

“C”

Very Minor Modification Application
Packet, Site Plan, & Wastewater
System Monitoring Reports

NAPA COUNTY

Planning, Building and Environmental Services



A Tradition of Stewardship
A Commitment to Service

VERY MINOR MODIFICATION APPLICATION NON-
RESIDENTIAL & RESIDENTIAL USES



A Tradition of Stewardship
A Commitment to Service

Planning, Building, & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559
Main: (707) 253-4417
Fax: (707) 253-4336

PLANNING APPLICATION FORM

Applicant Information

Applicant Contact	Property Owner Contact
Name: Restaurant 209	Name: R & R LAND, LLC
Mailing Address: 2416 E. 37th Street	Mailing Address: 2416 E. 37th Street
City: Wichita State: KS Zip: 67219	City: Wichita State: KS Zip: 67219
Phone: (316) 847-4821	Phone: (316) 847-4821
E-Mail Address: justin.williams@pressnapavalley.com	E-Mail Address: Guy.Byrne@Irico.com

Agent Contact	Other Representative Contact
Name: Jeff Dodd Coblentz Patch Duffy & Bass LLP	<input type="checkbox"/> Engineer <input type="checkbox"/> Architect <input type="checkbox"/> Agent
Mailing Address: 700 Main Street, Suite 301	Name: _____
City: Napa State: CA Zip: 94559	Mailing Address: _____
Phone: (707) 603-2722	City: _____ State: _____ Zip: _____
E-Mail Address: jdodd@coblentzlaw.com	Phone: _____
	E-Mail Address: _____

Property Information

Project Name: Marketplace Seating

Project Address: 607 South St. Helena Highway, St. Helena, CA 94574

Assessor's Parcel Number(s): 027-150-001

Size of site (acreage and/or square footage): 1.4 acres

General Plan Designation: Agricultural Resource (AR) Zoning: Commercial Neighborhood (CN)

Application Type¹

File No(s) P24-00072

Administrative	Planning Commission/ALUC/BOS	Zoning Administrator
Erosion Control Plan: <input type="checkbox"/> Track I <input type="checkbox"/> Track II <input type="checkbox"/> Admin Viewshed <input type="checkbox"/> Fence Entry Structure Permit <input type="checkbox"/> Land Division/Mergers <input type="checkbox"/> Site Plan Approval/Modification <input type="checkbox"/> Winery Administrative Permit <input checked="" type="checkbox"/> Other Very Minor Modification <input type="checkbox"/> Addressing <input type="checkbox"/> Signs Temporary Event: <input type="checkbox"/> 51-400 <input type="checkbox"/> 401+ <input type="checkbox"/> Late Application Submittal <input type="checkbox"/> Application Entitled to Fee Waiver <input type="checkbox"/> Other: _____	Major Modification: <input type="checkbox"/> Winery <input type="checkbox"/> Other Use Permit: <input type="checkbox"/> Winery <input type="checkbox"/> Other <input type="checkbox"/> Viewshed <input type="checkbox"/> AG Preserve Contract <input type="checkbox"/> Development Agreement <input type="checkbox"/> Airport Land Use Consistency Determination <input type="checkbox"/> General, Specific or Airport Land Use Plan Amendment <input type="checkbox"/> Variance <input type="checkbox"/> Zoning Map/Text Amendment <input type="checkbox"/> Road Exception <input type="checkbox"/> Con. Reg. Exception <input type="checkbox"/> Other: _____	<input type="checkbox"/> Certificate of Legal Non Conformity <input type="checkbox"/> Other Minor Modification <input type="checkbox"/> Road Exception <input type="checkbox"/> Small Winery Exemption <input type="checkbox"/> Winery Minor Modification <input type="checkbox"/> Variance <input type="checkbox"/> Viewshed <input type="checkbox"/> Other: _____ Misc. Services <input type="checkbox"/> Use Determination <input type="checkbox"/> Status Determination <input type="checkbox"/> 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.

DocuSigned by:

0042C5C6C9C14F5...
10/15/2025
Property Owner's Signature and Date

Property Owner's Signature and Date

Applicant/Agent Statement

I am authorized and empowered to act as an agent on behalf of the owner of record on all matters relating to this application. I declare that the foregoing is true and correct and accept that false or inaccurate owner authorization may invalidate or delay action on this application.

DocuSigned by:

B30454FA6FF4498...
10/15/2025
Applicant's Signature and Date

Date Received: _____ Received by: _____ Receipt No. _____ File No. _____	Application Fees	
	Deposit Amount	\$
	Flat Fee Due	\$
	Total	\$
Check No		

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.

Guy Byrne, R & R Land LLC

Print Name of Property Owner

Justin Williams, Restaurant 209

Print Name Signature of Applicant (if different)

DocuSigned by:

Guy Byrne

10/15/2025

6642C5C6C9C14F5...
Signature of Property Owner

Date

DocuSigned by:

Justin Williams

10/15/2025

B30454FA6FF4498...

Signature of Applicant

Date

Jeff Dodd
D (415) 772-5724
jdodd@coblentzlaw.com

October 15, 2025

Submitted electronically via County cloud fileshare

Brian D. Bordona
Director of Napa County Planning, Building &
Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559

Re: Application for a Very Minor Modification to Use Permit P24-00072;
607 St. Helena Highway, St. Helena; APN 027-150-001-000

Dear Director Bordona:

Enclosed is a development permit application for a very minor modification to the above-referenced use permit (the "Use Permit") for museum and market uses, which the Planning Commission approved on October 2, 2024. Napa Valley Museum (NVM) and Under-Study operates the museum and market uses, respectively. This application seeks to clarify that condition of approval (COA) 4.12(c) allows for seating as of October 3, 2025 while preserving all rights to operate with seating today consistent with staff's original interpretation of the COA.

As raised at the Planning Commission hearing, the site has no foot traffic and previous market retail operations have failed. Providing seating for customers is essential to Under-Study's business and desire to create a community gathering space; it also has a direct impact on NVM's operations and success at this new location. Unfortunately, since opening in May of this year, the empty outdoor space has deterred potential customers, creating significant challenges to the long-term viability of the market.

This application seeks to change COA no. 4.12(c) as follows:

~~No Marketplace seating is authorized under this use permit. However, if the project's wastewater generation is at or less than 800 gallons per day on an average daily basis for the first twelve (12) months of joint operation (reflecting a decrease in flows captured in the project's wastewater feasibility study),~~ The Marketplace may have outdoor seating on the patio subject to the Operations & Maintenance Plan for the wastewater system.

Basis for Very Minor Modification

At the 2024 Use Permit hearing, the Planning Commission unanimously supported outdoor seating based on the monitoring and reporting requirements that the applicant incorporated into

October 15, 2025

Page 2

the project. After direction from staff, the Planning Commission and the applicant agreed to evaluate wastewater flows for a certain period that would have to include months during the “high season of visitation” to confirm that the operations allowed under the Use Permit, including future seating, would not impact the wastewater system. Based on the transcripts, the Planning Commission sought to monitor wastewater for a 12-month period from the date of the October 2, 2024 hearing in order to capture flows during months in the “high season of visitation.”

Following the hearing, Planning staff and Deputy County Counsel verbally confirmed this intent immediately after the meeting. In addition, an October 8, 2024 email from County Planner II Andrew Amelung explained:

“Both [Senior Planner] Trevor [Hawkes] and I understood the recommendation to adopt the condition as amended with 12 months of monitoring to capture the peak season, **which can be interpreted as 12 months from the October 2, 2024 approval date.**” (Emphasis added.)

