



City of St. Helena Planning Commission

Meeting

Tuesday, October 18, 2016 @ 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of three minutes.

Page

1. PLEDGE OF ALLEGIANCE

2. CALL TO ORDER AND ROLL CALL

Chairperson: Grace Kistner

Vice Chair: Mary Koberstein

Commissioners: Sarah Parker, Bobbi Monnette, Tracy Sweeney

City staff present at the meeting will be noted in the minutes.

3. PUBLIC FORUM:

This is an opportunity for the public to address the Commission on items of interest to the public that are NOT listed on the agenda. Because of restrictions imposed by the Brown Act, the Commission may not engage in discussion nor take action on matters not described on the agenda. **Please observe the time limit of three minutes.**

4. CONSENT ITEMS

Members of the Commission or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

1. Approval of Minutes: October 4, 2016

7 - 10

[ITEM 4.1](#)

2. PL16-067: Sign Permit

11 - 22

LOCATION: 397 Main Street

APPLICANT: Richard Salvestrin

APN: 009-350-047

CEQA: Exempt pursuant to Section 15311

DESCRIPTION: The applicant is requesting a sign permit to install monument signage at the frontage of Salvestrin Vineyards at 397 Main Street in the Agriculture/Winery district.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve three (3) new monument signs at 397 Main Street.

Prepared By: Lilly Bianco, Contract Planner

Reviewed by: Noah Housh, Planning Director

[ITEM 4.2](#)

5. PUBLIC HEARINGS

1. PL16-074: Design Review
LOCATION: 1300 Block of Money Way
APPLICANT: Tobias Barr
APN: 009-240-013
CEQA: Exempt pursuant to Section 15303

DESCRIPTION: Request by the City of St. Helena Public Works Department for Design Review approval in order to construct a public restroom facility at the public parking lot located adjacent to Telegraph Alley between Oak Street and Money Way in the CB: Central Business district.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve design review for the proposed new public restroom facility at the public parking lot located between Oak Street and Money Way.

Prepared By: Aaron Hecock, Senior Planner
Reviewed By: Noah Housh, Planning Director

Item 5.1 will be continued to a date uncertain.

2. PL16-052: Design Review
LOCATION: 1580 Hillview Place
APPLICANT: Perry and Christine Clark
APN: 009-171-013
CEQA: Exempt pursuant to Section 15301

23 - 36

DESCRIPTION: The applicant requests Design Review approval in order to remodel and enlarge, including a new second story, the existing single-family home location at 1580 Hillview Place in the MR: Medium Density Residential district.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve design review for the proposed remodel and addition to the residence located at 1580 Hillview Place.

Prepared By: Aaron Hecock, Senior Planner
Reviewed By: Noah Housh, Planning Director

[ITEM 5.2](#)

3. PL16-062: Design Review
LOCATION: 1541 Chablis Circle
APPLICANT: Anthony Filippis
APN: 009-534-003
CEQA: Exempt pursuant to Section 15301 and 15303

37 - 68

DESCRIPTION: The applicant is requesting Design Review approval to make interior and exterior modifications to the single-family home located at 1541 Chablis Circle in the LR: Low Density Residential district.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve design review for the proposed modifications to the home at 1541 Chablis Circle

Prepared By: Lilly Bianco, Contract Planner
Reviewed By: Noah Housh, Planning Director

[ITEM 5.3](#)

4. PL16-064: Design Review 69 - 94
LOCATION: 2175 Palmer Drive
APPLICANT: Holder Design Associates
APN: 009-690-014
CEQA: Exempt pursuant to Section 15301

DESCRIPTION: The applicant is requesting Design Review approval to perform a series of exterior modifications to the existing home at 2175 Palmer Drive in the LR: Low Density Residential district.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve design review for the proposed remodel of 2175 Palmer Drive.

Prepared By: Lilly Bianco, Contract Planner
Reviewed By: Noah Housh, Planning Director

[ITEM 5.4](#)

5. PL15-051: Demolition Permit, Design Review and Use Permit 95 - 340
LOCATION: 867 Dowdell Lane
APPLICANT: Tom Redmon
APN: 009-580-009
CEQA: In accordance with the California Environmental Quality Act (CEQA) Guidelines, an Initial Study and Mitigated Negative Declaration (IS/MND) has been prepared for the proposed project

DESCRIPTION: Request by Tom Redmon for Demolition Permit, Design Review and Use Permit approval to convert several existing structures and construct several new structures on the property located at 867 Dowdell Lane in the Industrial (I) district into a 24,000 gallon per year production winery without tastings or visitation including a commercial kitchen space for uses outside of wine production.

RECOMMENDED ACTION: Staff recommends that the Planning Commission accept the required findings and approve the demolition permit, design review and use permit for the proposed winery and commercial kitchen at 867 Dowdell Lane.

Prepared By: Aaron Hecock, Senior Planner
Reviewed By: Noah Housh, Planning Director

[ITEM 5.5](#)

6. DEPARTMENT REPORTS
This is an opportunity for staff to report on or update the Commission on any relevant matters.

1. General update on Department activities.

7. AGENDA FORCAST

Attached is a summary document of pending projects and up coming and items of priority and interest that will be placed on future agendas. This is also an opportunity for the Commission as a whole to request items be placed on future agendas for discussion. These items should be consistent with, and work to implement adopted Council Goals.

8. ADJOURNMENT

The next Regular Planning Commission meeting is scheduled for November 1, 2016 at 6:00 p.m. in the Vintage Hall Board Room located at 465 Main Street.

This agenda was posted at City Hall, 1480 Main Street, and at Vintage Hall, 465 Main Street, St. Helena, California on October 14, 2016.



Noah Housh, Planning Director

Appeal. A person who is dissatisfied with a decision of the Planning Commission may appeal that decision to the City Council pursuant to Municipal Code Section 17.08.180, Appeal procedure. Actions of the Planning Commission will be listed on the City Council agenda the following Tuesday to give the City Council opportunity to review the Planning Commission's decision. Absent of an appeal by the City Council or by a citizen, the appeal period will terminate two weeks after the Planning Commission hearing.

Special Assistance for the Disabled. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 967-2792. Notification 48 hours prior to the meeting will enable City to make reasonable arrangements to ensure accessibility to this meeting (28 CFR35.102-35.104 ADA Title II). However, City staff will attempt to assist at any time with accessibility. The City Clerk has equipment to assist those with a hearing impairment.

PUBLIC TESTIMONY PROCEDURES

Pursuant to the Government Code Section 54954.3, the public may address the Commission on each agenda item during the Commission's consideration of that item. Each speaker has the option to state his or her name for the record before testifying. Depending on the number of speakers or the interest of the item, the Planning Commission Chairman may also restrict, at his/her discretion, the speaker's time to three minutes. The

Chairman may also restrict public comments if they become irrelevant to the agenda item or repetitious of prior comments. All persons interested may appear and be heard or submit written statements prior to the Planning Commission meeting. Please note that if you challenge the City's decision on any of these matters in court, you may be limited to raising only those issues you or someone else raised at the meeting or in written correspondence delivered to the City at, or prior to, the meeting.

CHALLENGING DECISIONS OF CITY ENTITIES

The time limit within which to commence any lawsuit or legal challenge to any quasi-adjudicative decision made by the City of St. Helena is governed by Section 1094.6 of

the Code of Civil Procedure, unless a shorter limitation period is specified by any other provision, including without limitation Government Code section 65009 applicable to many land use and zoning decisions, Government Code section 66499.37 applicable to the Subdivision Map Act, and Public Resources Code section 21167 applicable to the California Environmental Quality Act (CEQA). Under Section 1094.6, any lawsuit or legal challenge to any quasi-adjudicative decision made by the City must be filed no later than the 90th day following the date on which such decision becomes final. Any lawsuit or legal challenge, which is not filed within that 90-day period, will be barred. Government Code section 65009 and 66499.37, and Public Resources Code section 21167, impose shorter limitations periods and requirements, including timely service in addition to filing.

If a person wishes to challenge the above actions in court, they may be limited to raising only those issues they or someone else raised at the meeting described in this notice, or in written correspondence delivered to the City of St. Helena, at or prior to the meeting. In addition, judicial challenge may be limited or barred where the interested party has not sought and exhausted all available administrative remedies.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the Planning Commission regarding any item on this Agenda, after the posting of the Agenda, will be available for public review in the Planning Department's Office located at 1480 Main Street, St. Helena, California, during normal business hours. In addition, such writings or documents will be made available on the City's web site at <http://cityofsthelena.org> and will be available for public review at the respective meeting.



**ACTION MINUTES
ST. HELENA PLANNING COMMISSION
VINTAGE HALL BOARD ROOM – 2ND FLOOR
465 MAIN STREET, ST. HELENA
OCTOBER 4, 2016
6:00 P.M. REGULAR MEETING**

- 1. PLEDGE OF ALLEGIANCE**
- 2. CALL TO ORDER AND ROLL CALL:**

Chairperson: Grace Kistner
Vice Chair: Mary Koberstein
Commissioners: Sarah Parker, Bobbi Monnette, Tracy Sweeney
Staff Present: Noah Housh, Planning and Community Improvement Director, Aaron Hecock, Senior Planner, Tom Brown, City Attorney, Xinia Gamero, Administrative Assistant.

- 3. PUBLIC FORUM:** This is an opportunity for the public to address the Commission on items of interest to the public that are NOT listed on the agenda. Because of restrictions imposed by the Brown Act, the Commission may not engage in discussion nor take action on matters not described on the agenda. **Please observe the time limit of three minutes.**

Chair Kistner opened Public Forum.

Lois Battuello addressed the Commission.

Chair Kistner closed Public Forum.

CONSENT ITEMS: Members of the Commission or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless this is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

- 4. APPROVAL OF MINUTES:** *September 20, 2016*

MOTION: Commissioner Koberstein moved to approve the Minutes from September 20, 2016 on the Consent Calendar. The motion was seconded by Commissioner Monnette and roll call carried by the following vote:

*Planning Commission Agenda
October 4, 2016*

AYES: Commissioners Koberstein, Monnette, Sweeney, Kistner
NOES: None
ABSENT: None
ABSTAIN: Commissioner Parker

PUBLIC HEARINGS:

5. **PL15-067:** Demolition Permit & Design Review
LOCATION: 1695 Chardonay Way
APPLICANT: Daniel Schoenfeld
APN: 009-541-001
CEQA: Exempt pursuant to Section 15301 and 15303

DESCRIPTION: *Request by Daniel Schoenfeld on behalf of Grand View Estates, LLC for Demolition Permit and Design Review approval to demolish an existing single-family residence and associated accessory structures in order to construct a new single-family home with a two-car garage on the property located at 1695 Chardonay Way in the LR: Low Density Residential district.*

RECOMMENDED ACTION: *Staff recommends that the Planning Commission accept the required findings and approve the proposed demolition permit and design review to allow for a new single-family home at 1695 Chardonay Way.*

Aaron Hecock reported on Item.

Chair Kistner opened Public Hearing.

Ms. Boak, Donna Oldford and Tracey Skupny addressed the Commission.

Chair Kistner closed Public Hearing.

MOTION: Commissioner Sweeney moved that the Planning Commission accept the required findings and approve the proposed demolition permit and design review to allow for a new single-family home at 1695 Chardonay Way. The motion was seconded by Vice Chair Koberstein and roll call carried by the following vote:

AYES: Commissioner Sweeney, Koberstein, Parker, Kistner
NOES: Commissioner Monnette
ABSENT: None
ABSTAIN: None

SCHEDULED MATTERS:

6. **DESCRIPTION:** Review for accuracy the updated summary of Planning Commission direction on the April 2016 General Plan as presented by the Chair and Vice Chair of the Planning Commission at the July 19, 2016, and amended by the Planning Commission at the August 2, 2016, Planning Commission meeting.

Item No: 4.1

RECOMMENDED ACTION: Review the attached “Draft Summary of Planning Commission Direction on the April 2016 General Plan, as updated August 2, 2016 (Attachment 1), and provide direction to staff concerning its accuracy and completeness.

Noah Housh addressed the Commission.

Chair Kistner opened Public Comment.

Pam Simpson and Vicky Bradshaw addressed the Commission.

Chair Kistner closed Public Comment.

7. DEPARTMENT REPORT:

This is an opportunity for staff to report on or update the Commission on any relevant matters.

- *General update on Department activities.*

Noah Housh reported on Item.

- 8. AGENDA FORCAST:** Attached is a summary document of pending projects and upcoming items of priority and interest that will be placed on future agendas. This is also an opportunity for the Commission as a whole to request items be placed on future agendas for discussion. These items should be consistent with, and work to implement adopted Council Goals.

ADJOURNMENT: Chair Kistner adjourned the meeting at **7:30 p.m.**

APPROVED:

ATTEST:

Grace Kistner
Chair, Planning Commission

Noah Housh
Planning Director

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**CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET-ST. HELENA, CA 94574
PLANNING COMMISSION**

October 18, 2016

AGENDA ITEM: 5

FILE NUMBER: PL16-067

SUBJECT: Salvestrin Sign Permit Application

PREPARED BY: Lilly Bianco, Contract Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 09/16/2016

ACCEPTED AS COMPLETE: 10/10/16

LOCATION OF PROPERTY: 397 Main Street

APN: 009-350-047

GENERAL PLAN/ZONING: Agriculture/ W: Winery

APPLICANT: Richard Salvestrin

PHONE: 1 (707)590-6053

PROJECT DESCRIPTION

Applicant, Richard Salvestrin, is requesting a sign permit to install monument signage at the frontage of Salvestrin Vineyards at 397 Main Street. According to Municipal Code Section 17.148.010, a sign refers to, "any medium, including its structure and component parts in view of the general public, which is used to attract attention for advertising or identifying purposes."

The proposed monument signage would be comprised of metallic lettering applied to 1'9" x 8'0" barn wood bases and adhered to an 18 foot long, 3' 6" tall stone wall featuring 5' tall columns (end caps) flanking the driveway. The stone wall would transition to a split rail fence/gate that would extend to the property line on either side of the entry (**ATTACHMENT 3**). The total monument signage proposed would equal 36 square feet and consist of the following types:

1. Two (2) Identification signs at either side of entry and centered on the stone walls. The lettering would be centered on a 1'9"x 8'0" barn wood base adhered to the stone wall and would feature 6" tall metallic lettering that reads "SALVESTRIN". The signs would be backlit.

2. One (1) Locational sign to be applied to northeast column; it would feature 9" tall metallic lettering centered on 1'6" x 2'8" barn wood base and be illuminated by undercap LED down lighting
3. One (1) incidental sign applied to northwest column; it would feature 3" tall metallic lettering that would read "TASTING BY APPOINTMENT." The lettering would be applied to a 1'6" x 2'8" barn wood base and illuminated by undercap LED down lighting

With the addition of the proposed monument signage the Salvestrin Winery property would exhibit a cumulative sign square footage of 36 square feet.

ANALYSIS

CEQA

This project is exempt from the requirements of CEQA pursuant to Section 15311 of the CEQA Guidelines, which exempts on-premise business signs.

GENERAL PLAN

The subject property exhibits a General Plan land Use Designation of Agriculture (AG). This designation allows for agricultural uses, wineries, single family residences, and public and quasi-public uses. The AG Designation is applied to areas of the Valley Floor that surround the urban core area.

ZONING

Consistent with the GP Land use Designation, 397 Main Street exhibits a zoning designation of W: Winery. The "W" zoning designation provides for wineries and winery related uses within the AG Land Use Designation and is applied to any lands devoted to the production of wine and vineyards which are owned by the respective winery.

SIGN REGULATIONS

In accordance with Municipal Code Section 17.148.040(6) signs within Winery or Agricultural Zoning Districts are subject to discretionary review by the Planning Commission. This section does not prescribe specific standards for signs in winery zoning districts; rather, it leaves the discretion with the review body.

In general, the Planning Commission is to consider the proposed signage in terms of compatibility with the site, the appropriateness of the materials and colors in relation to the project, the compatibility of the sign to the small town character of St. Helena, as well as the impact the sign may have on surrounding properties. The Commission shall not approve signs which obscure or detract from the architecture of a historic building or structure. More specifically, for signage proposed within Winery and Agricultural Districts, the Commission is to consider the cumulative visual impact of all signs on the property.

Monument signage, such as that proposed here, is regulated by Municipal Code Section 17.148.070. Monument signs are defined as “a sign(s) supported by structures or supports that are placed on or anchored in the ground that are independent from any building or other structure.” The analysis below includes the code provisions and a statement as to how the Salvestrin sign proposal is consistent.

1. All monument signs shall be located on the property served by the sign; off-premises signs are not permitted.

The monument signage is located at the frontage of Salvestrin winery at 397 Main Street and within the property lines as delineated on Sheet A2 of project plans (ATTACHMENT 3).

2. The maximum height of a monument sign shall be eight (8) feet, as measured from the base of the sign at normal grade to the top of the highest attached component of the sign. Normal grade shall be considered to be the grade after construction exclusive of any filling, berming, mounding, or excavating for landscaping or for the purpose of locating the sign.

The Monument signage will exhibit a maximum height of 5’ as measured from normal grade and therefore is within the allowable eight foot height limit.

3. Monument signs shall be located no closer to the right-of-way than one-half the distance of a required front or side setback. Use permit approval shall be required for any request to locate a monument sign closer to the right-of-way than is permitted above.

Pursuant to Code Section 17.24.060, the property is subject to a front setback of 100 feet and side setback of 50 feet. Accordingly, the proposed signage must be setback from the Main Street Right of Way (ROW) by a minimum of 50 feet. Per project plans, page A2 (ATTACHMENT 3), the sign (inclusive of supporting stone wall structure) will exhibit a minimum setback of 57 feet from the ROW and a maximum setback of 64 feet 10 inches. As such, the proposed signage complies with this provision.

CORRESPONDENCE

As of the completion of this report, no comments on the proposed signs have been received by staff.

ISSUES

Given the straightforwardness of the proposal and consistency with applicable guidelines and standards no unresolved issues require attention at this time.

STAFF RECOMMENDATION

The proposed monument signage meets all applicable development standards, as described above. Staff determines that the proposed signage is consistent with the

established agriculture character of the property and immediate vicinity and would not introduce any site distance issues given the setback. Accordingly staff recommends that the Planning Commission:

1. Determine that the signs are exempt from the requirements of CEQA pursuant to Section 15311, Class 11(a) of the CEQA Guidelines which exempts on premise business signs; and
2. Accept the required findings enumerated in Municipal Code Section 17.148.040 and 17.148.070 and adopt a resolution approving three (3) new monument signs at 397 Main Street.

ATTACHMENTS

1. Resolution / Conditions of Approval
2. APN Map
3. Sign Exhibits

**CITY OF ST. HELENA, STATE OF CALIFORNIA
SIGN PERMIT NO. PL16-067
GRANTED TO 397 MAIN STREET**

PROPERTY OWNER: G3 Land Co., Richard Salvestrin **APN:** 009-350-047

RECITALS

1. The applicant submitted for a sign permit in order to place new monument signs on the Salvestrin Winery property located at 397 Main Street in the W: Winery Zoning District.
2. New signage proposed includes monument signage that would generally serve identification, locational, and incidental purposes.

RESOLUTION

The Planning Commission of the City of St. Helena, State of California, approves the Sign Permit on the following basis:

- A. The Planning Commission hereby finds that this project is exempt from the California Environmental Quality Act pursuant to Section 15311, Class 11 (a), which exempts installation of on premise signs.
- B. The Planning Commission hereby finds that the proposed signs are in compliance with the requirements of Municipal Code Section 17.148.040 and 17.148.070 relating to the type, placement, and compatibility of monument signage in the W: Winery District.
- C. The Sign Permit for the above described is granted subject to compliance with the following conditions. The permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.
 1. The Permit shall be vested within one (1) year from the date of approval. The Permits may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.130, Extension of Permits and Approvals. Any request for an extension of the Sign Permit and Use Permit must be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.
 2. This permit is valid for this use only. New permits must be applied for upon any change in use. These permits will expire if the use is discontinued pursuant to existing ordinances and regulations.
 3. In any action or proceeding to attack, challenge, invalidate, set aside, void or annul the City's approval of applicant's Project, in whole or in part, applicant shall defend, at its own expense and without any cost to the City, and with counsel acceptable to the City, and shall fully and completely indemnify and hold the City, its agents, officers, and employees harmless from and against any and all claims, causes of

*397 Main Street
Sign Permit - Conditions
October 18, 2016*

action, damages, costs, attorney's fees and liability of any kind, so long as the City reasonably promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.

4. This Sign Permit shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
5. The signs authorized by this Sign Permit shall conform to the details and dimensions shown on the Exhibits which were reviewed and approved by the Planning Commission at their October 18, 2016 hearing.
6. No internal illumination of signs is permitted.
7. An Encroachment Permit shall be obtained by the applicant prior to installation of the sign if work involves locating of any person or structure on public property, such as a sidewalk, driveway, or street, if necessary.
8. Provided they are in general compliance with the Sign Ordinance, minor modifications may be approved by the Planning Director.

I HEREBY CERTIFY that the foregoing sign permit was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on October 18, 2016 by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

APPROVED:

ATTEST:

Grace Kistner
Chair, Planning Commission

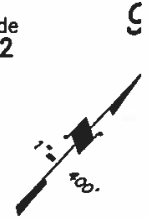
Noah Housh
Planning Director

Item No: 4.2

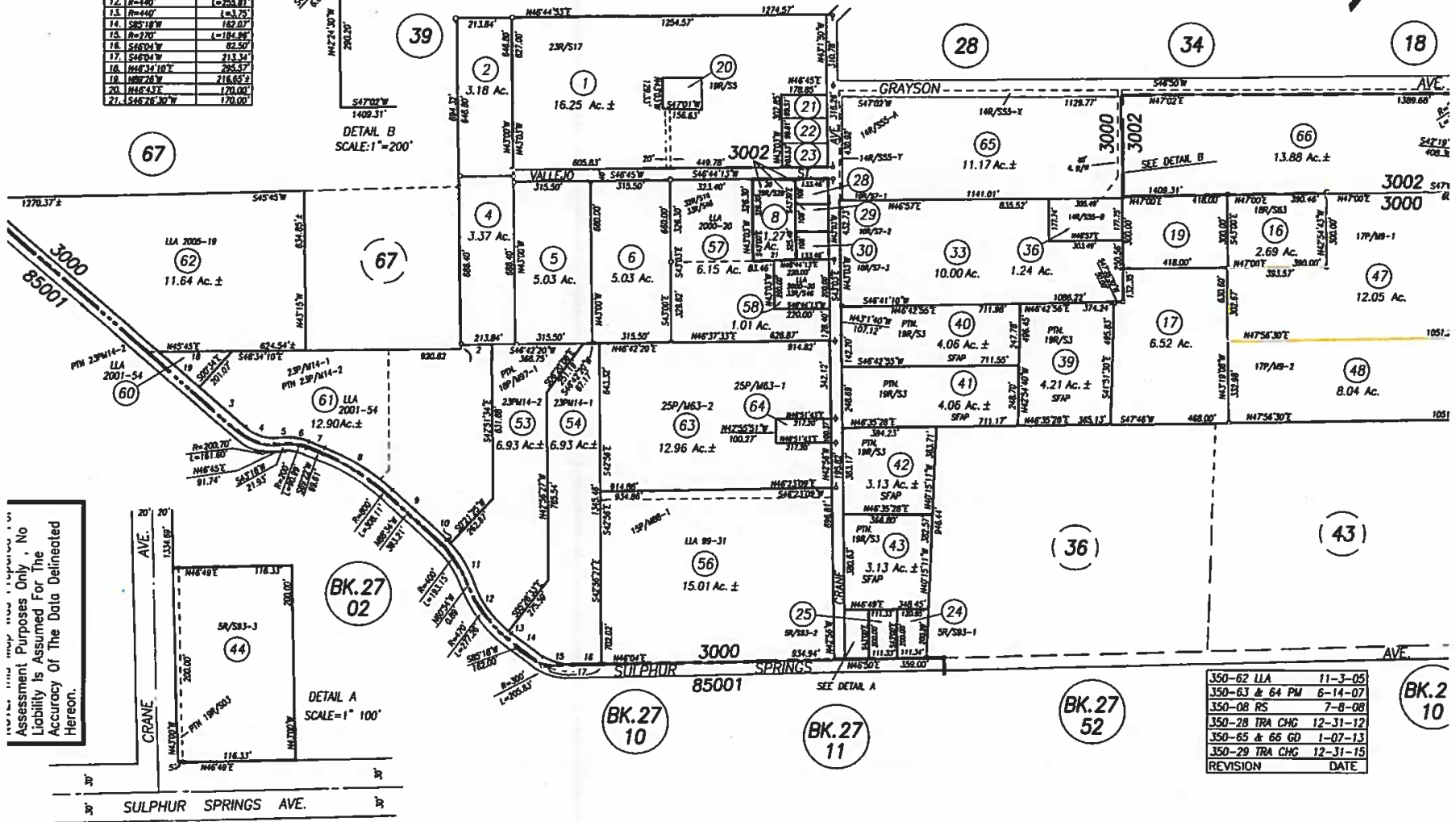
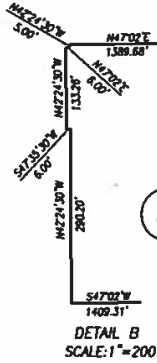
COUNTY ASSESSOR'S PARCEL MAP

PTN. RANCHO CARNE HUMANA
R.M. BK. D OF PATENTS, PG. 127

Tax Area Code
3000, 3002
85001



1.	N42°41'W	15.53'
2.	N46°42'20"E	116.30'
3.	S89°28'W	243.23'±
4.	R=120.70'	(L=122.44')
5.	S42°18'W	21.83'
6.	R=230'	(L=104.64')
7.	S89°22'W	69.61'
8.	R=830'	(L=319.66')
9.	S89°34'W	263.21'
10.	R=300'	(L=31.01')
11.	R=430'	(L=176.61')
12.	R=440'	(L=255.81')
13.	R=440'	(L=3.75')
14.	S85°18'W	162.07'
15.	R=720'	(L=184.86')
16.	S46°04'W	62.50'
17.	S42°04'W	211.34'
18.	N46°34'10"E	265.57'
19.	N89°28'W	216.65'±
20.	N46°43'E	170.00'
21.	S46°26'30"W	170.00'



Assessment Purposes Only, No Liability Is Assumed For The Accuracy Of The Data Delineated Hereon.

DETAIL A
SCALE=1"=100'

350-62 LLA	11-3-05
350-63 & 64 PM	6-14-07
350-08 RS	7-8-08
350-28 TRA CHG	12-31-12
350-65 & 66 GO	1-07-13
350-29 TRA CHG	12-31-15
REVISION	DATE

Item No

REVISIONS	BY
4.2	

Designer:
Kristin Martin Design
Kristine
KristinMartinDesign.com

Drafting & Design:
n2k CAD Services
319 12th Street
Petaluma, CA 94452

Entry Gate
Drawings For:

Salvestrin
Winery

397 Main St.
St. Helena, Ca

DRAWN
n2k
ISSUED
PERMIT
DATE
September 15, 2016
SCALE
AS NOTED
SHEET

A1

APPLICANTS / PROPERTY OWNER:

Richard & Shannon Salvestrin
Salvestrin Vineyards
397 Main Street
St. Helena, Ca

SHEET INDEX:

- A1 Sheet Index, Project Data, Vicinity Map
- A2 Site Plan
- A3 Enlarged Partial Plan & Elevations
- A4 Existing Entry Photo
- A5 Proposed Entry Rendering

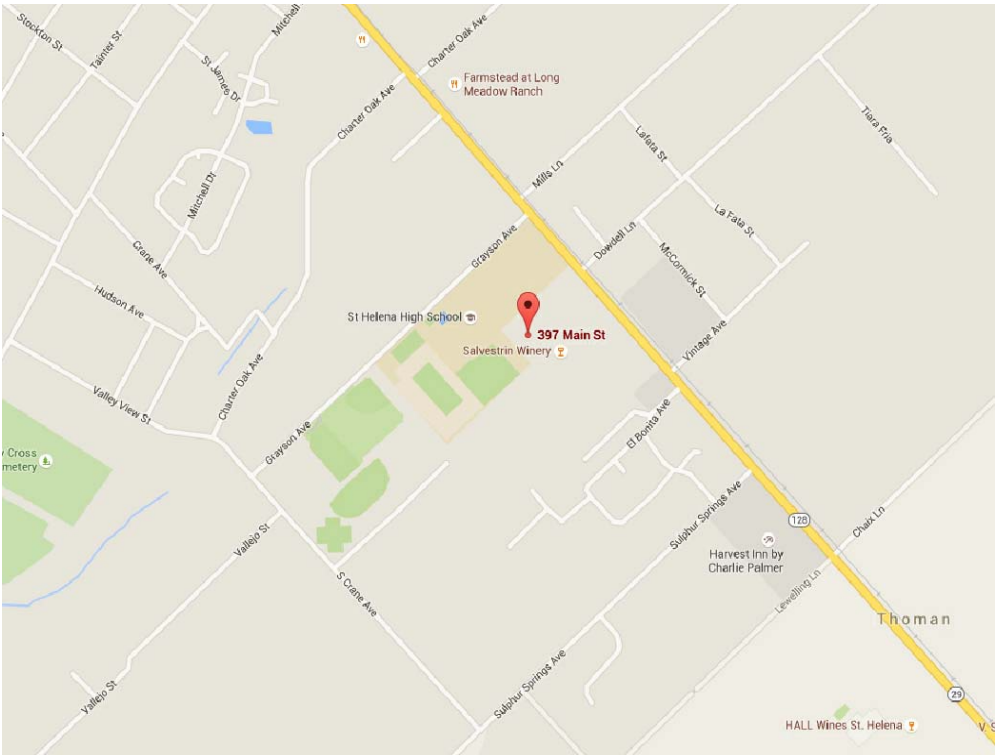
PROJECT ADDRESS:

397 Main Street
St. Helena, Ca

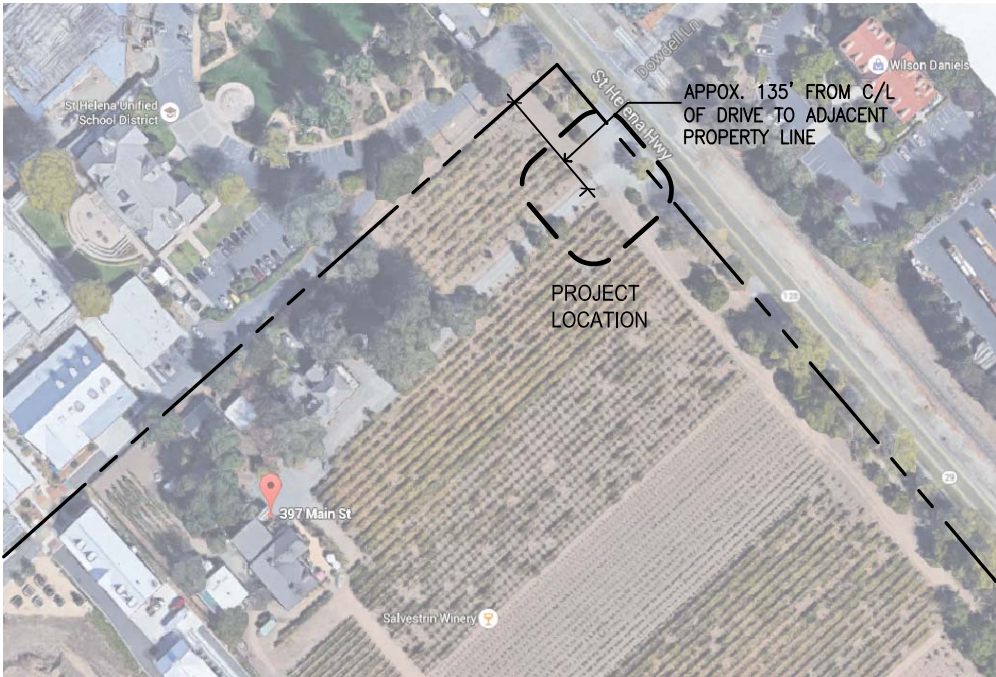
SCOPE OF WORK:

Replace existing entry gate
with new entry gate & signage

APN: 009-350-047

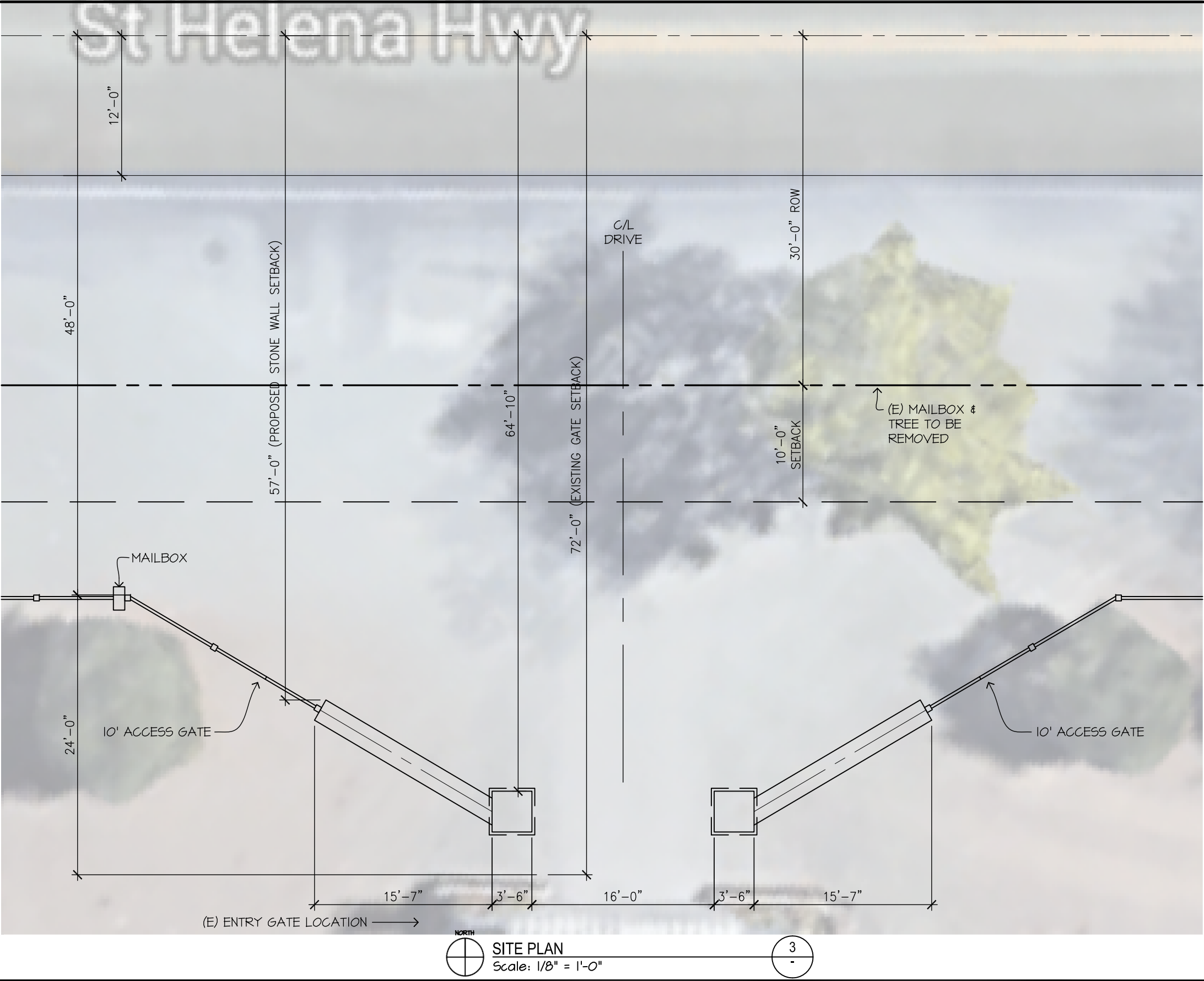


Vicinity Map
Scale: NTS



Aerial Map
Scale: NTS





Item No

REVISIONS	BY
4.2	

Designer:
Kristin Martin Design
Kristine
KristinMartinDesign.com

Drafting & Design:
n2k CAD Services
319 12th Street
Petaluma, CA 94952

Entry Gate
Drawings For:

Salvestrin
Winery

397 Main St.
St. Helena, Ca

DRAWN
n2k
ISSUED
PERMIT
DATE
September 15, 2016
SCALE
AS NOTED
SHEET

A2

Item No

REVISIONS	Date
1. Sign Elevation	9/24/16

Designer:
Kristin Martin Design
Kristine
KristinMartinDesign.com

Drafting & Design:
n2k CAD Services
319 12th Street
Petaluma, CA 94952

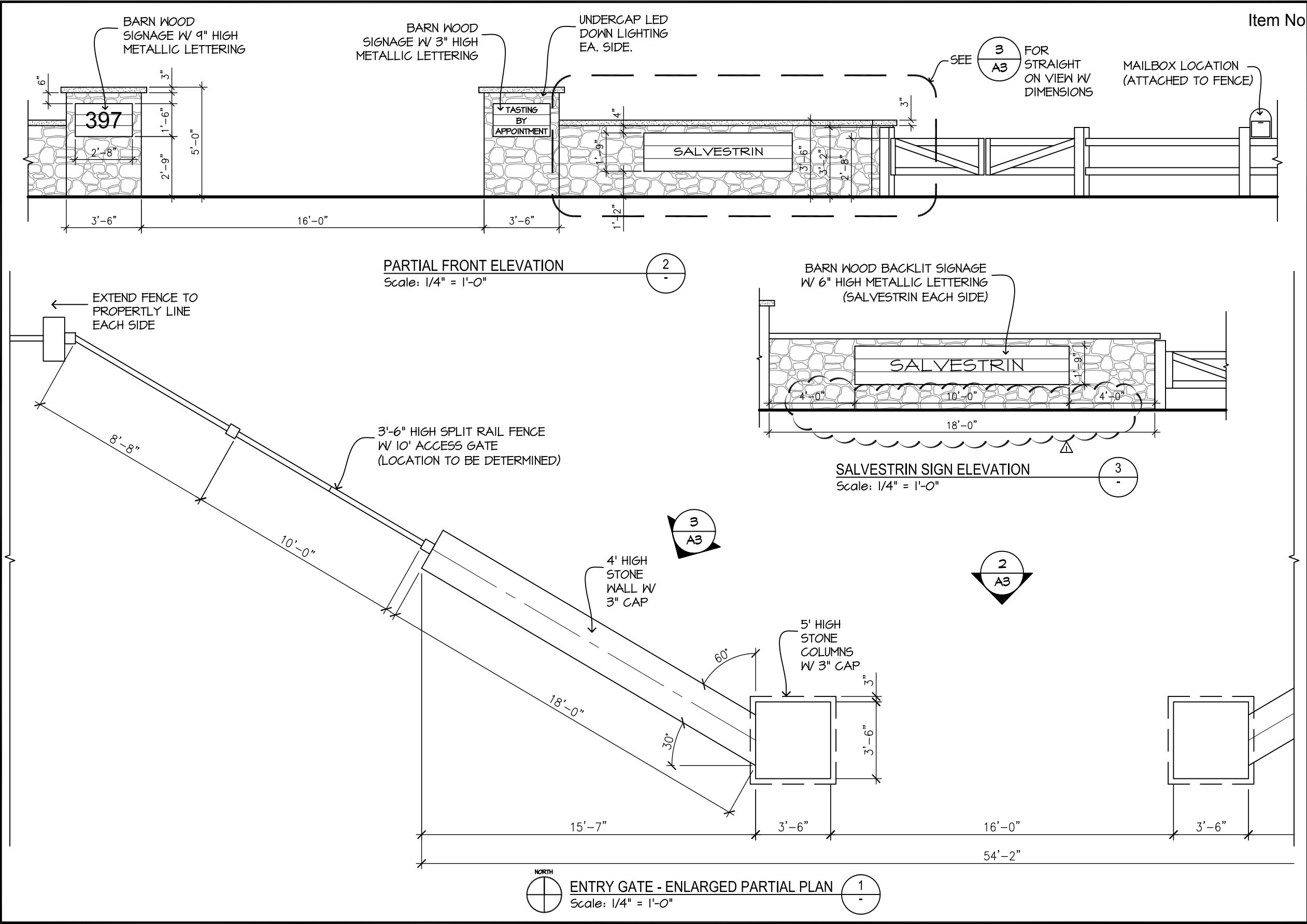
Entry Gate
Drawings For:

Salvestrin
Winery

397 Main St.
St. Helena, Ca

DRAWN
n2k
ISSUED
PERMIT
DATE
September 15, 2016
SCALE
AS NOTED
0' 1" 2' 3' 4' 5' 6' 7' 8' 9' 10'
SHEET

A3



Item No

REVISIONS	BY
4.2	

Designer:
Kristin Martin Design
~~Kristine~~
KristinMartinDesign.com

Drafting & Design:
n2k CAD Services
319 12th Street
Petaluma, CA 94952

Entry Gate
Drawings For:

Salvestrin
Winery

397 Main St.
St. Helena, Ca

DRAWN
n2k
ISSUED
PERMIT
DATE
September 15, 2016
SCALE
AS NOTED
0' 1" 2' 3' 4'
SHEET
A4



EXISTING ENTRY PHOTO



Item No

REVISIONS	BY
4.2	

Designer:
Kristin Martin Design
~~Kristine~~
KristinMartinDesign.com

Drafting & Design:
n2k CAD Services
319 12th Street
Petaluma, CA 94952

Entry Gate
Drawings For:

Salvestrin
Winery

397 Main St.
St. Helena, Ca

DRAWN
n2k
ISSUED
PERMIT
DATE
September 15, 2016
SCALE
AS NOTED
0' 1" 2' 3' 4'
SHEET
A5



PROPOSED ENTRY RENDERING

2
-

**CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET- ST. HELENA, CA 94574
PLANNING COMMISSION**

OCTOBER 18, 2016

AGENDA ITEM: 7

FILE NUMBER: PL16-052

SUBJECT: The applicant requests Design Review approval in order to remodel and enlarge, including a new second story, the existing single-family home location at 1580 Hillview Place in the MR: Medium Density Residential district.

PREPARED BY: Aaron Hecock, Senior Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 07/12/16

ACCEPTED AS COMPLETE: 09/23/16

LOCATION OF PROPERTY: 1580 Hillview Place

APN: 009-171-013

GENERAL PLAN/ZONING: MR: Medium Density Residential

APPLICANT: Perry and Christine Clark

PHONE: (707) 477-5029

PROJECT DESCRIPTION

The existing 7,800-sf parcel at 1580 Hillview Place is currently developed with a 1,315-sf, one-story, single-family residence with a 320-sf attached garage and 373-sf enclosed rear patio. The applicant is seeking design review approval to substantially remodel the existing home including the addition of a second story over the garage. Proposed changes would result in 1,551-sf of living space on the first floor including a 300-sf garage and 882-sf of living space on the new second story above the existing garage. This remodel would include moving the footprint of the home approximately 5' away from Stockton Street and removing several walls of an enclosed rear patio. The remodel and addition would result in the home going from 3 bedrooms and two bathrooms to 4 bedrooms and 3 bathrooms with a majority of the bedroom space moving from the first floor to the second floor. The home would be finished with board and batten / horizontal siding and a black standing seam metal roof. The overall height of the home would increase from approximately 16 ½ feet to 24'3".

ANALYSIS

CEQA

The project is exempt from the requirements of CEQA pursuant to Section 15301 which exempts the minor alteration of existing private structures and Section 15303, which

exempts the construction or conversion of small structures including single-family residences, garages, pools, etc.

