines for the Implementation of the California Environmental Quality Act, 14 CCR 15061(b)(3)].

BACKGROUND AND DISCUSSION

Today's request is that the Planning Commission receive an informational presentation from the Planning Division of the Planning, Building, and Environmental Services (PBES) Department and the County Fire Marshal on the application and scope of the County's Viewshed Protection Program (NCC 18.106) and Defensible Space Ordinance (NCC 8.36).