Staff’s subsequent interpretation of Condition 4.12(c)—tying the 12-month monitoring period to the issuance of certificates of occupancy—does not reflect that understanding, the Commission’s discussion, or staff’s original interpretation conveyed immediately after the hearing. The Commission’s direction was simply to ensure that monitoring included the period of highest visitation, not to delay implementation of the approved seating or to extend monitoring into months of low activity after the peak season had already been captured.

The applicants reasonably relied on staff’s contemporaneous interpretation of the condition. Had staff suggested that COA 4.12(c) would instead require 12 months of monitoring from a certificate of occupancy, the applicants would have either appealed the condition or requested clarification from the Planning Commission before the approval became final. Requiring the applicants at this stage to submit a new modification application and undergo another public hearing process to correct language that does not reflect the Commission’s intent or staff’s original interpretation at the time of approval is unfair.

The applicants have continued to monitor and document wastewater flows in coordination with the Environmental Health Division. The results of that ongoing monitoring confirm that the system is functioning properly and well within design parameters.

Copies of the monthly reports and daily monitoring logs are on file with the County. As provided therein, the operators have stayed below the 800 gpd monthly average during the peak season (e.g., 323 gpd in July, 598 gpd in August, and 476 gpd in September). The system has functioned without issue, and no field oversaturation or operational failures have occurred, which the wastewater system operator confirmed to the Environmental Health Division earlier this month.

October 15, 2025

Page 3

These averages are well below the daily averages for the 5 years' worth of septic monitoring reports analyzed in the Use Permit's 2024 Wastewater Report:

Existing monitoring reports, from 6/13/19 to 12/13/23 show average daily flows for the past five years ranging from 312 gpd to 909 gpd. To understand the use of the system three separate average daily flows were evaluated and summarized below:

Average daily flow for the past year = 899.22 gpd

Average daily flow for the past two years = 776.40 gpd

Average daily flow for the past five years = 632.14 gpd

The peak daily flow of 909.76 gpd was recorded for the period ending on 12/15/2021 which included participation in the Premier Napa Valley Wine Week events. The average daily flow for the past 5 years is 632 gpd. Both values are below the system design flow of 1,000 gpd.

NorCal Civil Engineering, Wastewater Feasibility Study for Napa Valley Museum (Aug. 8, 2025), p. 6, enclosed for reference.

As already discussed during our October 14th meeting with the County, applicant will continue to work with the Environmental Health Division to update to the existing Operations and Maintenance Plan as necessary.

Seating Does Not Equate to Wastewater System Failure

From 2020 to 2023, Gary's Wine Warehouse legally operated with approximately 50 seats during the pandemic under Resolution No. 2020-72 adopted by the Board of Supervisors on May 19, 2020 in response to the COVID-19 pandemic. Under-Study proposes to operate with fewer (approx. 40) seats, and the system is already sized and conditioned to manage variability. Seating has been unfairly equated with risk, when past system issues were due to infrastructure failures (e.g., faulty ice machine), not people sitting in chairs.

The Planning Commission fully supported the outdoor seating component of the project during its October 2, 2024 hearing, and further recognized it as a critical component of the joint operation. Providing a space for market customers to sit down and drink coffee or have a bite to eat is a critical component of being a local gathering place and a sustainable business operations on a site where multiple retail operations have failed. As it stands today, the patio presents as an empty, lifeless space, reinforcing the perception that the market is closed and discouraging both local and visitor engagement.

October 15, 2025
Page 4

We appreciate your prompt attention to this request, which is a simple clarifying change to a single condition. And, as noted above, this application does not waive the applicant's rights to proceed under staff's initial 2024 interpretation of COA 4.12(c).

Very truly yours,



Jeff Dodd

JTD:emn

Cc: Justin Williams
Laura Rafaty
Guy Byrne

Enclosure: Wastewater Feasibility Study

Jeff Dodd
D (415) 772-5724
jdodd@coblentzlaw.com

November 24, 2025

Submitted electronically via County cloud fileshare

Charlene Gallina, Supervising Planner
Napa County Planning, Building &
Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559

Re: P25-00278; Marketplace Seating Application
607 S St Helena Hwy, St Helena; APN 027-150-001-000

Dear Charlene:

Thank you for your and your colleagues' efforts to bring this project to the Planning Commission next month on December 17. We recognize the amount of work that needs to happen in order to get the project to Planning Commission hearing so we are grateful for your time and attention to the request.

Enclosed is a floor plan for Understudy's marketplace operations which depicts the approximate seating arrangement. The seating arrangement will be 12 seats indoors and 20 seats outdoors, for a total of 32 seats.

The applicant is ready to proceed along the alternative, second pathway outlined by Environmental Health (EH). We have contacted Kim Withrow at EH to review the details of the requested commissary agreement and operating procedures for warewashing and associated cleanup, storing of soiled utensils, and food preparation, as well as other details that EH must approve in order for seating to be effective (under an assumption that the Planning Commission approves the project).

Thank you again for your time and attention to this request.

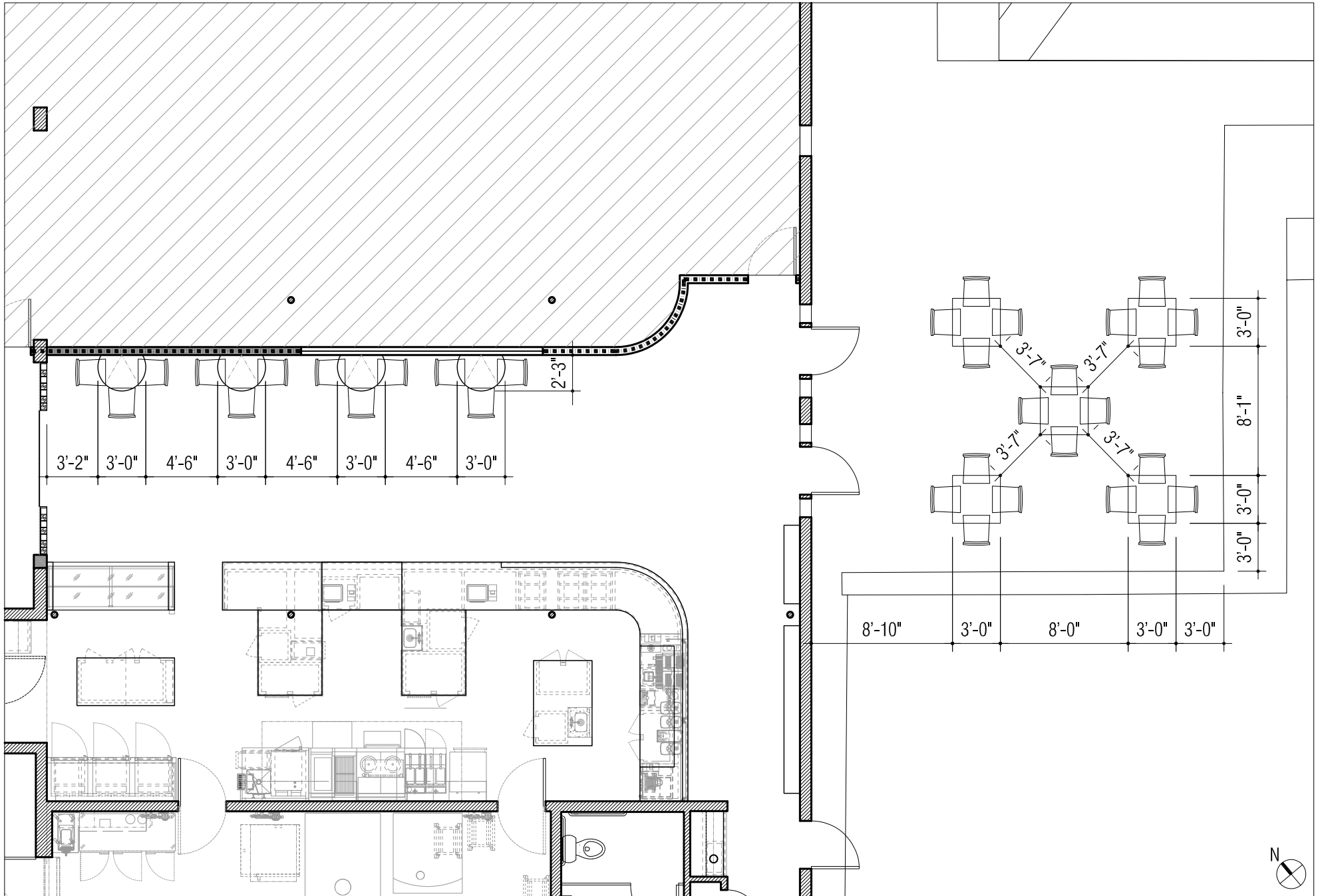
Very truly yours,



Jeff Dodd

Enclosures (Floor Plan/Proposed Seating Plan)

cc: Justin Williams



December 1, 2025

NOR CAL
CIVIL ENGINEERING INC.