GENERAL PLAN/ZONING

The property has a General Plan and Zoning designation of Medium Density Residential (MR). This district provides for single-family detached homes, accessory dwelling units and other compatible uses. The remodeling of a single-family home is a permitted use in the MR district.

As far as the Floor Area Ratio (F.A.R.) is concerned, a 7,800-sf parcel has a maximum F.A.R. of .332 which allows up to 2,590-sf of building floor area (excluding any applicable F.A.R. exemptions). For the purposes of F.A.R., the applicant is proposing 2,533-sf of floor area for a F.A.R. of .32, which is approximately 57-sf below the maximum square footage permitted (see below).

EXISTING FLOOR AREA:

RESIDENCE	1315 SF
GARAGE	320 SF
ENCLOSED PATIO	373 SF
COVERED PARKING EXEMPTION	-200 SF

TOTAL 1,808 SF

PROPOSED FLOOR AREA:

RESIDENCE – 1 st FLOOR	1551 SF
RESIDENCE – 2 nd FLOOR	882 SF
GARAGE	300 SF
COVERED PARKING EXEMPTION	-200 SF

TOTAL 2,533 SF

FLOOR AREA RATIO: 2,533 / 7,800 = .32

The home as proposed will be 60-feet wide along the front elevation which is in conformance with the maximum permitted width of a structure in the MR district. The existing home has an enclosed rear patio area that is considered non-conforming as it doesn't meet the required 20-foot setback. As part of this application, the applicant proposes to remove several of the walls that currently enclose the patio thereby decreasing the degree of non-conformity. The project as proposed meets all other development standards in the MR district including lot coverage, floor area, height, etc.

HISTORIC RESOURCES

The existing home was constructed in approximately 1961 and is not listed on the City's Historical Resources Master List.

DESIGN REVIEW

The purpose of design review is to, among other things, promote the qualities that bring value to the community and foster attractiveness and functional utility of the community

as a place to live and work. The following design criteria should be considered by the Planning Commission in review of this application (Zoning Ordinance Section 17.164.030):

1. Consistency and compatibility with applicable elements of the general plan;
2. Compatibility of design with the immediate environment of the site;
3. Relationship of the design to the site;
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land uses;
6. Compatibility with future construction both on and off the site;
7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;
16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;
17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

Corner parcels are particularly challenging because they have three (3) twenty-foot setbacks however, the applicant has designed a home that meets the required development standards for a corner lot in the Medium Density Residential district. Also, homes in the project vicinity vary in size and design and there are numerous two-story homes in the area, including immediately next door to the subject property. Staff believes that the proposed project is consistent with the required design review criteria listed above.

CORRESPONDENCE

At the time of packet distribution staff had received no letters in support or opposition to this application.

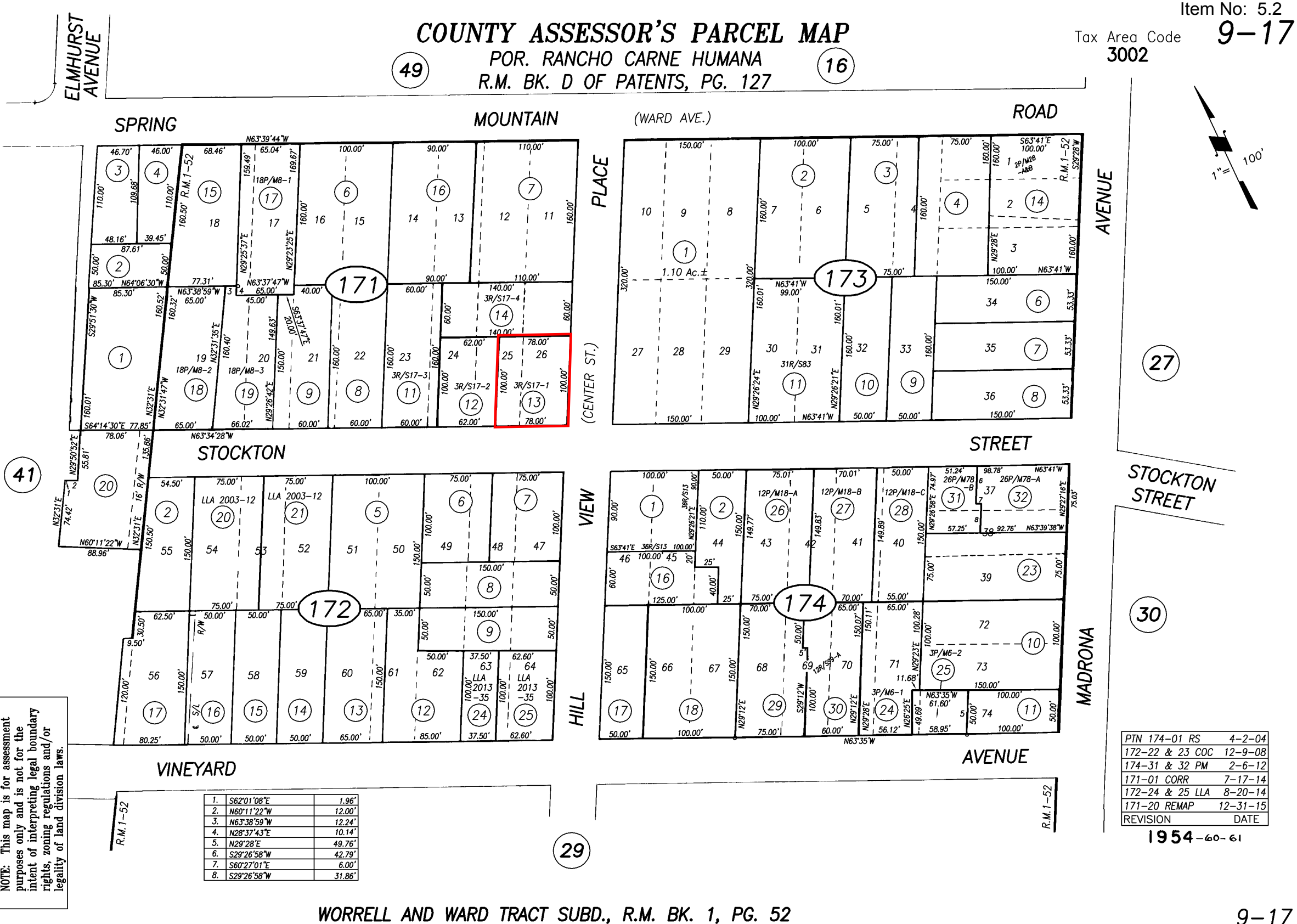
STAFF RECOMMENDATION

Staff finds that the proposed configuration of the site, the overall design elements and proposed materials/finishes are in character with the neighborhood and the community in general and therefore recommends that the Planning Commission:

1. Determine that the project is exempt from the requirements of CEQA, pursuant to Section 15301, which exempts the minor alteration of existing private structures; and Section 15303, which exempts the construction or conversion of small structures including single-family residences, garages, pools, etc.
2. Accept the required findings and approve design review for the proposed remodel and addition to the residence located at 1580 Hillview Place.

ATTACHMENTS

1. Resolution / Conditions of Approval
2. APN Map
3. Site Photo
4. Plans



WORRELL AND WARD TRACT SUBD., R.M. BK. 1, PG. 52



1435 Hillview Pl



Item No:

5.2

Exit Street View

[Report a problem](#)

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Google earth

38°30'16.40" N 122°28'38.63" W elev 297 ft eye alt 305 ft



PROJECT INFORMATION:
Residential Remodel for:
Perry and Christine Clark
1580 Hillview Place
Saint Helena, CA 94574
707.477.5029

Assessor Parcel Number: 009-171-013-000
Existing Use: Single Family Residence
Proposed Use: Single Family Residence
Zoning: MDR
Occupancy Group: R-3
Construction Type: V
Number of Stories: 2

SCOPE OF WORK:
Remodel and addition to existing single family residence.
Convert existing single story 3 bedroom, 2 bathroom home
to two story 4 bedroom, 3 bathroom home.

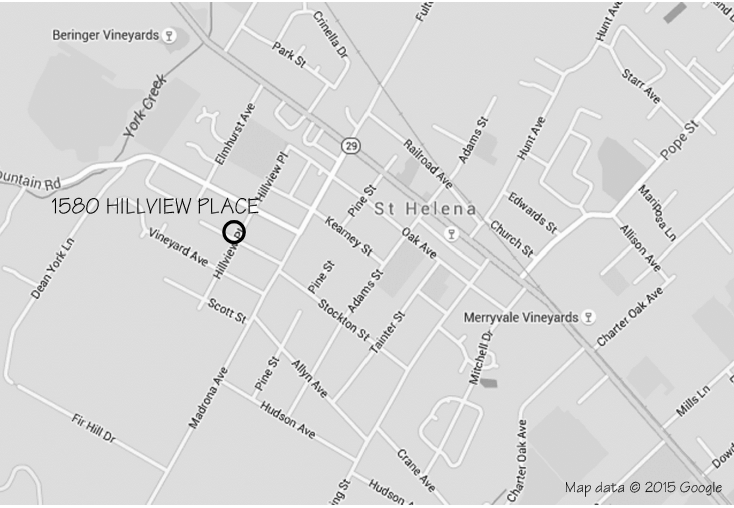
AREA CALCULATIONS:
First Floor 1,851 SqFt
Second Floor 881.5 SqFt
2,732.5 SqFt
Covered Parking Exemption - 200 SqFt
2,532.5 SqFt

Lot Area 8,034 SqFt
F.A.R. 2,532.5 / 8,034 31.5%
Allowable Area 2,640 SqFt 33%

Additional Area Exempt From F.A.R.
Covered Patio (Existing Reduced) 345 SqFt
Covered Porch (Existing Expanded) 422.5 SqFt

Proposed Lot Coverage 2,579 / 8,034 32%
Allowable Lot Coverage 45%

SHEET INDEX:
A-1 - Project Information / Plot Plan
A-2 - Site Plan / Grading/Drainage Plan
A-3 - Existing Floor Plan / Demolition Plan
A-4 - Proposed Floor Plans
A-5 - Existing Vegetation / Landscape Plan / Roof Plan
A-6 - Elevations
A-7 - Elevations



PROJECT LOCATION



SITE PLAN
PROJECT INFORMATION
PLOT PLAN

Single Family Residential Addition
for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	VARIES
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

REVISIONS	BY	DATE

SHEET:
P-1
OF:
7

SITE PLAN GRADING / DRAINAGE PLAN

Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	$\frac{1}{4}" = 1'-0"$
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

REVISIONS	BY	DATE

OF:

7



MHD

matl hepner design

622 de la vina street

santa clara, ca 95050

matlhepnerdesign@gmail.com

EXISTING FLOOR PLAN

EXISTING FLOOR PLAN
DEMOLITION PLAN

Single Family Residential Addition

for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	1/4" = 1'-0"
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

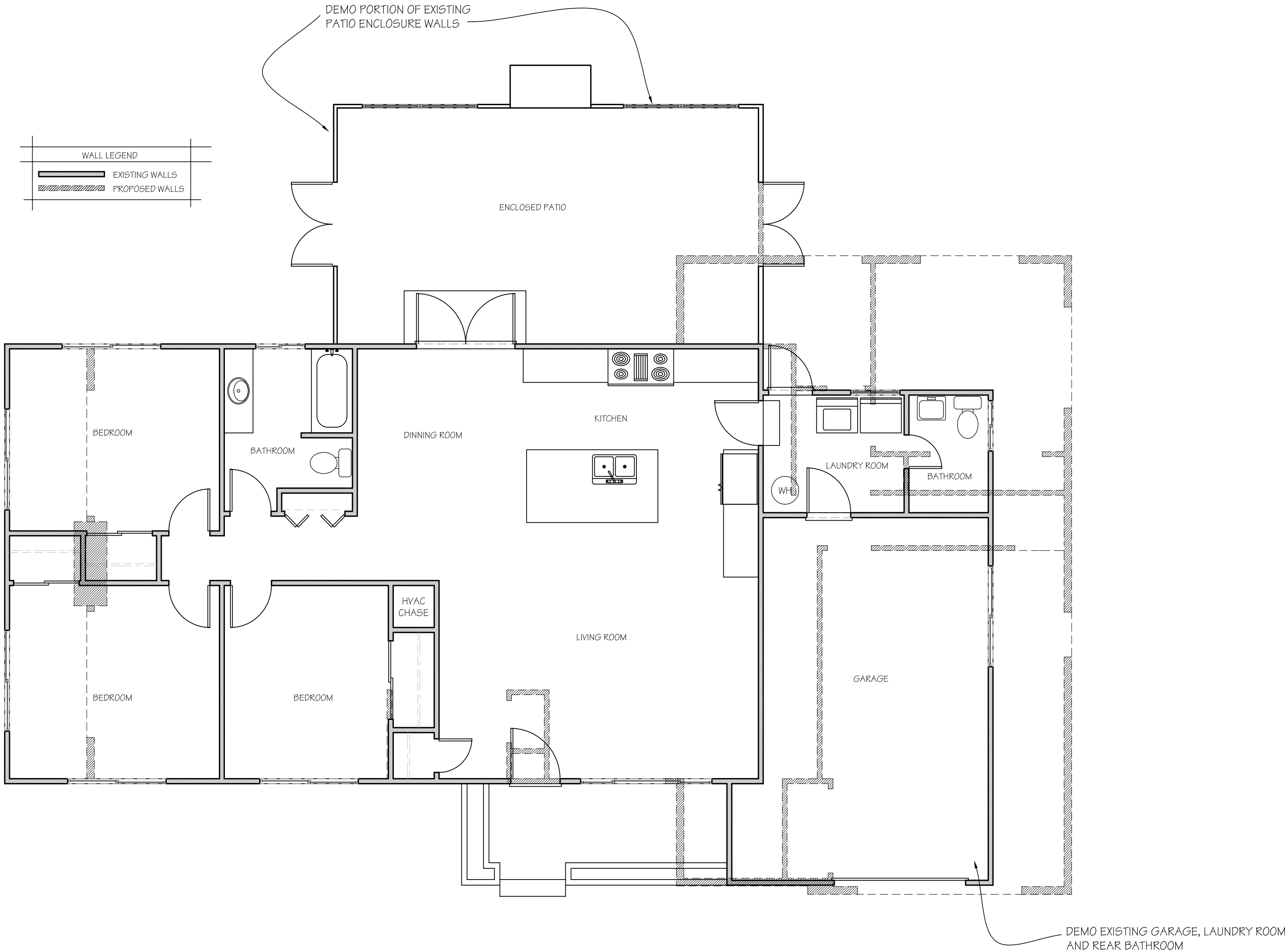
REVISIONS	BY	DATE

SHEET:

P-4

OF:

7



EXISTING FLOOR PLAN

SCALE: 1/4" = 1'-0"

MHD

matthieperdesign

622 de la vina street

santa clara, ca 95050

matthieperdesign@gmail.com

PROPOSED FLOOR PLANS

PROPOSED FIRST FLOOR PLAN
PROPOSED SECOND FLOOR PLAN

Single Family Residential Addition

for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	1/4" = 1'-0"
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

REVISIONS	BY	DATE

SHEET:

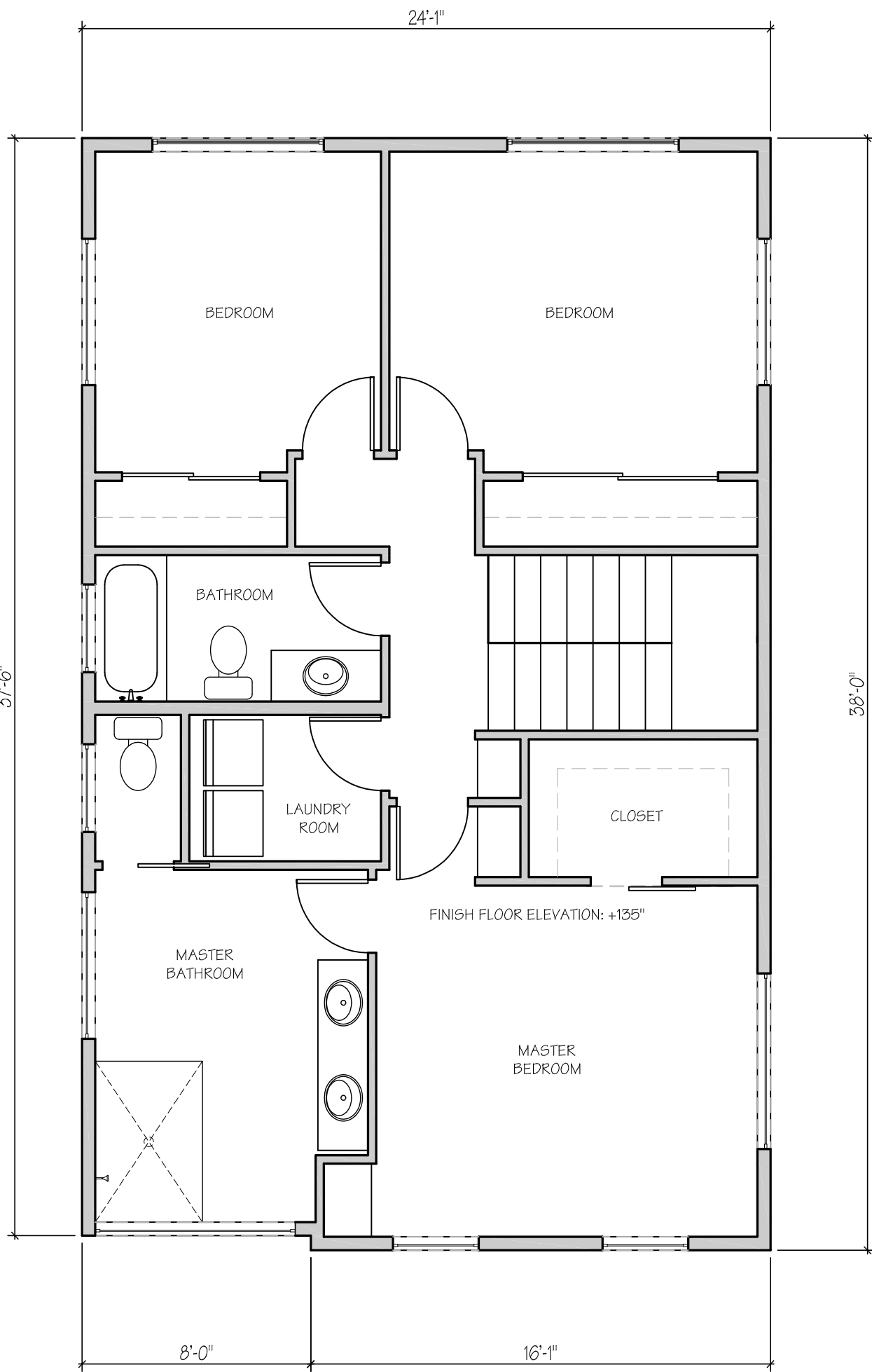
P-4

OF:

7



PROPOSED FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



PROPOSED SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

MHD

mat hepner design
622 de la vina street
san jose, ca 95128
mathepnerdesign@gmail.com

LANDSCAPE PLAN / ROOF PLAN

LANDSCAPE PLAN
EXISTING VEGETATION
ROOF PLAN

Single Family Residential Addition

for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	1/4" = 1'-0"
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

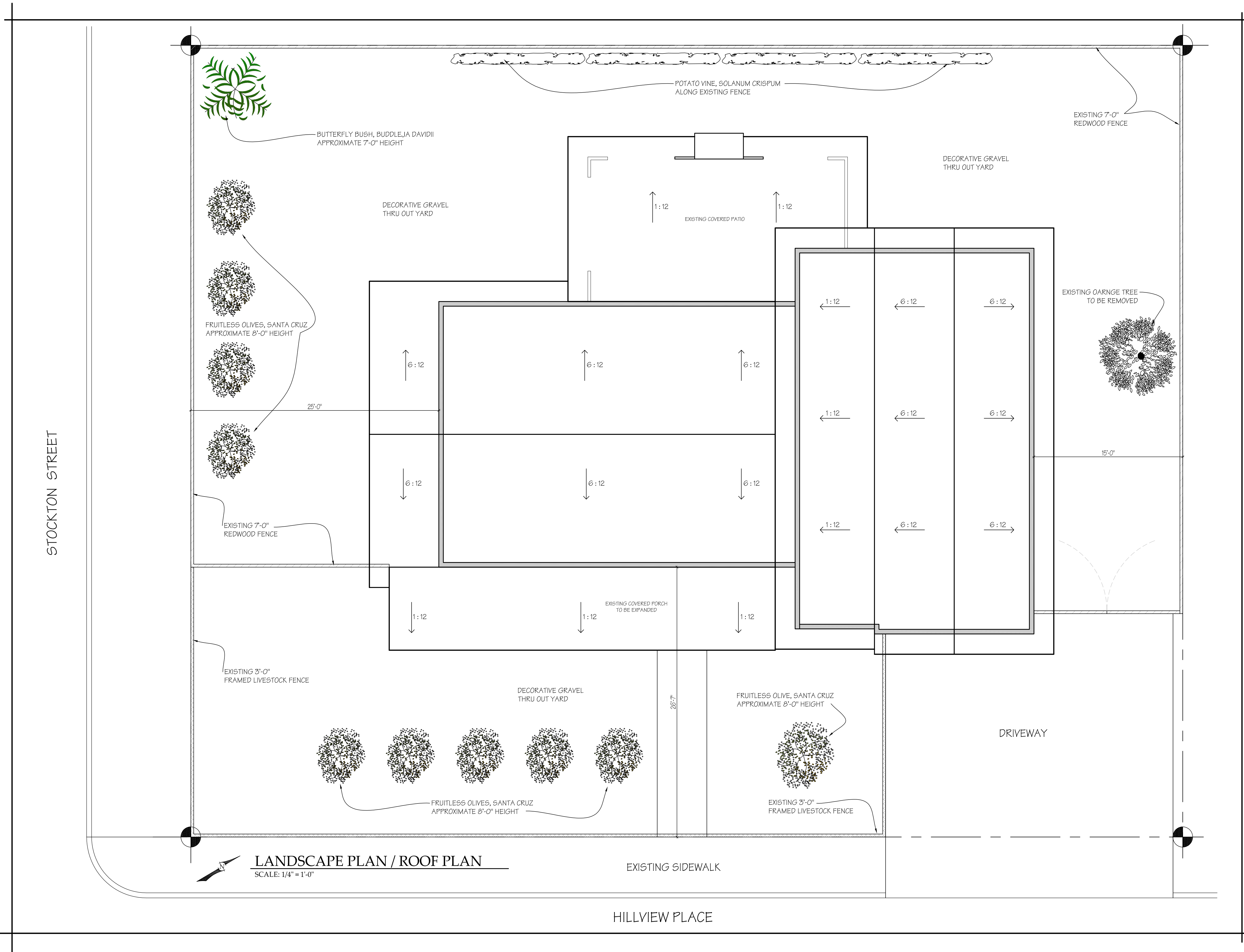
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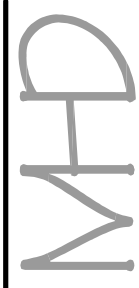
P-5

OF:

7



LANDSCAPE PLAN / ROOF PLAN
SCALE: 1/4" = 1'-0"



matt hepner design
622 de la vina street
san jose, ca 95128
408.263.7710
matthepnerdesign@gmail.com

ELEVATIONS

EXISTING ELEVATIONS
PROPOSED ELEVATIONS

Single Family Residential Addition

for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	3/16" = 1'-0"
DRAWN BY	M. HEPNER
CHECKED	
JOB #	

REVISIONS	BY	DATE

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P-6

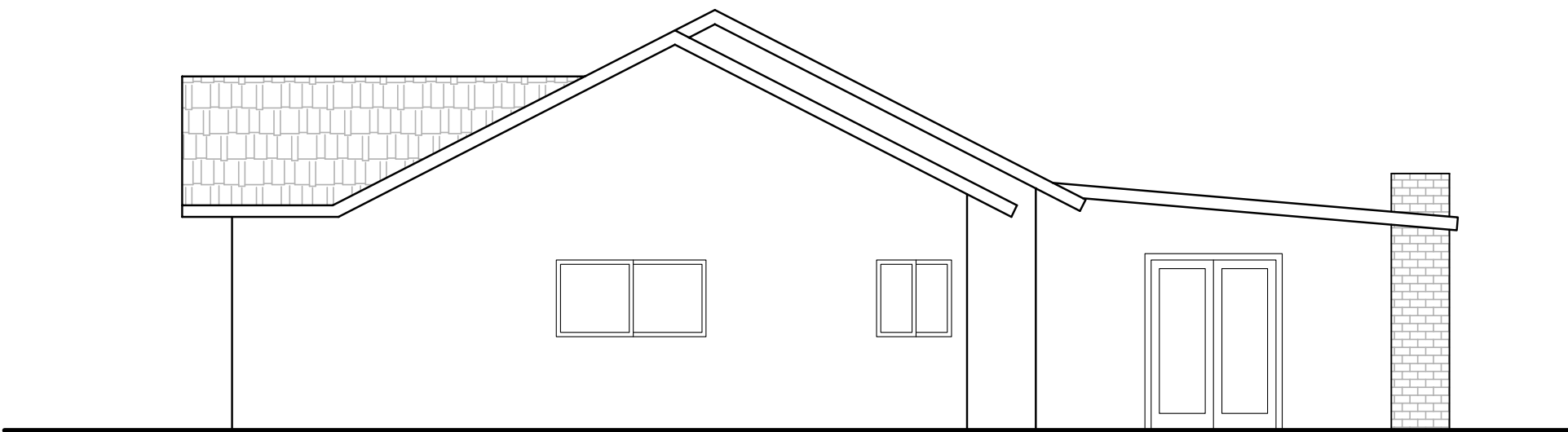
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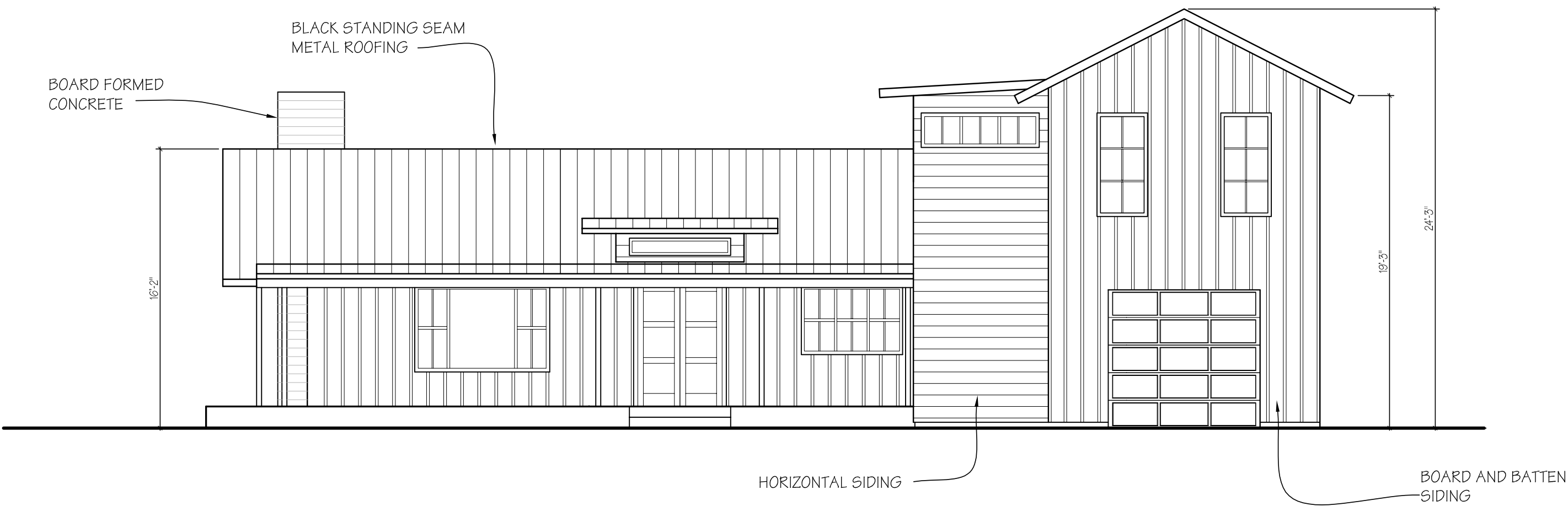
EXISTING SE ELEVATION

SCALE: 3/16" = 1'-0"



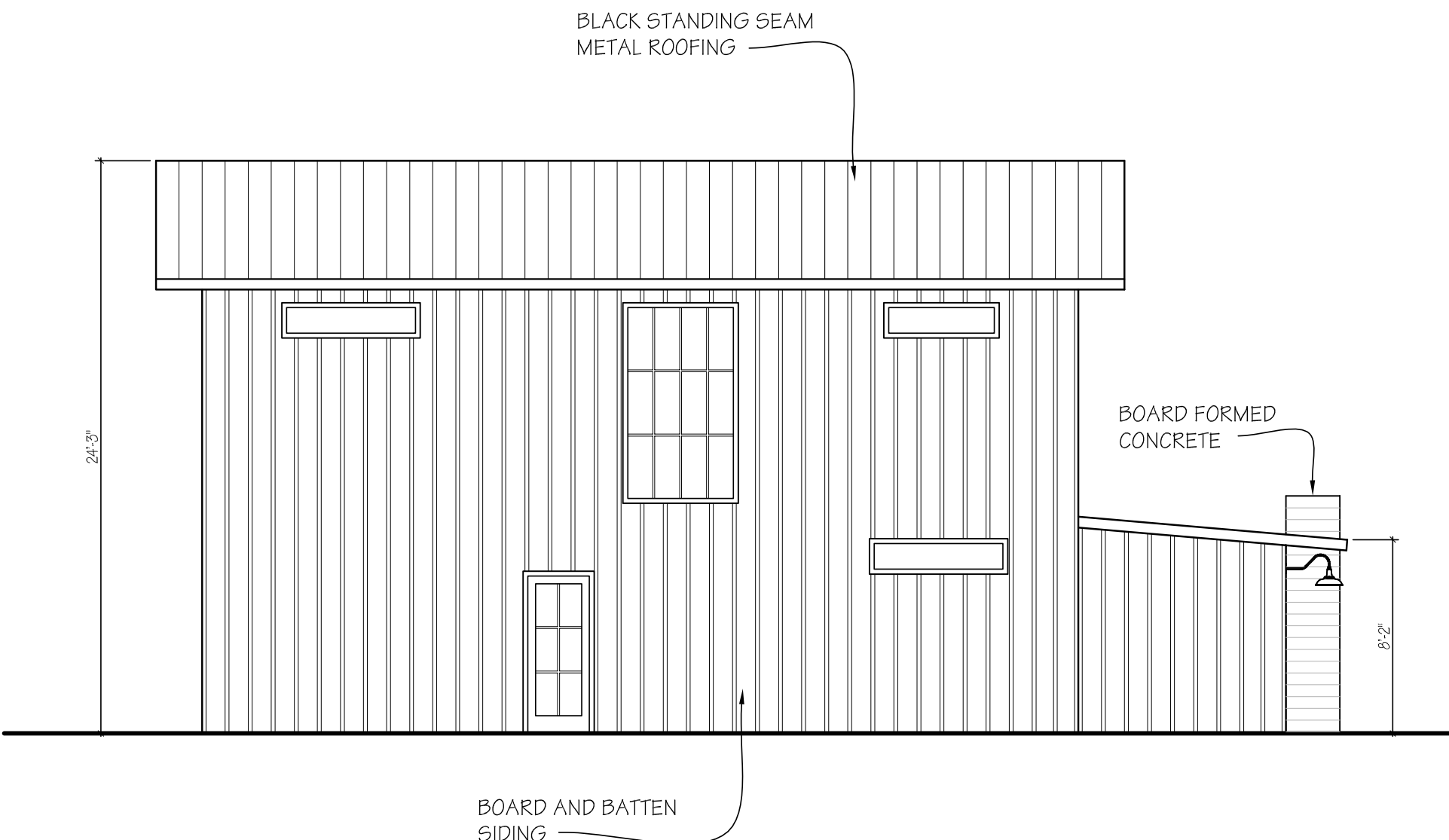
EXISTING NE ELEVATION

SCALE: 3/16" = 1'-0"



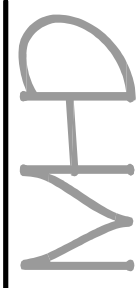
PROPOSED SE ELEVATION

SCALE: 3/16" = 1'-0"



PROPOSED NE ELEVATION

SCALE: 3/16" = 1'-0"



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622 de la vina street
san jose, ca 95128
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matthepnerdesign@gmail.com

ELEVATIONS

EXISTING ELEVATIONS
PROPOSED ELEVATIONS

Single Family Residential Addition

for:
Perry and Christine Clark
1580 Hillview Place
St. Helena, CA 94574

DATE	01/21/16
SCALE	3/16" = 1'-0"
DRAWN BY	M. HEPNER
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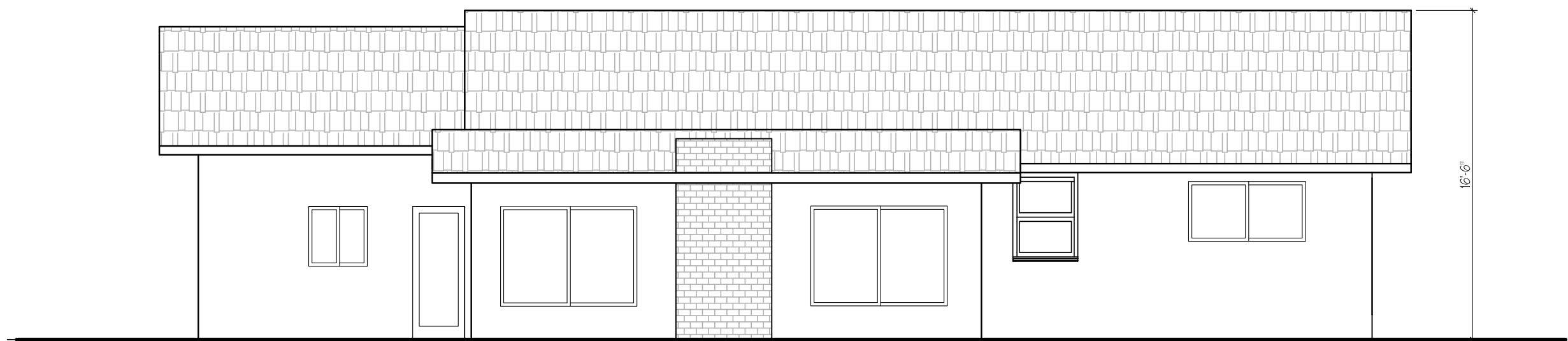
REVISIONS	BY	DATE

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P-7

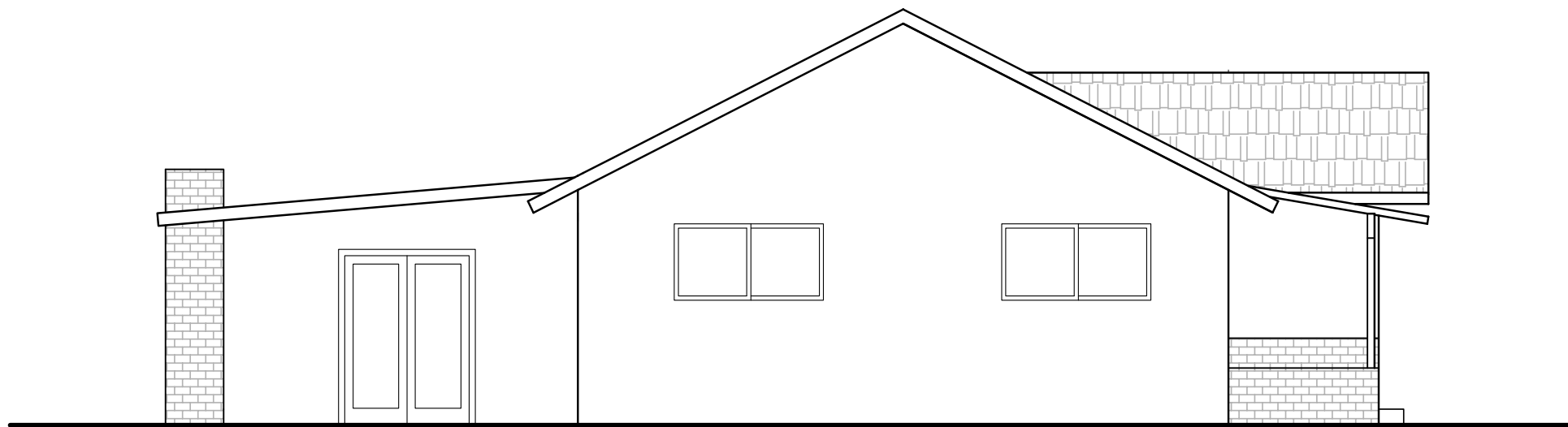
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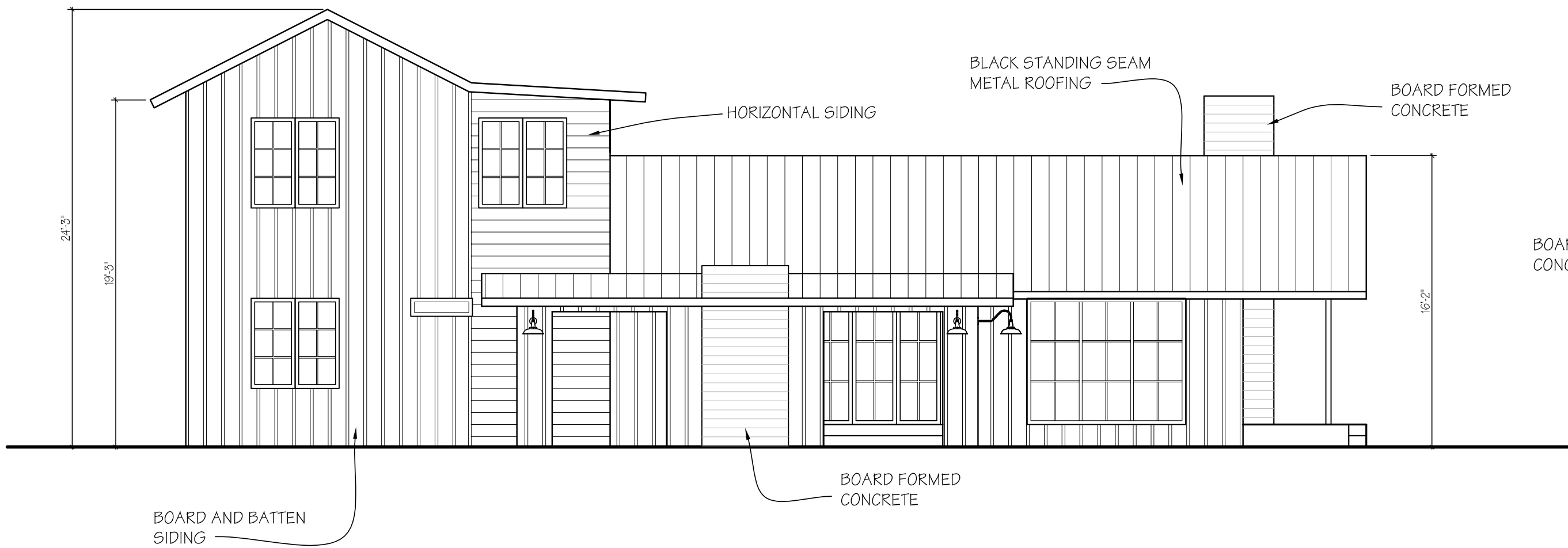
EXISTING NW ELEVATION

SCALE: 3/16" = 1'-0"



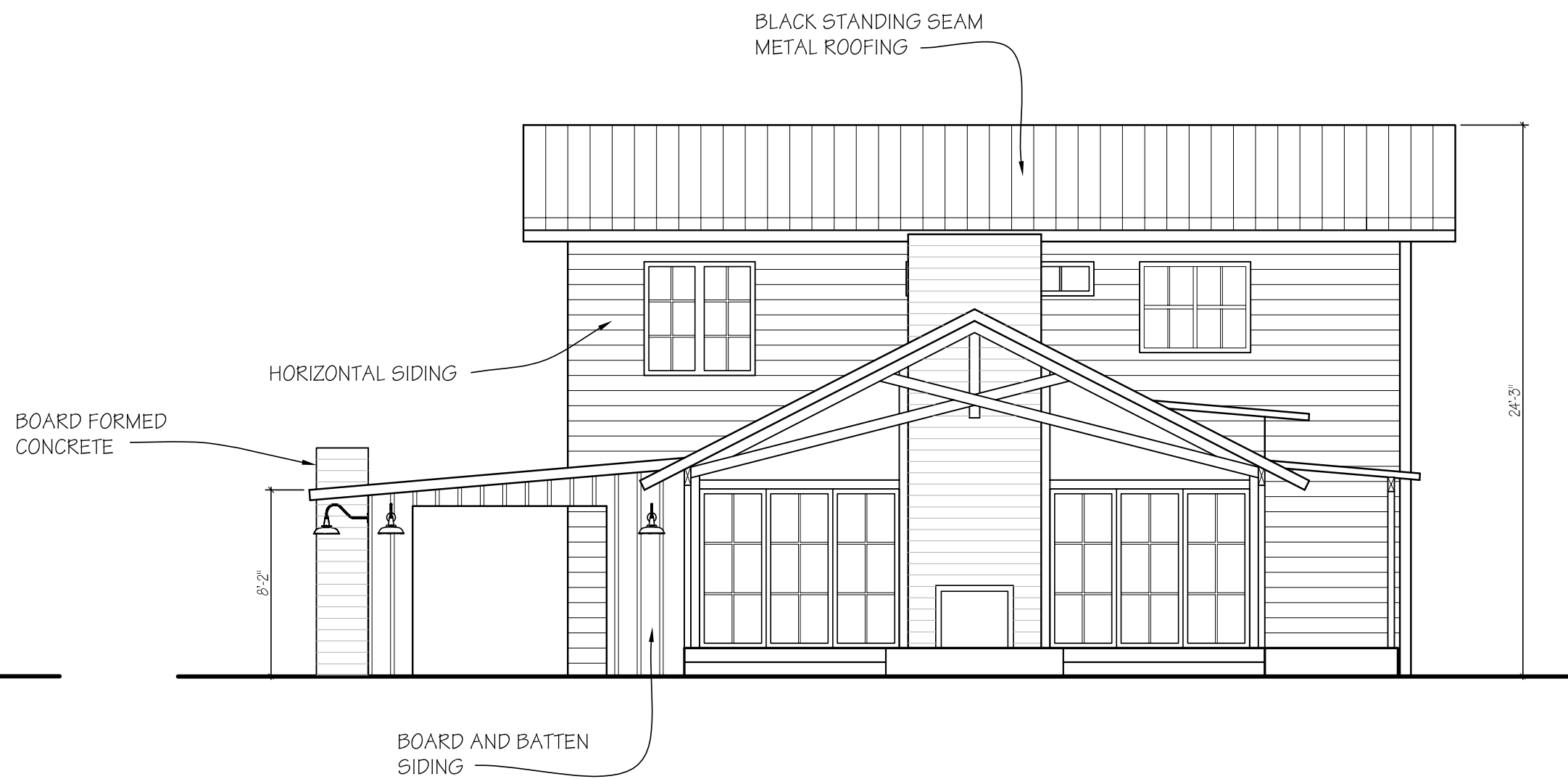
EXISTING SW ELEVATION

SCALE: 3/16" = 1'-0"



PROPOSED NW ELEVATION

SCALE: 3/16" = 1'-0"



PROPOSED SW ELEVATION

SCALE: 3/16" = 1'-0"

Written Statement for requesting Design Review

Project address: 1580 Hillview Place, St. Helena Ca, 94574

Christine and Perry Clark are requesting a home remodel and an addition to help fulfill their needs for their growing family. The proposed project consists of the remodel to the current home along with a two story addition over the current garage space. The concept and design as put together by the Clarks was done in a way to match the surrounding neighborhood while also minimizing the size and scope of the aesthetics of the project. The home currently has an exterior consisting of T-111 (mimicking board and batten,) stucco, and brick veneer. The renovated home has board and batten and stucco siding elements which has been chosen to match the existing look of the home as well as historical elements from other homes and barns around the valley that have used this siding for many years. The stucco elements are put on the home in areas where the sun exposure is the greatest in the heat of the summer. The thickness of the stucco adds more insulation to the exterior making it more energy efficient.