Press Restaurant & Under-Study
587 St. Helena Hwy
St. Helena, CA 94574
Attn: Justin Williams
Justin.williams@pressnapavalley.com

Job 24003 R&R Land_Napa Valley Museum

Flow Monitoring Report – November 2025

607 St Helena Hwy, St. Helena, CA 94574
APN: 027-150-001

Dear Justin,

Please find the attached monthly septic flow monitoring report for November 2025.

The average septic flow for the month is 513 gal/day with a peak daily flow of 794 gal/day.

If you have any questions, please let me know.

Warm regards,



Ben Monroe
PRINCIPAL

PO BOX 12155, SANTA ROSA, CA 95406

C:\USERS\MARYANNE SLOCUM\NC DROPBOX\PROJECTS\24003
R&RLAND_NAPAVALLEYMUSEUM\DOCS\SEPTIC FLOW MONITORING\251201_NOVEMBER
UNDERSTUDY FLOW READINGS.DOCX

DATE	DAYS BETWEEN READING	ZONE 1 FLOW METER READING - SUPPLY LINE#1 (SLFM#1) ²	ZONE 1 FLOW METER READING - RETURN LINE#1 (RLFM#1) ²	DRIP FIELD #1 DAILY FLOW (GALLONS/DAY)	FLOW METER READING - SUPPLY LINE#2 (SLFM#2) ²	FLOW METER READING - RETURN LINE#2 (RLFM#2) ²	DRIP FIELD #2 DAILY FLOW (GALLONS/DAY)	TOTAL DRIP FIELD DAILY FLOW (DRIPFIELD #1 + DRIP FIELD #2) (GALLONS/DAY)
11/1/2025	1	1940908	131562	282	1981427	121934	416	698
11/2/2025	1	1941361	131614	401	1981812	121994	325	726
11/3/2025	1	1941627	131666	214	1982448	122050	580	794
11/4/2025	1	1941775	131678	136	1983115	122069	648	784
11/5/2025	1	1942098	131693	308	1983625	122119	460	768
11/6/2025	1	1942207	131702	100	1984023	122144	373	473
11/7/2025	1	1942387	131720	162	1984198	122154	165	327
11/8/2025	1	1942407	131732	8	1984333	122164	125	133
11/9/2025	1	1942470	131747	48	1984623	122176	278	326
11/10/2025	1	1942553	131755	75	1984767	122197	123	198
11/11/2025	1	1942653	131785	70	1985076	122220	286	356
11/12/2025	1	1942834	131805	161	1985267	122239	172	333
11/13/2025	1	1942974	131825	120	1985676	122260	388	508
11/14/2025	1	1943251	131865	237	1986039	122290	333	570
11/15/2025	1	1943458	131894	178	1986342	122324	269	447
11/16/2025	1	1943772	131919	289	1986506	122376	112	401
11/17/2025	1	1943987	131934	200	1986820	122425	265	465
11/18/2025	1	1944276	131975	248	1987078	122488	195	443
11/19/2025	1	1944428	132010	117	1987261	122517	154	271
11/20/2025	1	1944635	132031	186	1987593	122545	304	490
11/21/2025	1	1944891	132089	198	1987969	122608	313	511
11/22/2025	1	1945102	132108	192	1988499	122635	503	695
11/23/2025	1	1945398	132140	264	1988733	122665	204	468
11/24/2025	1	1945618	132145	215	1989389	122775	546	761
11/25/2025	1	1945854	132197	184	1989791	122832	345	529
11/26/2025	1	1946059	132259	143	1990153	122885	309	452
11/27/2025	CLOSED	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11/28/2025	2	1946424	132304	160	1990780	122943	284.5	445
11/29/2025	1	1946823	132349	354	1991261	122992	432	786
11/30/2025	1	1947126	132412	240	1991823	123062	492	732

November 3, 2025



Press Restaurant & Under-Study
587 St. Helena Hwy
St. Helena, CA 94574
Attn: Justin Williams
Justin.williams@pressnapavalley.com

Job 24003 R&R Land_Napa Valley Museum

Flow Monitoring Report – October 2025

607 St Helena Hwy, St. Helena, CA 94574
APN: 027-150-001

Dear Justin,

Please find the attached monthly septic flow monitoring report for October 2025.

The average septic flow for the month is 534 gal/day with a peak daily flow of 785 gal/day.

If you have any questions, please let me know.

Warm regards,

A handwritten signature in blue ink, appearing to read 'Ben Monroe', is written over a light blue circular stamp.

Ben Monroe
PRINCIPAL

PO BOX 12155, SANTA ROSA, CA 95406

C:\USERS\MARYANNE SLOCUM\NC DROPBOX\PROJECTS\24003
R&RLAND_NAPAVALLEYMUSEUM\DOCS\SEPTIC FLOW MONITORING\251103_OCTOBER
UNDERSTUDY FLOW READINGS.DOCX

DATE	DAYS BETWEEN READING	ZONE 1 FLOW METER READING - SUPPLY LINE#1 (SLFM#1)2	ZONE 1 FLOW METER READING - RETURN LINE#1 (RLFM#1)2	DRIP FIELD #1 DAILY FLOW (GALLONS/DAY)	FLOW METER READING - SUPPLY LINE#2 (SLFM#2) ²	FLOW METER READING - RETURN LINE#2 (RLFM#2) ²	DRIP FIELD #2 DAILY FLOW (GALLONS/DAY)	TOTAL DRIP FIELD DAILY FLOW (DRIPFIELD #1 + DRIP FIELD #2) (GALLONS/DAY)
9/30/2025	1	1933856	130735	226	1969626	121049	407	633
10/1/2025	1	1934007	130778	108	1969870	121072	221	329
10/2/2025	1	1934080	130771	80	1970018	121073	147	227
10/3/2025	1	1934133	130808	16	1970460	121118	397	413
10/4/2025	1	1934375	130818	232	1970523	121119	62	294
10/5/2025	1	1934599	130838	204	1970984	121158	422	626
10/6/2025	1	1934833	130845	227	1971419	121154	439	666
10/7/2025	1	1935203	130881	334	1971767	121192	310	644
10/8/2025	1	1935308	130908	78	1972061	121228	258	336
10/9/2025	1	1935400	130918	82	1972161	121228	100	182
10/10/2025	1	1935470	130931	57	1972374	121230	211	268
10/11/2025	1	1935755	130959	257	1972787	121262	381	638
10/12/2025	1	1935930	130994	140	1973325	121279	521	661
10/13/2025	1	1936365	131019	410	1973667	121299	322	732
10/14/2025	1	1936561	131020	195	1974202	121314	520	715
10/15/2025	1	1936828	131052	235	1974678	121383	407	642
10/16/2025	1	1936908	131054	78	1974857	121385	177	255
10/17/2025	1	1937138	131085	199	1975281	121425	384	583
10/18/2025	1	1937397	131120	224	1975713	121468	389	613
10/19/2025	1	1937681	131125	279	1976229	121478	506	785
10/20/2025	1	1938041	131158	327	1976644	121519	374	701
10/21/2025	1	1938282	131193	206	1977197	121544	528	734
10/22/2025	1	1938337	131194	54	1977279	121546	80	134
10/23/2025	1	1938502	131243	116	1977481	121594	154	270
10/24/2025	1	1938591	131245	87	1977723	121609	227	314
10/25/2025	1	1938772	131298	128	1978302	121628	560	688
10/26/2025	1	1939053	131309	270	1978628	121654	300	570
10/27/2025	1	1939416	131349	323	1979131	121707	450	773
10/28/2025	1	1940128	131450	611	1979309	121770	115	726
10/29/2025	1	1940188	131452	58	1980073	121822	712	770
10/30/2025	1	1940307	131455	116	1980483	121827	405	521
10/31/2025	1	1940583	131519	212	1980957	121880	421	633