The Existing residence is a three bedroom, two bathroom single story home, 1635 Sqft. in area with a 98 Sq. Ft. front covered porch and a 373 Sq.Ft. rear enclosed patio. The proposed project will be a 4 bedroom, 3 bathroom 2 story home. The home will have a first story consisting of 1,851 sqft with a 300 sqft garage. The second story will be 881.50 sqft with three bedrooms and two bathrooms. In total the main home will be 2,432.50 sqft with 300 sqft of garage coming to a total area of 2,732.50sqft. The existing front covered porch will be expanded to 240 Sq. Ft. The existing rear patio will remain 373 Sqft. The maximum building height will be 24'-3."

The total main elements of this plan are designed around the concept of maintaining historical elements to the home that will blend in with the current neighborhood while also allowing the home to expand in a reasonable and thoughtful way. The second story addition is a smaller portion of the home with a shed pop out that allows the mass of the home to be smaller while also providing enough livable space for two full bedrooms and one smaller bedroom that can be used as a nursery. The shed pop out is something that has been used in many historical buildings around Saint Helena. The most prominent one would be the Napa Valley Olive Oil Company on Charter Oak.

The final home is one that utilizes a time tested look with new energy efficient ideas. This is a home we hope will blend in the with the neighborhood and add to the overall aesthetic.

**CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET- ST. HELENA, CA 94574
PLANNING COMMISSION**

October 18,2016

AGENDA ITEM: 8

FILE NUMBER: PL16-062

SUBJECT: Filipps Addition Design Review

PREPARED BY: Lilly Bianco, Contract Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 08.11.16

ACCEPTED AS COMPLETE: 10.6.16

LOCATION OF PROPERTY: 1541 Chablis Circle

APPLICANT: Anthony Filipps **PHONE:** 1(530) 913-9169

APN: 009-534-003

GENERAL PLAN/ZONING: LR: Low Density Residential

PROPERTY DESCRIPTION: The subject property is a residential lot of approximately 0.32 acres improved with one (1) single family residence and one (1) attached double car garage in southwest St. Helena. The current floor area ratio (F.A.R) is 0.148.

PROJECT DESCRIPTION:

Applicant, Anthony Filipps, is requesting Design Review approval to perform a renovation that includes the addition of two new bathrooms, a new closet, and morning room (e.g. sitting room, family room) which would increase the home's square footage by a total of 283 square feet. Also proposed are a series of exterior modifications that include the following:

- New entry/exit door to serve the morning room
- Replace areas of diagonal siding with square edged tongue and groove siding, installed horizontally,
- Install standing seam metal roofing on select areas (Sheet A1.4, ATTCH. 4)
- New cupola vent over bathroom addition,
- New partial rear deck enclosure,
- New trellis at building entrance,
- New front door,
- New windows in main "living area"
- New slider pocket door to replace windows on south (rear) elevation,

1541 Chablis
Fillipi Residence Design Review
October 18,2016
Page 1 of 6

- Landscaping (e.g. removal of turf, new permeable pavers, decomposed granite pavers, terrace etc.), and
- New 3'6" wire and wood fencing at property frontage and behind 20' front setback.

ANALYSIS

GENERAL PLAN

The subject property exhibits a General Plan Land Use designation of Low Density Residential, providing for single-family detached homes, secondary residential units, limited agricultural uses, public and quasi-public uses, and similar and compatible uses. Residential densities must be within the range of 1.0 to 5.0 units per gross acre. This particular designation is confined to areas of the City where large, residentially subdivided parcels define the development pattern, particularly near the City's perimeter.

Relevant General Plan policies include:

4.3.4 Strengthen community identity by appropriate building design, size, and site landscaping.

The subject project does not propose a change in use, revision of density, or any other change that would otherwise be inconsistent with the General Plan. As such, the project appears to be consistent with all applicable General Plan policies.

ZONING

Consistent with the GP land use designation, 1541 Chablis, exhibits an LR:Low Density Residential zoning designation. The LR zoning designation allows for single-family detached homes, accessory dwelling units, limited agricultural use and other compatible uses insofar as they conform to the development standards prescribed by Municipal Code Section 17.32.060. Review of the project indicates that it meets all applicable development standards; the exterior modifications are limited to cosmetic updates and a limited increase in square footage (283 sf) which is not expected to substantially alter the size, scale, or area of the single family residence. At present, the residence meets all development criteria including height, setback, and floor area criteria prescribed by Section 17.32.060 and will continue to do so with only minor changes to the existing condition.

Under Zoning Code Section 17.32.070, a 13,939 sf parcel is allowed a maximum F.A.R. of 0.277 which equates to a maximum of 3,861sf of building floor area (exclusive of any applicable F.A.R. exemptions). Accordingly, the applicant is proposing a total floor area of 2,634 sf or a F.A.R. of 0.189 which is well below the maximum square footage permitted (see below).

EXISTING NET FLOOR AREA:

RESIDENCE	2068 SF
GARAGE	483 SF
COVERED PARKING EXEMPTION	-200 SF

TOTAL 2,351 SF

PROPOSED NET FLOOR AREA:

RESIDENCE	2351SF
GARAGE	483 SF
COVERED PARKING EXEMPTION	-200 SF

TOTAL 2,634 SF

FLOOR AREA RATIO: 2,634 / 13,939 = 0.189

CEQA

The project is categorically exempt in accordance with CEQA Section 15301 "existing facilities" as the minor alteration of an existing private structure involving a negligible expansion of use beyond that existing at the time of the lead agency's determination. The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

WATER NEUTRALITY

In August 2015 and pursuant to Ordinance 2015-5 the City of St. Helena established mandatory water efficiency measures for new construction, and adopted water demand offset requirements enumerated in Chapter 13.12.050 of the Municipal Code. Amongst these provisions is the requirement that any "new development" (i.e. construction that would introduce any freestanding building that contains water-using fixtures, any floor area additions to existing nonresidential structures; or any residential additions or remodeling that increases the number of independent living units) offset new demand by an amount of water equal to the new demand on the city water system using the methodology defined in Section 13.12.050. The offset must be clearly demonstrated, to the satisfaction of the Director of Public Works.

The project does not propose an increase in the number of independent living units and therefore is not subject to the St. Helena water neutrality measures given that it is not expected to place a new demand on the City's water system beyond that which currently exists.

DESIGN REVIEW

The purpose of design review is to, amongst other things, promote the qualities that bring value to the community and foster attractiveness and functional utility of the community as a place to live and work. To approve design review, the Commission must find that the project is consistent with the design criteria prescribed by Section 17.164.030 and exhibits a quality of design that is compatible with adjacent development, features a siting, scale, massing and architectural style that is generally consistent with the predominant development patterns and that does not otherwise detract or negatively affect the established character of the surrounding neighborhood.

The proposed project is located at 1541 Chablis Circle and within the Sylvaner Estates Subdivision. The Sylvaner Estates Development was approved in the 1970s at which time lots were sold and developed individually. At present, the Sylvaner Estates development features a variety of architectural styles that include contemporary interpretations of historic styles, as well as ranch style homes, and others. As such, the residences in the subdivision feature a variety of materials, detailing, form and massing. The neighborhood is unified by an overall consistency in height, setback, neutral color palette, and by the presence of landscaping/vegetative screening at most property frontages.

The project is limited to the introduction of exterior cosmetic updates and an interior remodel. The exterior modifications that would be most visible from street view include the replacement of areas of diagonal siding with horizontal square edged tongue and groove siding, metal roofing on additions, new cupola over bathroom addition, new trellis (covered porch) at entry, a new front door, and wire and wood fencing at property frontage (**Attachment 6**). The proposed metal roofing and new siding will be muted grey in an effort to provide continuity in the color palette and avoid creating any dissonance with the existing materials. It is the applicant's intention that the introduction of the proposed materials will provide for a more contemporary look, but also be muted enough to still retain a unified appearance and consistency with the surrounding neighborhood (See Color and Materials Board). The façade of the house is and will continue to be partially obscured due to the presence of landscaping.

No changes are proposed that would substantially alter the size, scale or height of the house. Accordingly, the proposed addition and cosmetic changes appear to be of a scale, massing, and quality of design that is compatible with the existing construction and that of adjacent buildings and structures. As such, staff determines that the project complies with the design review criteria enumerated in Section 17.164.030 and outlined below.

Design Criteria

1. Consistency and compatibility with applicable elements of the general plan;
2. Compatibility of design with the immediate environment of the site;
3. Relationship of the design to the site;

Item 5.3

4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land uses;
6. Compatibility with future construction both on and off the site;
7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;
16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;
17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

CORRESPONDENCE

At the time of packet distribution staff has not received any public comment in support or opposition to this application.

ISSUES

Given the straightforwardness of the proposal and consistency with applicable guidelines and standards no unresolved issues require attention at this time.

STAFF RECOMMENDATION

The Planning and Community Improvement Department recommends that the Planning Commission:

1. Determine that the project is categorically exempt from the requirements of CEQA pursuant to CEQA Section 15301 "existing facilities" as the minor alteration of an existing private structure involving a negligible expansion of use beyond that existing at the time of the lead agency's determination.
2. Accept the required findings enumerated in Municipal Code Section 17.164.030 and adopt a resolution approving Design Review for the proposed Filippi Residence Remodel.

ATTACHMENTS

- 1.Resolution
- 2.APN Map
- 3.Aerial View
- 4.Site Photos
- 5.Project Narrative
- 6.Project Plans dated October 10,2016

CITY OF ST. HELENA PLANNING COMMISSION

RESOLUTION PCXXX

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ST. HELENA
GRANTING DESIGN REVIEW APPROVAL ALLOWING THE ADDITION OF
APPROXIMATELY 283 SQUARE FEET AND OTHER EXTERIOR MODIFICATIONS TO
THE FILIPPS RESIDENCE LOCATED AT 1541 CHABLIS CIRCLE**

PROPERTY OWNER: Anthony Filippis

APN: 009-534-003

Recitals

A. Whereas, Anthony Filippis submitted an application for a Design Review to perform exterior modifications to the existing residence at 1541 Chablis Circle in the LR-Low Density Residential Zoning District, and

B. Whereas, the proposed exterior modifications are generally limited to cosmetic changes and will not substantially alter the size, scale, or floor area of the proposed residence.

D. Whereas, A staff report dated October 18, 2016 and incorporated herein by reference analyzed the project's consistency with the Design Criteria enumerated in Section 17.164.030 of the Municipal Code, and

D. Whereas, the Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on October 18, 2016, and

E. Now, therefore let it be found that, the Planning Commission approves Design Review and authorizes the modifications contained in said plans, date stamped October 10, 2016, based on the findings below and subject to the conditions of approval enumerated herein.

Resolution

1. The project is categorically exempt in accordance with CEQA Section 15301 "Existing Facilities" as the minor alteration of an existing private structure involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

2. The project is consistent with the design review criteria prescribed by Municipal Code Section 17.164.030 and enumerated below, in that the design, massing, scale, and materials of the proposed remodel, are compatible with the existing development on the subject site and in the immediate vicinity and the project will not detract or otherwise degrade the established character of the neighborhood.

The proposed design and materials will provide for a more contemporary aesthetic, but are expected to be muted enough to still retain a unified appearance and consistency with the surrounding neighborhood. The façade of the house is and will continue to be partially obscured due to the presence of landscaping such that the project's changes to the character of the streetscape will be limited.

Design Criteria:

1. Consistency and compatibility with applicable elements of the general plan;
2. Compatibility of design with the immediate environment of the site;
3. Relationship of the design to the site;
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land use;
6. Compatibility with future construction both on and off the site;
7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;
16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;

17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

F. Now therefore be it further resolved that, the Design Review for the above described project is granted subject to compliance with all applicable provisions of the Zoning Code subject to each of the following conditions. Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

Conditions of Approval

1. The Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.
2. The plans submitted for building permit review shall be in substantial conformance with the plans on file in the Planning Division, date stamped October 10, 2016, and with the materials board provided, except as modified by the following conditions.
3. No new kitchen facilities are approved as part of this permit. The inclusion of any kitchen facilities on plans submitted for building permit issuance shall require review and approval by the Planning and Community Improvement Director so as to ensure conformance with applicable Municipal Code Provisions.
4. The Design Review Approval shall be vested within one (1) year from the date of approval. A building permit for the use allowed under this approval shall have been obtained within one (1) year from the effective date of the Design Review decision or these approvals shall expire; provided however that the approved Use Permit and Design Review may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.030, Extension of Permits and Approvals.
5. The Design Review Approval shall become effective fourteen (14) calendar days after approval, provided that the action is not appealed by the City Council or any other interested party within that 14 day period.
6. Any request for an extension of the Design Review Approval must be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.
7. All required fees, including planning fees, development impact fees, building fees, retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of building permit.

8. Prior to issuance of construction permits, compliance with conditions of approval shall be clearly identified on all plans. A copy of approved plans with the conditions listed shall be maintained on-site during construction activities.
9. Conditions shall be achieved at such a time as determined by the City and shall be achieved at the requisite stage and before issuance of certificate of occupancy or initiation of use unless another time is set by law or by this approval. Occupancy or final inspection of a project may be withheld if all conditions, including payment of fees for services rendered by the City, are not met.
10. The applicant shall defend and indemnify and hold the City, its agents, officers, and employees harmless of any claim, action or proceedings to attack, set aside, void or annul an approval so long as the City promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.
11. This Design Review approval shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
12. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The owner/applicant is responsible for meeting with the Building Official / Fire Inspector to review compliance with Building and Fire Codes, including fire protection systems and the accessibility standards of Title 24.
13. No structure shall be permitted over any existing property lines. Documentation of the location of the property lines shall be submitted with plans for building permit issuance.
14. Provided they are in general compliance with the approved Design Review, minor modifications found to be in substantial conformance with the approved design and use may be approved by the Planning Director.

Public Works Department Conditions of Approval

15. Approval of this project shall be subject to the requirements of, and all improvements shall be designed and constructed in accordance with, the most current version at the time of improvement plan submittal, Caltrans Standards and Specifications, the City of St. Helena Municipal Code, the St. Helena Water and Sewer Standards, the St. Helena Street, Storm Drain and Sidewalk Standards, and all current federal, state and county codes governing such improvements.
16. For any improvements outside the existing building envelope, a grading and drainage plan showing topographic data, all easements, infrastructure onsite and directly adjoining, and an erosion control plan shall be submitted for review and approval by the City Engineer prior to the issuance of a building permit. If the project entails more than 50 cubic yards of soil disturbance, 10,000 square feet of

disturbance area, a cut or fill of 3 feet or more, or alteration of any drainage pattern, a grading permit shall be required.

17. Drainage needs to be routed to prevent inundation of neighboring properties. Grading and/or site improvement plans shall show how 2-year and 10-year storm flows shall be infiltrated on site and/or diverted at the property lines to prevent inundation of neighboring properties.
18. Erosion and sediment control plans shall conform to the latest State and City codes at a minimum.
19. If the project includes 500 square feet or more of new landscaping and/or 2,500 square feet or more of rehabilitated landscape, the proposed landscaping shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO).
20. Site plan shall show location of any trees within the project area.
21. The applicant shall install an approved backflow device behind the existing water meter prior to Certificate of Occupancy. Any new and modified existing water laterals, meters and backflow prevention devices shall be required and constructed in accordance with the current requirements of the City of St. Helena's Water Standards and the California Department of Health Standards. Existing meter boxes located within a driveway shall be retrofitted with a traffic-rated box. New laterals shall be located perpendicular to the water main and outside any driveway/drive aisle.
22. Remodels or new construction which requires fire sprinklers shall install an appropriately-sized water service with appropriate backflow and meter devices prior to Certificate of Occupancy. Fire system calculations shall be submitted with the Grading and Drainage Plan to verify fire service lateral and meter sizing. Deferred submittals are not accepted.
23. The applicant shall conform to the City of St. Helena Water and Sewer Standards Section 6-2.10 which includes assessing the adequacy of the lateral, replacing if necessary and installing any needed cleanouts prior to Certificate of Occupancy.
24. All driveway approaches shall be per current City and ADA standards. Where none exists, or where deteriorating or non-standard driveway approaches exist, they shall be installed or replaced at the direction of the Public Works Department prior to Certificate of Occupancy.
25. Any missing or broken curb and gutter along the project frontage shall be constructed and/or replaced prior to Certificate of Occupancy, extent to be determined by the Public Works Department.
26. The applicant shall repair all public improvements that are damaged by the construction process in accordance with the City Water/Sewer/Street/Storm Drain/Sidewalk Standards prior to Certificate of Occupancy.

- 27. Existing streets being cut by new utility services will require edge grinding and an A.C. overlay per City standards, extent to be determined by the Public Works Department.
- 28. An encroachment permit shall be required for any work performed in the public right of way.

Fire Department Conditions of Approval

- 29. Installation of approved interior fire sprinkler system, unless waived by the Fire Chief.
- 30. One hour minimum fire resistant construction on all exterior walls within 10' of property boundary. Fire resistant construction of interior walls shall be determined by type of occupancy.

Building Department Conditions of Approval

- 31. A building permit is required for all onsite demolition, construction and/or change of occupancy.
- 32. The applicant will be required to comply with the codes adopted at the time the applicant applies for a building permit. At this time the City of St. Helena utilizes the 2013 Title 24 codes.
- 33. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
- 34. The applicant shall provide a construction waste management plan with the building permit application.
- 35. The plans for construction shall include a checklist for compliance with the California Green Buildings Standards Code, mandatory measures. Provide a reference on the checklist indicating where the mandatory measures can be found on the plans.
- 36. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
- 37. Building Permit application materials and plans shall include any documentation pertaining to special loads applicable to the design and the specified section of the code that addresses the condition; special inspections for any systems or components requiring special inspection; requirements for seismic resistance; and a complete list of deferred submittals at time of application. Any deferral of the required submittal items shall have prior approval of the Building Official however deferral of fire sprinkler design is not allowed.

I HEREBY CERTIFY that the foregoing Design Review Exemption was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular

Item 5.3

meeting of said Planning Commission held on September 20, 2016, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Sarah Parker
Chair, Planning Commission

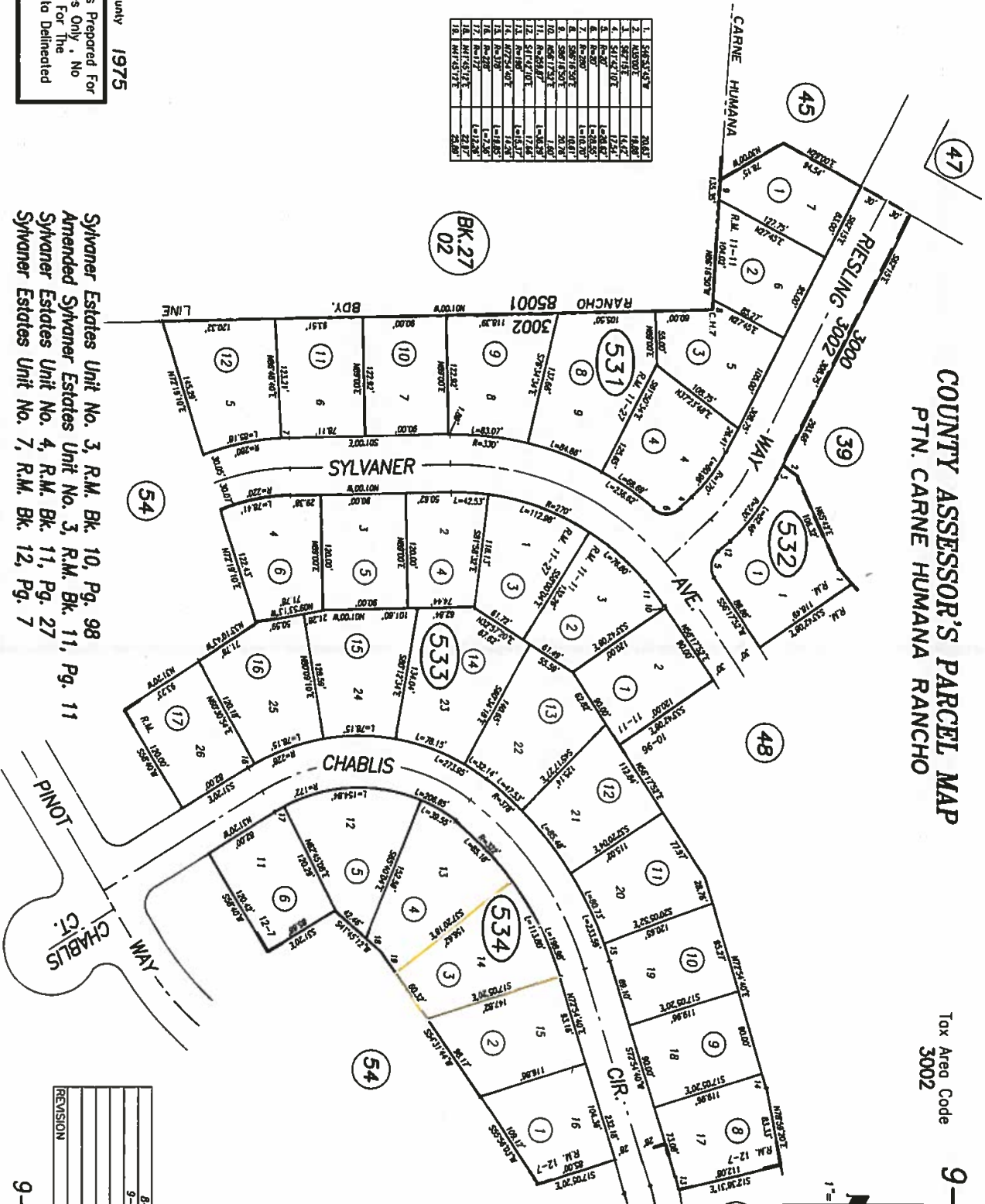
Noah Housh,
Planning and Community
Improvement Director

COUNTY ASSESSOR'S PARCEL MAP PTN. CARNE HUMANA RANCHO

Tax Area Code
3002

9-

1.	5453.45'W	206.6'
2.	450'00"	11.88'
3.	567'65"	14.42'
4.	511'42'10"	12.54'
5.	61'00"	1.68'
6.	1'00"	0.03'
7.	61'00"	1.68'
8.	508'16'50"	14.42'
9.	508'16'50"	14.42'
10.	604'17'29"	16.81'
11.	604'17'29"	16.81'
12.	511'42'10"	12.54'
13.	450'00"	11.88'
14.	5453.45'W	206.6'
15.	450'00"	11.88'
16.	61'00"	1.68'
17.	61'00"	1.68'
18.	511'42'10"	12.54'
19.	511'42'10"	12.54'
20.	511'42'10"	12.54'



Assessor of Napa County 1975

NOTE: This Map Was Prepared For Assessment Purposes Only. No Liability Is Assumed For The Accuracy Of The Data Delineated Hereon.

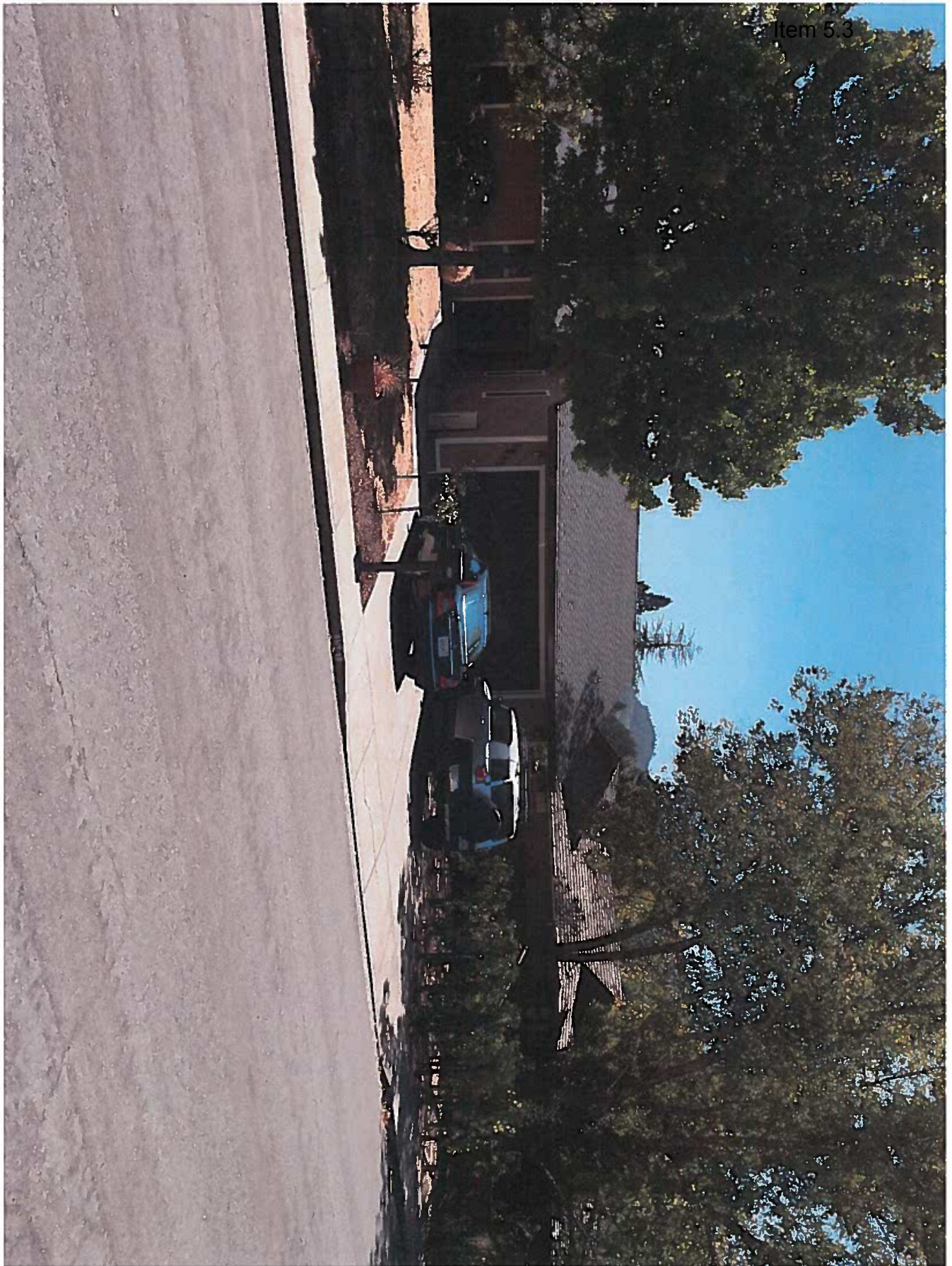
Sylvaner Estates Unit No. 3, R.M. Bk. 10, Pg. 98
Amended Sylvaner Estates Unit No. 3, R.M. Bk. 11, Pg. 11
Sylvaner Estates Unit No. 4, R.M. Bk. 11, Pg. 27
Sylvaner Estates Unit No. 7, R.M. Bk. 12, Pg. 7



Item 5.3

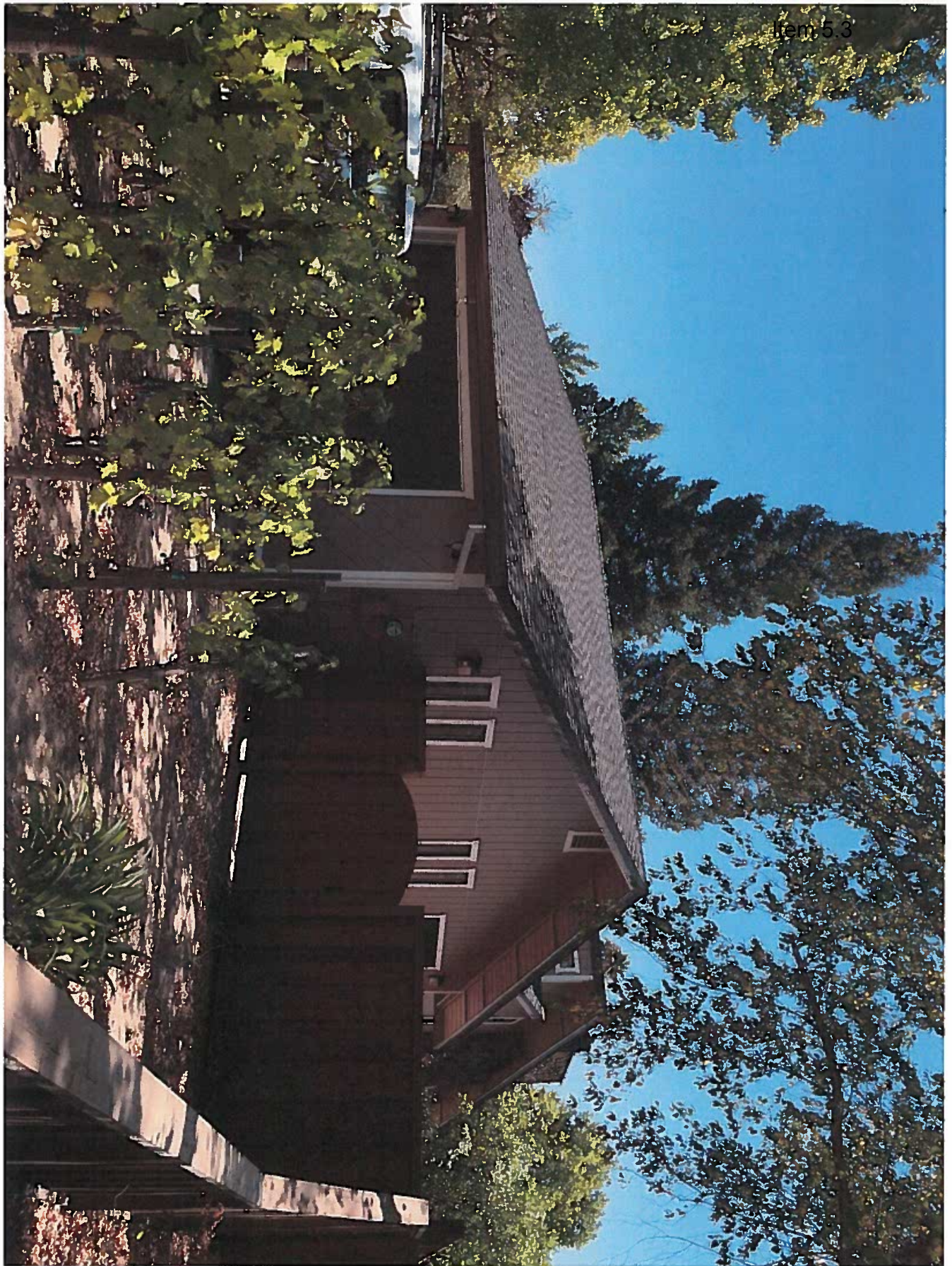


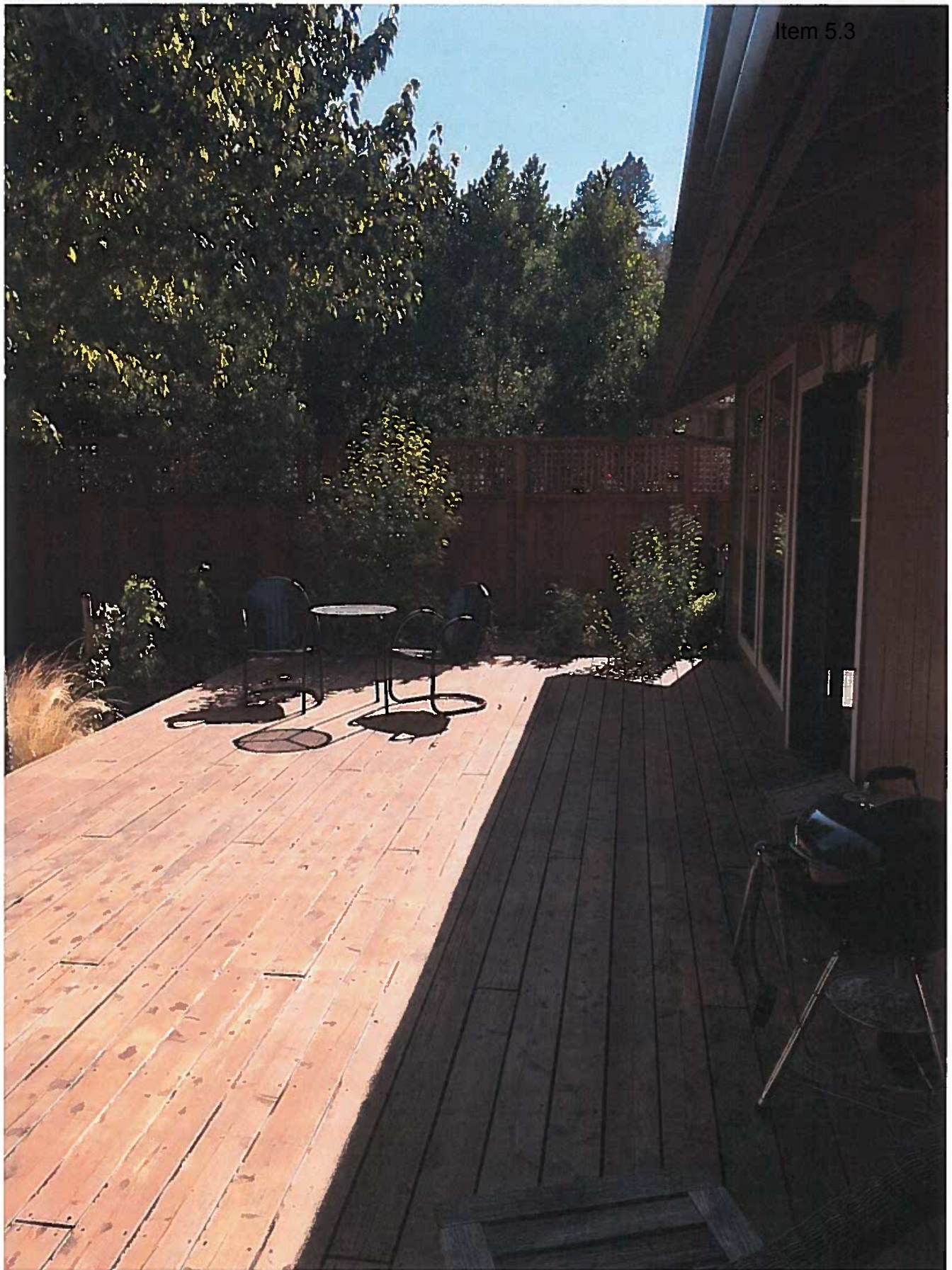
Item 5.3



Item 5.3









Item 5.3



1541 CHABLIS DESIGN REVIEW

WRITTEN STATEMENT

The Design as proposed includes the addition of a bathroom for each of the two bedrooms, an expanded closet space for the Master bedroom, and a Morning room for Bedroom #2. These are conditioned space additions totaling 283 square feet.

We also propose the replacement of a failed beam in the Living room and a new roof covering that extends from this new beam out over a non-conditioned existing deck area located at the rear of the house and lot.

The existing home has a maximum height of approximately 20' – 3" as measured from the lowest point of the home to the top of the chimney collar. We are proposing the addition of a new chimney cap to cover the now exposed flu pipe. This will increase the height by 3' to 23'-3" approximately. This is well under the 25' maximum height (please see sheet A1.2 **"Left Elevation East"**)

1541 Chablis Circle is a single level residence located in the Sylvaner Estates and is zoned Low Density Residential (LR) District. The existing home is now approximately 2,068 square feet of living space. The garage is approximately 483 square feet of additional non conditioned space and will continue to be used as such. Total existing and proposed additions will result in a home of 2,351 square feet. The resulting Floor Area Ratio falls well below the allowed maximum for an approximately 13,939 square foot lot, (Please see **Project Information** found on sheet C1 for complete breakdown of F.A.R. calculations).

Other changes we propose include removing or covering over the dated diagonal board siding found on the front elevation with new square edged tongue and grove siding placed horizontally (please see sheet A1.2 **"Front Elevation North"**), and the addition of a matching entry gate and new wire fencing to replace the unrelated look of the existing red and brown wood fencing (please see sheet L2 **"Detail A/L2"**).

The overall architecture of the home will remain contemporary but the addition of a new "batt" to the existing siding will bring a new texture and edge to the otherwise monotony of unbroken elevations (Please see sheet A1.3 **Detail 1/A1.3**). Also proposed is a functioning cupola vent centered directly over the new bathroom addition on the main gabled roof as a working architectural finish to the roof elevation. A new trellis will better define the long walk to the existing Entry and create a sense of arrival. Exterior finish details will be refined with the removal of the diagonal over cut found at each window head and sill and the addition of a simple square butt joint detail (please see Elevations).

Changes in landscaping are detailed on sheet L2 of the Plan Set. We feel these changes will have the greatest significance and effect in once again unifying the street presence of this lot.

Item 5.3

The lot, as it was developed, has the effect of presenting itself as if it were two separate parcels. When we first arrived at the home we thought the second driveway with its different style/color fence and large gate was actually a separate home. We propose the replacement of the 12' gate with a 3' gate. This change, along with new "open" fencing and sheltering landscaping will give a modest, underplayed, and more secluded interpretation of this space. The proposed open wire fence at 3'-6" high will continue along the entire front of the property and bring "proper neighborhood scale" to this lot.

We will add a new front door and a pocket door system at the Great room and remove the interior wall separating Kitchen and Great room. The new pocket door will open to the proposed covered outdoor area and provide a retreat from sun and weather where none now exist. Most of the windows in the "living" portion of the home will be upgraded to provide current thermal efficiencies for energy savings. The home is solar efficient now with professionally installed solar roof panels and any areas of "less than adequate" roof insulation that are accessible during remodel will be "upgraded" to provide even further efficiencies.

We will make use of significant quantities of reclaimed materials for flooring and ceiling treatments and possible interior and exterior wall features. We are sensitive to the environmental constraints of natural building materials and prefer environmentally responsible engineered or reclaimed products where appropriate.

We appreciate the City's review of our proposed remodel and look forward to a beautiful finished project that enhances both our neighborhood and our Town. If you have questions please feel free to call me on my cell phone at 530-913-9169.

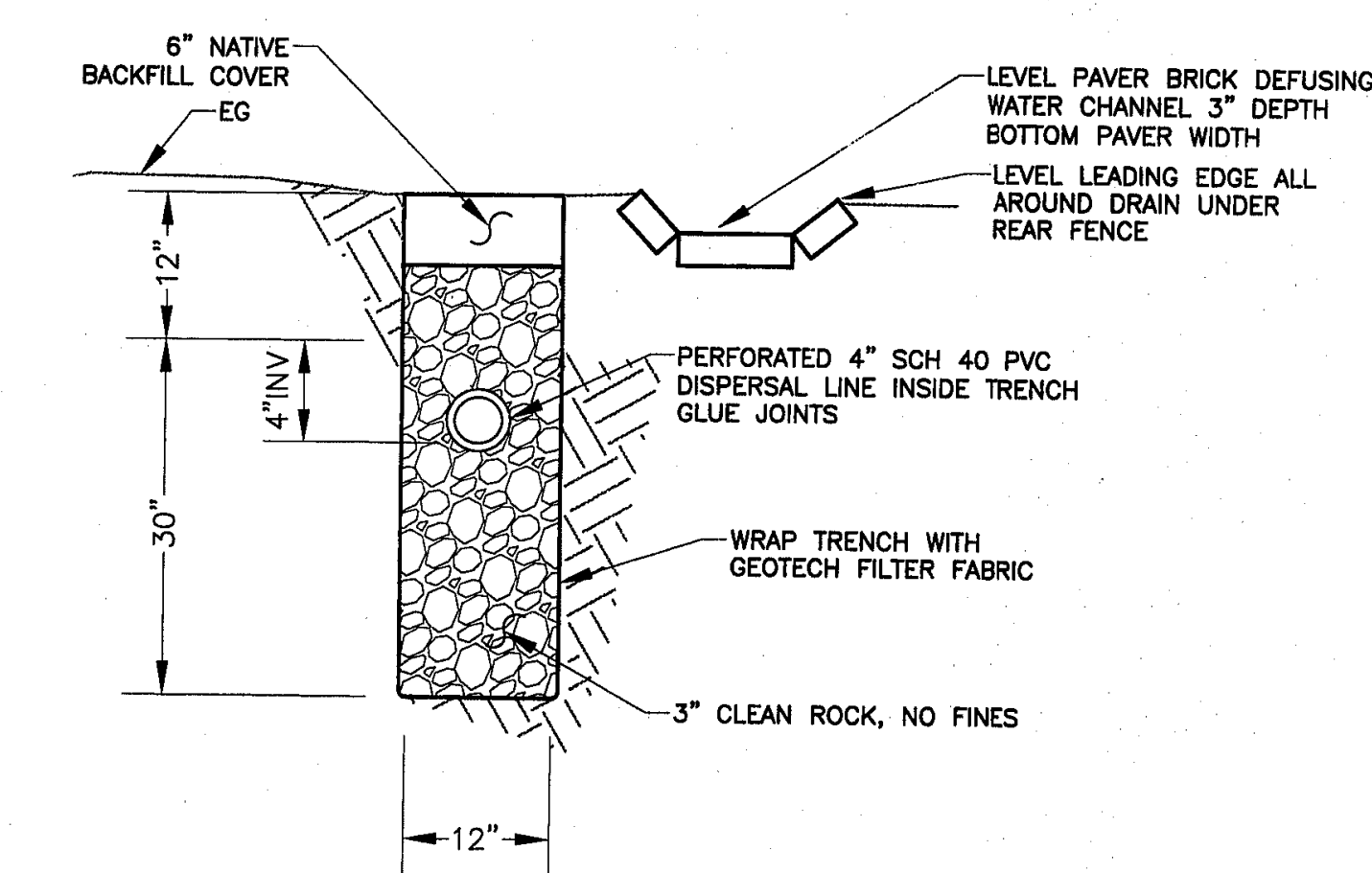
Thank you for your consideration,

Anthony and Lisa Filippis

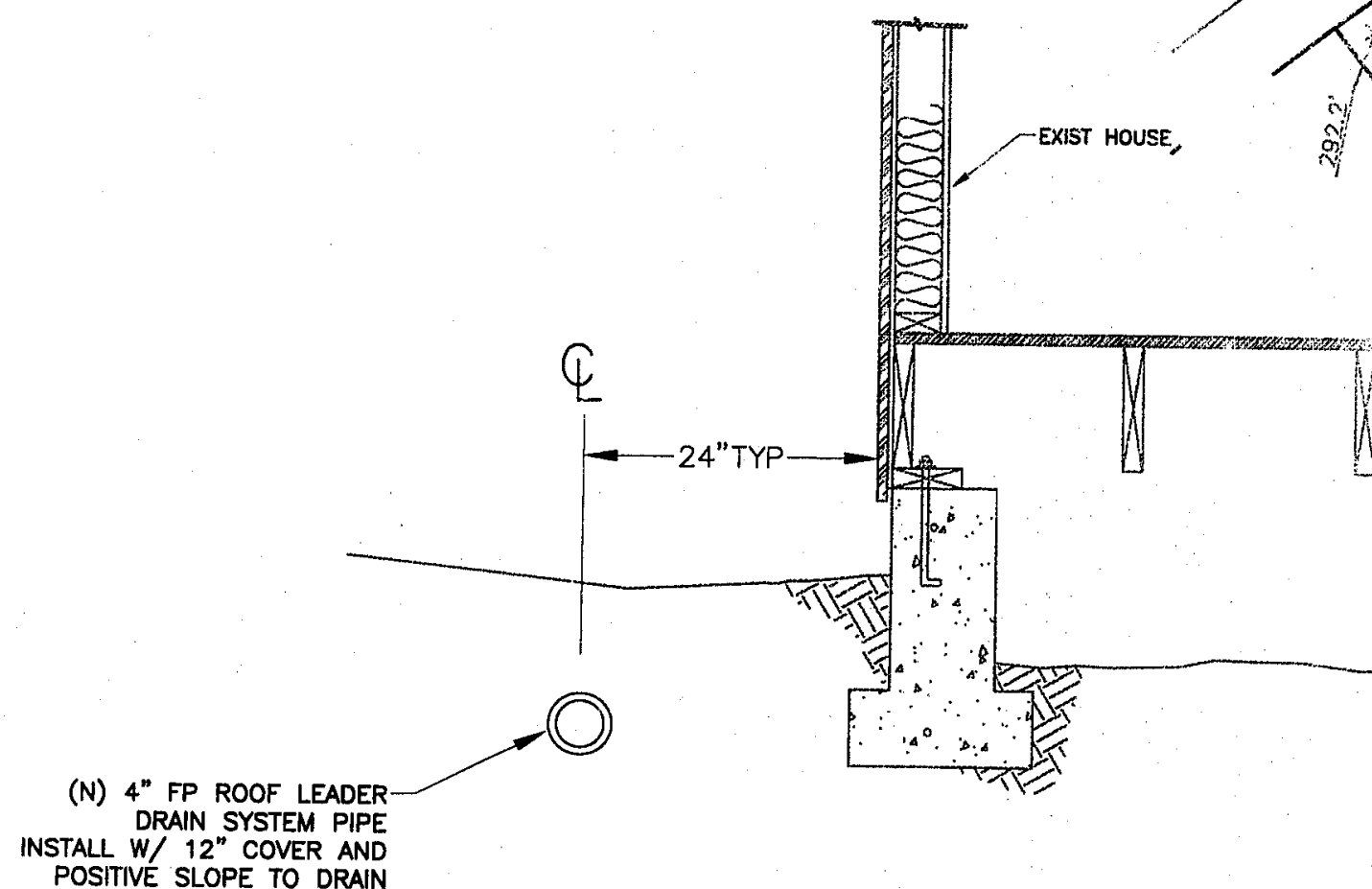
_____Date_____

APN APPX	ASSESSOR PARCEL NUMBER APPROXIMATE
BFP BU	BACKFLOW PREVENTER BUBBLE UP
CONC CO	CONCRETE CLEANOUT
DWG	DRAWING
(E) EG	EXISTING EXISTING GRADE
FF	FINISH FLOOR
FLR	FLOOR
FND	FOUNDATION
FLTR	POOL FILTER SYSTEM
FP	FLEX PIPE
GB	GRADE BREAK
INV	INVERT
LAT	LATERAL
(N)	NEW
PP PLTR	POWER POLE PLANTER
RWD	REDWOOD
SC	SEWER CLEANOUT
SF	SQUARE FEET
S/W SS	SIDEWALK SEWER SYSTEM
tb	TOP OF BANK
TFC	TOP FACE OF CURB
TOS	TOP OF SLAB
TRA	TRAVERSE POINT
TYP	TYPICAL
WM	WATER METER

 VINEHEAD POST BY ROW
 DIRECTIONAL DRAINAGE ARROW

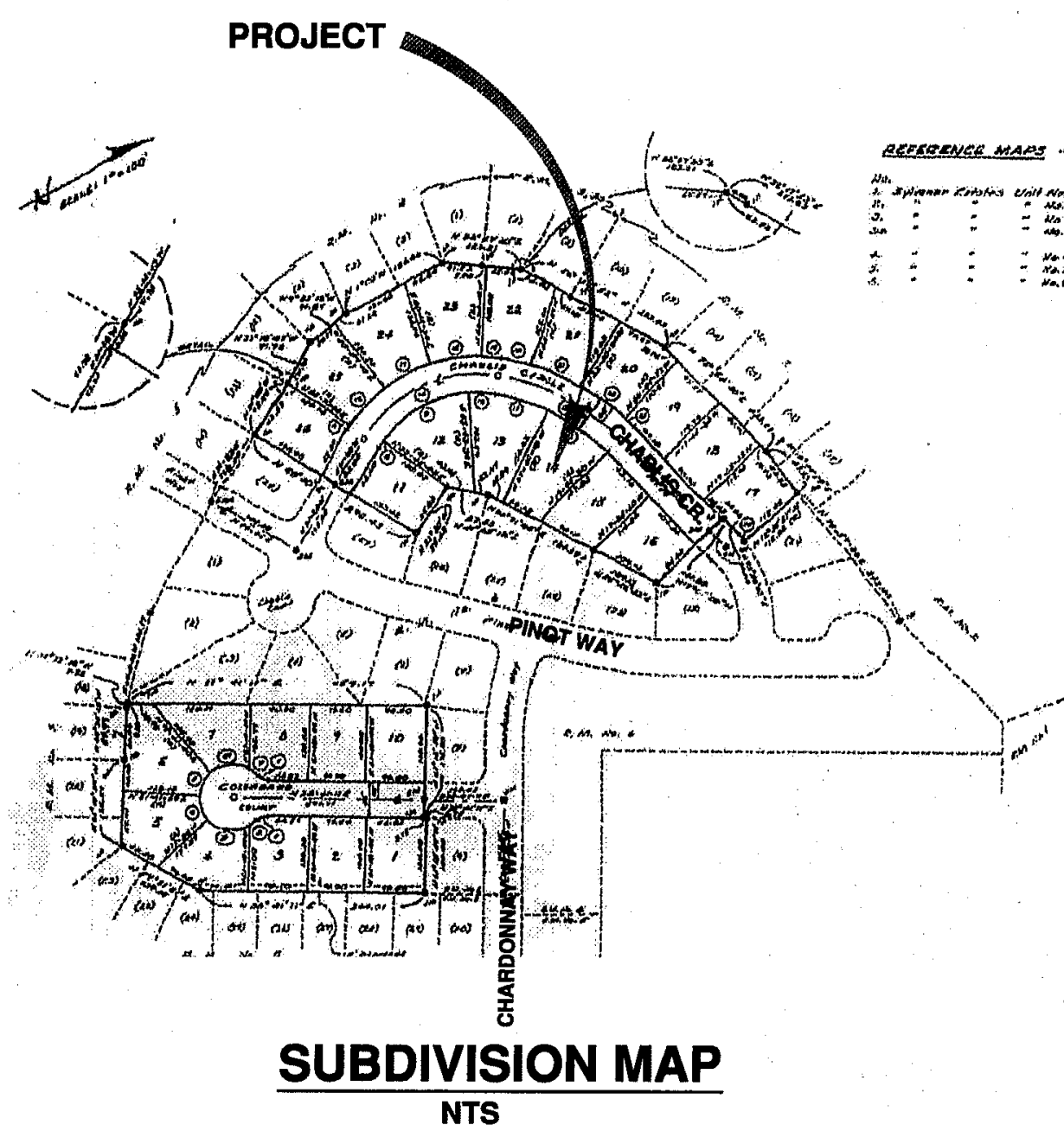


DRYWELL CHAMBER
SCALE 1"= 1'



FLEX PIPE INSTALLATION

SCALE 1" = 1'

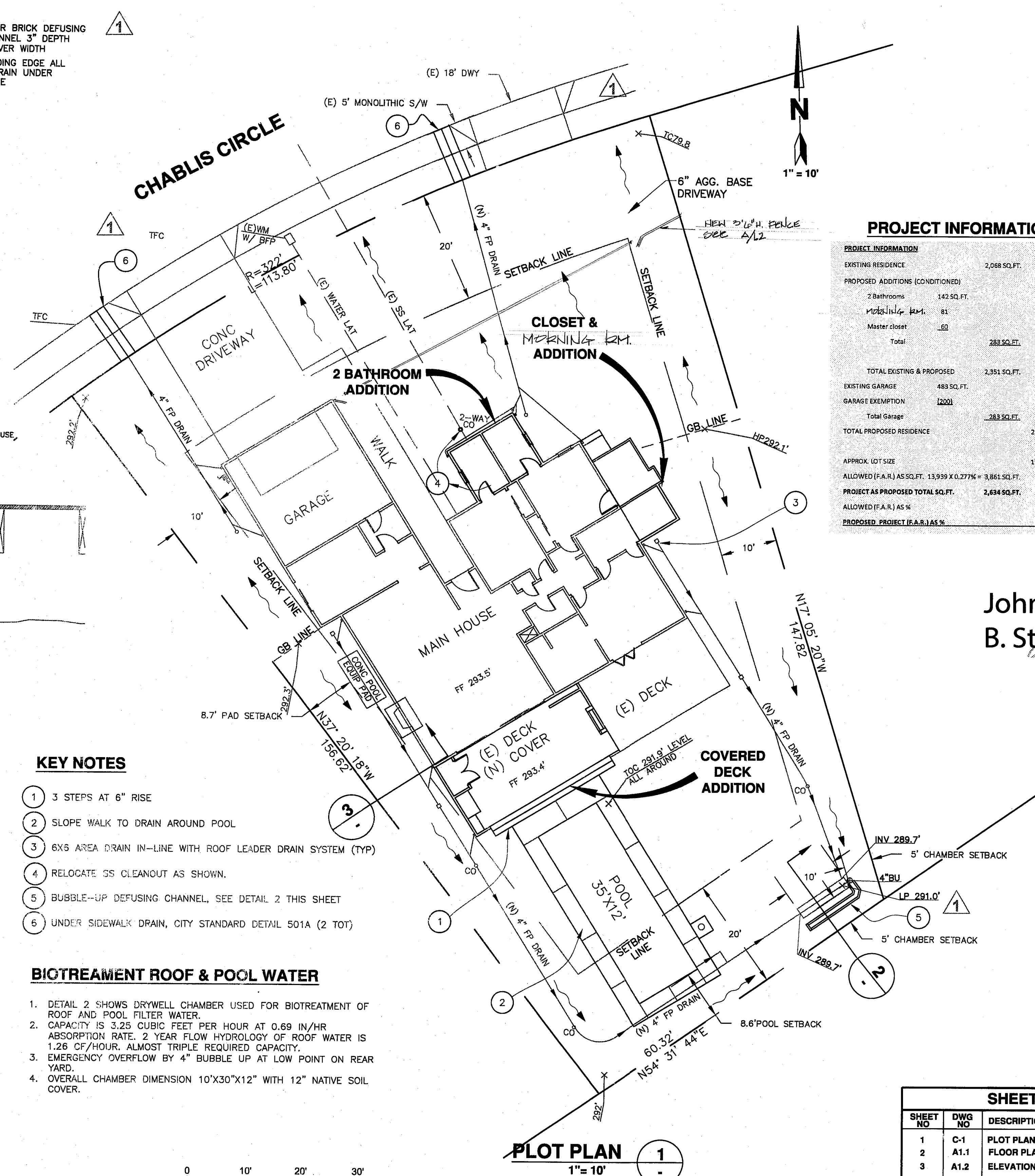


SUBDIVISION MAP

NTS

- 1 3 STEPS AT 6" RISE
- 2 SLOPE WALK TO DRAIN AROUND POOL
- 3 6X6 AREA DRAIN IN-LINE WITH ROOF LEADER DRAIN SYSTEM (TYP)
- 4 RELOCATE SS CLEANOUT AS SHOWN.
- 5 BUBBLE-UP DEFUSING CHANNEL, SEE DETAIL 2 THIS SHEET
- 6 UNDER SIDEWALK DRAIN, CITY STANDARD DETAIL 501A (2 TOT)

1. DETAIL 2 SHOWS DRYWELL CHAMBER USED FOR BIOTREATMENT OF ROOF AND POOL FILTER WATER.
2. CAPACITY IS 3.25 CUBIC FEET PER HOUR AT 0.69 IN/HR ABSORPTION RATE. 2 YEAR FLOW HYDROLOGY OF ROOF WATER IS 1.26 CF/HOUR, ALMOST TRIPLE REQUIRED CAPACITY.
3. EMERGENCY OVERFLOW BY 4" BUBBLE UP AT LOW POINT ON REAR YARD.
4. OVERALL CHAMBER DIMENSION 10'X30'X12" WITH 12" NATIVE SOIL COVER.

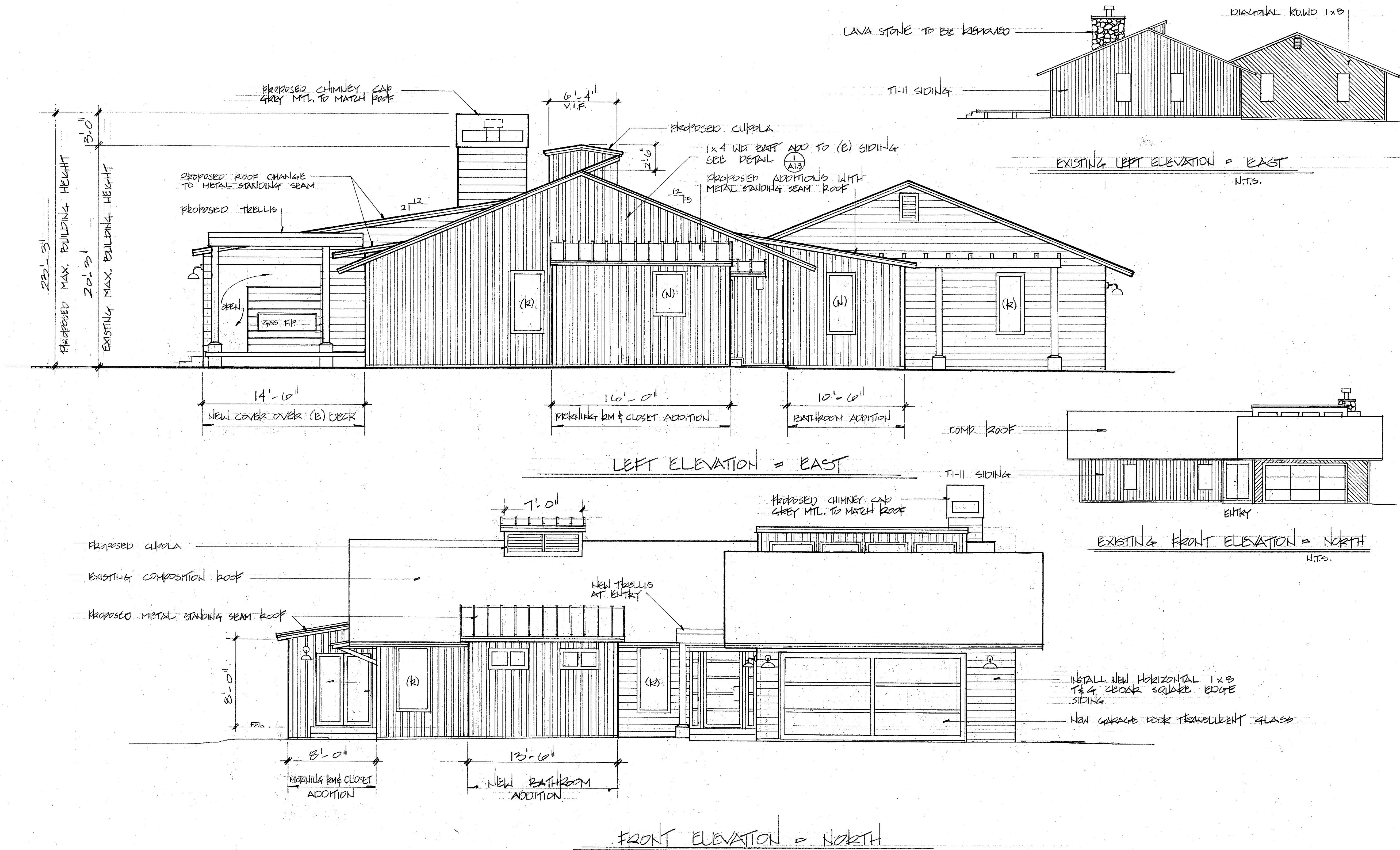


PROJECT INFORMATION	
EXISTING RESIDENCE	2,068 SQ. FT.
PROPOSED ADDITIONS (CONDITIONED)	
2 Bathrooms	142 SQ. FT.
Master's Inlg. RM.	81
Master closet	60
Total	283 SQ. FT.
TOTAL EXISTING & PROPOSED	2,351 SQ. FT.
EXISTING GARAGE	483 SQ. FT.
GARAGE EXEMPTION	200
Total Garage	283 SQ. FT.
TOTAL PROPOSED RESIDENCE	2,634 SQ. FT.
APPROX. LOT SIZE	
ALLOWED (F.A.R.) AS SQ. FT.	13,939 @ 0.277% = 3,861 SQ. FT.
PROJECT AS PROPOSED TOTAL SQ. FT.	2,634 SQ. FT.
ALLOWED (F.A.R.) AS %	0.277%
PROPOSED PROJECT (F.A.R.) AS %	0.185%

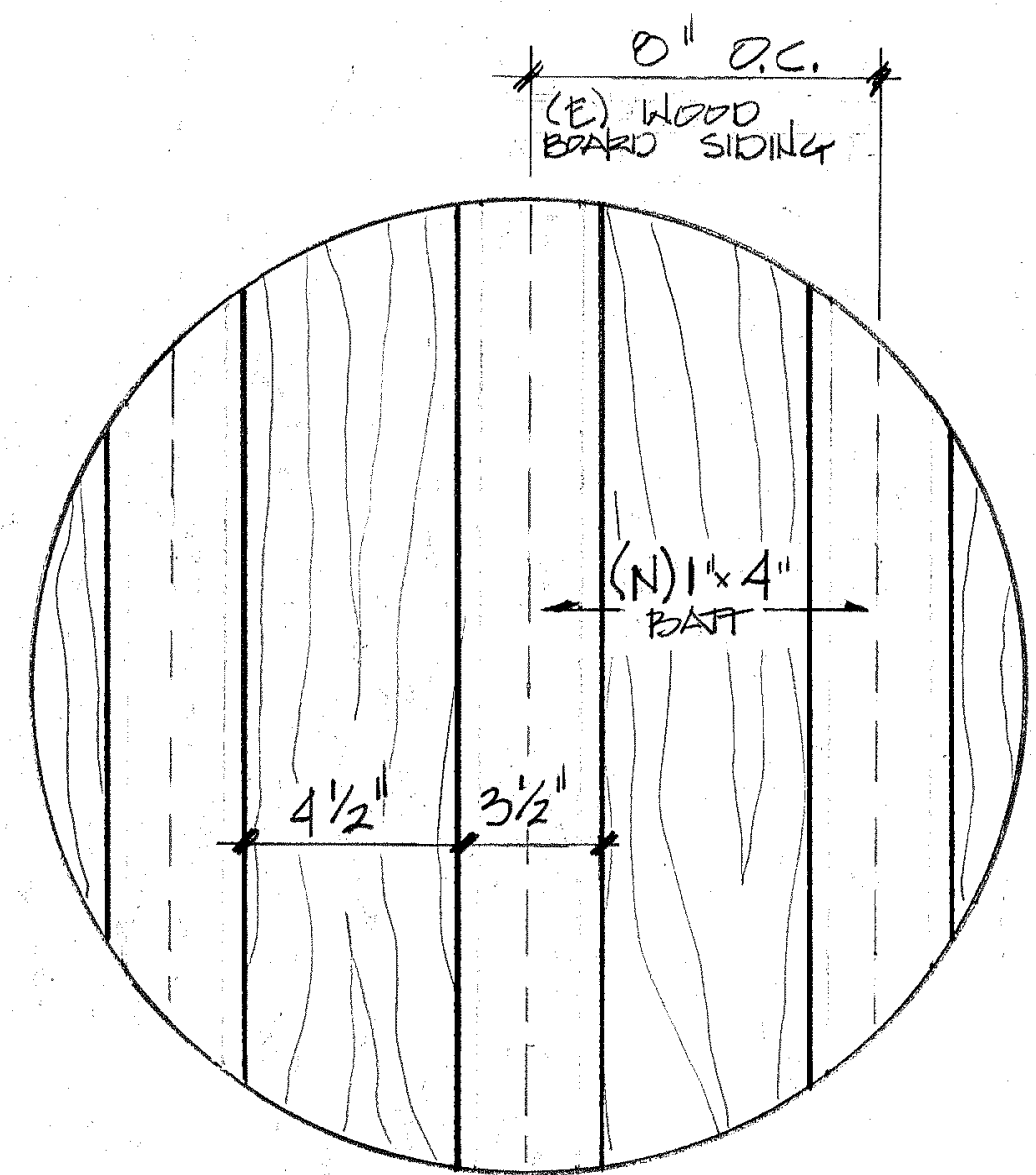
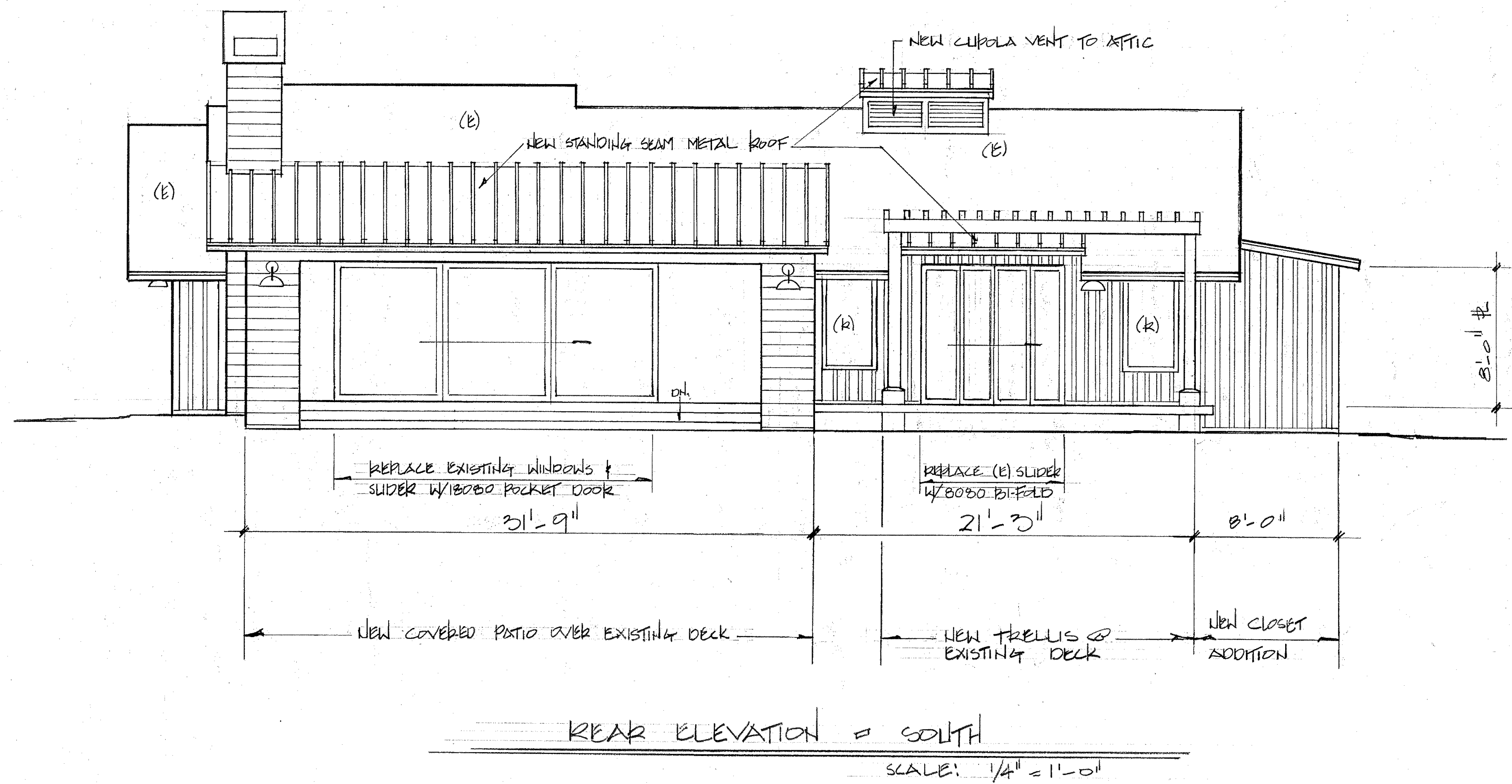
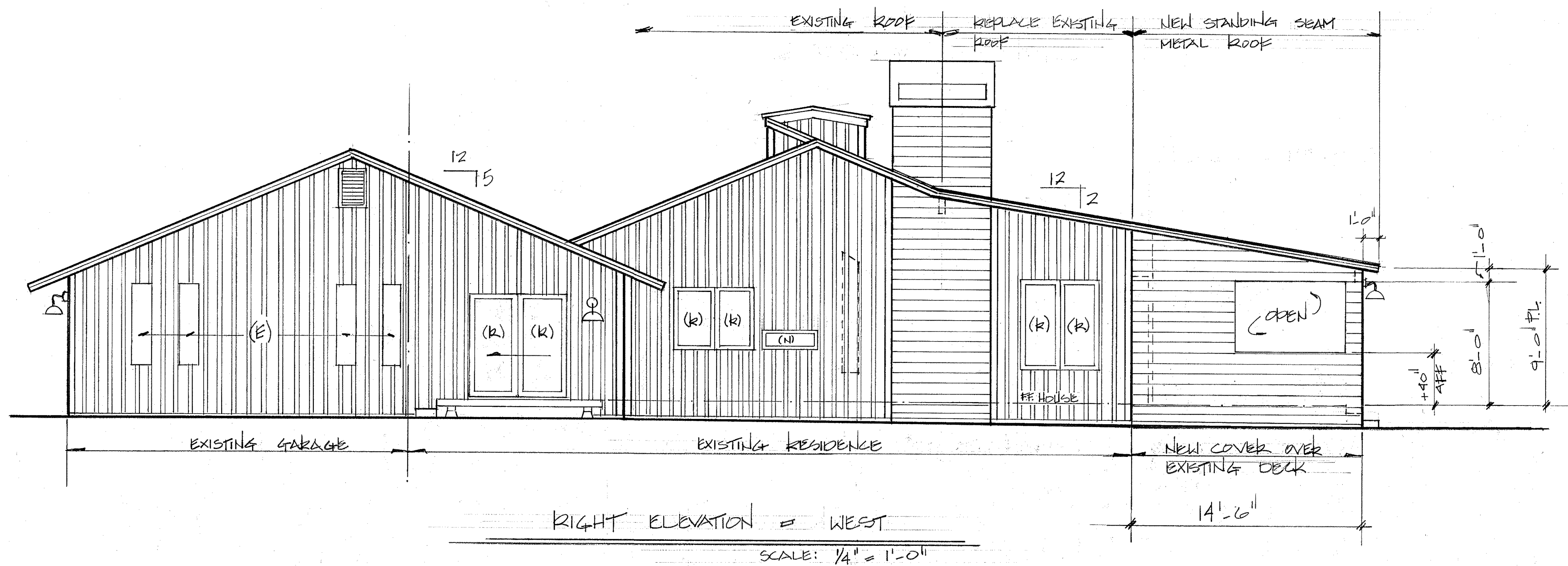
John
B. Stitt

SHEET INDEX		
SHEET NO	DWG NO	DESCRIPTION
1	C-1	PLOT PLAN
2	A1.1	FLOOR PLAN
3	A1.2	ELEVATIONS
4	A1.3	ELEVATIONS
5	A1.4	ROOF PLAN
6	L1	EXISTING VEGETATION MAP
7	L2	PLANTING AND LAYOUT PLAN

[illegible]



REVISIONS		BY
9/12/16	ABF	
10/3/16	ABF	
10/10/16	ABF	
PROPOSED ADDITIONS TO:		
THE FILIPPIS RESIDENCE		
1541 CHABUS CIRCLE, ST. HELENA, CA 94574		
ELEVATIONS		
Date	8-1-16	
Scale	1/4" = 1'-0"	
Drawn	ABF	
Job	CHABUS	
Sheet	A1.2	
Of	Sheets	



1 NEW 1" x 4" WD. BATT ADD TO (E) SIDING
A1.3 SCALE: 3" = 1'-0"

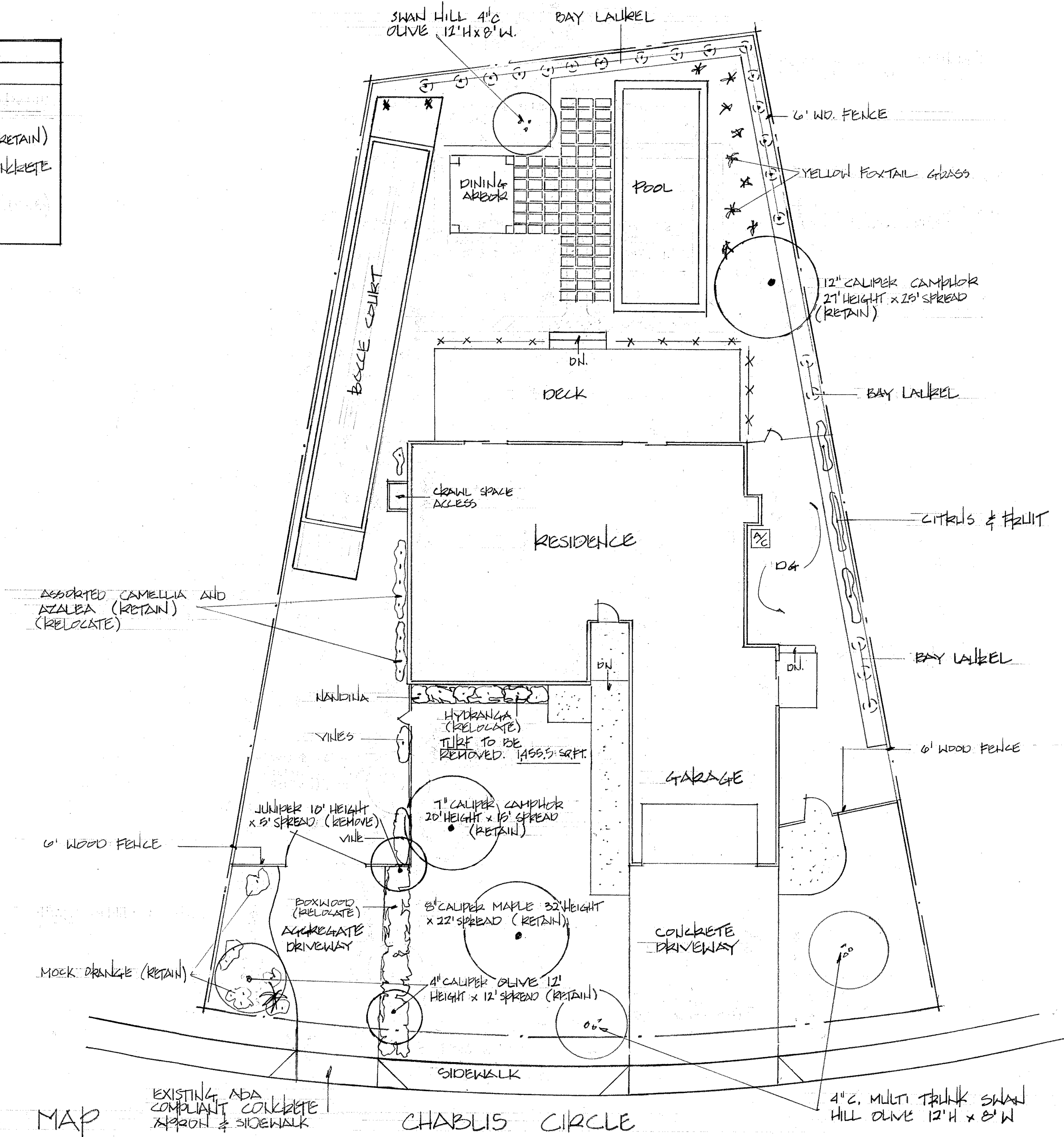
REVISIONS	BY
10/4/16	AB
10/12/16	AB

PROPOSED ADDITIONS TO:
THE FILIPPS RESIDENCE
1541 CHABLIS CIRCLE, ST. HELENA, CA 94574

ELEVATIONS

Date	8-1-16
Scale	AS SHOWN
Drawn	AB
Job	CHABLIS
Sheet	A1.3
Of	Sheets

SITE LEGEND	
KEY	DESCRIPTION
	FLAGSTONE ON SAND BASE
	ASSORTED STRIKE VINES (RETAIN)
	EXPOSED AGGREGATE CONCRETE (RETAIN)



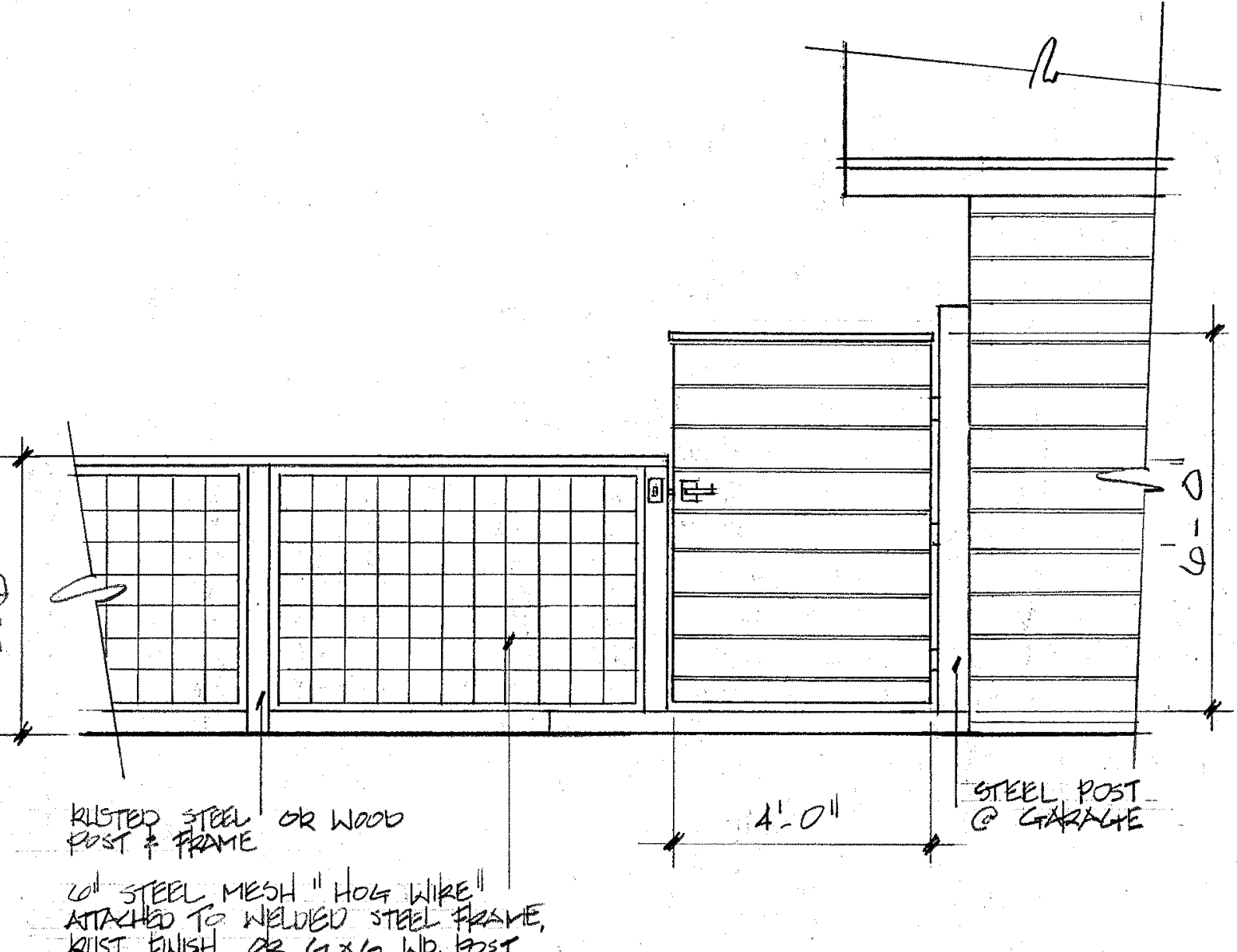
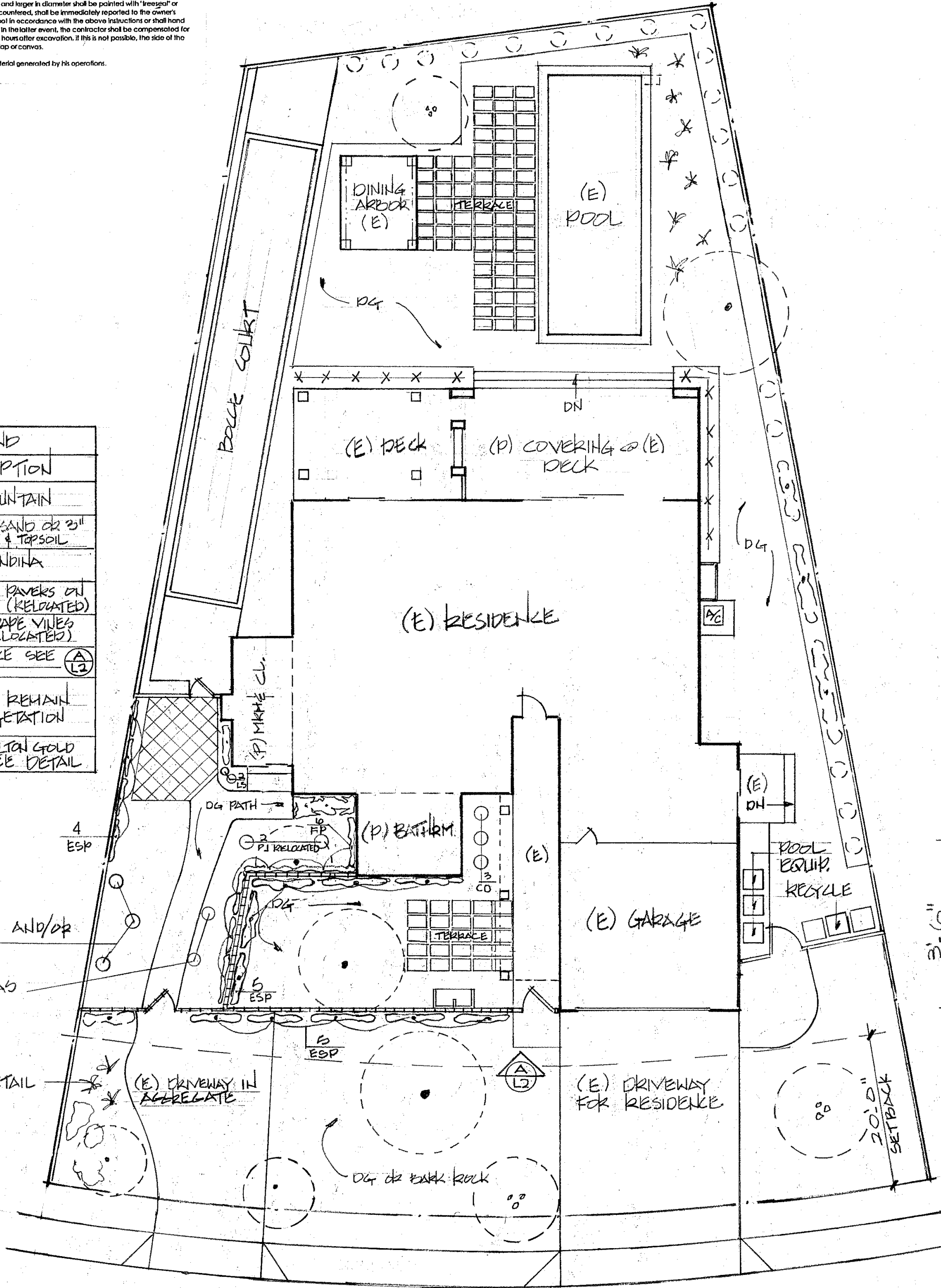
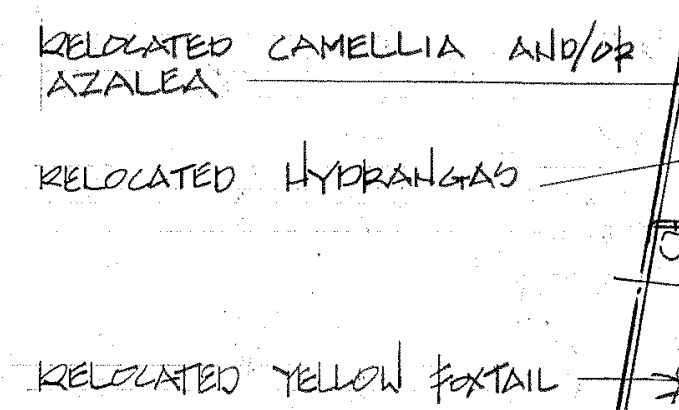
EXISTING VEGETATION MAP

EXISTING ADA COMPLIANT CONCRETE APRON & SIDEWALK

CHABLIS CIRCLE

4 1/2\"/>

REVISIONS		BY
9/12/16	1	ABF
10/10/16	2	ABF
PROPOSED ADDITIONS TO:		
THE FILIPPS RESIDENCE		
1541 CHABLIS CIRCLE, ST. HELENA, CA 94574		
EXISTING VEGETATION MAP		
Date	8-2-16	
Scale	1" = 10'-0"	
Drawn	ABF	
Job		
Sheet	L1	
Of		Sheets

[illegible]

ELEVATION = ENTRY GATE & NEW FENCE (A/LZ)

SCALE 1/2" = 1'-0"

PLANTING & LAYOUT PLAN

CHARLIS CIRCLE

PROPOSED ADDITIONS TO:
THE FILIPPS RESIDENCE
1541 CHABLIS CIRCLE, ST. HELENA, CA 94574

PLANTING & ADULT PLANT

Date	8-2-16
Scale	1" = 10'-0"
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Job	
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Of	Sheets

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**CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET- ST. HELENA, CA 94574
PLANNING COMMISSION**

October 18,2016

AGENDA ITEM: 9

FILE NUMBER: PL16-064

SUBJECT: Peterson Residence Design Review

PREPARED BY: Lilly Bianco, Contract Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 08.12.16

ACCEPTED AS COMPLETE: 09.26.16

LOCATION OF PROPERTY: 2175 Palmer Drive

APPLICANT: Holder Design Associates **PHONE:** 1(415) 269-5236

APN: 009-690-014

GENERAL PLAN/ZONING: LR-1A: Low Density Residential (One Acre Minimum)

PROPERTY DESCRIPTION: The subject property is a residential lot of approximately 4.25 acres improved with one (1) single family residence and one (1) single car detached garage in northwest St. Helena. The current lot coverage is 8.1% with a floor area ratio (F.A.R) of 7.2.