Withrow, Kim

Subject: FW: WW monthly reports from NVM/Understudy
Attachments: 251008 Daily Flows_607 St Helena Highway.pdf

From: Ben Monroe <Ben@norcalcivil.com>
Sent: Wednesday, October 8, 2025 8:21 AM
To: Withrow, Kim <Kim.Withrow@countyofnapa.org>; Adamson, Christina <christina.adamson@countyofnapa.org>; Dodd, Jeff <jdodd@coblenzlaw.com>; Shields Bown, Maureen <MAUREEN.SHIELDSBOWN@countyofnapa.org>
Cc: Hawkes, Trevor <trevor.hawkes@countyofnapa.org>; Mary Anne Slocum <Maryanne@norcalcivil.com>; Justin Williams <justin.williams@pressnapavalley.com>; Melissa Spencer <melissa.spencer@pressnapavalley.com>; Guy Byrne (Guy.Byrne@lrco.com) <Guy.Byrne@lrco.com>; Laura Rafaty <laura@napavalleymuseum.org>
Subject: Re: WW monthly reports from NVM/Understudy

Kim,
My apologies for the prior daily report which was missing some of the information (perhaps the most important part). That was my fault. Attached please find a complete daily flow log from July 1 to date.

Can we set up a time to talk about this process so that we can make sure that the information meets expectations for data and timeliness moving forward?
I can be available today until 10 am, or from 11 to 2:30, tomorrow (Thursday after 11:30), or Friday until 3 pm.

Thank for working with us on this new process. Please feel free to reach out via email as well.

Don't just have a good day, have the BEST day,



Ben Monroe
Principal at NorCal Civil Engineering, Inc.
Office 707-581-NCCE (6223)
Direct 707-887-3622 **Mobile** 707-318-7099
Web www.NorCalCivil.com
Email Ben@NorCalCivil.com
PO Box 12155, Santa Rosa, CA 95406



Realizing Your Vision Together!

<https://norcalcivil.com/>

Please [review](#) us on Google to let us know how we're doing.

Site Address: 607 S. St Helena Highway, St Helena, CA 94574
 APN: 027-150-001

Septic Monitoring Report Form

DATE	DAYS BETWEEN READING	ZONE 1		ZONE 2		BOTH ZONES
		ZONE 1 FLOW METER READING - SUPPLY LINE#1 (SLFM#1) ²	ZONE 1 FLOW METER READING - RETURN LINE#1 (RLFM#1) ²	FLOW METER READING - SUPPLY LINE#2 (SLFM#2) ²	FLOW METER READING - RETURN LINE#2 (RLFM#2) ²	TOTAL DRIP FIELD DAILY FLOW (DRIPFIELD #1 + DRIP FIELD #2) (GALLONS/DAY)
7/1/2025	1	1915674	127117	1934920	114437	1
7/2/2025	1	1915674	127117	1934920	114437	0
7/3/2025	1	1915674	127117	1934921	114437	1
7/4/2025	1	1915683	127117	1934921	114437	9
7/5/2025	1	1915684	127117	1934920	114437	0
7/6/2025	1	1915688	127117	1934959	114437	43
7/7/2025	1	1915684	127117	1934943	114437	-20
7/8/2025	1	1915674	127118	1934921	114437	-33
7/9/2025	1	1915684	127119	1934920	114437	8
7/10/2025	1	1915674	127120	1934920	114437	-11
7/11/2025	1	1915684	127118	1934921	114437	13
7/12/2025	1	1915797	127132	1935238	114446	407
7/13/2025	1	1916130	127203	1935778	114589	659
7/14/2025	1	1916427	127280	1936423	114730	724
7/15/2025	1	1916637	127369	1936804	114820	412
7/16/2025	1	1916869	127382	1937263	114922	576
7/17/2025	1	1917157	127464	1937829	115062	632
7/18/2025	1	1917459	127572	1938446	115194	679
7/19/2025	1	1917598	127622	1938748	115301	284
7/20/2025	1	1917776	127719	1939129	115492	271
7/21/2025	1	1918114	127844	1939718	115722	572

Site Address: 607 S. St Helena Highway, St Helena, CA 94574
 APN: 027-150-001

Septic Monitoring Report Form

7/22/2025	1	1918420	127948	1940322	115918	610
7/23/2025	1	1918551	127979	1940782	115998	480
7/24/2025	1	1918676	128009	1940941	116090	162
7/25/2025	1	1918812	128042	1941083	116155	180
7/26/2025	1	1918985	128083	1941601	116251	554
7/27/2025	1	1919277	128151	1942172	116469	577
7/28/2025	1	1919648	128242	1942775	116613	739
7/29/2025	1	1919916	128320	1943479	116787	720
7/30/2025	1	1920187	128365	1944040	116980	594
7/31/2025	1	1920282	128402	1944187	117015	170
8/1/2025	1	1920402	128432	1944576	117045	449
8/2/2025	1	1920509	128450	1944870	117069	359
8/3/2025	1	1920682	128477	1944987	117102	230
8/4/2025	1	1920835	128507	1945322	117200	360
8/5/2025	1	1921073	128574	1945890	117251	688
8/6/2025	1	1921404	128597	1946392	117375	686
8/7/2025	1	1921702	128681	1946977	117487	687
8/8/2025	1	1922031	128759	1947554	117581	734
8/9/2025	1	1922163	128799	1947614	117595	138
8/10/2025	1	1922373	128815	1948100	117688	587
8/11/2025	1	1922589	128833	1948659	117769	676
8/12/2025	1	1922863	128908	1949289	117843	755
8/13/2025	1	1923174	128933	1949805	117911	734
8/14/2025	1	1923557	128960	1950214	117982	694

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Septic Monitoring Report Form

8/15/2025	1	1923875	128999	1950650	118021	676
8/16/2025	1	1923957	129055	1950855	118040	212
8/17/2025	1	1924058	129078	1951003	118060	206
8/18/2025	1	1924216	129146	1951425	118175	397
8/19/2025	1	1924538	129229	1951691	118270	410
8/20/2025	1	1924630	129254	1951992	118305	333
8/21/2025	1	1924953	129301	1952519	118391	717
8/22/2025	1	1925118	129360	1953153	118451	680
8/23/2025	1	1925339	129376	1953809	118515	797
8/24/2025	1	1925827	129479	1954286	118630	747
8/25/2025	1	1926097	129526	1954954	118750	771
8/26/2025	1	1926414	129616	1955688	118916	795
8/27/2025	1	1926795	129705	1956374	119117	777
8/28/2025	1	1927115	129720	1956909	119201	756
8/29/2025	1	1927495	129790	1957469	119282	789
8/30/2025	1	1927996	129869	1957930	119366	799
8/31/2025	1	1928226	129928	1958605	119470	742
9/1/2025	1	1928535	129952	1959576	119604	1122
9/2/2025	1	1928797	130013	1960144	119704	669
9/3/2025	1	1929064	130078	1960671	119849	584
9/4/2025	1	1929436	130124	1961248	119877	875
9/5/2025	1	1929793	130174	1961842	119972	806
9/6/2025	1	1930134	130199	1962530	120064	912
9/7/2025	1	1930563	130279	1963311	120283	911

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Septic Monitoring Report Form

9/8/2025	1	1930795	130339	1964079	120494	729
9/9/2025	1	1931192	130434	1964587	120580	724
9/10/2025	1	1931581	130504	1965131	120650	793
9/11/2025	1	1931846	130522	1965597	120727	636
9/12/2025	1	1932000	130576	1966205	120787	648
9/13/2025	1	1932000	130576	1966215	120787	10
9/14/2025	1	1932000	130576	1966215	120788	-1
9/15/2025	1	1932000	130576	1966205	120788	-10
9/16/2025	1	1932000	130576	1966205	120788	0
9/17/2025	1	1932000	130576	1966205	120788	0
9/18/2025	1	1932056	130583	1966227	120799	60
9/19/2025	1	1932258	130599	1966539	120803	494
9/20/2025	1	1932455	130624	1966872	120819	489
9/21/2025	1	1932655	130651	1967291	120832	579
9/22/2025	1	1932824	130660	1967623	120877	447
9/23/2025	1	1932905	130666	1968064	120908	485
9/24/2025	1	1933034	130678	1968142	120925	178
9/25/2025	1	1933134	130690	1968314	120934	251
9/26/2025	1	1933205	130696	1968414	120944	155
9/27/2025	1	1933360	130699	1968629	120956	355
9/28/2025	1	1933426	130704	1968874	120996	266
9/29/2025	1	1933634	130739	1969244	121074	465
9/30/2025	1	1933856	130735	1969626	121049	633
10/1/2025	1	1934007	130778	1969870	121072	329

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Septic Monitoring Report Form

10/2/2025	1	1934080	130771	1970018	121073	227
10/3/2025	1	1934133	130808	1970460	121118	413
10/4/2025	1	1934375	130818	1970523	121119	294
10/5/2025	1	1934599	130838	1970984	121158	626
10/6/2025	1	1934833	130845	1971419	121154	666

“F”

Wastewater Feasibility Study

Napa Valley Museum Use Permit and Variance
P24-00072-UP & P24-00241-VAR
Planning Commission Hearing – October 2, 2024

WASTEWATER FEASIBILITY STUDY

Napa Valley Museum

OWNER: R&R Lands, LLC

607 St. Helena Hwy, St. Helena, CA

APN: 027-150-001

PREPARED BY

NorCal Civil Engineering, Inc.

PO Box 12155

SANTA ROSA, CALIFORNIA 95406

(707) 318-7099



March 13, 2024

Revised: August 8, 2024

Job No. 24003

Attachments

- Exhibit 1: Use Permit Site Plan
- Exhibit 2: Additional Pretreatment Units Exhibit
- Exhibit 3: E11-00466 Septic Report and Design Calculations
- Exhibit 4: Existing Daily Flows for Gary's Market
- Exhibit 5: Annual Water Invoice, Napa Valley Museum, Yountville

Items Referenced

1. Napa County ASTS Guidelines: Table 4 – Commercial Sewage Generation Rates
2. Table A. Recommended Minimum HRTs, Primary Tankage and Configurations
3. Trip Generation Study, Prepared by W-Trans dated February 21, 2024
4. Septic Monitoring Reports Prepared by McCollum General Engineering, Dates Range: June 2019 – June 2023
5. Response to Comments on the Trip Generation Study for the Napa Valley Museum Project, prepared by W-Trans dated May 28, 2024

PROJECT AND SITE DESCRIPTION

The parcel located at 607 and 587 St. Helena Hwy, St. Helena, CA (APN 027-150-001) is a previously developed property. The site includes two separate buildings. The north building, located at 587 St. Helena Highway is operated by Press Restaurant. This building has its own septic system (E04-0250) and is not part of this application. The south building, located at 607 St. Helena Highway was originally operated as Dean & DeLuca Market and more recently has been operated by Gary's Wine & Marketplace. This building is served by its own existing subsurface drip irrigation septic system (E11-00466).

With this Use Permit Application, the project proposes to reduce the market use in the south building (recently occupied by Gary's Wine & Marketplace) and convert the remaining area to a museum use for the Napa Valley Museum.

EXISTING SITE USES

The site currently operates under a Certificate of Legal Non-Conformance (CLN-96472) dated April 15, 1997. This certificate allows the use of an existing retail market in the southern building. The existing uses within the retail market include a coffee bar, wine tasting, a kitchen for preparation of sandwiches, baked goods, and deli case items, cold storage areas for cheese and drinks, as well as retail. There is an office space, restrooms, and storage area. The existing site use categories and dedicated square footage are summarized below:

Existing Use Under CLN	Square Feet (SF)
Market	7880
Storage (including refrigerated)	1275
Office	300
Bathrooms	350
Commercial Kitchen/Food Preparation	970
TOTAL	10775

PROPOSED SITE USES

With this application, it is proposed to remodel the interior of the building to provide space for the Napa Valley Museum. Following the renovation, the proposed site uses shall be distributed into the following floor space areas:

Proposed Uses	Square Feet (SF)
Museum	6,272
Market	1,439
Office	389
Bathroom	464
Commercial Kitchen/Food Preparation	1,028
Storage (including refrigerated)	1,141
TOTAL	10733

EXISTING SEPTIC SYSTEM

Existing Septic Permitting and History

The existing septic system was permitted and installed in 2011 under repair permit E11-00466. As noted in Environmental Health comment #2 of the Napa County PBES Application Status Letter, dated July 19, 2024, this permit was issued to repair the dispersal field. At this time, the installed septic system only consisted of 1,500 sf of drip dispersal area, located in the SE corner of the parcel. After allowing the dispersal area to dry out and remediate a biomat which had formed around the tubing, permit E11-00466 provided for re-installation of drip tubing in the SE corner of the parcel, after placing 12" of imported fill material. The permit also provided for the import of 6" fill in the SW parcel corner, and installation of an additional 1,300 sf of drip dispersal area. This resulted in reducing the effective soil application rate from 0.75 gpd/sf in just the SE field, to an average of 0.36 gpd in both dispersal areas. Additional information on flow monitoring to prevent future failure is provided in the *Proposed System Modifications* section of this report.

Septic System Components

The existing septic system serving the building consists of a subsurface drip irrigation system with an approved design flow of 1,000 gpd. The system consists of the following components:

- Gravity Sewer Collection
- 1,500 gallon concrete grease interceptor for kitchen waste
- 1,500 gallon two-chamber concrete septic tank
- 810 gallon single-chamber concrete septic tank
- 5,000 gallon two-chamber concrete tank consisting of:
 - Chamber 1: 3,350 gallons septic tank
 - Chamber 2: 1,650 gallons recirculation tank
- Three (3) AdvanTex AX20 Textile Treatment Pods
- 3,000 gallon concrete drip dosing sump with duplex pump system
- Drip Headworks including:
 - Spin filter

- Field and filter flushing solenoid valves
 - Solenoid valves for drip field alternation
- Flow Meters for Supply and Flush operations
- Alternating dual zone subsurface drip irrigation fields consisting of:
 - 1,300 sf (west zone)
 - 1,502 sf (east zone)

Until recently, there was a Vacuum Bubble Technologies (VBT) aeration unit installed in the first riser of the 5,000 gallon septic tank. The motor of this aerator burned up and the unit has been removed. Replacement models from the same manufacturer are now larger in size and no longer fit within the existing tank riser. Rather than modify the existing tank riser, it was decided that equal or greater treatment would be provided through the addition of three (3) additional AX20 AdvanTex pods. A permit application for the additional pods and associated piping was recently submitted to the County of Napa Environmental Management Division.