PROJECT DESCRIPTION:

Applicant, Holder Design Associates, is requesting Design Review approval, on behalf of property owners, Ryan and Heather Peterson, to perform a series of exterior modifications at 2175 Palmer Drive. All changes are confined to the single family residence and detached garage; no changes are proposed for the site or landscaping with the exception of a new foundation for the proposed front porch and replacement of brick walkway with pavers (**Attachment 4**).

The project at 2175 Palmer Drive is located in the LR-1A: Low Density Residential Zoning District. The proposed modifications include:

- Replacement of roof frame and reduction in width of roof eaves
- Replacement of the existing single family residence roof with a dark bronze standing seam metal roof with skylights
- New Chimney

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Peterson Residence Design Review
October 18,2016
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- Replacement of all existing fenestration with wood clad windows and doors,
- Patching, repair, and painting of stucco cladding,
- Introduction of front porch with steel frame trellis at building entrance,
- Replacement of brick walkway with pavers
- Replacement of garage roof to be consistent with that of the residence, and
- Replacement of arched garage doors with square garages doors.

ANALYSIS

GENERAL PLAN

The subject property exhibits a General Plan Land Use designation of Low Density Residential, providing for single-family detached homes, secondary residential units, limited agricultural uses, public and quasi-public uses, and similar and compatible uses. Residential densities must be within the range of 1.0 to 5.0 units per gross acre. This particular designation is confined to areas of the City where large, residentially subdivided parcels define the development pattern, particularly near the City's perimeter.

Relevant General Plan policies include:

4.3.4 Strengthen community identity by appropriate building design, size, and site landscaping.

Given that the project consists of minor exterior modifications and will not alter the use of the property, the project is consistent with all applicable General Plan policies.

ZONING

Consistent with the GP land use designation, 2175 Palmer Drive exhibits a zoning designation of LR-1A: Low Density Residential-One Acre Minimum. The LR-1A zoning designation allows for single-family detached homes, accessory dwelling units, limited agricultural use and other compatible uses insofar as they conform to the development standards prescribed by Municipal Code Section 17.36.060. Review of the project indicates that it meets all applicable development standards; the exterior modifications are limited to cosmetic updates and will not substantially alter the size, scale, of area of the residence or detached garage. No changes are proposed for the site or landscaping with the exception of new foundation for the proposed front porch and pavers between the garage and the house. At present, the residence meets all development criteria including height, setback, and floor area criteria prescribed by Section 17.36.060 and shown in **Table I**, below, and will continue to do so with only very minor changes to the existing condition. Accordingly, the project is consistent with all applicable zoning provisions.

Table 1
Project Consistency with LR-1A Development Standards

STANDARD	ALLOWED	EXISTING	PROPOSED	CONSISTENT?
Max Lot Coverage				
Ratio	35%	8.1%	8.1%	✓
Area	17,838sf	4153sf	4153sf	
Floor Area Ratio	11.89	7.2	7.1	✓
Height				
Principal Building	30'	16'6"	19'3"	✓
Accessory Structure	15'	N/A	N/A	
Setbacks (≤ 25' Height)				
Front	20'	20'	20'	✓
Int. Side	10'	10'	10'	
Rear	20'	20'	20'	
Parking				
Covered	1	2	2	✓
Uncovered	2	2	2	

CEQA

The project is categorically exempt in accordance with CEQA Section 15301 "existing facilities" as the minor alteration of an existing private structure involving a negligible expansion of use beyond that existing at the time of the lead agency's determination. The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

WATER NEUTRALITY

In August 2015 and pursuant to Ordinance 2015-5 the City of St. Helena established mandatory water efficiency measures for new construction, and adopted water demand offset requirements enumerated in Chapter 13.12.050 of the Municipal Code. Amongst these provisions is the requirement that any "new development" (i.e. construction that would introduce any freestanding building that contains water-using fixtures, any floor area additions to existing nonresidential structures, or any residential additions or remodeling that increases the number of independent living units) offset new demand by an amount of water equal to the new demand placed on the city water system using the methodology defined in Code section 13.12.050. The offset must be clearly demonstrated to the satisfaction of the Director of Public Works.

The proposed project does not meet the definition of “new development” as defined in code Section 13.12.050 and is not expected to place new demand on the City’s water system beyond that which currently exists and therefore is not subject to the City’s water neutrality policy. Nevertheless, as part of the interior remodel, the applicant is proposing to update all water fixtures with new water efficient fixtures which will reduce the daily and annual water demand, as described on page A0.0 of project plans (**Attachment 4**).

DESIGN REVIEW

The purpose of design review is to, amongst other things, promote the qualities that bring value to the community and foster attractiveness and functional utility of the community as a place to live and work. To approve design review, the Commission must find that the project is consistent with the design criteria prescribed by Section 17.164.030 and exhibits a quality of design that is compatible with adjacent development, features a siting, scale, massing and architectural style that is generally consistent with the predominant development patterns and that does not otherwise detract or negatively affect the established character of the surrounding neighborhood.

The proposed project is located off of Palmer Drive and is partially shielded from view due to the presence of vegetation and tree canopy. Proposed exterior changes include the introduction of a dark bronze standing seam metal roof, new chimney, replacement of fenestration with wood clad windows and doors, repair of stucco siding and introduction of front porch with steel trellis at the home’s entrance and as shown on project plans (**Attachment 4**). Alterations are limited to cosmetic updates of the existing residence and garage to provide for a more contemporary appearance. No changes are proposed that would substantially alter the size, scale or height of the house. The proposed cosmetic changes appear to be of a scale, massing, and quality of design that is compatible with the existing construction and that of adjacent buildings and structures. As such, staff determines that the project adequately meets the design review criteria outlined in Section 17.164.030, particularly no. 2, 7, 13, and in bold text below.

Design Criteria

1. Consistency and compatibility with applicable elements of the general plan;
2. **Compatibility of design with the immediate environment of the site;**
3. Relationship of the design to the site;
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land uses;
6. Compatibility with future construction both on and off the site;
7. **Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;**

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8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
- 13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;**
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;
16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;
17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

CORRESPONDENCE

No comments have been received at the drafting of this staff report.

ISSUES

Given the straightforwardness of the proposal and consistency with applicable guidelines and standards no unresolved issues require attention at this time.

STAFF RECOMMENDATION

The Planning and Community Improvement Department recommends that the Planning Commission:

1. Determine that the project is categorically exempt from the requirements of CEQA pursuant to CEQA Section 15301 "existing facilities" as the minor alteration of an

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existing private structure involving a negligible expansion of use beyond that existing at the time of the lead agency's determination.

2. Accept the required findings enumerated in Municipal Code Section 17.164.030 and adopt a resolution approving Design Review for the proposed Peterson Residence Remodel.

ATTACHMENTS

1. Resolution/ Conditions of Approval
2. APN Map
3. Aerial View
4. Project Plans dated September 9, 2016

CITY OF ST. HELENA PLANNING COMMISSION

RESOLUTION PCXXX

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ST. HELENA
GRANTING DESIGN REVIEW APPROVAL FOR EXTERIOR MODIFICATIONS TO
THE PETERSON RESIDENCE LOCATED AT 2175 PAMER DRIVE**

PROPERTY OWNER: Ryan and Heather Peterson

APN: 009-690-014

Recitals

A. Whereas, Holder Design Associates submitted an application for a Design Review to perform exterior modifications to the existing residence and detached garage at 2175 Palmer Drive in the LR-1A: Low Density Residential - 1 Acre Minimum Zoning District, and

B. Whereas, the proposed exterior modifications are generally limited to cosmetic changes and will not substantially alter the size, scale, or floor area of the proposed residence or detached garage.

D. Whereas, A staff report dated October 18, 2016 and incorporated herein by reference analyzed the projects consistency with the Design Criteria enumerated in Section 17.164.030 of the Municipal Code, and

D. Whereas, the Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on October 18, 2016, and

E. Now, therefore let it be found that, the Planning Commission approves Design Review and authorizes the modifications contained in said plans, date stamped September 14, 2016, based on the findings below and subject to the conditions of approval enumerated herein.

Resolution

1. The project is categorically exempt in accordance with CEQA Section 15301 "Existing Facilities" as the minor alteration of an existing private structure involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

2. The project is consistent with the design review criteria prescribed by Municipal Code Section 17.164.030 and enumerated below, in that the design, massing, scale, and materials of the proposed remodel, are compatible with the existing development on the subject site and in the immediate vicinity and the project will not detract or otherwise degrade the established character of the neighborhood.

Proposed exterior changes include the replacement of the existing residence and garage roofs with a dark bronze standing seam metal roof, replacement of fenestration with wood clad windows and doors, replacement of garage doors, repair of stucco siding and introduction of front porch with steel trellis at the home's entrance. No changes are proposed that would substantially alter the size, scale or height of the house. Accordingly, the proposed cosmetic changes appear to be of a scale, massing, and quality of design that is compatible with the existing construction and that of adjacent buildings and structures.

Design Criteria:

1. Consistency and compatibility with applicable elements of the general plan;
2. Compatibility of design with the immediate environment of the site;
3. Relationship of the design to the site;
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land use;
6. Compatibility with future construction both on and off the site;
7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether

the landscape concept depicts an appropriate unity with the various buildings on the site;

16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;
17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

F. Now therefore be it further resolved that, the Design Review for the above described project is granted subject to compliance with all applicable provisions of the Zoning Code subject to each of the following conditions. Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

Conditions of Approval

1. The Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.
2. The plans submitted for building permit review shall be in substantial conformance with the plans on file in the Planning Division, date stamped September 14, 2016, except as modified by the following conditions.
3. The Design Review Approval shall be vested within one (1) year from the date of approval. A building permit for the use allowed under this approval shall have been obtained within one (1) year from the effective date of the Use Permit and Design Review decision or these approvals shall expire; provided however that the approved Use Permit and Design Review may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.030, Extension of Permits and Approvals.
4. The Design Review Approval shall become effective fourteen (14) calendar days after approval, provided that the action is not appealed by the City Council or any other interested party within that 14 day period.
5. Any request for an extension of the Design Review Approval must be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.
6. All required fees, including planning fees, development impact fees, building fees, retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of building permit.

7. Prior to issuance of construction permits, compliance with conditions of approval shall be clearly identified on all plans. A copy of approved plans with the conditions listed shall be maintained on-site during construction activities.
8. Conditions shall be achieved at such a time as determined by the City and shall be achieved at the requisite stage and before issuance of certificate of occupancy or initiation of use unless another time is set by law or by this approval. Occupancy or final inspection of a project may be withheld if all conditions, including payment of fees for services rendered by the City, are not met.
9. The applicant shall defend and indemnify and hold the City, its agents, officers, and employees harmless of any claim, action or proceedings to attack, set aside, void or annul an approval so long as the City promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.
10. This Design Review approval shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
11. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The owner/applicant is responsible for meeting with the Building Official / Fire Inspector to review compliance with Building and Fire Codes, including fire protection systems and the accessibility standards of Title 24.
12. No structure shall be permitted over any existing property lines. Documentation of the location of the property lines shall be submitted with plans for building permit issuance.
13. Provided they are in general compliance with the approved Design Review, minor modifications found to be in substantial conformance with the approved design and use may be approved by the Planning Director.

Building Department Conditions of Approval

14. A building permit is required for all onsite demolition, construction and/or change of occupancy.
15. The applicant will be required to comply with the codes adopted at the time the applicant applies for a building permit. At this time the City of St. Helena utilizes the 2013 Title 24 codes.
16. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
17. The applicant shall provide a construction waste management plan with the building permit application.

18. The plans for construction shall include a checklist for compliance with the California Green Buildings Standards Code, mandatory measures. Provide a reference on the checklist indicating where the mandatory measures can be found on the plans.
19. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
20. Building Permit application materials and plans shall include any documentation pertaining to special loads applicable to the design and the specified section of the code that addresses the condition; special inspections for any systems or components requiring special inspection; requirements for seismic resistance; and a complete list of deferred submittals at time of application. Any deferral of the required submittal items shall have prior approval of the Building Official however deferral of fire sprinkler design is not allowed.

I HEREBY CERTIFY that the foregoing Design Review Exemption was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on October 18, 2016, by the following roll call vote:

AYES:

NOES:

ABSENT:

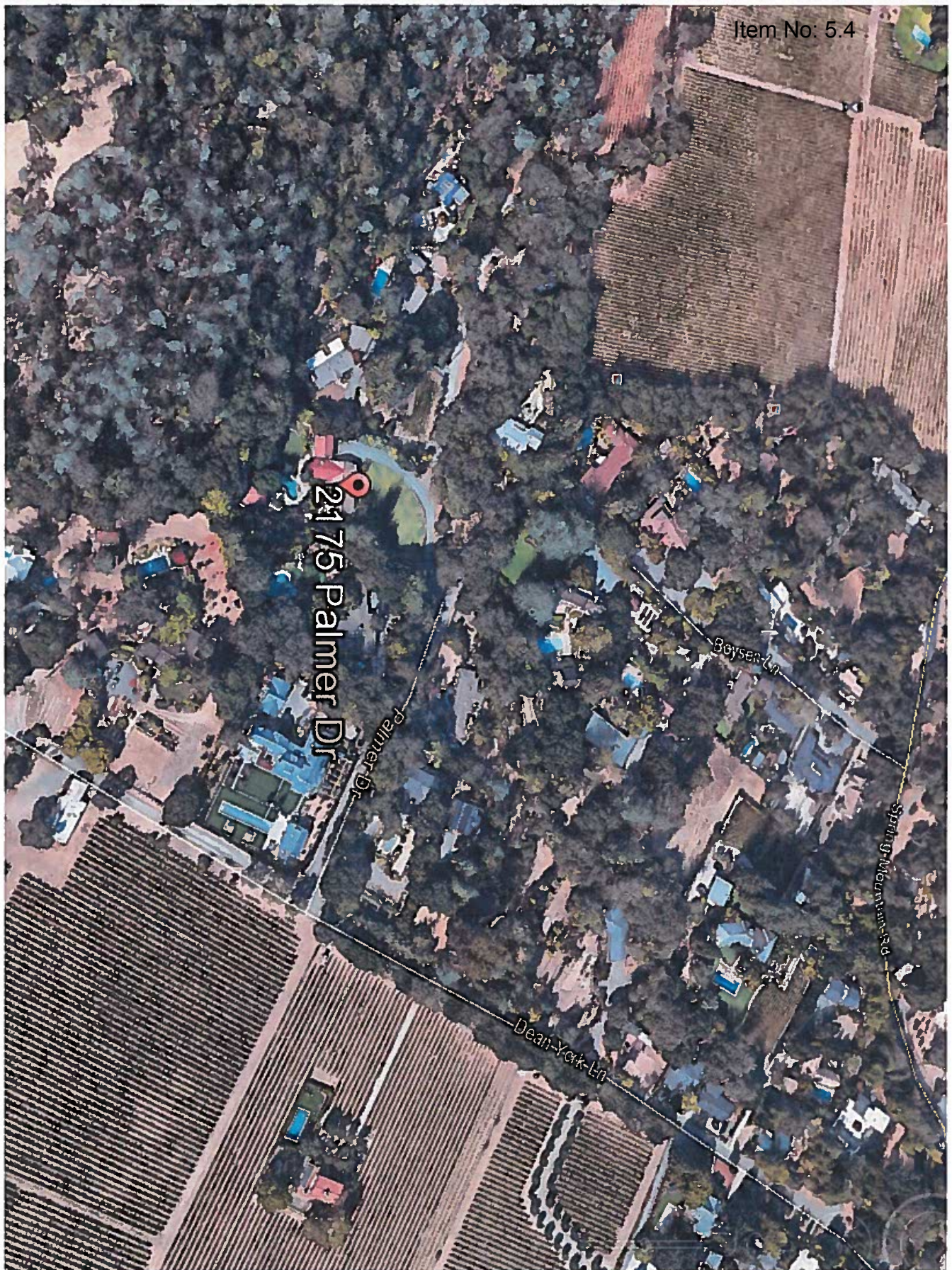
ABSTAIN:

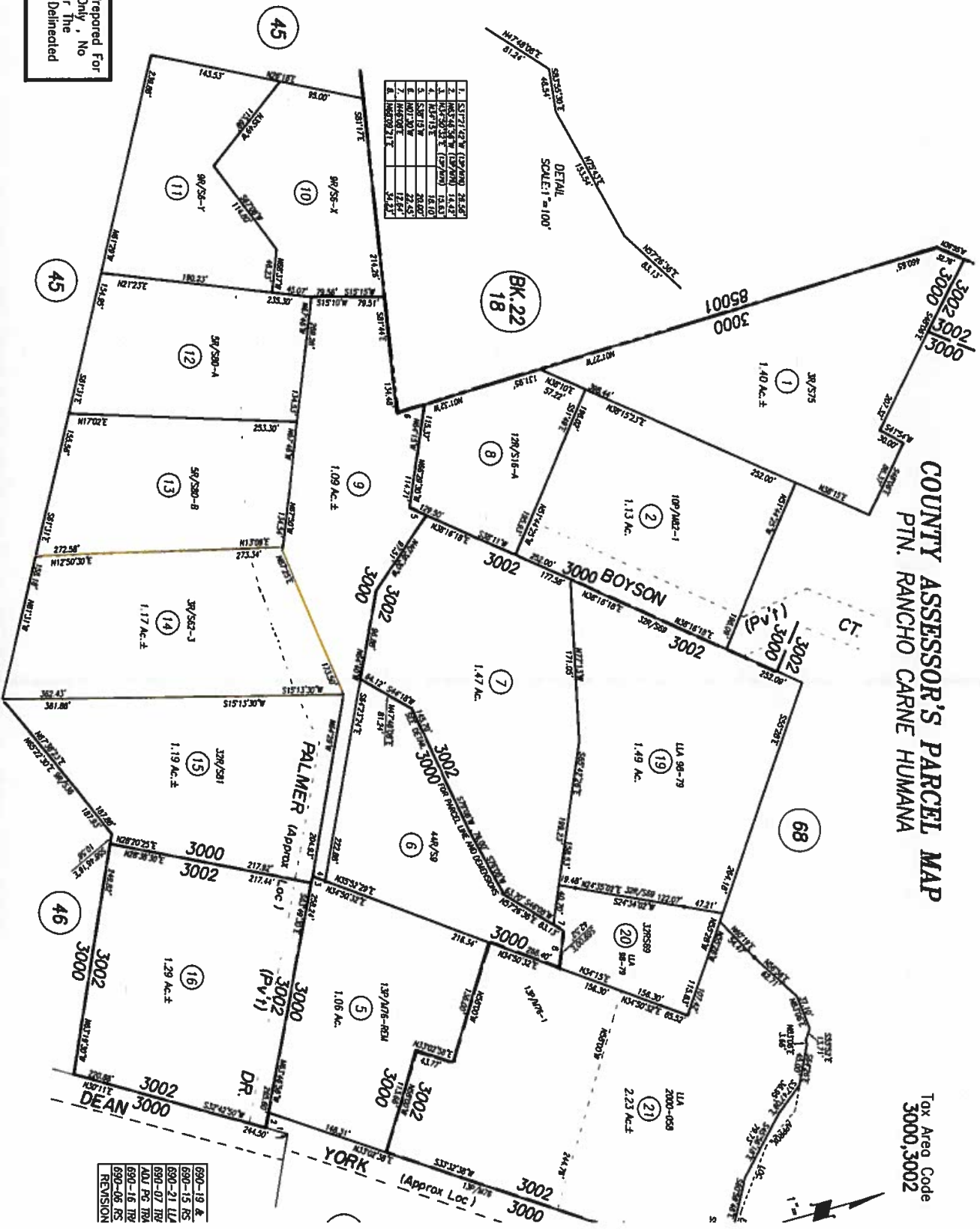
APPROVED:

ATTEST:

Sarah Parker
Chair, Planning Commission

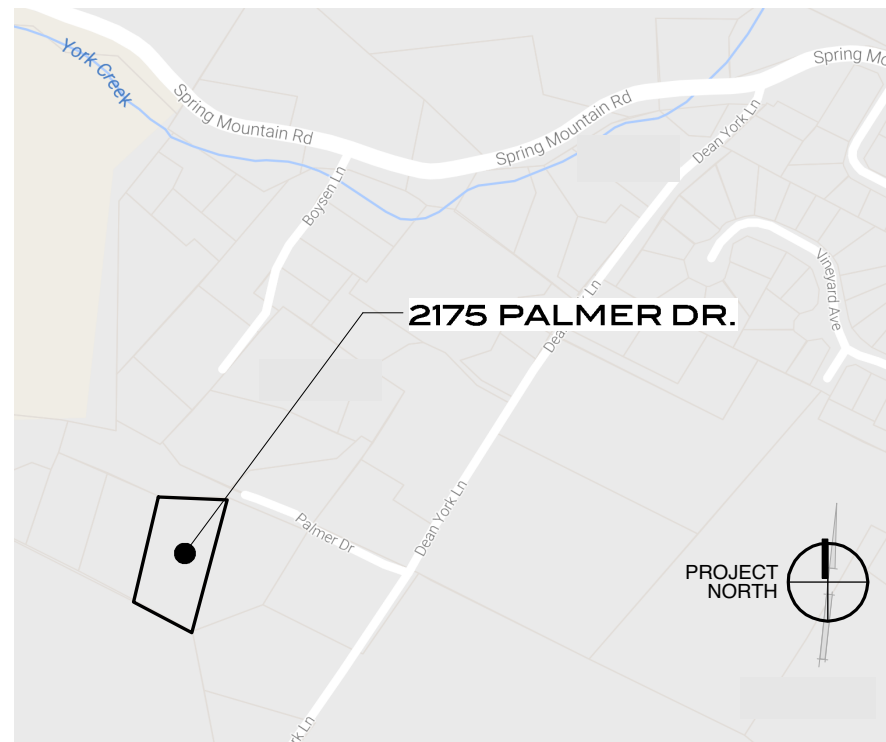
Noah Housh,
Planning and Community
Improvement Director





E: This Map Was Prepared For
Assessment Purposes Only, No
Liability Is Assumed For The
Accuracy Of The Data Delimited
Thereon.

VICINITY MAP NOT TO SCALE



PROPOSED DOMESTIC WATER DEMAND WITH WATER REDUCTION MEASURES:

WATER ANALYSIS REPORT							
FIXTURE	EXISTING			PROPOSED			IMPROVEMENTS
	QTY	FLOW		QTY	FLOW		
LAV. FAUCET	5	2.1	GPM	5	1.5	GPM	0.6 GPM
SHOWER HEAD	3	2.5	GPM	2	1.5	GPM	1 GPM
TOILET	3	2.5	G PER FLUSH	3	1.2	G PER FLUSH	1.22 G PER FLUSH
KITCH. FAUCET	1	2	GPM	1	1.28	GPM	1 GPM

THE DOMESTIC WATER USAGE FOR THE PROPERTY WILL PRODUCE NO NET INCREASE IN DEMAND TO THE CITY OF ST. HELENA'S WATER SYSTEM. THERE IS NO INCREASE TO THE EXISTING NUMBER OF LIVING UNITS, BEDROOMS DENS OFFICES OR GAME ROOMS.

IN ADDITION, ALL WATER FIXTURES IN THE HOUSE WILL BE REPLACED WITH NEW WATER EFFICIENT FIXTURES.

BY UTILIZING LOW-FLOW AND WATER EFFICIENT FIXTURES IN THE PROPOSED RESIDENCE, THE ANTICIPATED DOMESTIC WATER REQUIREMENTS ARE ABLE TO BE SIGNIFICANTLY REDUCED FROM WATER USED IN NON-WATER EFFICIENT HOMES.

THE FOLLOWING IS A LIST OF LOW-FLOW FIXTURES AND APPLIANCES PROPOSED TO BE INSTALLED IN THE NEW RESIDENCE:
-HIGH EFFICIENCY TOILETS IN ALL BATHROOMS (1.28 GPF)
-LOW FLOW KITCHEN AND LAVATORY FAUCETS (1.5 GPM)
-LOW-FLOW SHOWERHEAD (1.5 GPM)
-CLOTHES WASHER LISTED ON THE CONSORTIUM FOR ENERGY EFFICIENCY'S SUPER EFFICIENT HOME APPLIANCE INITIATIVE
-DISHWASHER LISTED ON THE CONSORTIUM FOR ENERGY EFFICIENCY'S SUPER EFFICIENT HOME APPLIANCE INITIATIVE DISHWASHER QUALIFYING PRODUCT LIST.

UTILIZING THE ABOVE-NOTED FIXTURES IN THE PROPOSED RESIDENCE, THE DAILY AND ANNUAL WATER DEMANDS FOR THE PROPERTY WILL BE REDUCED

PROJECT DESCRIPTION

EXTERIOR REMODEL OF PORTIONS OF ROOF FRAME , REPLACEMENT OF ROOFING MATERIAL TO DARK BRONZE STANDING SEAM METAL ROOFING, ALL EXISTING WINDOWS, PATCH & REPAIR (E) STUCCO OF MAIN RESIDENCE.

INTERIOR REMODEL OF MAIN RESIDENCE, NO ADDITIONAL BEDROOMS OR BATHROOMS.

REPLACEMENT OF ROOF MATERIAL OVER GARAGE TO DARK BRONZE STANDING SEAM METAL ROOFING

NO SITE WORK, EXCAVATION OR LANDSCAPE WORK PROPOSED, OTHER THAN FOUNDATION FOR FRONT PORCH

GENERAL PROJECT REQUIREMENTS:

- FIRE SPRINKLERS – REQUIRED, UNDER A SEPARATE PERMIT.
- HOUSE STREET ADDRESS SHALL BE:
 - AT LEAST 4 INCHES TALL IN HEIGHT,
 - ADJACENT TO THE ENTRANCE,
 - PLACED ADJACENT TO A LIGHT, BACKLIT OR INTERNALLY ILLUMINATED
 - POSTED AS TO BE VISIBLE FROM THE STREET.
 - PROVIDE PHOTOCELL SWITCH ONLY. NO MANUAL CONTROL OTHER CIRCUIT BREAKER
 - IF NOT VISIBLE FROM THE STREET, ADDITIONAL SIGNAGE WILL BE REQUIRED.
- FIRE BREAK AND DEFENSIBLE SPACE:
BRUSH AND WEEDS SHALL BE CLEARED A MINIMUM CLEARANCE OF 30 FEET FROM STRUCTURES AND 10 FEET FROM ROADS AND PROPERTY LINES. SEE SHEET A1.0 FOR ADDITIONAL NOTES AND RESOURCES.
- ADDITIONAL DEFERRED APPROVALS:
-ELECTRICAL LOAD CALC'S DUE AT 1ST INSPECTION
- DEMO PERMIT:
SEE PERMIT REQUIREMENTS ON THIS SHEET.
- CERTIFICATE OF OCCUPANCY:
REQUIRED PRIOR TO USE AND OCCUPANCY. ALL REQUIRED INFORMATION IS LISTED ON TITLE SHEET.
- GRADING PERMIT:
CONTRACTOR TO PROVIDE CALCULATIONS QUANTITIES OF EXCAVATION, MATERIAL OFF HAUL, MATERIAL IMPORT AND TOTAL FILL FOR FOUNDATIONS AND DRIVEWAY. IF THE EXCAVATION, OFF-HAUL OR IMPORT IS EQUAL OR GREATER THAN 25 CY, A SEAPARATE GRADING PERMIT IS REQUIRED. IF EQUAL TO OR GREATER THAN 100 CY, PLANNING COMMISSION APPROVAL IS REQUIRED.
- TITLE 24-ADDITIONAL SUBMITTAL REQUIREMENTS:
THE CONTRACTOR MUST HAVE PROVIDED THE APPLICABLE SECTIONS OF THE CF-6R TO THE OWNER AND BLDG OFFICIAL PRIOR TO REQUEST FOR FINAL INSPECTION. IF NOT ALREADY PROVIDED AS PART OF A PERFORMANCE TYPE ANALYSIS, THE CF-4R MUST ALSO BE PROVIDED.
- EROSION CONTROL MEASURES:
BEFORE A REQUEST FOR FINAL INSPECTION, ANY AREA WHERE SOIL IS DISTURBED MUST BE TOTALLY REVEGETATED WITH A GROUND COVER ACCEPTABLE TO THE RVFD AND THE PUBLIC WORKS DIRECTOR; OR A PERMANENT EROSION CONTROL SYSTEM SUCH AS AN EROSION CONTROL BLANKET AND MULCH COVERED WITH A TACKIFIER, THERE ARE NO EXCEPTIONS TO THIS REQUIREMENT AND TEMPORARY PLANTINGS MAY BE REQUIRED IN ORDER TO COMPLY. FOR MORE INFORMATION, REFER TO MCSTOPP.ORG
- CONSTRUCTION MANAGEMENT PLAN (CMP)
MUST BE REVIEWED AND APPROVED BY BLDG OFFICIALS BEFORE ISSUANCE OF PERMIT.

A DETAILED EROSION CONTROL PLAN DEVELOPED BY A CIVIL ENGINEER MUST BE SUBMITTED AND APPROVED BY THE TOWN ENGINEER PRIOR TO THE START OF WORK. EROSION CONTROL MEASURES MUST BE MAINTAINED CONTINUOUSLY BETWEEN OCT 15 AND APRIL 15.



PROPOSED PERSPECTIVE FROM PALMER DR. N.T.S.

PLANNING & ZONING DATA

ADDRESS: 2175 PALMER DRIVE, ST. HELENA
ASSESSOR'S PARCEL # 009-690-14
STORIES (E) & PROPOSED 1 1

ZONING TYPE: LR-1A
BLDG TYPE: VB PER CBC 601.1
OCCUPANCY GROUP R

TOTAL LOT AREA: 50965 SF
AVERAGE SLOPE: 4 %

LOT COVERAGE RATIO

MAX LOT COVERAGE RATIO: 35 %
MAX LOT COVERAGE AREA: 17838 SF

	EXISTING:	PROPOSED
MAIN HOUSE	2832	2832
DETACHED GARAGE	618	618
POOL HOUSE	598	598
SHED	105	105

TOTAL BLDG AREA 4153 4153
LOT COVERAGE RATIO: 8.1 % 8.1 %

FLOOR AREA RATIO

MAX FLOOR AREA RATIO: 11.89 %
MAX FLOOR AREA: 6069 SF

FLOOR AREA:	EXISTING:	PROPOSED:
MAIN FLOOR	2832 SF	2832 SF
(N) FLOOR AREA	N/A	-19 SF
FLOOR AREA SUBTOTAL	2832 SF	2813 SF
POOL HOUSE AREA	598 SF	598 SF
GARAGE AREA	618 SF	618 SF
GARAGE DEDUCT (400 MAX)	-400 SF	-400 SF
	218 SF	218 SF

AREA TOTAL 3648 SF 3629 SF
CALCULATED FAR: 7.2 % 7.1 %

BLDG LIMITATIONS:

	REQ'D	EXISTING:	PROPOSED
MAX BLDG. HT. (PRINCIPAL):	30 FT	16 FT 6 IN	19 FT 3 IN
MAX BLDG. HT. (ACCESSORY):	15 FT	N/A FT	N/A FT

STRUCTURES 25' HIGH OR LESS

	REQ'D	EXISTING:	PROPOSED
SETBACKS			
FRONT	20 FT	FT	FT
SIDE YARDS	10 FT	FT	FT
REAR YARD	20 FT	FT	FT

STRUCTURES 25' TO 30' HIGH

	REQ'D	EXISTING:	PROPOSED
SETBACKS			
FRONT	30 FT	FT	FT
SIDE YARDS	15 FT	FT	FT
REAR YARD	30 FT	FT	FT

PARKING SPACES (9'X19'): REQUIRED PROPOSED:
COVERED 1 2
UNCOVERED 2 2

FEMA FLOOD ZONE DATA N/A

PROJECT CONTACTS

OWNER
RYAN & HEATHER PETERSON
2175 PALMER DRIVE
ST. HELENA, CA 94574

DESIGNER
HOLDER DESIGN ASSOCIATES
1010 SIR FRANCIS DRAKE BLVD
SUITE 204
KENTFIELD, CA 94904
CONTACT: KENNETH HOLDER
E: KENNETH@HOLDERDESIGNASSOCIATES.COM
T: 415.269.5236

BUILDER
T.B.D.

STRUCTURAL ENGINEER:
T.B.D.

APPLICABLE CODE NOTICE:

ALL CONSTRUCTION, REGARDLESS OF DETAILS ON PLANS, SHALL COMPLY WITH THE FOLLOWING:

- 2013 CALIFORNIA RESIDENTIAL CODE (CRC), 1 & 2-FAMILY DWELLINGS ONLY
- 2013 CALIFORNIA ELECTRICAL CODE (CEC)
- 2013 CALIFORNIA PLUMBING CODE (CPC),
- 2013 CALIFORNIA MECHANICAL CODE (CMC),
- 2013 CALIFORNIA GREEN BUILDING STANDARDS
- 2013 CALIFORNIA ENERGY GODE
- CURRENT NAPA COUNTY CODE

SHEET INDEX

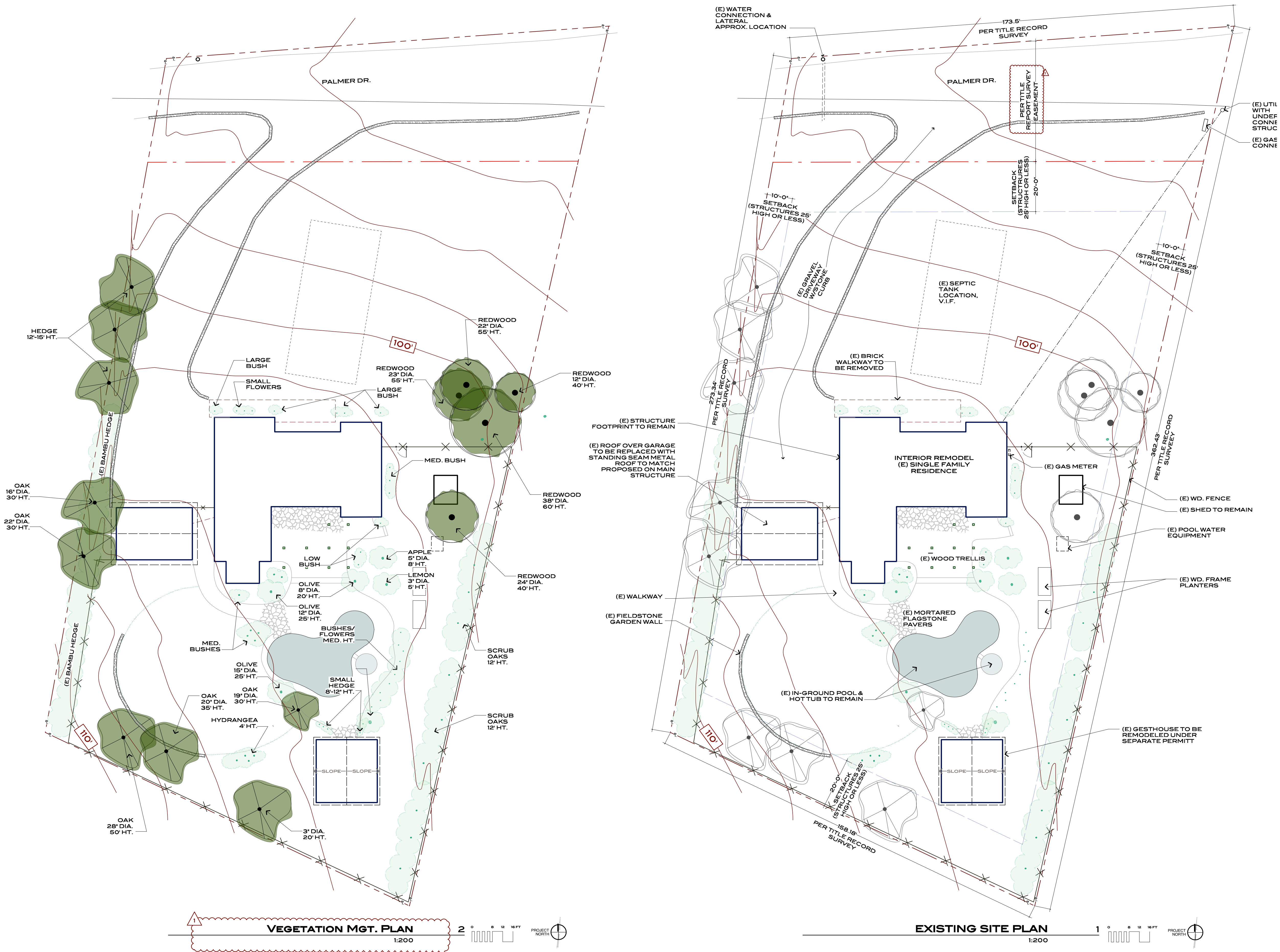
A0.0 TITLE SHEET

ARCHITECTURAL SHEETS

- A1.0 SITE PLAN-EXISTING & VEGETATION
- A2.0 MAIN LEVEL-EXISTING/DEMO PLAN
- A2.1 MAIN LEVEL-PROPOSED PLAN
- A2.2 ROOF PLAN
- A3.0 EXTERIOR ELEVATIONS-SOUTH
- A3.1 EXTERIOR ELEVATIONS-WEST
- A3.2 EXTERIOR ELEVATIONS-NORTH
- A3.3 EXTERIOR ELEVATIONS-EAST
- A3.4 BUILDING PERSPECTIVES-PROPOSED

- A4.0 BUILDING SECTIONS-PROPOSED
- A7.0 WINDOW & DOOR SCHEDULE

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Item No: 5.4

holder | design

2175 PALMER DRIVE ST. HELENA, CA
APN: 009-690-14

PETERSON REMODEL
SITE PLAN - EXISTING & VEGETATION

DATE: 8.31.16
ISSUE: DESIGN REVIEW
DESIGN REVIEW REV.

A1.0



DATE:	ISSUE:
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A2.1

FLOOR PLAN SHEET NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD (FOS) UNLESS OTHERWISE OTHERWISE INDICATED

2. PROVIDE MIN. 18" X 24" CLR UNDERFLOOR ACCESS TO EACH SEGMENT OF ENCLOSED CRAWL SPACE AREA.

3. EXITING FROM FLOORS ABOVE OR BELOW THE FIRST FLOOR HAS BEEN REVISED TO LIMIT THE MAXIMUM TRAVEL DISTANCE TO 50 FEET. (CRC SECTION R311.4)

4. SEE SHEET A9.0 FOR SHOWER ENCLOSURE DESIGN REQUIREMENTS PER CRC.

5. GARAGE AND DWELLING OCCUPANCY SEPARATION:

A. AT AN GARAGE WALL WHICH IS SEPARATES IT FROM LIVING SPACE, PROVIDE MIN. 5/8" TYPE 'X' GYP BD, 1-HOUR RATED ASSEMBLY.

B. GARAGE ACCESS DOOR REQ'TS:
FOR INTERIOR GARAGE ACCESS DOOR SHALL BE SELF-CLOSING AND LATCHING, WITH 20-MIN RATED AND 1 3/4" SOLID CORE, (PER CRC R302.5.1) PROVIDE SMOKE GASKET

6. STAIR DESIGN:
STAIRS DIMENSIONS: TREAD MIN. 10", RISER MAX. 7-3/4" (PER 2013 CRC R311.7.5.1 & R311.7.5.2)

7. HANDRAILS (PER 2013 CRC R311.7.8)
A. PROVIDE HANDRAIL AT ALL STAIRS WITH 4 OR MORE CONTINUOUS RISERS (PER 2013 CRC R311.7.8).

B. HANDRAILS DIM 1.5 TO 2" DIAMETER, MIN. CLEARANCE 1-1/2" FROM THE WALL (PER 2013 CRC R311.7.8.3)

C. THE TOP OF ALL HANDRAILS SHALL BE SET AT 34-38" ABOVE ALL LANDINGS AND TREAD NOSINGS. (PER 2013 CRC R311.7.8.1)

D. THE HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE STAIRS.

8. GUARDRAILS:
A. PROVIDE GUARDRAILS AT SURFACES WHEN GREATER THAN 30" ABOVE SURFACE BELOW, PER (CRC SECTION R312.11).

B. THE TOP OF ALL GUARDRAILS SHALL BE SET AT 42" ABOVE FINISHED FLOOR.

C. THE INTERMEDIATE RAILS SHALL BE SPACED WHERE A 4" SPHERE SHALL NOT PASS THROUGH AT ANY POINT, EXCEPT 6" AT STAIR RISER (PER CRC R312.1.3)

D. THE DESIGN LOADS FOR THE TOP RAIL AND OPEN GUARDS SHALL COMPLY WITH CRC SECTION 1607.8.1 REQUIREMENTS: THE GUARDRAIL DESIGN SHALL SUPPORT A MINIMUM 200 POUND FORCE APPLIED HORIZONTALLY AT ANY POINT ALONG THE TOP RAIL AT 50 POUNDS APPLIED TO A VERTICAL AREA EQUAL TO 1 SQUARE FEET BETWEEN VERTICAL GUARD SUPPORTS.

9. THRESHOLD & LANDINGS:
THRESHOLD HEIGHTS ARE LIMITED AS FOLLOWS:
A. LANDINGS AT EXTERIOR DOOR SHALL BE NO LOWER THAN 1-1/2" DOWN FROM TOP OF THRESHOLD (PER CRC R311.3.1)

- EXCEPTION: IF THE DOOR IS NOT IN PATH OF EGRESS, LANDINGS MAY BE NO LOWER THAN 7/32"

10. SKYLIGHTS:
RESIDENTIAL SKYLIGHTS SHALL COMPLY WITH THE 2013 CRC R308.6 FOR MATERIALS AND GLAZING REQUIREMENTS; ALSO SHALL COMPLY WITH CRC R308.6.9. FOR TESTING DATA. (PER CRC R311.3.1)

11. FIRE SPRINKLERS:
RESIDENTIAL FIRE SPRINKLER SYSTEMS ARE REQUIRED IN ALL NEW RESIDENTIAL CONSTRUCTION. (CRC SECTION R313.2)

12. FIREPLACES:
A. FIREPLACES MEET THE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE SECTION 150 MANDATORY FEATURES AND DEVICES OF 150 (E)IA - CLOSABLE METAL OR GLASS DOORS COVERING THE ENTIRE OPENING OF THE FIREBOX.
B. USE WITH A VENTED GAS LOG APPROVED TO ANS Z21.60 OR Z21.84 STANDARDS OR FOR USE WITH A VENT-FREE GAS LOG HEATER APPROVED TO ANSI Z21.11.2 STANDARD.

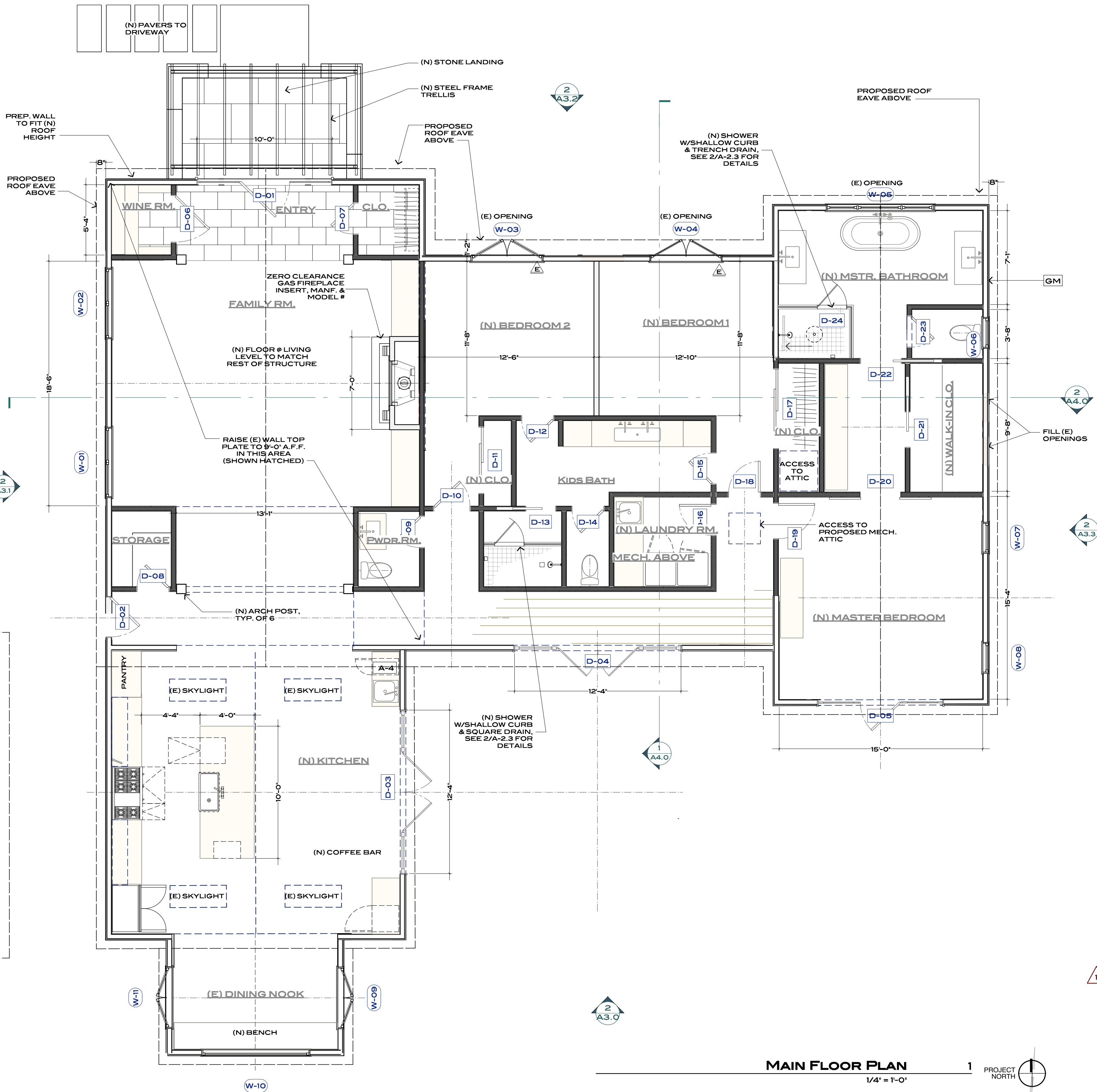
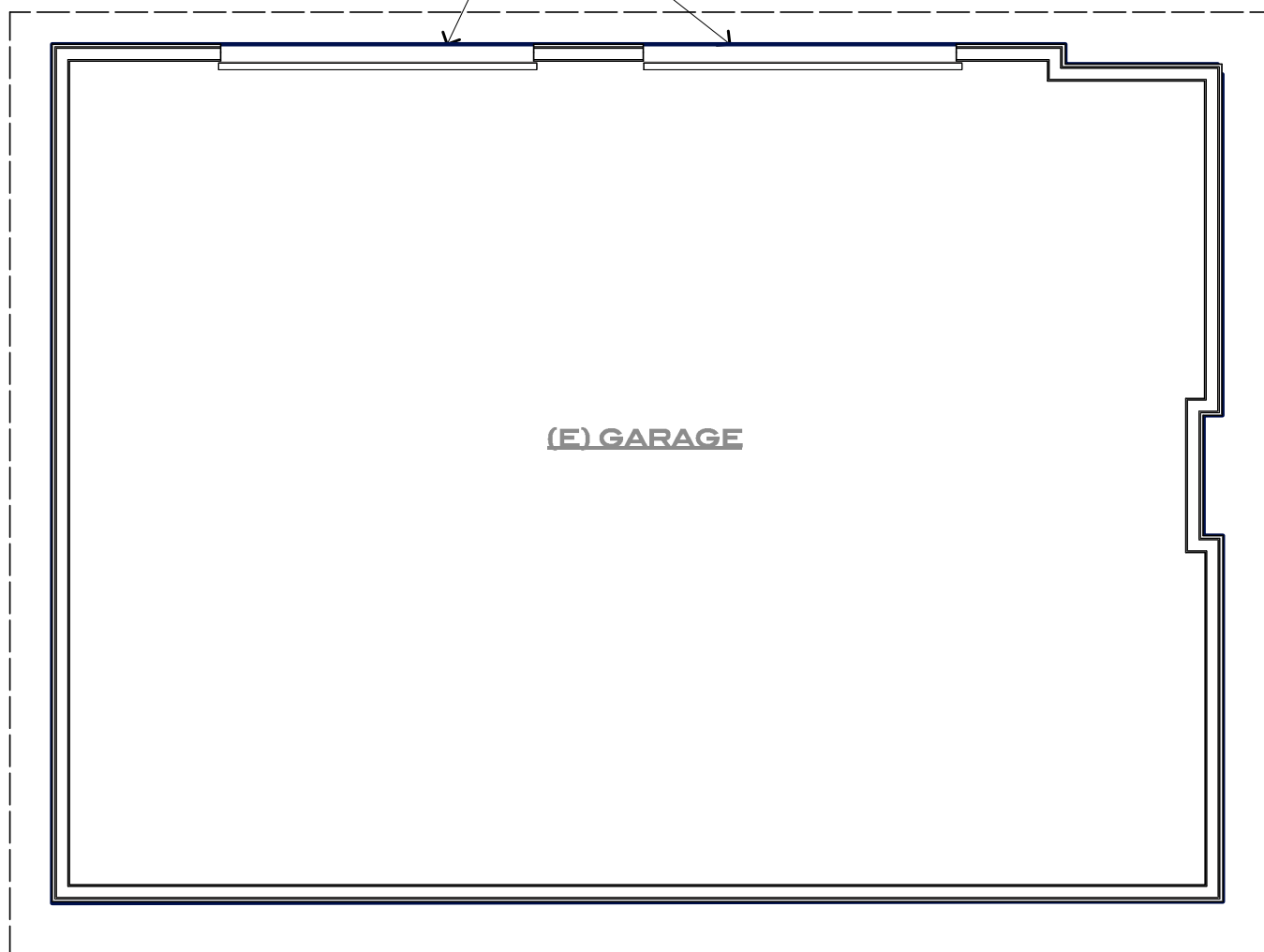
13. SHOWER DESIGN & ENCLOSURE REQ'TS:
REFER TO PLUMBING SHEET NOTES AND INTERIOR DETAIL 1, SHOWER DESIGN ON A9.0 FOR REQ'TS.

14. SEE AS 2 FOR ALL MECHANICAL, PLUMBING & ELECTRICAL REQUIREMENTS, INCLUDING SMOKE DETECTORS.

CAL GREEN MANDATORY MEASURES:

REFER TO CAL GREEN REQUIREMENTS ON SHEET T 2C OR T2D FOR ENERGY EFFICIENCY & WATER CONSERVATION STANDARDS SUCH AS PLUMBING FIXTURE FLOW RATES

SQUARE
GARAGE
DOORWAY
W/(N) STUCCO



2175 PALMER DRIVE ST. HELENA, CA

APN: 009-690-14

PETERSON REMODEL

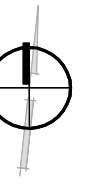
ROOF PLAN

A2.2

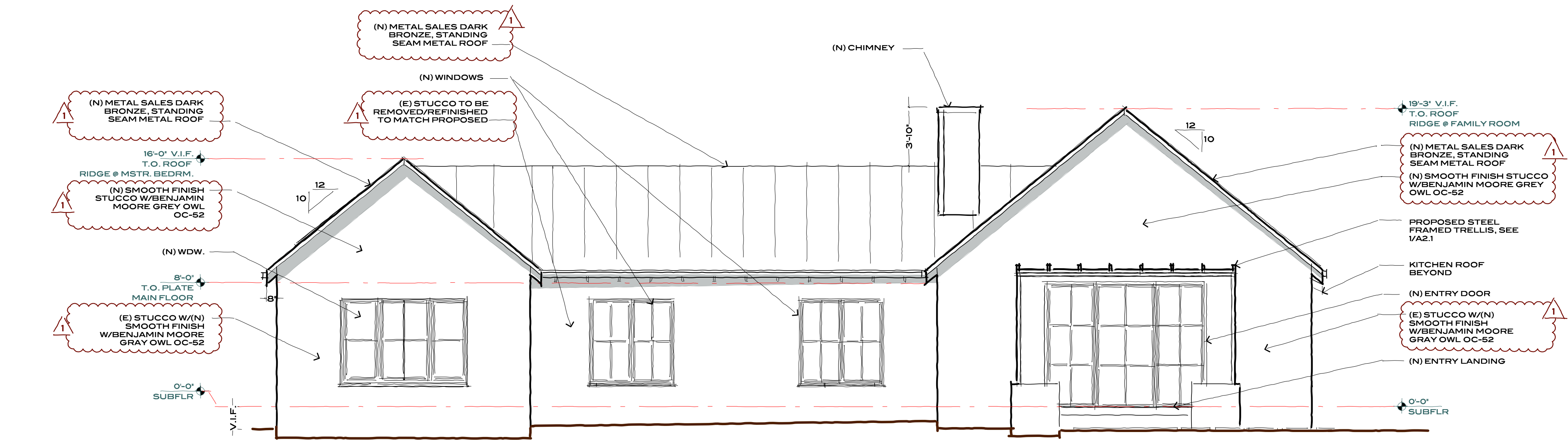


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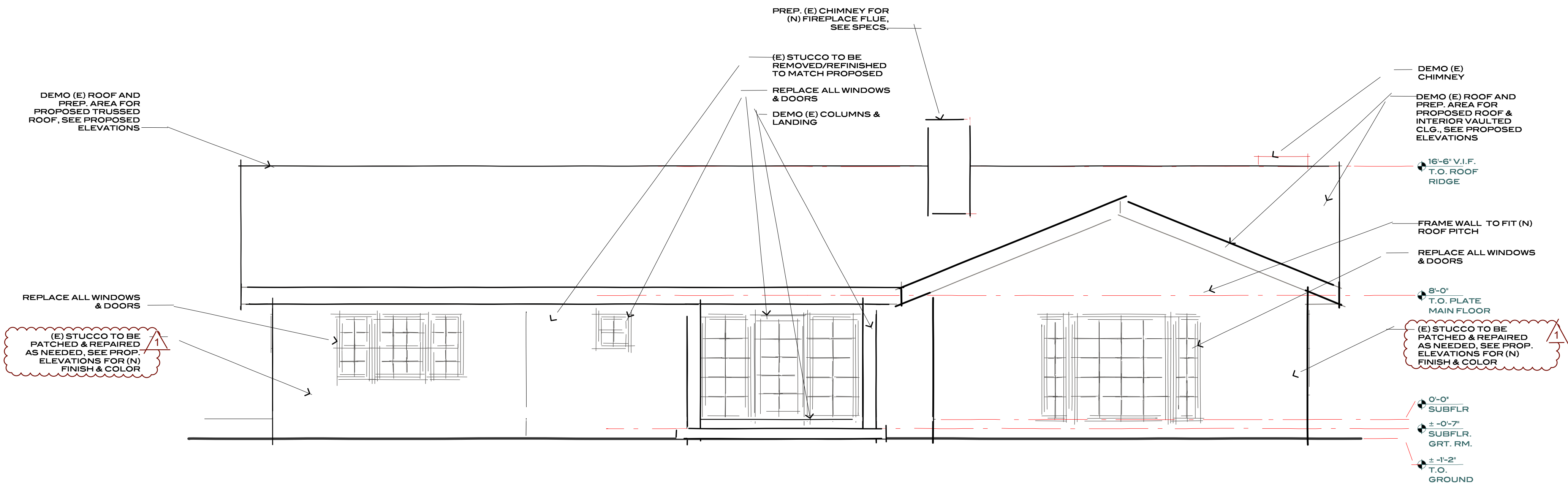
PROJECT NORTH (



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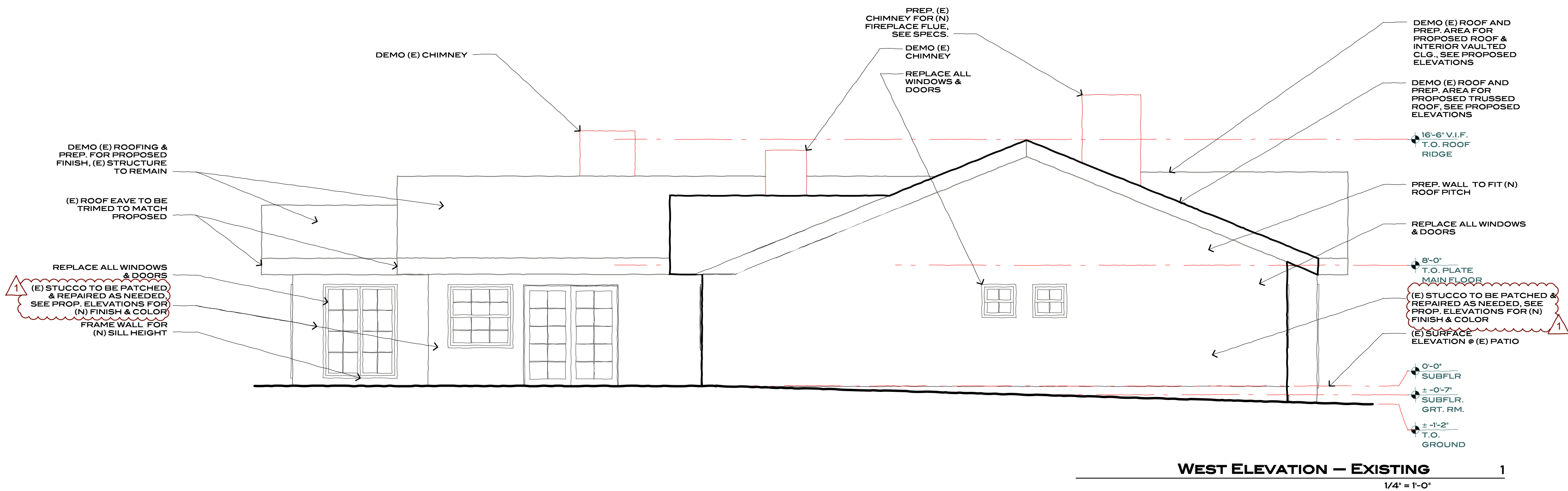
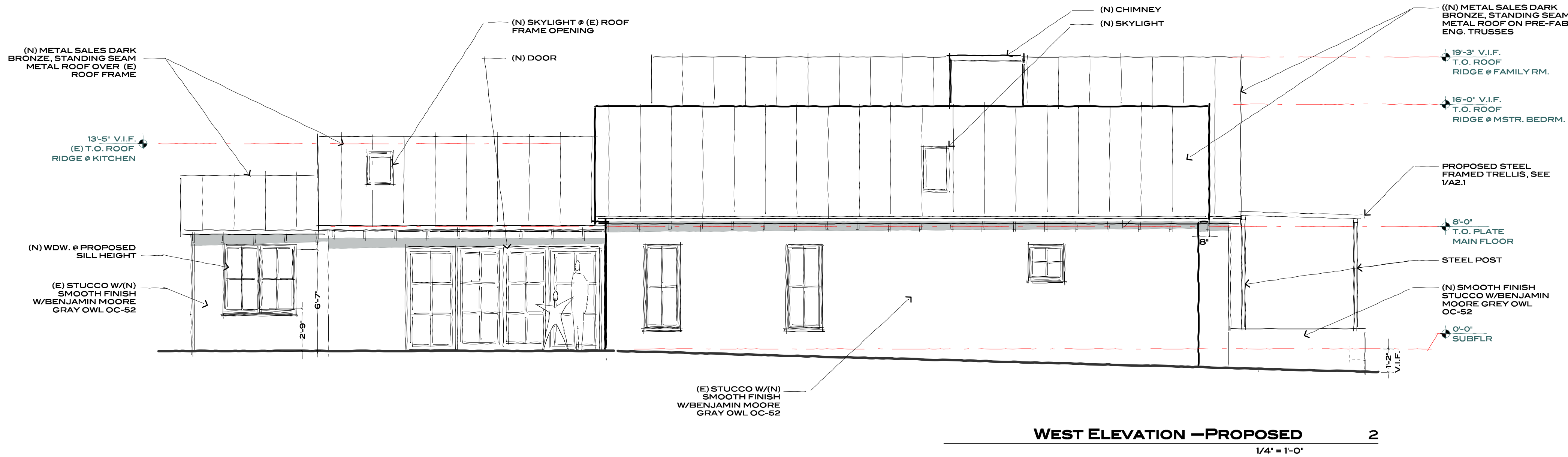


SOUTH ELEVATION — PROPOSED 2
1/4" = 1'-0"

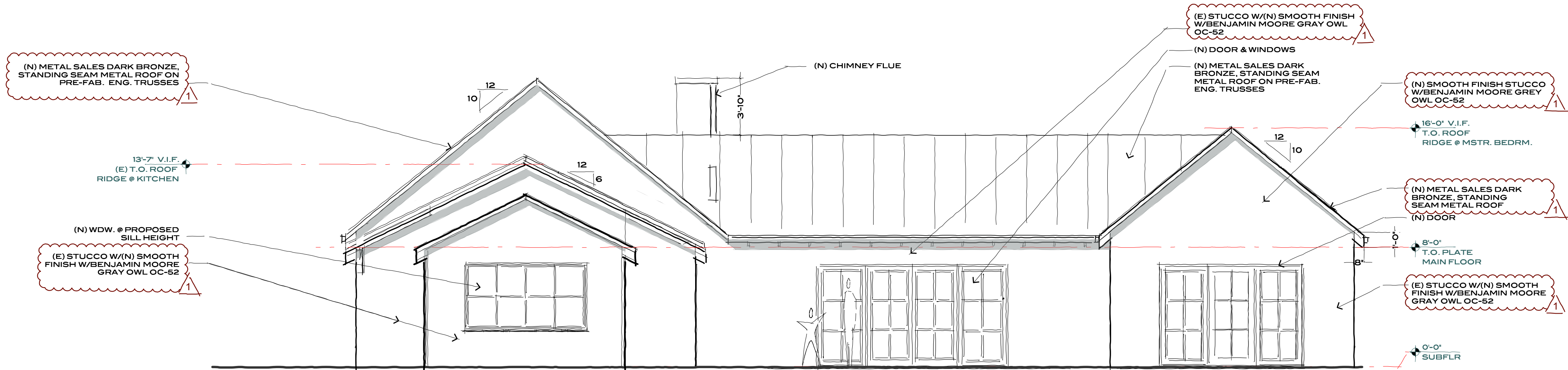


SOUTH ELEVATION — EXISTING 1
1/4" = 1'-0"

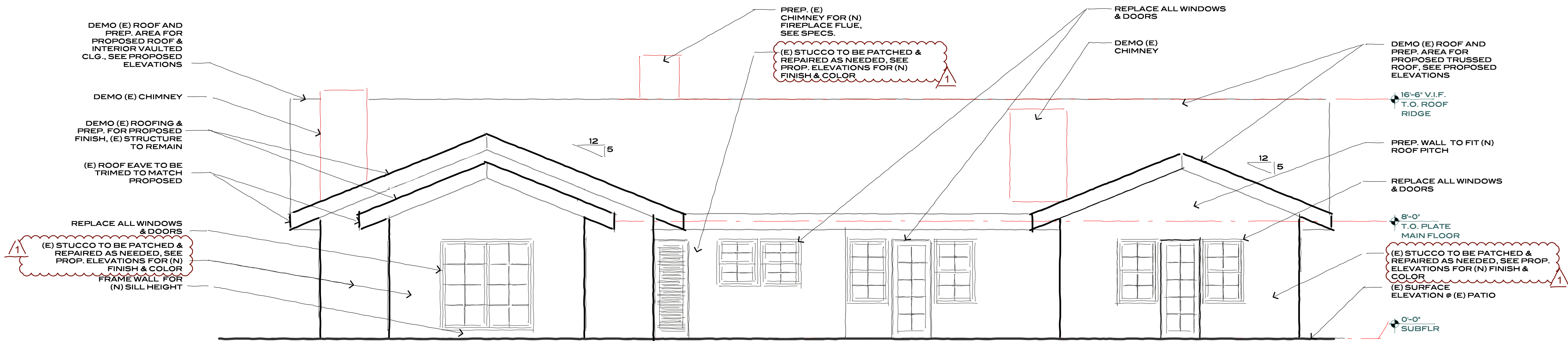
DATE:	ISSUE:
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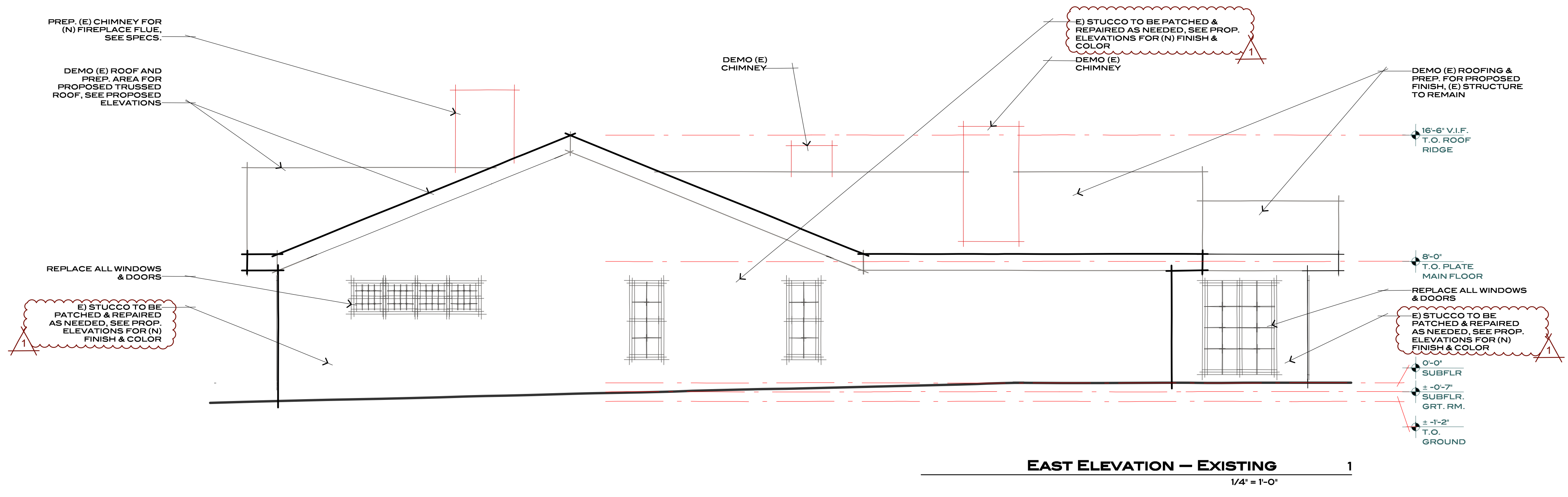
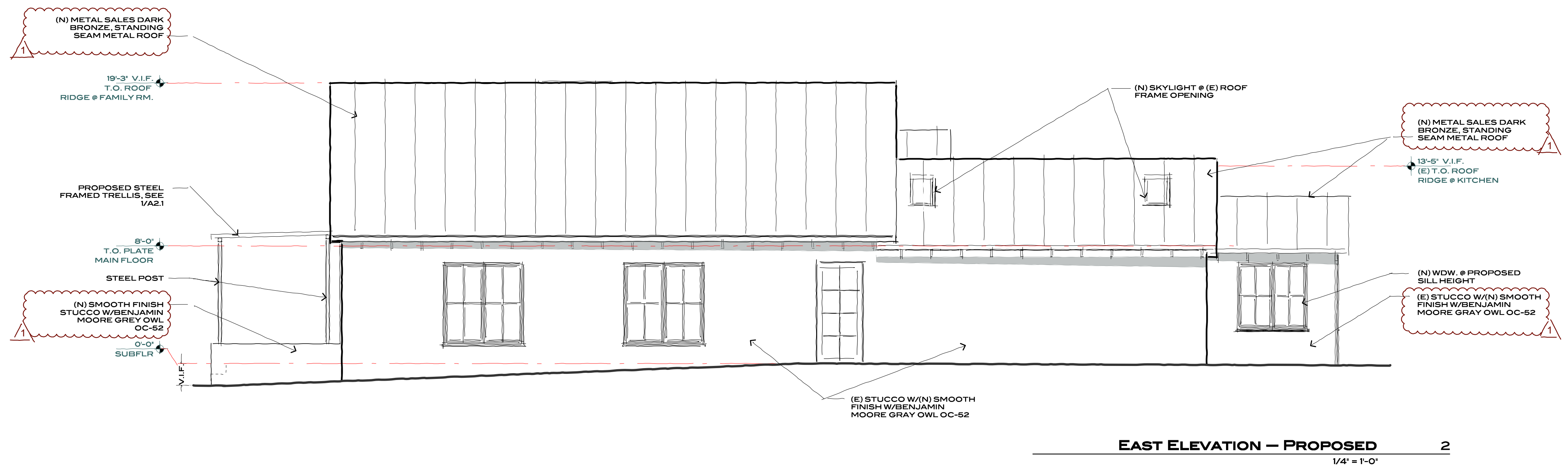


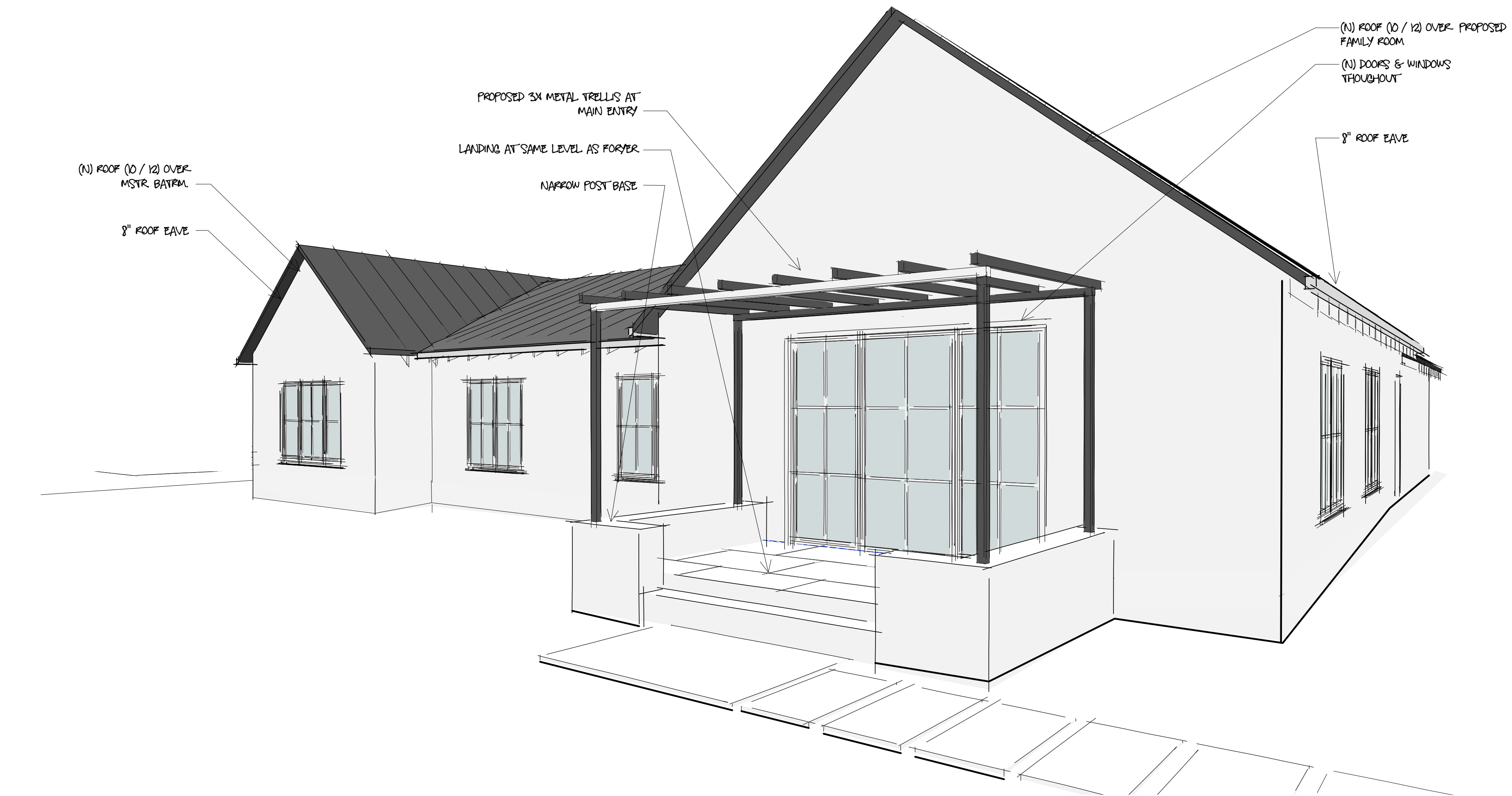
NORTH ELEVATION – PROPOSED 2
1/4" = 1'-0"



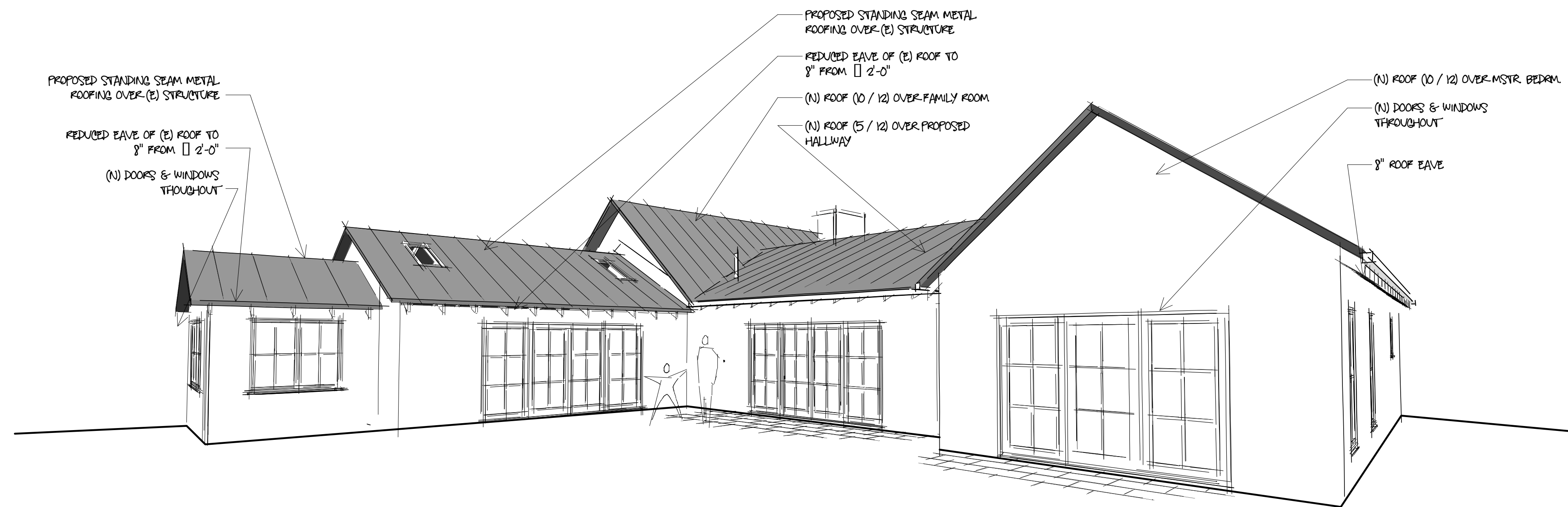
NORTH ELEVATION – EXISTING 1
1/4" = 1'-0"

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PROPOSED NORTH PERSPECTIVE 1
N.T.S.



PROPOSED SOUTH PERSPECTIVE 2
N.T.S.

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2175 PALMER DRIVE ST. HELENA, CA
APN: 009-690-14

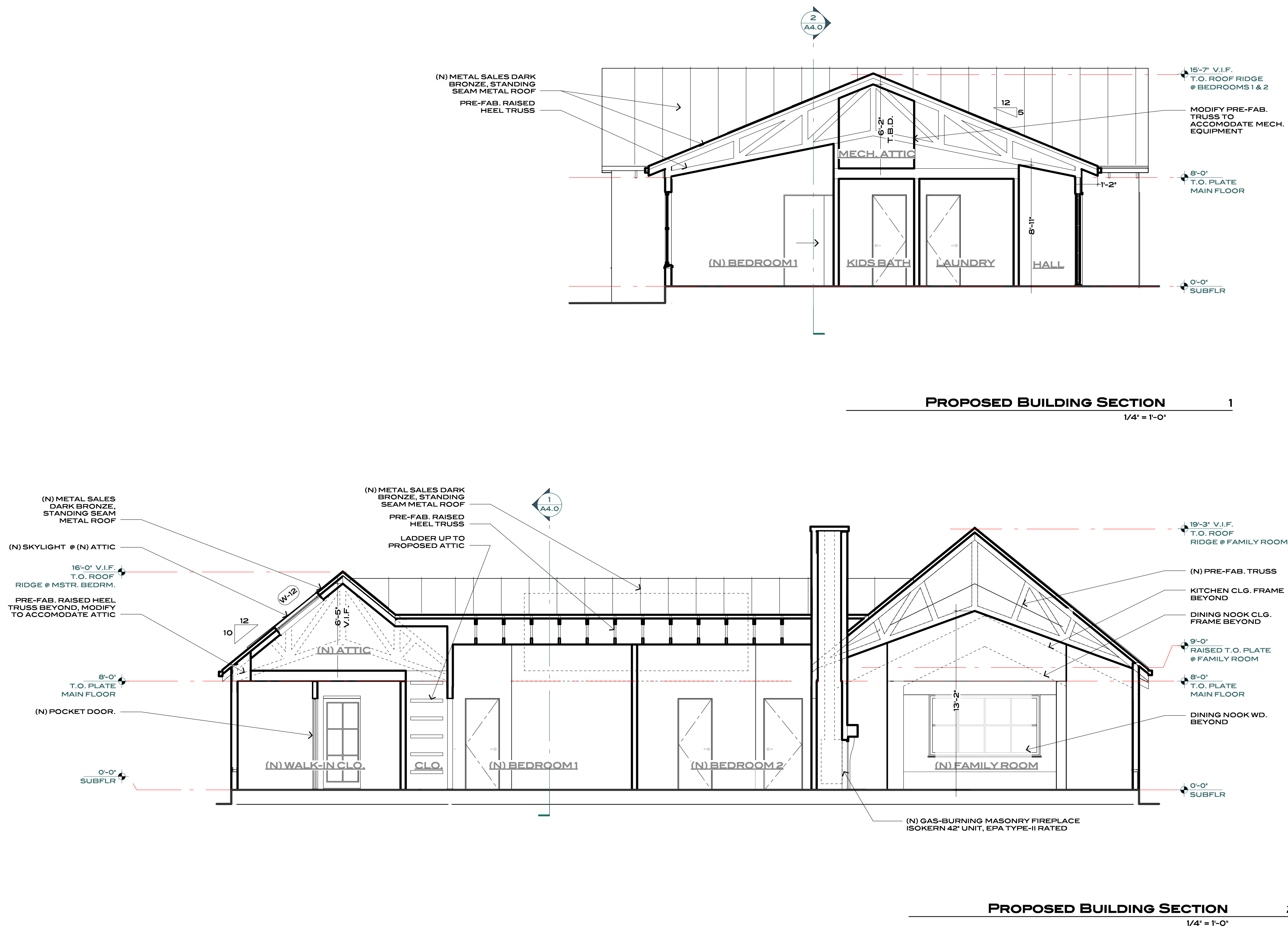
PETERSON REMODEL
BUILDING PERSPECTIVES - PROPOSED

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A3.4

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A4.0



Window Schedule									
ID Prefix	ID Label	Location	Width	Height	Sash Operation	Frame Material	Manufacturer	Frame Finish	Notes
W-	01	FAMILY RM.	5'4"	5'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	02	FAMILY RM.	5'4"	5'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	03	BEDRM. 2	5'4"	5'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	04	BEDRM. 1	5'4"	5'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	05	MSTR. BATHRM.	8'0"	5'6"	CUSTOM	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	06	MSTR. BATHRM.	2'4"	2'4"	CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	07	MSTR. BEDRM.	2'4"	5'6"	CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	08	MSTR. BEDRM.	2'4"	5'6"	CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	09	DINING NOOK	4'8"	4'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	10	DINING NOOK	8'0"	4'6"	FIXED GLASS	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	11	DINING NOOK	4'8"	4'6"	BI-PARTING CASEMENT	CLAD ON WD. FRAME ALT: STEEL FRAME	JELD WEN/SITELINE ALT: WESTERN WINDOW	BLACK ANODIZED	
W-	12	ATTIC	110"	31"	FIXED GLASS SKYLIGHT	CLAD ON WD. FRAME	VELUX/FS D06	COPPER	

DOOR SCHEDULE												
ID PREFIX	ID LABEL	LOCATION	INTERIOR/ EXTERIOR	WIDTH	HEIGHT	OPERATION	LEFT SIDELIGHT WIDTH	RIGHT SIDELIGHT WIDTH	MANUFACTURER	DOOR MATERIAL	TEMPERED	NOTES
D-	01	EXTERIOR	EXTERIOR	10'0"	8'0"	SWING SIMPLE	3'0"	3'0"	JELD WEN/CUSTOM ATL. WESTERN	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	02	HALL	EXTERIOR	3'0"	7'0"	SWING SIMPLE	0"	0"	JELD WEN/CLADPAT IODOOR ATL. WESTERN	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	03	HALL	EXTERIOR	12'5"	6'10"	SWING BI-PART	31"	31"	JELD WEN/CLADPAT IODOOR ATL. WESTERN	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	04	HALL	EXTERIOR	12'5"	6'10"	SWING BI-PART	31"	31"	JELD WEN/CLADPAT IODOOR ATL. WESTERN	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	05	MSTR. BEDRM.	EXTERIOR	9'4"	6'10"	SWING SIMPLE	3'0"	3'0"	JELD WEN/CLADPAT IODOOR ATL. WESTERN	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	06	ENTRY	INTERIOR	3'6"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	CLAD ON WD. FRAME ALT: STEEL FRAME	Y	
D-	07	ENTRY	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	08	HALL	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	09	PWDR. RM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	10	BEDRM. 2	INTERIOR	2'8"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	11	BEDRM. 2	INTERIOR	5'0"	6'8"	SLIDER	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	12	KIDS BATHRM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	13	KIDS BATHRM.	INTERIOR	2'2"	6'8"	POCKET SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	14	KIDS BATHRM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	15	KIDS BATHRM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	16	LAUNDRY RM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	17	BEDRM. 1	INTERIOR	6'0"	6'8"	SLIDER	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	18	BEDRM. 1	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	19	MSTR. BEDRM.	INTERIOR	2'8"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	20	WALK-IN CLO.	INTERIOR	3'0"	6'9"	OPENING	0"	0"	T.B.D.	SOLID WD. CORE	N	BI-PART BARN DOOR
D-	21	WALK-IN CLO.	INTERIOR	2'8"	6'8"	POCKET SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	22	MSTR. BATHRM.	INTERIOR	3'0"	6'8"	POCKET SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	23	MSTR. BATHRM.	INTERIOR	2'4"	6'8"	SWING SIMPLE	0"	0"	T.B.D.	SOLID WD. CORE	N	
D-	24	MSTR. BATHRM.	INTERIOR	2'2"	6'9"	OPENING	0"	0"	T.B.D.	GLASS	Y	FRAMELESS SHOWER

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8.31.16

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DESIGN
REVIEW

9.9.16

DESIGN
REVIEW REV.

PETERSON REMODEL

2175 PALMER DRIVE ST. HELENA, CA

WINDOW & DOOR SCHEDULES

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holder

| design

APN: 009-690-14

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**CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET- ST. HELENA, CA 94574
PLANNING COMMISSION**

OCTOBER 18, 2016

AGENDA ITEM: 10

FILE NUMBER: PL15-051

SUBJECT: Request by Tom Redmon for Demolition Permit, Design Review and Use Permit approval to convert several existing structures and construct several new structures on the property located at 867 Dowdell Lane in the Industrial (I) district into a 24,000 gallon per year production winery without tastings or visitation including a commercial kitchen space for uses outside of wine production.

PREPARED BY: Aaron Hecock, Senior Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 9/16/15

ACCEPTED AS COMPLETE: 10/05/16

LOCATION OF PROPERTY: 867 Dowdell Lane

APN: 009-580-009

GENERAL PLAN/ZONING: Industrial (I)

APPLICANT: Tom Redmon

PHONE: (707) 326-2838

PROPERTY DESCRIPTION

The proposed project (project) would be located at 867 Dowdell Lane on the south side of the roadway east of Main Street (State Route 29) and just east of the La Fata Street/Dowdell Lane intersection. The subject parcel is approximately 36,479-sf and is located in the Industrial (I) district. There are currently several buildings on-site including two dwelling units, a guest bedroom, a storage building, a barn, a garage, and a well pump house (see details below):

EXISTING FLOOR AREA SUMMARY:

MAIN RESIDENCE	2,171 SF
2 nd UNIT	685 SF
GUEST BEDROOM	231 SF
STORAGE BUILDING	867 SF
BARN	2,915 SF
GARAGE	1,140 SF
WELL PUMP HOUSE	84 SF

TOTAL 8,093 SF

867 Dowdell Lane
Demolition Permit, Design Review and Use Permit
October 18, 2016
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The site is served by three existing driveways with gravel parking areas. The entire parcel frontage along Dowdell Lane extends for approximately 300 feet.

PROJECT DESCRIPTION

No modifications or other changes are proposed for the main residence or the 2nd unit (buildings A & B on the plan set). The existing guest bedroom (building C) would be relocated behind the main residence and would be used for storage purposes. The existing storage building (building D) would be relocated to the rear-center of the property to be used as a winery lab and storage area. The existing barn (building E) would remain in place and be used for barrel storage. The existing garage is would be demolished in order to make way for the proposed commercial kitchen (building G on the plan set). The existing well pump house would remain in its current location and be used as an accessory structure. Proposed new structures include the commercial kitchen building (referenced above), a covered fermentation structure (building F), and a new trash enclosure (building H). A description of each of the structures noted above is provided below.

BUILDING A: This is an existing two floor, 2,171-sf residential structure. As noted above, no changes are proposed to this structure as part of this project.

BUILDING B: This is an existing 685-sf secondary dwelling unit in the project site. Like the main residential structure (building A), no changes are proposed to this structure as part of this project.

BUILDING C: Building C is an existing 231-sf guest bedroom adjacent to the secondary dwelling unit (building B). As discussed above, this structure would be relocated behind the main residence and used for storage purposes. This structure would be finished with horizontal lap siding and a composition shingle roof.

BUILDING D: This is an existing 867-sf storage structure that would be relocated on-site to be used as a winery lab and storage facility. This structure would be finished with rough sawn exterior plywood, a composition shingle roof, and corrugated metal awnings.

BUILDING E: This is an existing 2,915-sf barn that is currently be used as a storage structure. This structure would be modified and converted (losing 163-sf) into a portion of the production winery. The resulting 2,752-sf structure would be used primarily for barrel storage. The existing barn will be rehabilitated and updated to meet current codes and building standards. The barn would be refinished with a combination of horizontal lap and board and batten siding, a rusticated corrugated metal roof and would be approximately 26 feet in height.