Septic System Capacities

Septic Tank

The volume of the septic tank has been provided as one 1,500 gallon septic tank, one 810 gallon septic tank, and first compartment of the 5,000 gal tank (3,350 gal) and the retention:

$$\text{Total Tank Volume} = 1,500 \text{ gal} + 810 \text{ gal} + 3,350 \text{ gal} = 5,660 \text{ gal}$$

Orenco Systems, Inc., who manufacturer's the AdvanTex treatment system, specifies a commercial sizing criteria for primary tankage of four (4) times the max daily peak design flow. Therefore, the peak design flow of the septic tanks is determined as follows:

$$\text{Retention} = 5,660 \text{ gal} / 4 \text{ days} = 1,415 \text{ gpd}$$

Recirculation Tank

The existing recirculation volume within the second compartment of the 5,000 gallon tank is 1,650 gal. Orenco recommends a recirculation volume of 0.75 times the max daily peak design flow. Therefore, the recirculation design capacity per Orenco design criteria is:

$$1,650 \text{ gal} / 0.75 \text{ days} = 2,200 \text{ gpd}$$

Therefore, the recirculation tank provides a retention of approximately 2.2 days at peak flows.

AdvanTex Pretreatment System Sizing

With installation of the additional three (3) AX20 pods (permit E24-00076), the pretreatment system proposed will consist of a total of six (6) pods, to accompany the associated septic tank and recirculation tank, pumping system, and controls.

Orenco specifies that a single AX20 textile filter is sufficient for a 600 gallon per day average application. Therefore, the total capacity of the filter pods is 3,600 gallons per day.

Drip Dosing Sump Tank

Napa County requires the drip system dosing sump tank to be approximately 1.5 times the design flow. The capacity of the existing 3,000 gal dosing sump tank is determined as follows:

$$3,000 \text{ gal} \quad / \quad 1.5 \text{ days} \quad = \quad 1,500 \text{ gpd}$$

Existing Subsurface Drip Irrigation Dispersal System

The existing septic system (E11-00466) consists of two subsurface dripfields of 1,300 sf and 1,502 sf that shall accommodate the flows from the project. At the design flow of 1,000 gpd, the two fields receive effluent at 0.34 gpd/sf and 0.39 gpd/sf, respectively.

Capacity Summary

The individual capacities of the system components are summarized below.

<i>System Component</i>	<i>Design Capacity</i>
Septic Tank	1,415 gpd
Recirculation Tank	2,200 gpd
AdvanTex Pretreatment	3,600 gpd
Sump Tank	1,500 gpd
Drip Field	1,000 gpd

As presented in the table, the treatment system components meet or exceed the existing design flows of the installed system. This is provided to ensure the highest quality of discharge.

Existing System Monitoring Reports

As part of this evaluation, the last 5 years' worth of septic monitoring reports was requested from the property service provider, McCollum General Engineering. Existing monitoring reports, from 6/13/19 to 12/13/23 show average daily flows for the past five years ranging from 312 gpd to 909 gpd. To understand the use of the system three separate average daily flows were evaluated and summarized below:

Average daily flow for the past year	=	899.22 gpd
Average daily flow for the past two years	=	776.40 gpd
Average daily flow for the past five years	=	632.14 gpd

The peak daily flow of 909.76 gpd was recorded for the period ending on 12/15/2021 which included participation in the Premier Napa Valley Wine Week events. The average daily flow for the past 5 years is 632 gpd. Both values are below the system design flow of 1,000 gpd.

PROPOSED DESIGN FLOW EVALUATION

As part of this study, the proposed changes to the septic system use must be evaluated. To do so, the existing and proposed site uses were compared.

Existing Retail Market

Existing Septic Monitoring Reports

The septic monitoring reports provided by McCollum General Engineering show peak daily flows to be 909 gpd with average flows of 632 gpd.

The existing site includes several uses, each with varying amounts of sewage generated. Data is not available to understand the distribution by each use type. Because of this, we assume a value of 3 gpd/person for the existing sewage flows. This is typical for a wine tasting room, bar, or cocktail lounge, which we believe is a conservative assumption compared to a retail market operation. Experience with similar Napa Valley market and deli establishments suggests that the gpd per person can significantly decrease below this amount for the busiest days. Utilizing the value of 3 gpd/person, the number of historic peak and average daily visitors is estimated based on the average daily flow and calculated as follows:

$$\begin{array}{rclclcl} \text{Peak} & = & 909.76 \text{ gpd}/(3 \text{ gpd/person}) & = & 303 \text{ visitors} \\ \text{Average} & = & 632 \text{ gpd}/(3 \text{ gpd/visitor}) & = & 210.7 \text{ visitors} \end{array}$$

Occupancy Load Analysis

The flows from the existing market use was also analyzed using similar methodology to a Building Code Occupancy load analysis. This is presented in the table below.

Existing Use	Square Feet (SF)	Occupant Load Factor (Occ./SF)	Occupants
Office	300	150	2
Kitchen/Food Preparation	970	200	5
Storage	1275	300	5
Market	7880	60	132
Non-Simultaneous (Bathroom)	350	0	0
Total	10,775		144

Therefore, the maximum number of people anticipated onsite at any given time is 144. This number is consistent with the historic daily visitor calculations derived from McCollum's septic monitoring reports over the past five years.

Proposed Museum Project

With the proposed application, the existing 7,880 sf market space will be reduced to 1,439 sf and the remaining area will be converted to a new 6,272 sf museum and display area. The project will also result in removal of the cheese counter and associated water use for that area. Both modifications indicate that the proposed use will be less than the existing. This is supported by the following analysis.

Trip Generation Study

W-Trans, Traffic Engineering Consultants, prepared a Trip Generation Study for this Use Permit application. This analysis concluded that the conversion of market space to the Napa Valley Museum resulted in a reduction of 228 vehicle trips per day. This is equivalent to 114 fewer cars visiting the site each day. Typical traffic analysis assumes anywhere from 1 to 2.5 people per vehicle, which would result in a reduction of at least 114 people per day to the site. Utilizing 3 gpd per visitor, this is a reduction of 342 gpd.

Additionally, County comments on the initial Use Permit submittal requested the application address programming conducted by Napa Valley Museum associated with exhibit displays. In response to this, W-Trans issued a supplement to their analysis titled, "Response to Comments on the Trip Generation Study for the Napa Valley Museum Project," dated May 28, 2024. In this analysis, W-Trans stated that "such exhibitions and events are inherently included in the museum's typical operations as already accounted for in trip generation rates." Therefore, the 6 larger programs of up to 200 people are already accounted for in the proposed use of the site as a museum. Additional evidentiary support for this analysis and conclusion is provided further below in this report with our analysis of the existing water use for the Napa Valley Museum operations in Yountville.

Occupancy Load Analysis

A Building Code Occupancy load analysis was also performed utilizing the proposed conditions. In the load analysis, only 50% of the museum total area is used to account for floor area utilized by exhibits, as well as allowing for ADA accessibility.

Proposed Use	Square Feet (SF)	Occupant Load Factor (Occ./SF)	Occupants
Museum Open Space	3,136 (6,272 sf total with 50% floor area open)	30	105
Market	1,439	60	24
Office	389	150	3
Bathroom (non-simultaneous)	464	0	0
Kitchen	1,028	200	6
Storage	1,141	300	4
Total	10,733		142

Based on the occupancy analysis under proposed project conditions, the maximum number of people anticipated onsite at any given time is 142 occupants. This is less than the 144 occupants under existing conditions and therefore represents a decrease in the site use.

Existing Napa Valley Museum Water Use

The Napa Valley Museum currently has an existing operation in Yountville on the grounds of the California Veteran's Home. The existing operation include the same uses to those being proposed at 607 St. Helena Highway in this Use Permit application. This includes employees, day use visitors and events associated with museum programs. The Museum has provided a copy of their water billing from the Department of Veteran's affairs (Exhibit 5 attached) for the existing operation. This Exhibit 5 represents the largest annual billing in the last five (5) years and resulted in an average of 230 gallons per day.

In addition to a much larger exhibit space and available parking in Yountville, the existing operations also include an onsite catering kitchen as well as programs with up to 500 attendees (occupancy accommodated in larger venue). Due to limitations for parking at 607 St. Helena Highway, and proposed programs limited to a maximum of 200 attendees, the sewage generated by the proposed operation is anticipated to be less. If the existing water data of 230 gpd is added to the average existing use of 632 gpd at 607 St. Helena Highway, the total proposed use of the site is 860 gpd. This is less than the 1,000 gpd permitted capacity of the septic system. Additionally, the 230 gpd average use for the existing museum operations is less than the 342 gpd estimated reduction in use described in the *Trip Generation Study* portion of this report. Therefore, the proposed museum operations, including programmatic events can be accommodated in the site septic system.

Decrease in Proposed Site Septic Use

As presented above, the Trip Generation Study concluded a reduction of 114 vehicle trips per day under project conditions. The building code occupant analysis also indicates a reduction in the number of people onsite. Based on the foregoing analysis, we anticipate project conditions will reduce the intensity of use of the site and result in a commensurate decrease in the average

and peak flows (909 gpd) reflected in the septic monitoring reports. Therefore, the septic system design flow of 1,000 gpd has sufficient capacity to support the project uses.

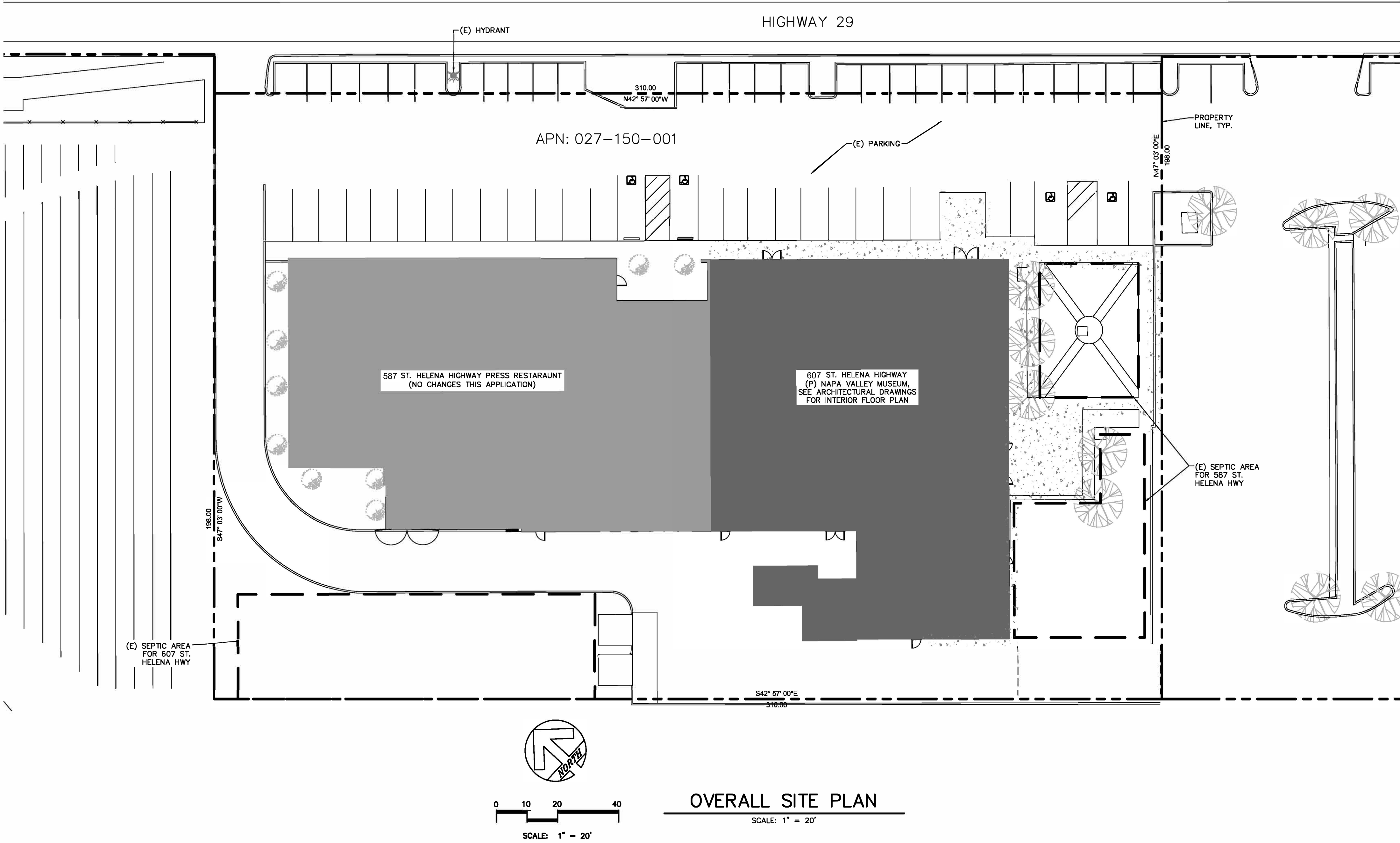
Proposed Septic System Modifications

The additional three (3) AdvanTex filter pods proposed under the issued permit E24-00076 have yet to be installed as of this report preparation but will be in place for the Museum operation and will provide for an increased level of treatment performance. Therefore, a higher quality of effluent being discharged into the existing subsurface drip irrigation field shall result in improved percolation. With this system upgrade, it is also proposed to modify the existing control panel so that sends out text or email alarm notifications when the drip dosing sump has neared and exceeded daily design flow of the dispersal field. This will inform the system service provider that they need to visit the site and monitor system conditions. If necessary, building operations can be modified and/or the septic tank can be pumped to buffer peak flows.

CONCLUSION

The proposed reduction in retail space and addition of museum space is anticipated to reduce the overall intensity of use of the site compared to baseline conditions. The existing water use for the current Napa Valley Museum supports this will be the case. We anticipate that the new use will be below the system design flow and will not impact the existing septic system on site. As a safety measure, the existing septic control panel will be modified to provide for better flow monitoring and notification abilities which will ensure that the septic system design flow is not exceeded.

USE PERMIT APPLICATION
FOR NAPA VALLEY MUSEUM
607 ST HELENA HIGHWAY
ST HELENA, CA
APN: 027-150-001



NORCAL
CIVIL ENGINEERING, INC.
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SANTA ROSA CA 95406

Prepared for: **R&R LAND, LLC**
607 St. Helena Hwy, St. Helena, CA

Prepared on: **August 6, 2024**

**PLANNING APPLICATION
OVERALL SITE PLAN**

607 St. Helena Hwy, St. Helena, CA
APN: 027-150-001

JOB#24003

SHEET
C1



Dean & DeLuca Market
607 South St. Helena Highway, St. Helena, Ca
APN 27-150-001
Subsurface Drip Dispersal System Design Calculations

Project and Site Background

Dean & DeLuca Market is located at 607 South St. Helena Highway in St. Helena, Napa County, Ca (APN 027-150-001). At the north end of the parcel is one building which serves the Press Restaurant. Press Restaurant has its own septic system which is not affected by this application for Dean & DeLuca. Dean & DeLuca Market operates out of the building on the southern portion of the parcel.