BUILDING F: This proposed new 6,619-sf structure would be located perpendicular to the converted barn (building E) and used to house the fermentation tanks used in the creation of wine. This structure would be open on all sides and supported by a steel

frame with steel columns. The roof would be a standing seam metal roof and the structure would be approximately 20 feet in height.

BUILDING G: This proposed new 2,381-sf, two-story building would be located in the back corner of the parcel adjacent a designated parking area where the garage is currently located. The 1,545-sf first floor would be home to a commercial kitchen, restrooms, and a break area. The 836-sf second floor would be used for dry storage. The applicant envisions this space as a tenant space for a licensed caterer or other type of commercial kitchen user. All food prepared in the kitchen will be sold and consumed off-site. The kitchen will likely have one full-time and one part-time employee and its anticipated hours of operation are 6 a.m. until 6 p.m. The kitchen would be required to comply with all Napa County Environmental Management regulations related to food preparation and service. The commercial kitchen would be finished with board and batten siding with a stone veneer base, a composition shingle roof and would be approximately 21 feet in height.

BUILDING H: This is a new proposed 126-sf structure to house garbage receptacles. This trash enclosure would be located in the center of the project site adjacent to the existing well pump house. This structure would be finished with horizontal lap siding and a corrugated metal roof and would stand at approximately 9 feet tall.

WELL PUMP HOUSE: As noted above, the existing 84-sf well pump house would remain in its current location and be used as an accessory storage structure.

PROPOSED FLOOR AREA SUMMARY:

A. MAIN RESIDENCE (E)	2,171 SF
B. 2 nd UNIT (E)	685 SF
C. DRY STORAGE (R)	231 SF
D. STORAGE BUILDING (R)	867 SF
E. BARN (E)	2,752 SF
F. FERMENTATION AREA (N)	6,619 SF
G. COMMERCIAL KITCHEN (N)	2,381 SF
H. TRASH ENCLOSURE (N)	126 SF
WELL PUMP HOUSE (E)	84 SF

TOTAL 15,916 SF

(E) = EXISTING

(N) = NEW

(R) = RELOCATED

The project also includes a concrete crush pad (2,436-sf) and work pad (687-sf) in front of the barn and new covered fermentation tank area. No permanent covers are proposed for these areas in order to preserve views of the barn façade. The proposed level of production for the winery is 24,000 gallons per year. As required in the Industrial Zoning District, retail sales and tasting are prohibited. The hours of operation at the winery are expected to be from 6 a.m. to 6 p.m. during most months of the year, with some necessary expansion of work hours during the harvest period from September to late October each year. The applicant anticipates having two full-time employees and two part-time employees at the winery.

ANALYSIS

CEQA

In accordance with Article 6 and Appendix G of the California Environmental Quality Act (CEQA) Guidelines, an Initial Study and Mitigated Negative Declaration (IS/MND) has been prepared for the proposed project (attached). This document contains a description of the proposed project, an analysis of potential environmental impacts resulting from the proposed project as well as mitigation measures intended to reduce any potentially significant impacts to less-than-significant levels.

The Draft IS/MND was circulated for a 20-day public review period from August 12, 2016 to September 1, 2016. No comments were received on the IS/MND during the public review period.

GENERAL PLAN/ZONING

The subject property has a General Plan and Zoning designation of Industrial (I). This designation provides for industrial parks, warehouses, light manufacturing, auto and farm-related equipment sales and repairs, viticulture and winery support services and similar and compatible uses. The General Plan states that “as an agricultural service center, St. Helena needs to accommodate industrial-type uses that support the region’s agricultural and wine-making industries.” In addition, General Plan policies applicable to the proposed project include:

- *2.6.54 – Support the development of only those industries that are consistent with agricultural and environmental values, and the role of the City as an agriculturally-based service center for the surrounding area.*
- *2.6.55 – Ensure that industrial projects are designed and sited so as to provide a positive image of the community. Landscaping and setbacks should be utilized to minimize visual impact.*
- *4.8.2 – Where feasible adapt historic structures to modern uses to ensure their economic viability and to protect against possible loss.*

The General Plan also states that the Floor Area Ratio (F.A.R.) shall not exceed 0.50 in areas designated for industrial uses. With an F.A.R. of approximately 0.436 (15,916-sf / 36,479-sf), the project is in compliance with this limitation.

Catering establishments including retail sales of items prepared on the premises are a permitted use in the Industrial district, however dwelling units in conjunction with an approved industrial use and wineries, excluding retail sales and tasting, are a conditional use in the district. As such, buildings A & B, the main residence and second unit, require use permit approval to be legitimized even though they already exist. Dwelling units in conjunction with an approved industrial use are subject to the following:

1. *Approval of a dwelling unit shall be conditioned to recognize the industrial nature of the area and to provide for the safety of any children who may reside in the unit,*
2. *The floor area of the dwelling unit shall not exceed eight hundred fifty (850) square feet,*
3. *One off-street parking space shall be provided,*
4. *The dwelling unit shall be the primary residence of the occupant, or of the caretaker or security person.*

A condition of approval has been added reflecting requirement #1. As far as #2 is concerned, even with approval of this use permit, the larger residential structure would be considered legal non-conforming as it is above the 850-sf limit placed on dwelling units in the Industrial district. As there is no increase in square footage or intensification of use proposed for the two existing residential living quarters on-site, the degree of non-conformity would not increase. There is adequate off-street parking provided to address requirement #3 as described below. The dwelling units (if occupied) will be the primary residence of the occupant, caretaker or security person.

In addition, pursuant to Municipal Code Section 17.60.040 and 17.164 all signs, new structures or buildings, or exterior revisions of any existing structures or buildings for both permitted and conditional uses shall require design review.

DEVELOPMENT STANDARDS

The project meets Municipal Code required development standards (Section 17.60.070) including lot size, lot width, F.A.R., however, several of the existing buildings are considered non-conforming as they do not meet current setback requirements. Only two setback requirements apply to the project, there is a minimum 20' setback from any street or public right-of-way and a minimum 3' clearance between building and property boundaries. Building B and Building E (existing barn and secondary dwelling unit) are only 5 ½' from the front property line and are therefore considered non-conforming. No square footage is being added to either building and in fact Building E (the barn) is being reduced by 163-sf; therefore, there is no increase in the non-conformity due to the proposed project.

While Building D doesn't currently meet the required 3' property line setback, upon its relocation it will be setback nearly 15' which means the site will be more conforming should the project be approved.

The maximum building height in the (I) district is 45', however, the height of buildings adjacent to residential or agricultural districts may only be as tall as their setbacks from those residential or agricultural districts. Buildings D and G are located on a portion of the property adjacent and agriculturally zoned district and therefore can only be as tall as they are setback from the property line. Each of these buildings are setback from the property line the same distance as they are tall and therefore meet this height requirement.

HISTORIC RESOURCES

Although the existing barn and other structures are not listed on the City's Historic Resources Master List, because of the barn's age, strong visual presence and location, a historical resources evaluation for the project was conducted. The applicant consulted with Juliana Inman, an architect that meets the Secretary of the Interior's Professional Qualifications Standards in Architecture and Historic Architecture to evaluate the historical status of the home. Ms. Inman notes that the barn appears to have been built in the 1890-1900 period, and altered several times since then, however the barn retains integrity of location, setting, materials, design, feeling and association. It should be noted that the barn no longer retains integrity of workmanship due to deterioration. Due to the strong visual presence of this large barn in its original location, it remains a contributor to the historic fabric of St. Helena. The relationship of the barn to the surrounding neighborhood are important character-defining aspects of the resource. Ms. Inman included several recommendations that have been included as Conditions of Approval. These recommendations include:

- *That a permanent crush pad cover not be constructed since it would obscure the long elevation of the barn and diminish its distinctive massing and scale;*
- *Only a removable crush pad cover that is used seasonally (during harvest) may be used;*
- *No inappropriate light fixtures, finishes or materials should be added;*
- *The replacement of historic materials should be done where original material has been broken, lost or weathered to an extent making repair infeasible. Replacement features must match the old in design, color, texture, visual qualities, and material; and*
- *All windows of the barn should be repaired rather than replaced where feasible.*

The main house was built circa 1890 and will not be modified as part of the proposed project. Ms. Inman concludes that the work described in the proposed project and as recommended by her report, meets the Secretary of the Interior's Standards for the restoration or rehabilitation of a historic structure.

TRAFFIC, CIRCULATION AND PARKING

As detailed in the Traffic Impact Analysis (TIA) prepared by Omni-Means and attached to this report, the proposed project would generate 9 AM and 9 PM weekday peak hour trips and 12 Saturday peak hour trips. The SR-29/Dowdell Lane intersection would be operating at LOS D during the weekday AM and PM and weekend time periods with proposed project traffic. Proposed project traffic would add less than one (1) second of overall vehicle delay to the intersection and would make up less than one (1) percent of overall peak hour volumes at this intersection consistent with City of St. Helena significance thresholds for unsignalized intersections on Main Street (SR-29). There are two reasons for acceptable level-of-service (LOS) at the SR-29/Dowdell Lane intersection:

1. The completion of the St. Helena SR-29 Channelization Project (Summer—2017). The installation of a two-way-left-turn-lane on SR-29 at

Dowdell Lane would greatly improve vehicle access to Dowdell Lane to/from SR-29 and reduce overall vehicle delays. The new two-way-left-turn-lane would allow stop-sign controlled outbound vehicles (making a left-turn) to merge more safely onto SR-29 by providing a refuge lane to merge into southbound through-traffic. Similarly, the TWLTL would also allow southbound motorists on SR-29 to make a left-turn (inbound) to Dowdell Lane without delaying through-traffic on the highway. Indirectly, the planned signal for the SR-29/Grayson Avenue intersection just north of Mills Lane would also benefit traffic at Dowdell Lane (at times) by providing more “gaps” in southbound traffic;

2. The proposed project description does not include any guest visitation or marketing events what-so-ever (just this fact alone greatly reduces the overall traffic generation). The project description focuses on employment and truck deliveries related to proposed winery production and commercial kitchen uses. Again, there would be no tastings, tours, or marketing events at the facility.

All remaining study intersections on Dowdell Lane at La Fata Street and proposed project driveway would continue to operate within accepted City of St. Helena LOS thresholds with proposed project traffic (LOS A during all three weekday and weekend time periods).

Primary access to the proposed project site would be provided directly by Dowdell Lane through four (4) driveways along the project frontage. Vehicle sight distance to the east and west on Dowdell Lane from proposed project driveway(s) on Dowdell Lane meets the recommended sight distances of 150-200 feet based on vehicle speeds of 25-30 mph. With regard to driveway access; given that multiple driveways would provide access to various winery production facilities it is recommended that truck deliveries use the first and third driveways (respectively). These driveways would be connected by an internal parking and circulation area. Trucks could enter one driveway and exit out the other driveway without having to turn around.

PARKING

As noted above, Municipal Code Section 17.60.030, “Conditional uses”, requires dwelling units in conjunction with an approved industrial use to provide one off-street parking space. Therefore, two (2) off-street parking spaces are required for the main residence and second unit.

Municipal Code Section 17.124.030(D), “Commercial and Office Uses”, requires one space for each three hundred (300) square feet of building floor area. As 1,545-sf of Building G would be used for a commercial kitchen, five (5) off-street parking spaces are required.

Municipal Code Section 17.124.030(F), “Wineries”, states that the parking needs for wineries shall be determined by the planning commission dependent upon winery capacity, number of employees (including seasonal employees) and

accessory uses (visitors, assembly and entertainment areas, and retail sales area). The winery is expected to have 2 full-time and 2 part-time employees.

The applicant has provided twelve (12) designated parking spaces including one (1) ADA compliant space however the site is large enough to accommodate additional off-street parking should the need arise.

WATER

The proposed project is required to comply with the City's Water Neutrality Policy. As such, a Theoretical Water Use Report dated August 28, 2015 prepared by Delta Consulting and Engineering was submitted and is included as an attachment to this report. This report concluded that construction of the new winery related buildings and remodeling of the existing structures is not expected to increase the water-use on the property if the recommendations of the report are followed. Between the utilization of high efficiency toilets, and low-flow bathroom sinks, the post-construction water-use will be less than the pre-construction water-use and meet the City of St. Helena's water neutral requirement.

WASTEWATER

A Septic Feasibility Report dated August 28, 2015 prepared by Delta Consulting and Engineering was submitted by the applicant, a copy of which is attached. Based on the analysis performed in this report, Redmon Ranch Winery is expected to generate a combined domestic and process waste of 2,066 gallons per day. The existing septic system that handles all the domestic wastewater will be demolished per Napa County Standards and a new sewer connection to the City of St. Helena's Wastewater Treatment System will be established for both the domestic and process wastewater. The addition of a winery and commercial kitchen for Redmon Ranch Winery is suitable for the parcel with respect to wastewater treatment and disposal. With the proposed site development and marketing plan, the amount of wastewater generated is not expected to adversely affect the City of St. Helena's Wastewater Treatment System.

USE PERMIT

The purpose of a use permit is to allow the proper integration of essential or desirable uses which may be suitable only in certain locations or zoning districts in the City, or to ensure that such uses are designed or arranged on the site in a particular manner. In its review of applications for use permits, the Planning Commission shall evaluate each proposed use in order to consider its impact on the City. Pursuant to Municipal Code Section 17.168 050, no use permit shall be granted unless all of the following general findings can be made:

1. That the proposed use would not generate odors, fumes, dust, light, glare, radiation or refuse that would be injurious to surrounding uses or to the community.
2. That the proposed use would not generate levels of noise that adversely affect the health, safety, or welfare of neighboring properties or uses.
3. That the proposed use would not generate traffic noise in excess of the "normally acceptable" range identified in the General Plan.

4. That the proposed use would not make excessive demands on the provision of public services including water supply, sewer capacity, energy supply, communication facilities, police protection, and fire protection.
5. That the proposed use would provide adequate ingress and egress to and from the proposed location.
6. That allowing the proposed use would not conflict with the City's goal of maintaining the economic viability of a local serving economy.
7. That the proposed use would be compatible with surrounding land uses and would not conflict with the purpose established for the district within which it would be located.
8. That the proposed use would not be in conflict with the City's General Plan.
9. That the proposed use would not be injurious to public health, safety, or welfare.
10. That granting the use permit would not set a precedent for the approval of similar uses whose incremental effect would be detrimental to the City or would be in conflict with the General Plan.
11. That, as demonstrated on a detailed plan submitted by the applicant, adequate off-street parking to accommodate the long term parking needs of employees and business owners and customers is available.
12. That the capacity of surrounding streets is adequate to serve the automobile and delivery truck traffic generated by the proposed use.

Based on the information provided in the staff report above, staff finds that the project meets and/or complies with the required findings to approve a Use Permit. The findings included in the attached resolution identify this compliance.

DEMOLITION PERMIT

As provided in Municipal Code Section 17.164.050(E), no permit authorizing the demolition of any building within any zoning district shall be issued until approved by the Planning Commission in accordance with the following findings:

1. That, based on the public record and testimony presented at a public hearing, the building is determined not to be a significant architectural or historical building.
2. That the demolition does not eliminate elements that are required to maintain the essential character of the neighborhood.

Only the existing 1,140-sf garage would be demolished as part of the proposed project. All other structures will be either rehabilitated or relocated on-site. According to architect Juliana Inman, the heavily altered existing garage was likely constructed in the 1930's and is not historic due to its lack of integrity. Demolition of this structure would not impact a historical resource or otherwise negatively affect the character of the project area.

DESIGN REVIEW

The purpose of design review is to, among other things, promote the qualities that bring value to the community and foster attractiveness and functional utility of the community as a place to live and work. The following design criteria should be considered by the

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Planning Commission in review of this application (Zoning Ordinance Section 17.164.030):

1. Consistency and compatibility with applicable elements of the general plan;
2. Compatibility of design with the immediate environment of the site;
3. Relationship of the design to the site;
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land uses;
6. Compatibility with future construction both on and off the site;
7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
8. Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;
9. Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;
10. Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;
11. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
12. Whether natural features are appropriately preserved and integrated with the project;
13. Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;
14. In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;
15. Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;
16. Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;
17. Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.

The project site is located in a developed industrially zoned area of the City and is currently developed with multiple structures used for a variety of things. The proposed changes introduced by the project are consistent with an industrial area and would not result in any negative visual impacts. There are no properties near the proposed project site that would be in anyway negatively affected by the development of the project at this location. For these reasons, staff believes that the proposed project is consistent with the required design review criteria listed above.

CORRESPONDENCE

At the time of packet distribution staff had received no letters in support or opposition to this application.

STAFF RECOMMENDATION

Staff finds that the project resulting from the proposed demolition permit, design review and use permit is in character with the Industrial district and that the proposed changes will not negatively affect surrounding properties. Because of this staff concludes that the appropriate findings can be made and recommends that the Planning Commission:

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the project; and
2. Accept the required findings and approve the demolition permit, design review and use permit for the proposed winery and commercial kitchen at 867 Dowdell Lane.

ATTACHMENTS

1. Resolution / Conditions of Approval
2. APN Map
3. Aerial Views
4. Project Plans and Renderings
5. Applicant Statement
6. Theoretical Water Use Report
7. Septic Feasibility Report
8. Mitigated Negative Declaration
9. Historical Resources Report
10. Traffic Study

**DEMOLITION PERMIT, DESIGN REVIEW AND USE PERMIT NO. PL15-051
CITY OF ST. HELENA, STATE OF CALIFORNIA
GRANTED TO 867 DOWDELL LANE**

PROPERTY OWNER: Tom Redmon

APN: 009-580-009

Recitals

1. Request by Tom Redmon for Demolition Permit, Design Review and Use Permit approval to convert several existing structures on the property located at 867 Dowdell Lane in the Industrial (I) district into a 24,000 gallon per year production winery without tastings or visitation including a commercial kitchen space for uses outside of wine production.
2. Pursuant to CEQA Guidelines Sections 15072 and 15073, a Draft Mitigated Negative Declaration and included Initial Study was circulated for public review and comment from August 12, 2016 until September 1, 2016.
3. The Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on October 18, 2016.

Resolution

- A. In making the findings in this Resolution, the Planning Commission relied upon and hereby incorporates by reference all of the documents referenced in this Resolution and the associated staff reports, City files for this matter, correspondence, presentations and other materials.
- B. The Planning Commission, having reviewed the Draft Mitigated Negative Declaration and included Initial Study, and considered all comments related thereto hereby adopts the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program.
- C. Pursuant to Municipal Code Section 17.164.050(E), the Planning Commission makes the following findings for the approval of a Demolition Permit:
 1. *That, based on the public record and testimony presented at a public hearing, the building is determined not to be a significant architectural or historical building; and*
 2. *That the demolition does not eliminate elements that are required to maintain the essential character of the neighborhood.*
- D. The Planning Commission determines the project is in compliance with the following Design Review criteria of Municipal Code Section 17.164.030:
 1. *Consistency and compatibility with applicable elements of the general plan;*
 2. *Compatibility of design with the immediate environment of the site;*
 3. *Relationship of the design to the site;*
 4. *Determination that the design is compatible in areas considered by the board as having a unified design or historical character;*

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5. *Whether the design promotes harmonious transition in scale and character in areas between different designated land use;*
 6. *Compatibility with future construction both on and off the site;*
 7. *Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;*
 8. *Whether the planning and siting of the various functions and buildings on the site create an internal sense of order and provide a desirable environment for occupants, visitors and the general community;*
 9. *Whether the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures;*
 10. *Whether sufficient ancillary functions are provided to support the main functions of the project and whether they are compatible with the project's design concept;*
 11. *Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;*
 12. *Whether natural features are appropriately preserved and integrated with the project;*
 13. *Whether the materials, textures, colors and details of construction are an appropriate expression of its design concept and function and whether they are compatible with the adjacent and neighboring structure and functions;*
 14. *In areas considered by the board as having a unified design character or historical character, whether the design is compatible with such character;*
 15. *Whether the landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment and whether the landscape concept depicts an appropriate unity with the various buildings on the site;*
 16. *Whether plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety which is suitable to the climate of St. Helena;*
 17. *Whether sustainability and climate protection are promoted through the use of green building practices such as appropriate site/architectural design, use of green building materials, energy efficient systems and water efficient landscape materials.*
- E. Pursuant to Municipal Code Section 17.168.050, the Planning Commission makes the following Use Permit findings to support the motion to approve the use permit:
1. *That the proposed use would not generate odors, fumes, dust, light, glare, radiation or refuse that would be injurious to surrounding uses or to the community.*
 2. *That the proposed use would not generate levels of noise that adversely affect the health, safety, or welfare of neighboring properties or uses.*
 3. *That the proposed use would not generate traffic noise in excess of the "normally acceptable" range identified in the General Plan.*
 4. *That the proposed use would not make excessive demands on the provision of public services including water supply, sewer capacity, energy supply, communication facilities, police protection, and fire protection.*
 5. *That the proposed use would provide adequate ingress and egress to and from the proposed location.*

6. *That allowing the proposed use would not conflict with the City's goal of maintaining the economic viability of a local serving economy.*
7. *That the proposed use would be compatible with surrounding land uses and would not conflict with the purpose established for the district within which it would be located.*
8. *That the proposed use would not be in conflict with the City's General Plan.*
9. *That the proposed use would not be injurious to public health, safety, or welfare.*
10. *That granting the use permit would not set a precedent for the approval of similar uses whose incremental effect would be detrimental to the City or would be in conflict with the General Plan.*
11. *That, as demonstrated on a detailed plan submitted by the applicant, adequate off-street parking to accommodate the long term parking needs of employees and business owners and customers is available.*
12. *That the capacity of surrounding streets is adequate to serve the automobile and delivery truck traffic generated by the proposed use.*

Planning Department Conditions of Approval

- F. The Planning Commission approves the demolition permit, design review and use permit for the above-described project with the following conditions of approval. The project shall be in conformance with all city ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.
1. Project approvals shall be vested within one (1) year from the date of final action. A building permit for the use allowed under this approval shall have been obtained within one (1) year from the effective date of this action or the approval shall expire, provided however that the approval may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.130, Extension of Permits and Approvals. Any request for an extension of this approval shall be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.
 2. The approvals shall not become effective until fourteen (14) calendar days after approval, providing that the action is not appealed by the City Council or any other interested party within that 14-day period.
 3. All required fees, including planning fees, development impact fees, residential in-lieu housing fees, building fees, toilet retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of a building permit. Fees shall be those in effect at the time of the issuance of the building permit.
 4. In any action or proceeding to attack, challenge, invalidate, set aside, void or annul the City's approval of applicant's Project, in whole or in part, applicant shall defend, at its own expense and without any cost to the City, and with counsel acceptable to the City, and shall fully and completely indemnify and hold the City, its agents, officers, and employees harmless from and against any and all claims, causes of action, damages, costs, attorney's fees and liability of any kind, so long as the City reasonably promptly

notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.

5. Provided they are in general compliance with this approval, minor modifications may be approved by the Planning Director.
6. Pursuant to St. Helena Municipal Code Section 17.08.110, this permit shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
7. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The property owners or their designee shall be responsible for meeting with the Building Official, Fire Inspector and or Public Works Department to review compliance with Building Codes, Fire Codes and specific Public Works Standards including fire protection systems and any applicable accessibility standards of Title 24.
8. Construction shall be in compliance with plans submitted and reviewed by the Planning Commission on October 18, 2016, except as modified herein.
9. Exterior lighting shall be directed or shielded to prevent glare onto the public roadway or adjacent properties.
10. Retail sales and tasting are prohibited at the winery.
11. As there are existing dwelling units on-site, the applicant/owner shall recognize the industrial nature of the area and shall provide for the safety of any children who may reside in the on-site dwelling units by properly securing any potentially dangerous areas or structures.
12. While this use permit legitimizes the on-site dwelling units, they remain non-conforming structures due to their size (Building A) and their non-conforming setbacks.
13. A permanent crush pad cover shall not be constructed on-site. Only a removable crush pad cover that is used seasonally (during harvest) may be used.
14. No inappropriate light fixtures, finishes or materials should be added to the historic barn.
15. The replacement of historic materials should be done where original material has been broken, lost or weathered to an extent making repair infeasible. Replacement features must match the old in design, color, texture, visual qualities, and material.
16. All windows of the barn should be repaired rather than replaced where feasible.
17. No fence in the front setback shall exceed three feet in height; all other fencing shall not exceed eight feet in height.
18. A minimum of ten percent (10%) of site shall be landscaped.
19. Water-conserving designs and irrigation systems shall be used.
20. Trash bins shall not be visible from public right-of-way.

21. Materials storage shall be screened from public view.
22. Property owners shall recognize that there exists a right to farm properties within the district and in the vicinity of the district. There is a good faith expectation that no complaints will occur regarding legal, normal agricultural activities on properties in the district or in the vicinity of the district. Such activities may include day or night disbursement of chemicals, and creation of dust, noise, or fumes.
23. To reduce disturbance of residents in the project vicinity, construction activities which generate noise that can be heard at the property line of any parcel of real property within the City limits shall be limited to 8:00 a.m. to 5:00 p.m. Monday through Saturday. Delivery of materials/equipment and cleaning and servicing of machines/equipment shall be limited to 7:00 a.m. to 6:00 p.m. Exceptions to these time restrictions may be granted by the Public Works Director for one of the following reasons: (1) inclement weather affecting work, (2) emergency work, or (3) other work, if work and equipment will not create noise that may be unreasonably offensive to neighbors as to constitute a nuisance. The City Engineer must be notified and give approval in advance of such work. No construction activities shall occur on Sundays or federal or local holidays that generate noise that can be heard at the property line of any parcel of real property within the City limits.

Public Works Department Conditions of Approval

24. Approval of this project shall be subject to the requirements of, and all improvements shall be designed and constructed in accordance with, the most current version at the time of improvement plan submittal, Caltrans Standards and Specifications, the City of St. Helena Municipal Code, the St. Helena Water and Sewer Standards, the St. Helena Street, Storm Drain and Sidewalk Standards, and all current federal, state and county codes governing such improvements.
25. For any improvements outside the existing building envelope, a grading and drainage plan showing topographic data, all easements, infrastructure onsite and directly adjoining, and an erosion control plan shall be submitted for review and approval by the City Engineer prior to the issuance of a building permit. If the project entails more than 50 cubic yards of soil disturbance, 10,000 square feet of disturbance area, a cut or fill of 3 feet or more, or alteration of any drainage pattern, a grading permit shall be required.
26. Improvement plans shall incorporate all grading, drainage, and utilities shown on the approved Use Permit package, those improvements agreed to in public hearings, the requirements of these conditions of approval, and those improvements required by any codes in effect at the time of plan submittal.
27. Construct frontage improvements along the Dowdell Lane frontage including curb, gutter, sidewalk, pavement widening (and transitions), necessary longitudinal and transverse drainage, safety-related signage, messaging and parkway landscaping. The face of curb shall be placed approximately 10 feet from the right-of-way line to conform to the improvements along the adjoining frontage.

28. Drainage needs to be routed to prevent inundation of neighboring properties. Grading and/or site improvement plans shall show how 2-year and 10-year storm flows shall be infiltrated on site and/or diverted at the property lines to prevent inundation of neighboring properties. The applicant shall submit a drainage and hydrology analysis for the project impact, including downstream erosion potential, to the City of St. Helena Public Works Department with the Improvement Plan submittal in accordance with City of St. Helena, Napa County and State of California codes in effect at the time of improvement plan submittal.
29. Erosion and sediment control plans shall conform to the latest State and City codes at a minimum.
30. The applicant shall incorporate water conservation practices into the proposed project per the Theoretical Water Use Report prepared by Joel Dickerson of Delta Consulting & Engineering, dated August 28, 2015. Any and all non-conforming appliances and plumbing fixtures shall be removed from the premises. The water conservation requirements shall be replicated in full on the architectural plans.
31. A detailed Post-Construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review approval. The Plan shall be prepared in accordance with the latest edition of the *Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual* and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ).
32. Prior to occupancy the applicant shall enter into and record a Post-Construction Stormwater Operations and Maintenance Agreement with the City.
33. If the proposed/new landscaping involves an area greater than 500 square feet, the proposed landscaping shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO).
34. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.
35. Site plan shall show the location of any trees within the project area.
36. The Applicant shall keep adjoining public streets free and clean of project dirt, mud, materials, and debris during the construction period, as is found necessary by the City Engineer.
37. Any new and modified existing water laterals, meters and backflow prevention devices shall be required and constructed in accordance with the current

requirements of the City of St. Helena's Water Standards and the California Department of Health Standards. Existing meter boxes located within a driveway shall be retrofitted with a traffic-rated box. New laterals shall be located perpendicular to the water main and outside any driveway/drive aisle.

38. The applicant shall be required to submit to the requirements for annual inspections of food/beverage service establishments and businesses that handle hazardous wastes for illicit stormwater discharges as required by the State National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges. The annual stormwater illicit discharge inspections are performed and invoiced to the applicant by Napa County Department of Environmental Management.
39. Remodels or new construction which require fire sprinklers shall install an appropriately-sized water service with appropriate backflow and meter devices prior to Certificate of Occupancy. Fire system calculations shall be submitted with the Grading and Drainage Plan to verify fire service lateral and meter sizing. Deferred submittals are not accepted.
40. No construction may commence until adequate access to fire water supply is available to building sites as approved by the Fire Chief.
41. The existing on-site septic system must be demolished in accordance with the County Department of Environmental Management (DEM).
42. The applicant shall apply for annexation to the St. Helena Municipal Sewer District No. 1 prior to issuance of a Building Permit. The application shall be completed in accordance with the City of St. Helena's Sewer Annexation Procedures including all annexation, impact, connection, and sewer fees.
43. The applicant shall be responsible for the extension of sewer lines to the property.
44. Trash areas, dumpsters and recycling containers shall be enclosed and roofed per State and County standards to prevent water run-on to the trash area and water runoff from the area, to contain litter and trash so that it is not dispersed by the wind or run-off during waste removal. In the event that wine or food is disposed in these areas, the enclosed trash area shall drain to the sanitary sewer system. An area drain connected to the sanitary sewer shall be installed in the enclosure area and a structural control such as an oil/water separator or sand filter shall be included. No other area shall drain into the trash enclosure. A sign shall be posted prohibiting the dumping of hazardous materials into the sanitary sewer.
45. The applicant shall repair all public improvements that are damaged by the construction process in accordance with the City Water/Sewer/Street/Storm Drain/Sidewalk Standards prior to Certificate of Occupancy.

46. Existing streets being cut by new utility services will require edge grinding and an A.C. overlay per City standards, extent to be determined by the Public Works Department.
47. The applicant shall be required to obtain an encroachment permit for improvements on public right-of-ways prior to receiving a grading or building permit authorizing site work or construction activities on the site.
48. All wastewater lines of the proposed use must be connected to the St. Helena sewer system and designed in accordance with the City sewer system standards. Wastewater shall not contain wine production byproducts. A sewer sampling manhole shall be installed at or near the unit cleanout per City Standards.
49. Wastewater discharged is subject to all of the requirements and limitations set forth in Chapter 13.24, Wastewater Discharge, of the St. Helena Municipal Code.
50. Apply for and obtain a Wastewater Discharge Permit from the Department of Public Works as specified in St Helena Municipal Code Section 13.24.50. The permit conditions will require:
 - a. Discharge flow rate shall not exceed 2,100 gallons per day.
 - b. Pretreatment of winery wastewater is required to achieve the following discharge limits for the following constituents and characteristics:

Constituent or Characteristic	Maximum Allowable Concentration (mg/L)
pH	6.0 < pH < 9.0
BOD	250
TSS	250
FOG	40

- c. Prior to the occupancy and operation of the winery facilities, the owner shall install a pretreatment system consistent with the Wastewater Pretreatment Schematic Flow Diagram provided in the Septic Feasibility Report prepared by Delta Engineering & Consulting Engineers dated August 28, 2015.
 - d. The pretreatment system shall provide protection from accidental discharge of prohibited materials or other wastes regulated as defined in Chapter 13.24, Wastewater Discharge, of St. Helena Municipal Code. Such facilities shall be provided and maintained at the Owner's expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the City for review and approval prior to building permit approval.

- e. Wastewater with a pH less than 6.0 or greater than 9.0 shall be automatically held in an onsite tank. This wastewater shall only be released after receiving approval to discharge from the wastewater treatment plant operator. Release of said wastewater shall then be limited to the periods from of 6:00 am to 9:00 am and from 5:00 pm to 8:00 pm. The flow rate of the release or discharge shall then not exceed 10 gpm.
- f. At the owner's expense, sampling and discharge water quality analysis shall be performed for the above listed constituents and/or characteristics at monthly intervals by a California-certified laboratory under chain of custody documents. Such reports shall be submitted to the City by the 15th day of the following month.
- g. The owner shall notify the City and take immediate corrective action upon receipt of any laboratory report or other information indicating that the concentration of any constituent listed in the table above exceeded the maximum concentration. Failure to take immediate corrective actions may result in enforcement actions as provided under the St. Helena Municipal Code or other applicable law.
- h. The pretreatment system shall record daily flow totals and pH. Owner shall continuously maintain records of all daily flows and pH and all laboratory reports for a rolling three year period. Said records shall be made available to the City for review upon request.
- i. The owner shall test and calibrate the pH meter and discharge pump lockdown system logic annually to confirm that they still function to hold wastewater with a pH less than 6.0. Written confirmation of the testing and results shall be submitted to the City.
- j. The City shall have the right to randomly sample and test the discharge for the above listed constituents. Owner agrees to reimburse the City for the cost of such testing. The sampling manhole shall be accessible at all times. The City shall have the right to inspect all parts of the pretreatment system at anytime during normal business hours.

Building Department Conditions of Approval

- 51. A building permit is required for all onsite demolition, construction and/or change of occupancy.
- 52. The applicant will be required to comply with the codes adopted at the time the applicant applies for a building permit. At this time the City of St. Helena utilizes the 2013 Title 24 codes.
- 53. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
- 54. The applicant shall provide a construction waste management plan with the building permit application.

55. The plans for construction shall include a checklist for compliance with the California Green Buildings Standards Code, mandatory measures. Provide a reference on the checklist indicating where the mandatory measures can be found on the plans.
56. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
57. Building Permit application materials and plans shall include any documentation pertaining to special loads applicable to the design and the specified section of the code that addresses the condition; special inspections for any systems or components requiring special inspection; requirements for seismic resistance; and a complete list of deferred submittals at time of application. Any deferral of the required submittal items shall have prior approval of the Building Official however deferral of fire sprinkler design is not allowed.

Fire Department Conditions of Approval

58. Fire sprinklers and fire hydrants shall be installed as required by the Fire Department.

I HEREBY CERTIFY that the foregoing demolition permit, design review, and use permit was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on October 18, 2016 by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Grace Kistner
Chair, Planning Commission

Noah Housh
Planning Director

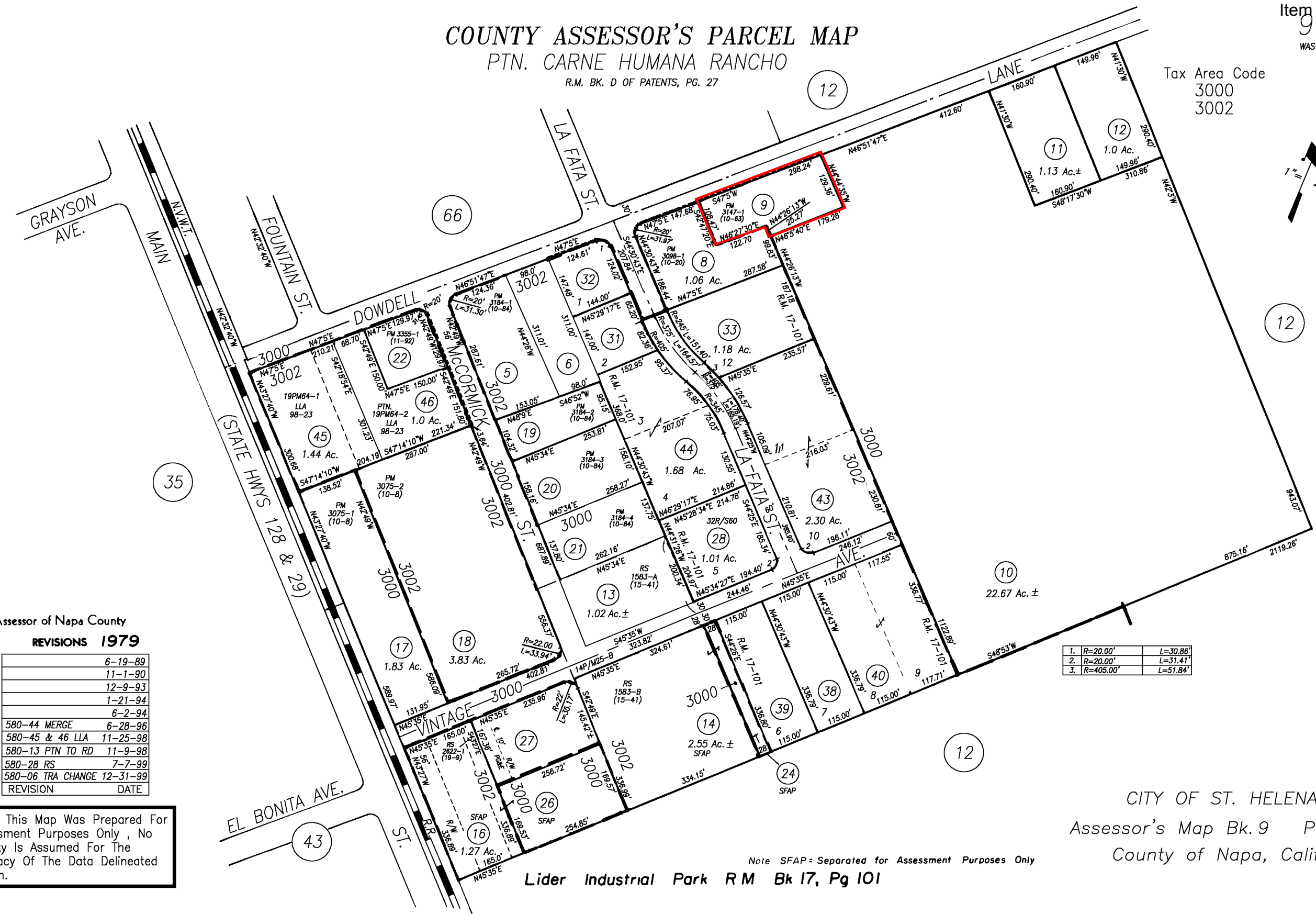
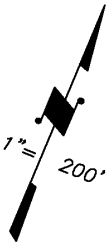
COUNTY ASSESSOR'S PARCEL MAP

PTN. CARNE HUMANA RANCHO

R.M. BK. D OF PATENTS, PG. 27

Item No: 5.5
9-58
WAS PTN. 9-12

Tax Area Code
3000
3002



Assessor of Napa County
REVISIONS 1979

6-19-89	
11-1-90	
12-9-93	
1-21-94	
6-2-94	
580-44 MERGE	6-28-96
580-45 & 46 LLA	11-25-98
580-13 PTN TO RD	11-9-98
580-28 RS	7-7-99
580-06 TRA CHANGE	12-31-99
REVISION	DATE

NOTE: This Map Was Prepared For
Assessment Purposes Only , No
Liability Is Assumed For The
Accuracy Of The Data Delineated
Hereon.

1. R=20.00'	L=30.86'
2. R=20.00'	L=31.41'
3. R=405.00'	L=51.84'

CITY OF ST. HELENA
Assessor's Map Bk. 9 Pg. 58
County of Napa, Calif.