Dean & DeLuca Market is a retail market and deli which also provides catering services.

Existing Septic System

The existing septic system consists of one (1) 1,500 gallon septic tank, one (1) 1,500 gallon grease interceptor, one sump tank, and 250 lineal feet of standard gravity leachline. The standard leach lines are 18" wide, 30" deep, and have 18" of gravel with 12" of cover soil. This corresponds to a leachfield application rate of 2 square feet per gpd, which is equivalent to a soil percolation rate of 6 to 12 inches per hour.

Design Flows

Because the existing septic system for Dean & DeLuca is a standard system, there has been no flow monitoring of the system to date. In addition, the City Water Meter for the site is shared between Dean & DeLuca and Press Restaurant and also includes landscaping. Therefore, it is difficult to determine flows for Dean & DeLuca using this data. Design flows for the Press Restaurant are 1,000 gallons per day. A recent septic system monitoring report for the Press Restaurant indicated that the septic system is receiving an average daily flow near 1,000 gallons per day. Water meter data from the time periods of December 16, 2008 to February 15, 2009 and February 16, 2009 to April 15, 2009 indicate an average site water use of 1,658 gpd and 1,907 gpd, respectively. It is assumed that no or very minimal landscaping irrigation is required for these periods and therefore that the water meter records likely present an accurate picture of the wastewater flow generated by the two sites. Therefore, if Press is using an average of 1,000 gpd, then Dean & DeLuca may be using up to 900 gpd during the months of December through February. .

However, water meter records for the site indicate that all water use for the site peaks from August to October with an average flow of 9,000 gpd. This is far different from the total use observed in the winter. Because the exact water use is not known, the design flow shall be based on the available dispersal area and appropriate application rates, and is shown to be **1,000 gpd** later in this report.



Pretreatment and Septic Tank System Sizing

The proposed septic system to serve the Dean & DeLuca Market will be a subsurface drip system which incorporates a pretreatment system. The pretreatment system will consist of three AdvanTex AX20 textile filters and associated septic tank and recirculation chamber, pumping system, and controls. In addition to the existing 1,500 gallon septic tank, 1,500 gallon grease trap, and sump tank, an additional 5,000 gallon septic tank serving as a 3,350 gallons septic tank and 1,650 gallons recirculation tank, and a 3,000 gallon drip system sump tank will be added to the system for proper treatment and dispersal. The existing sump tank will be converted to a septic tank. Because the volume is not known, the existing sump tank is assumed to only be 810 gallons. The overall retention provided by the system is determined as follows:

Septic Tank

$$(1,500 + 810 + 3,350) \text{ 5,660 gallons} \div 1,000 \text{ gpd} = 5.66 \text{ days}$$

Recirculation Tank

$$1,650 \text{ gallons} \div 1,000 \text{ gpd} = 1.65 \text{ days}$$

Sump Tank

$$3,000 \text{ gallons} \div 1,000 \text{ gpd} = 3 \text{ days}$$

Orenco Systems, Inc. (OSI), manufacturer of the AdvanTex system recommends a minimum of 3 days retention be provided for the primary septic and the recirculation tank provide approximately 1 day retention. Napa county requires the drip system sump tank to be approximately 1.5 times the design flow. This has been provided by the tanks sized as shown above.

Subsurface Drip Dispersal System Sizing

The subsurface drip system is provided in an area of approximately 1,333 square feet (sf). Using the estimated flow of 1,000 gpd, the field application rate is estimated as follows:

$$1,000 \text{ gpd} \div 1,333 \text{ sf} = 0.75 \text{ gal/sf/day}$$

A drip field of approximately 1,333 square feet with 660 lineal feet of drip tubing is provided.

The area of the existing standard septic system will be allowed to dry out, planted with vegetation, and utilized for future reserve area. This area is approximately 1,300 sf. This results in a reserve area application rate of 0.77 gpd/sf which is slightly higher than the estimated soil application rate, but is still within the approximate sizing for the existing standard system.

Drip tubing shall have 1 gph emitters spaced every two feet with drip tubing installed 12 inches deep with two foot spacing. A flushing return line will be provided to return solids to the septic tank during flushing operations.



Recirculation and Sump Pump Sizing and Selection

The new sump tank is 3,000 gallons, which is approximately 2.6 times the design flow. One day's retention is not provided above the high-water alarm in case of power outage, because without power, the recirculation pumps cannot operate and there is no way to transfer water into the sump tank. However, duplex pump systems are provided for redundancy in both the sump tank and at the recirculation tank. Additional surge volume for power outages is provided above the operating zone within the 5,000 gallon septic/recirculation tank. In addition, if a power outage occurs, the market will likely have to cease operations, thus ceasing water use and wastewater generation. As a last result, in the event of a problem, the septic tanks can be pumped.

The duplex recirculation pumps shall be Orenco Systems, Inc. model PF751512 high head effluent pumps. This pump has been selected because 3 AX20 pods will be dosed at the same time. In addition, there is space for 3 additional AX20 pods, should they be needed in the future.

Pump calculations for the subsurface drip dispersal system are provided on the attached spreadsheet. The pump selected is Orenco Systems, Inc. High Head Effluent Pump Model P300511, 115 V, single phase high head effluent pump. The pump dose shall be 47 gallons. Pump control panel timer and operation settings are provided in the attached spreadsheets and the attached control panel description.

Napa Valley Museum
Wastewater Feasibility Study
APN: 027-150-001
3/7/2024

Summary of Average Daily Flows from Existing Monitoring Reports for Gary's Market

	Date	Average Daily Flow (gpd)
	6/23/2023	899.22
	12/12/2022	714.55
	6/17/2022	715.42
	12/15/2021	909.76
	3/26/2021	312.85
	12/11/2020	396.2
	6/5/2020	575.82
	12/19/2019	425.71
	6/13/2019	739.76
Average daily flow for the past year		899.22
Average daily flow for the past two years		776.40
Average daily flow for the past five years		632.14
Peak daily flow for the past five years		909.76

DEPARTMENT OF VETERANS AFFAIRS

VETERANS HOME OF CALIFORNIA, YOUNTVILLE

PLANT OPERATIONS

190 CALIFORNIA DRIVE

YOUNTVILLE, CALIFORNIA 94599

Telephone: (707) 944-4800

Fax: (707) 944-4819



September 1, 2023

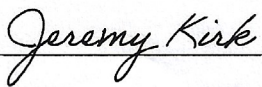
Department of Veterans Affairs
Veterans Home of Yountville – Accounting
P.O. Box 942895
Sacramento, CA. 94295-0001

The following is the potable water usage and billing for the Napa Valley Museum.
Please submit a bill to them based on the information listed below.

ANNUAL WATER INVOICE

Water Usage from July 1, 2022 thru June 30, 2023						
Service Date	Location	Prior Meter Read	Current Meter Read	Usage	Cost	Total
7/1/22-6/30/23	Museum East	115	128	0.0399	\$ 2,013.63	\$ 80.33
7/1/22-6/30/23	Museum West	3605	3689	0.2578	\$ 2,013.63	\$ 519.09
TOTAL				0.2977		\$ 599.42

Please remit bill to: Napa Valley Museum
55 Presidents Circle
Yountville, CA 94599


Jeremy Kirk
Direct Construction Supervisor II
Veterans Home of California, Yountville