Lider Industrial Park R M Bk 17, Pg 101

Note SFAP= Separated for Assessment Purposes Only



Item No: 5.5

Google earth

38°29'59.95" N 122°27'23.53" W elev 224 ft eye alt 4113 ft



Item No: 5.5

867 Dowdell Ln

Dowdell Ln

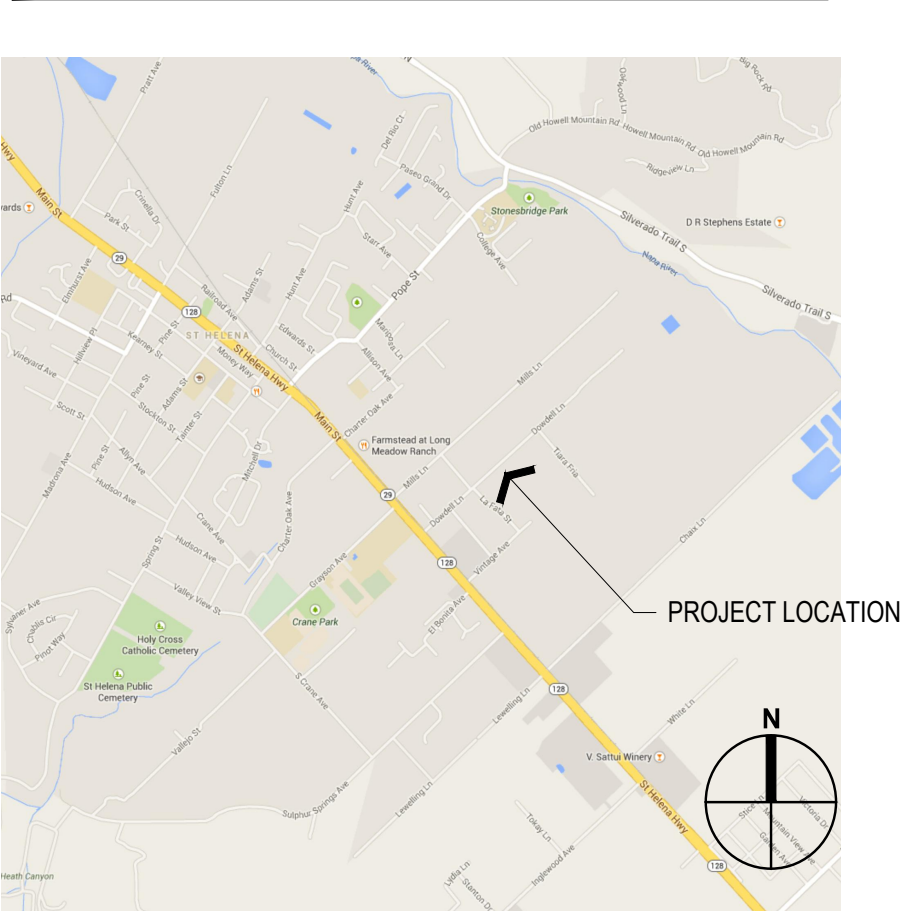
© 2016 Google

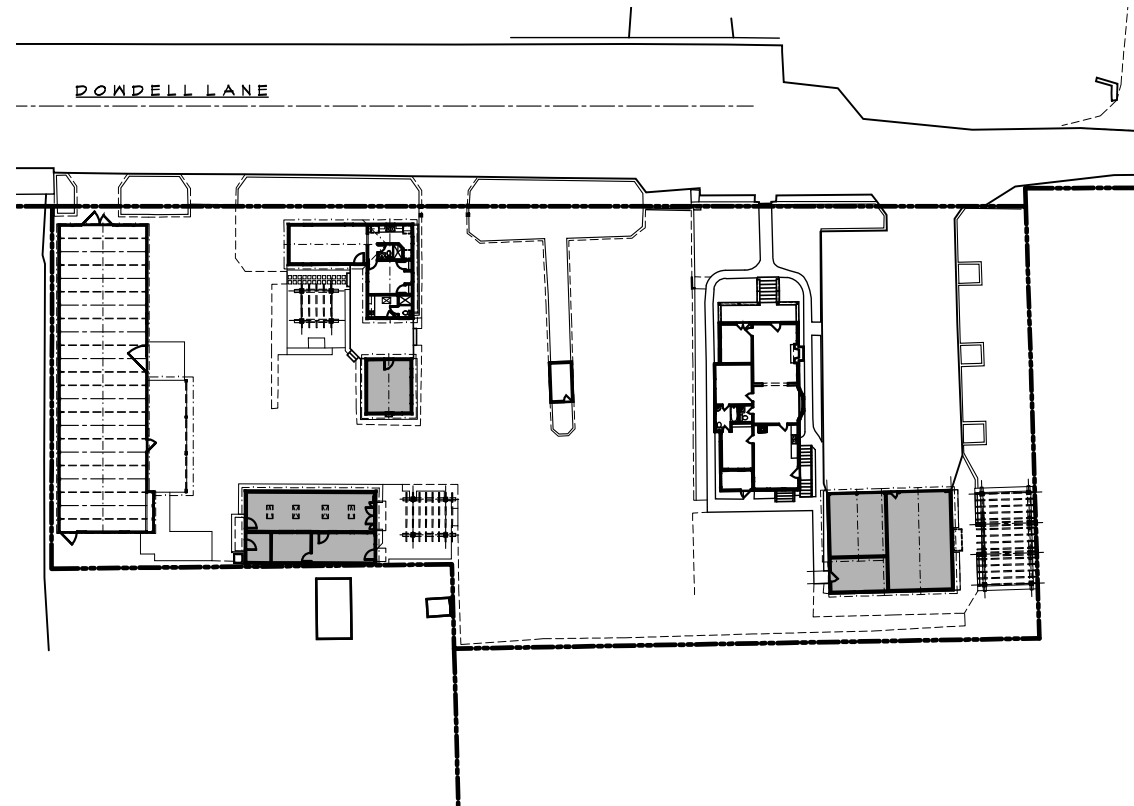
Google earth

38°29'59.17" N 122°27'23.75" W elev 232 ft eye alt 493 ft



USE PERMIT SUBMITTAL





*NOTE: EXISTING RESIDENTIAL USE BUILDINGS SHOWN SHADED -
SEE SHEET A1.10 FOR ADDITIONAL INFORMATION AND EXISTING
RESIDENTIAL BUILDING LOCATIONS

Redmon - Existing Residential Floor Area SummaryExisting Residential

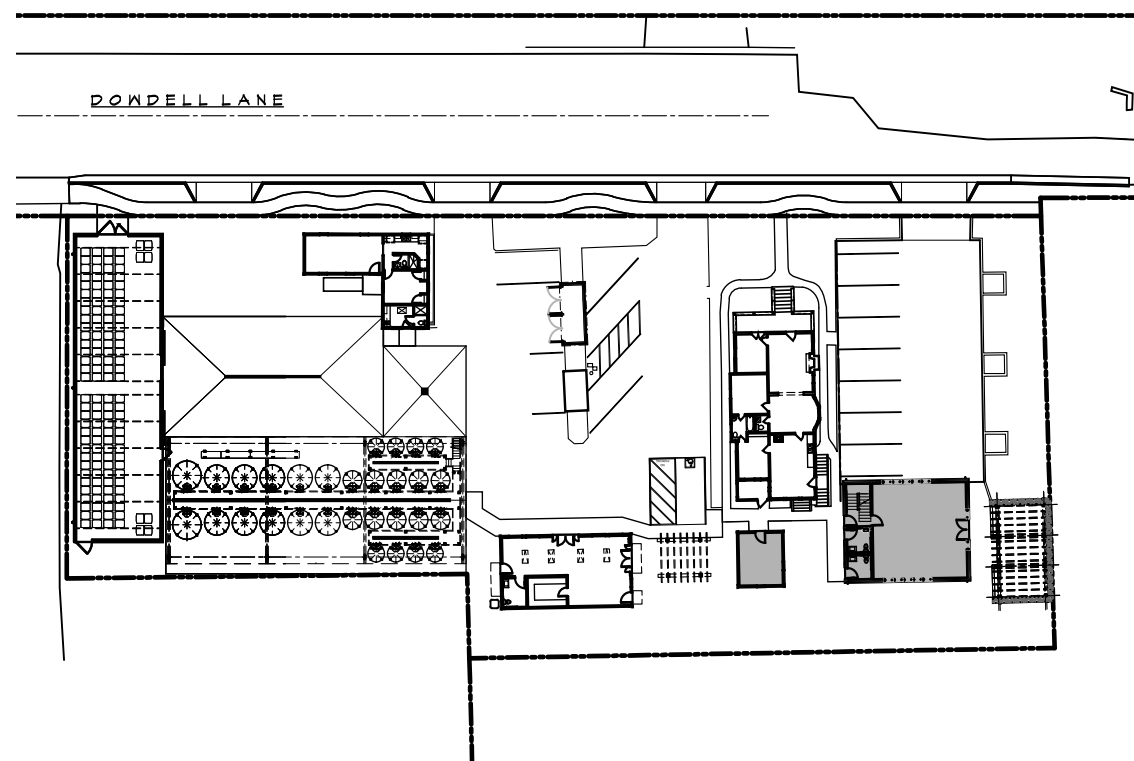
Building/Area	Residential	Bldg. Total
Existing:		
Building A - Main Residence		2,171
Main Floor	1,280	
Basement	891	
Building B - Existing Second Residence		685
Second Residence	685	
Building C - Guest Bedroom		231
Guest Bedroom	231	
Existing Building D - Storage Building #2		867
Recreation Room	491	
Storage Room #1	186	
Storage Room #2	115	
Bath #1	75	
Existing Building E - Storage Building #3		2,915
Storage Building #3	2,508	
Covered Work Area	407	
Existing Garage - to be removed		1,140
Garage #1	345	
Garage #2 / Storage	603	
Storage	192	
Existing Well Pump House - to be converted to winery use		84
Pump House	84	
Totals:	8,009	8,009

Existing Site FAR

Existing Site	36,479
Total Existing Building Area	8,009
Existing Site FAR (Existing Building Area / Existing Site Area)	0.219551

A EXISTING RESIDENTIAL FLOOR / SITE AREA SUMMARY

SCALE: NTS



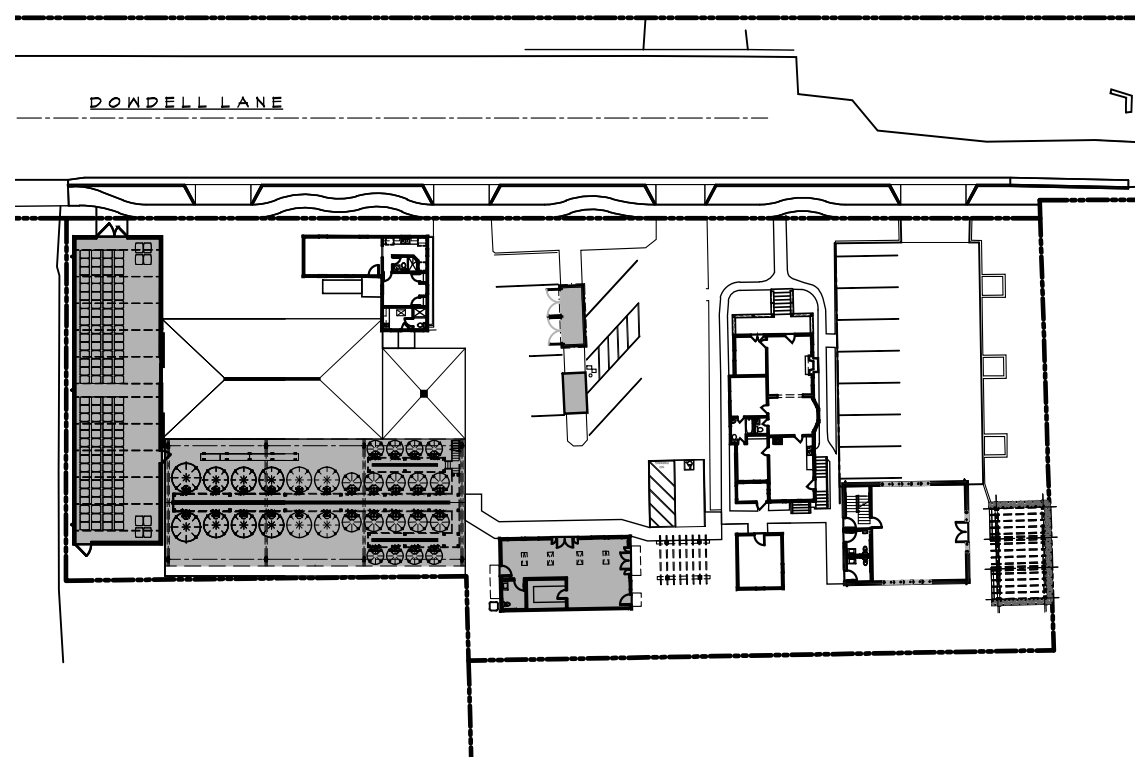
*NOTE: PROPOSED COMMERCIAL USE BUILDINGS SHOWN SHADED -
SEE SHEET A1.12 FOR ADDITIONAL INFORMATION AND PROPOSED
COMMERCIAL BUILDING LOCATIONS

Redmon - Proposed Commercial Floor Area SummaryExisting / Proposed - Commercial

Building/Area (sq. ft.)	Commercial	Bldg. Total
Proposed Building C - Adjacent Dry Storage		
Adjacent Dry Storage	231	231
Proposed Building G - 2-story Commercial Kitchen / Dry Storage		
Ground Floor		2,381
Commercial Kitchen	877	
Restrooms	132	
Stairwell	111	
Employee Break Area	425	
Second Floor		
Dry Storage	836	
Total Commercial Area:	2,612	2,612

B PROPOSED COMMERCIAL FLOOR AREA SUMMARY

SCALE: NTS



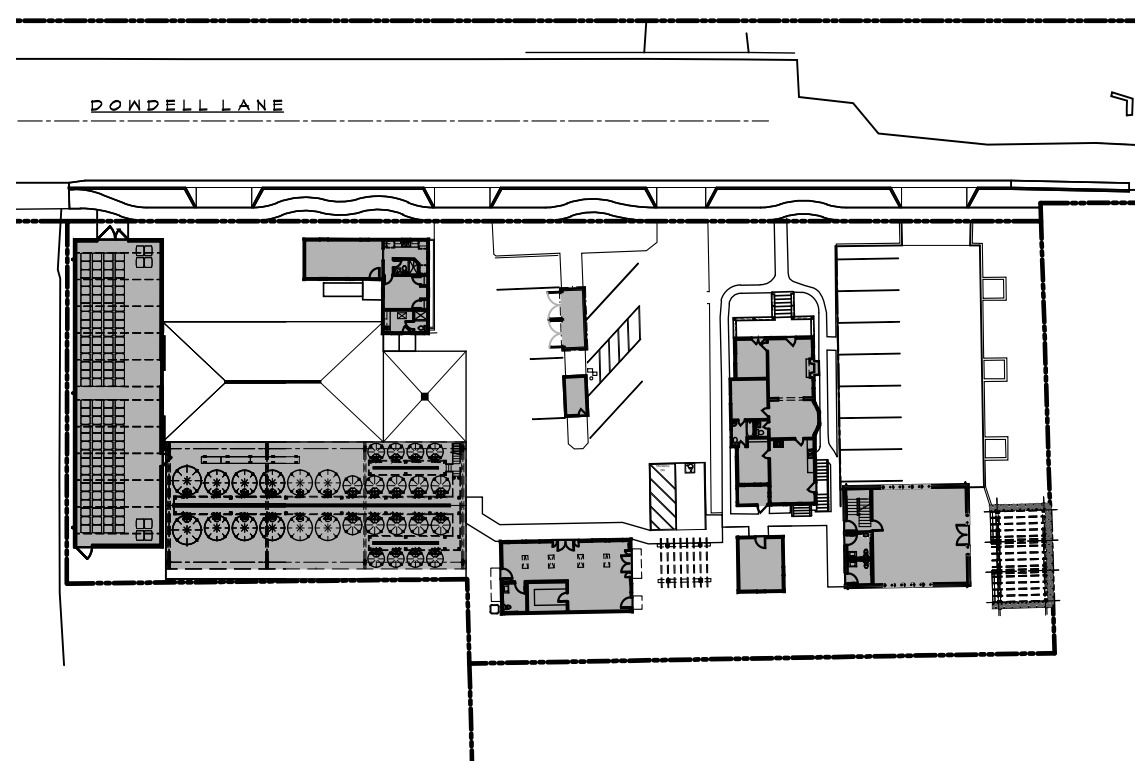
*NOTE: PROPOSED WINERY USE BUILDINGS SHOWN SHADED -
SEE SHEET A1.12 FOR ADDITIONAL INFORMATION AND PROPOSED
WINERY BUILDING LOCATIONS

Redmon - Proposed Winery Floor Area SummaryExisting / Proposed - Accessory: Production: Residential

Building/Area	Accessory	Production	Totals
Proposed Winery - Accessory: Production:			
Existing Well Pump House			84
Pump House	-	84	
Proposed Building D - Winery Lab & Office			867
Winery Lab	-	671	
Office	120	-	
Bath #1	76	-	
Proposed Building E - Barrel Storage Building			2,752
Barrel Storage Building	-	2,484	
Mechanical Equipment Pad	-	268	
Proposed Building F - Covered Fermentation			6,619
Covered Fermentation	-	3,496	
Crush Pad	-	2,436	
Work Pad	-	687	
Proposed Building H - Trash Enclosure			126
Trash Enclosure	126	-	
Totals:	322	10,126	10,448
Accessory to Production Ratio = (Not to exceed 0.400)			0.032

C PROPOSED WINERY FLOOR AREA SUMMARY

SCALE: NTS



*NOTE: SEE SHEET A1.12 FOR ADDITIONAL INFORMATION AND
EXISTING RESIDENTIAL, PROPOSED COMMERCIAL, PROPOSED
WINERY BUILDING LOCATIONS

Redmon Proposed Site - Floor Area SummaryProposed Site Areas - Residential: Commercial: Winery Accessory: Winery Production

Building/Area	Existing Residential	Proposed Commercial	Winery Accessory	Winery Production	Totals
EXISTING RESIDENTIAL:					
Existing Building A - Main Residence					2,171
Main Floor	1,280	-	-	-	
Basement	891	-	-	-	
Existing Building B - Second Residence					685
Second Residence	685	-	-	-	
PROPOSED COMMERCIAL:					
Proposed Building C - Adjacent Dry Storage					231
Adjacent Dry Storage	-	231	-	-	
Proposed Building G - 2-story Commercial Kitchen / Dry Storage					2,381
Ground Floor					
Commercial Kitchen	-	877	-	-	
Restrooms	-	132	-	-	
Stairwell	-	111	-	-	
Employee Break Area	-	425	-	-	
Second Floor					
Dry Storage	-	836	-	-	
PROPOSED WINERY:					
Existing Well Pump House					84
Pump House	-	-	-	84	
Proposed Building D - Winery Lab & Office					867
Winery Lab	-	-	-	671	
Office	-	-	120	-	
Bath #1	-	-	76	-	
Proposed Building E - Barrel Storage Building					2,752
Barrel Storage Building	-	-	-	2,484	
Mechanical Equipment Pad	-	-	-	268	
Proposed Building F - Covered Fermentation					6,619
Covered Fermentation	-	-	-	3,496	
Crush Pad	-	-	-	2,436	
Work Pad	-	-	-	687	
Proposed Building H - Trash Enclosure					126
Trash Enclosure	-	-	126	-	
Totals:	2,856	2,612	322	10,126	15,916
Proposed Site FAR					
Existing Site area					36,479
Total Existing & Proposed Building Area					15,916
Proposed Site FAR (Total Building Area / Existing Site Area)					0.4363058

D PROPOSED FLOOR / SITE AREA SUMMARY

SCALE: NTS

consultant:

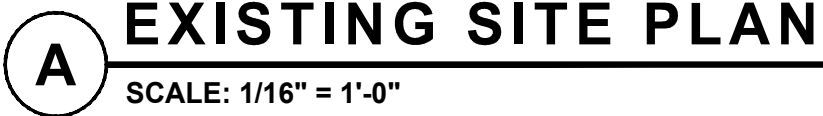
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[illegible]

Sheet Title:

Sheet #:

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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

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Date: August 28, 2015

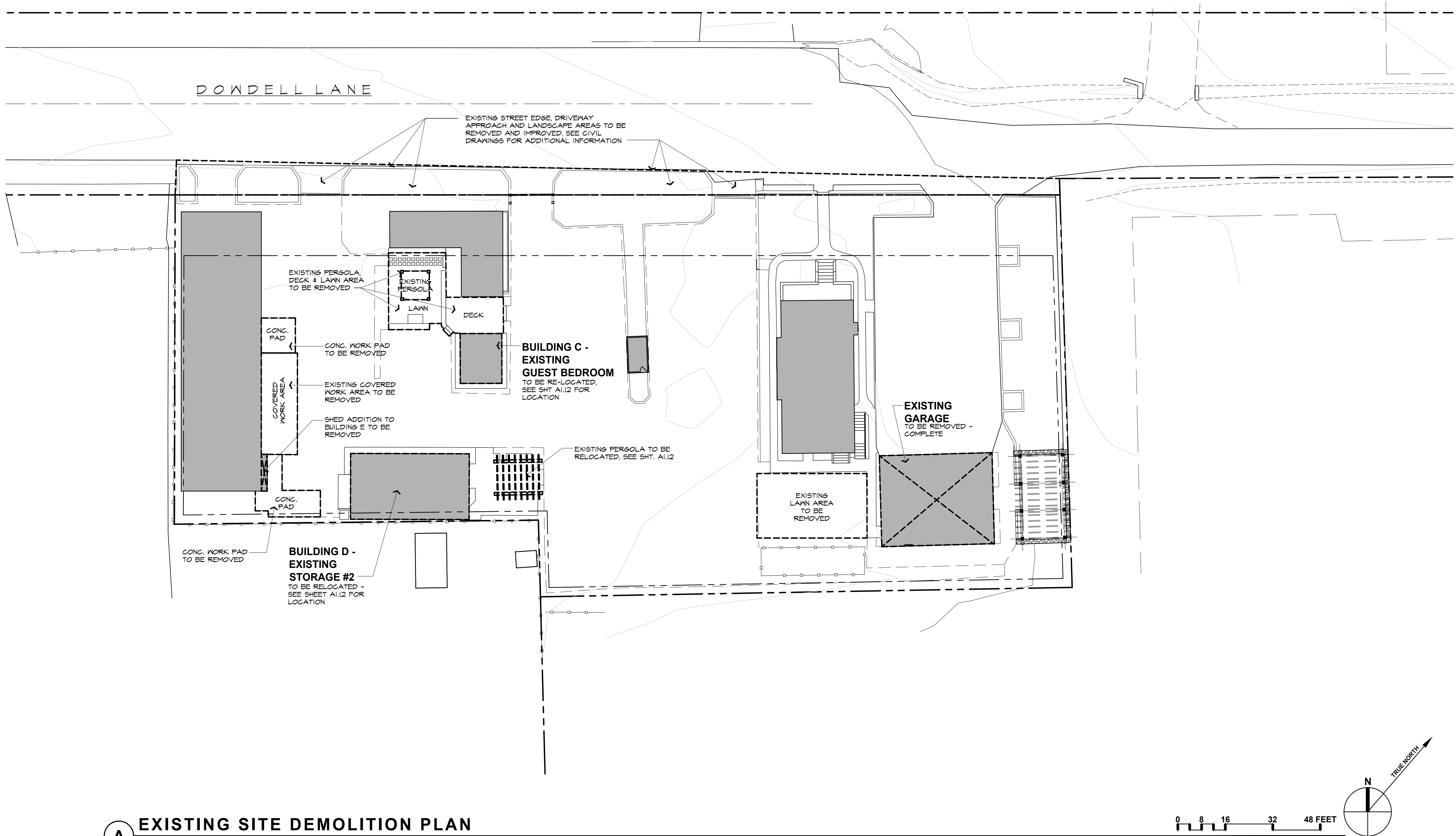
Project No: 130401

Sheet Title: EXISTING
SITE DEMOLITION
PLAN

Sheet #:

A1.11

USE PERMIT SUBMITTAL



A EXISTING SITE DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

Consultant:

Seal:

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APN: 009-580-009

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Date: January 21, 2016

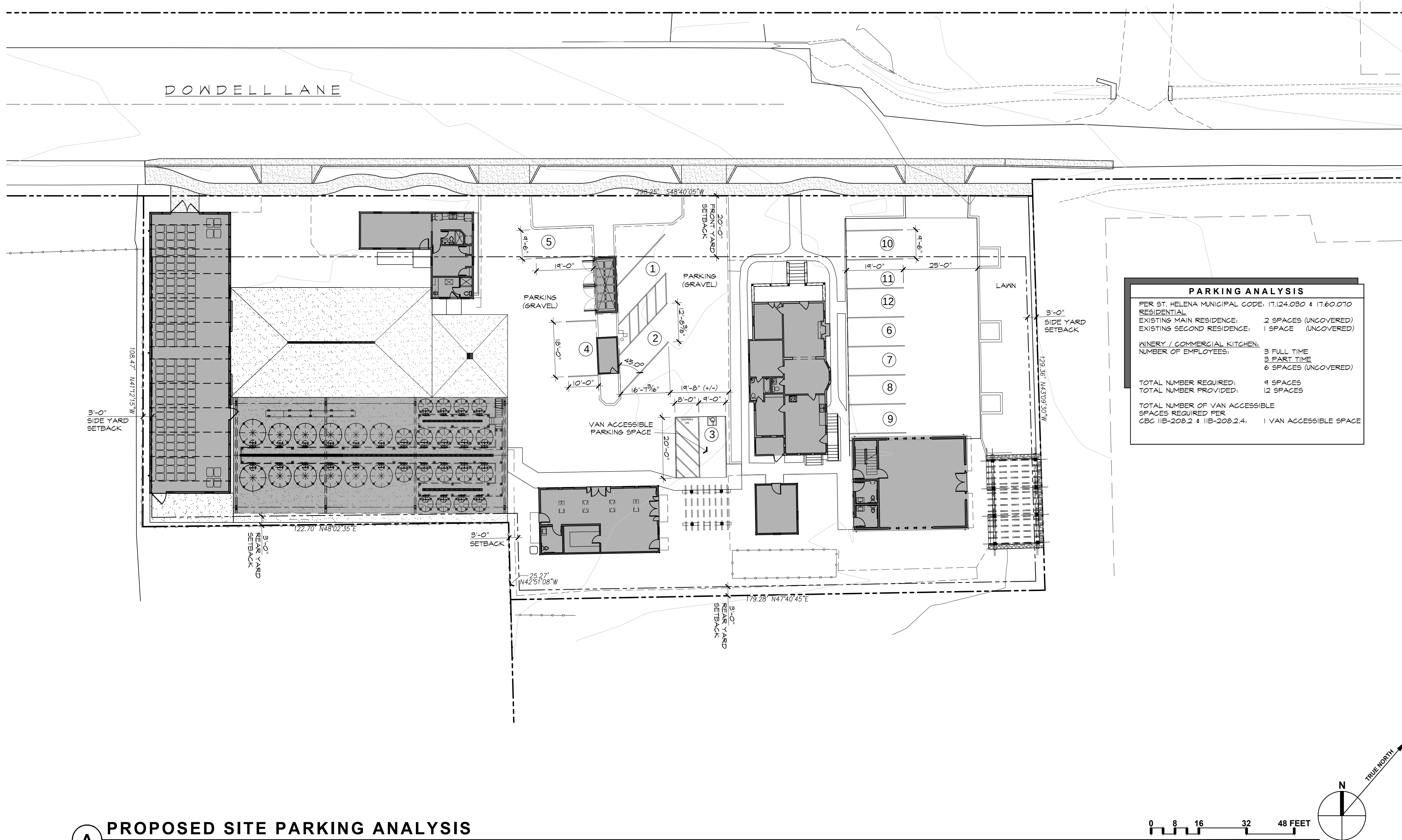
Project No: 130401

Sheet Title:
**PROPOSED
SITE PARKING
ANALYSIS**

Sheet #:

A1.13

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APN: 009-580-009

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Date: August 28, 2015

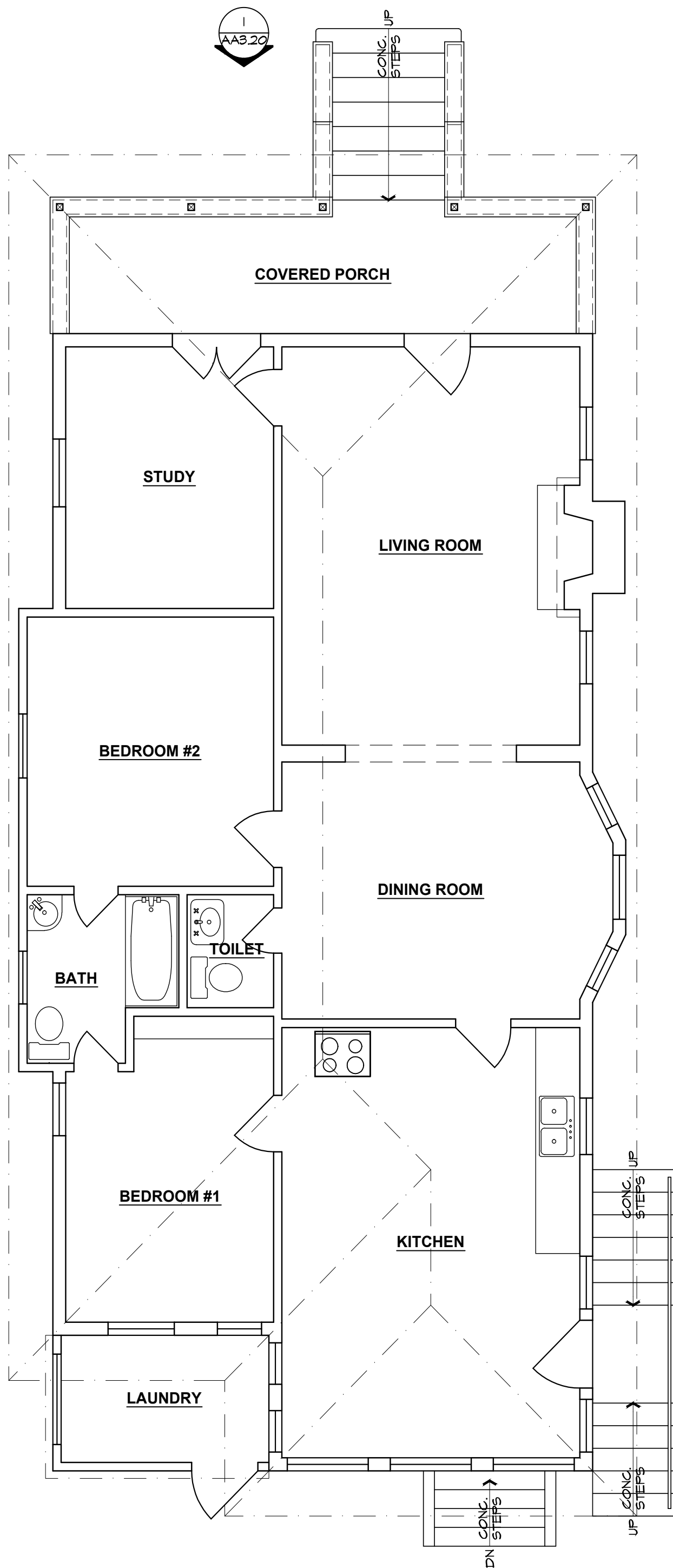
Project No: 130401

Sheet Title:
EXISTING BLDG. A
MAIN RESIDENCE
FLOOR PLAN

Sheet #:

AA2.20

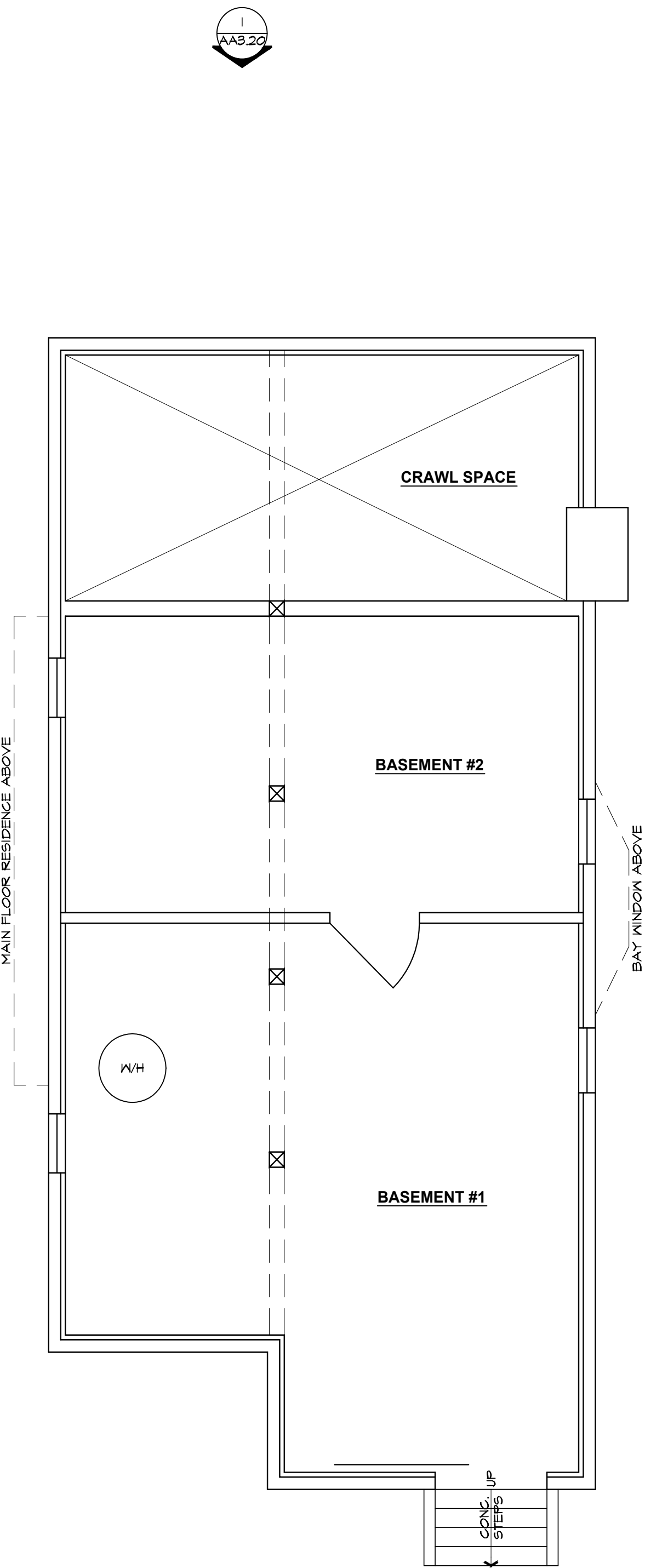
USE PERMIT SUBMITTAL



MAIN FLOOR

1,280 SQ. FT.

DOCUMENTED FOR REFERENCE - NOT PART OF THIS USE PERMIT



BASEMENT

891 SQ. FT.

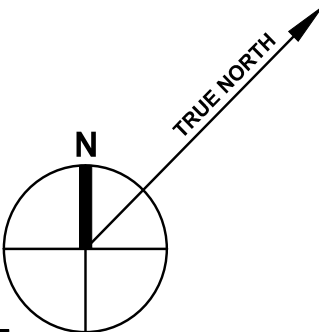
DOCUMENTED FOR REFERENCE - NOT PART OF THIS USE PERMIT

A

EXISTING BUILDING A - MAIN RESIDENCE FLOOR PLAN

SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



EXISTING RESIDENTIAL -
Not Part of the Permit Application



1 EXISTING BUILDING A - MAIN RESIDENCE
NORTH ELEVATION VIEW



2 EXISTING BUILDING A - MAIN RESIDENCE
WEST ELEVATION VIEW



3 EXISTING BUILDING A - MAIN RESIDENCE
SOUTH ELEVATION VIEW



4 EXISTING BUILDING A - MAIN RESIDENCE
EAST ELEVATION VIEW

EXISTING RESIDENTIAL -
Not Part of the Permit Application

Item No: 5.5

PAUL
KELLEY
ARCHITECT

1436 Second Street, No. 162, Napa, CA 94559
phone 707.257.1148 fax 707.266.1027
www.paulkelleyarchitecture.com

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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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△	_____
△	_____
△	_____

Date: August 28, 2015
Project No: 130401
Sheet Title: EXISTING BLDG. A
MAIN RESIDENCE
PHOTO ELEVATIONS
Sheet #: AA3.20
USE PERMIT SUBMITTAL



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A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

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Date: August 28, 2015

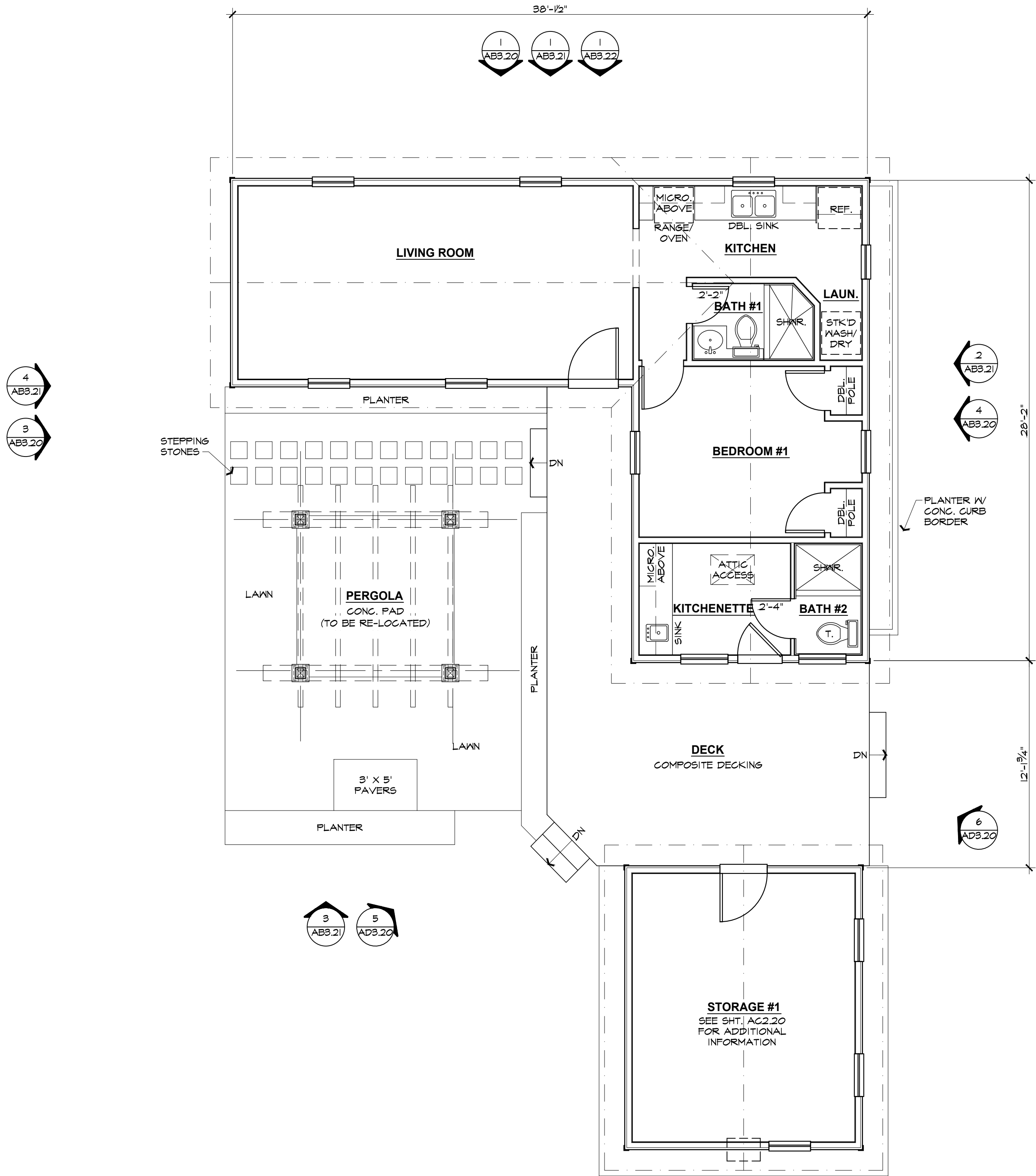
Project No: 130401

Sheet Title:
EXISTING BLDG. B
2nd RESIDENCE
FLOOR PLAN

Sheet #:

AB2.20

USE PERMIT SUBMITTAL



EXISTING SECOND RESIDENCE

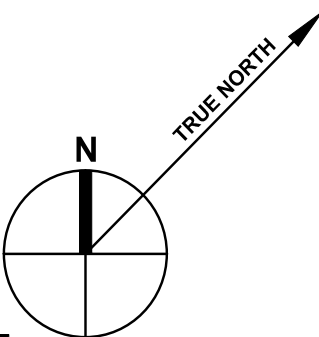
685 SQ. FT.
DOCUMENTED FOR REFERENCE - NOT PART OF THIS USE PERMIT

EXISTING BUILDING C - STORAGE #1

231 SQ. FT.
TO BE RELOCATED AND CONVERTED TO PROPOSED BUILDING C -
ADJACENT DRY STORAGE, SEE SHEET AC2.21 FOR ADDITIONAL
INFORMATION

A EXISTING BUILDING B - SECOND RESIDENCE FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



EXISTING RESIDENTIAL -
Not Part of the Permit Application



1 EXISTING BUILDING B -
SECOND RESIDENCE
NORTH ELEVATION VIEW



2 EXISTING BUILDING B -
SECOND RESIDENCE
WEST ELEVATION VIEW



3 EXISTING BUILDING B -
SECOND RESIDENCE & PERGOLA
WEST ELEVATION VIEW



4 EXISTING BUILDING B -
SECOND RESIDENCE
EAST ELEVATION VIEW



5 EXISTING BUILDING B -
SECOND RESIDENCE
SOUTHWEST ELEVATION VIEW



6 EXISTING BUILDING B -
SECOND RESIDENCE
SOUTHEAST ELEVATION VIEW

EXISTING RESIDENTIAL -
Not Part of the Permit Application

Item No: 5.5

PAUL
KELLEY
ARCHITECT

1436 Second Street, No. 162, Napa, CA 94559
phone 707.257.1148 fax 707.266.1027
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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

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Date: August 28, 2015

Project No: 130401

Sheet Title: EXISTING BLDG. B
SECOND RESIDENCE
PHOTO ELEVATIONS

Sheet #:

AB3.20

USE PERMIT SUBMITTAL

Page 128 of 340



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A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

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Date: August 28, 2015

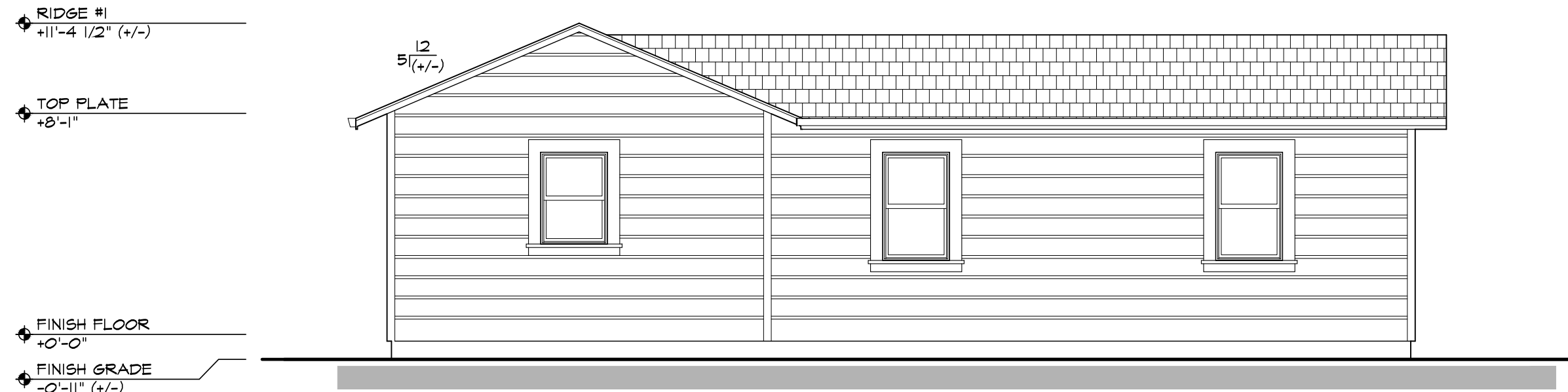
Project No: 130401

Sheet Title:
EXISTING BLDG. B
SECOND RESIDENCE
EXTERIOR ELEVATION

Sheet #:

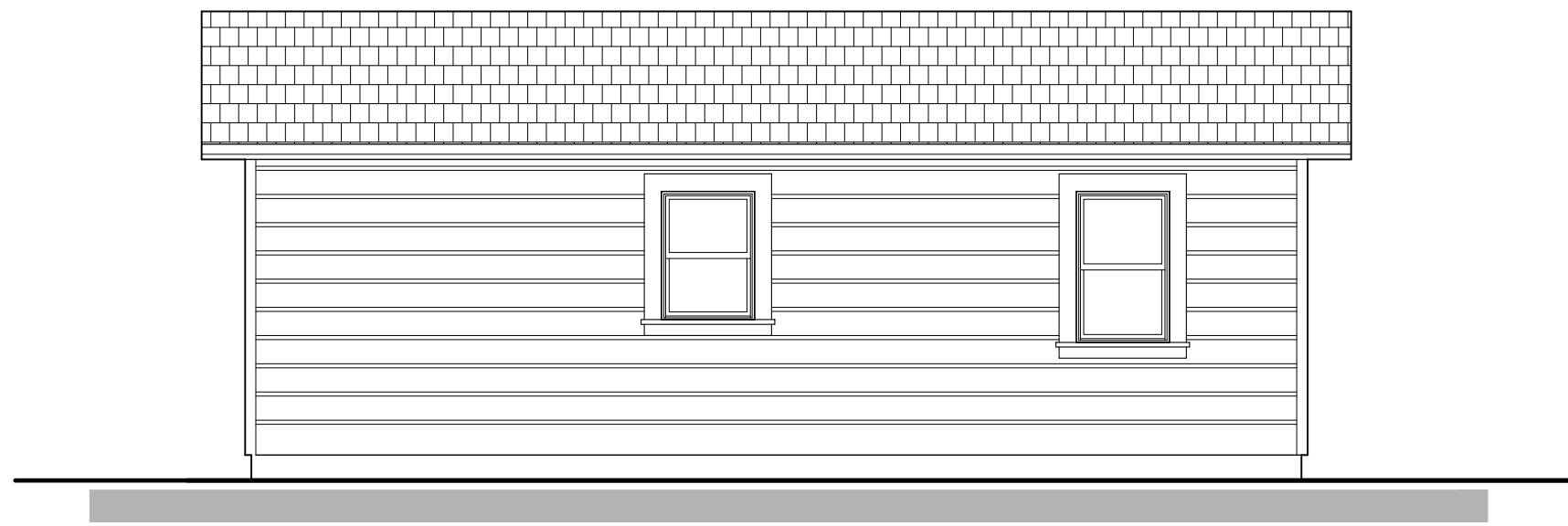
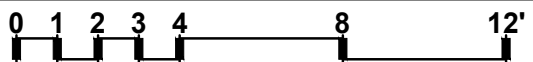
AB3.21

USE PERMIT SUBMITTAL



PROPOSED BUILDING B -
SECOND RESIDENCE NORTH EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



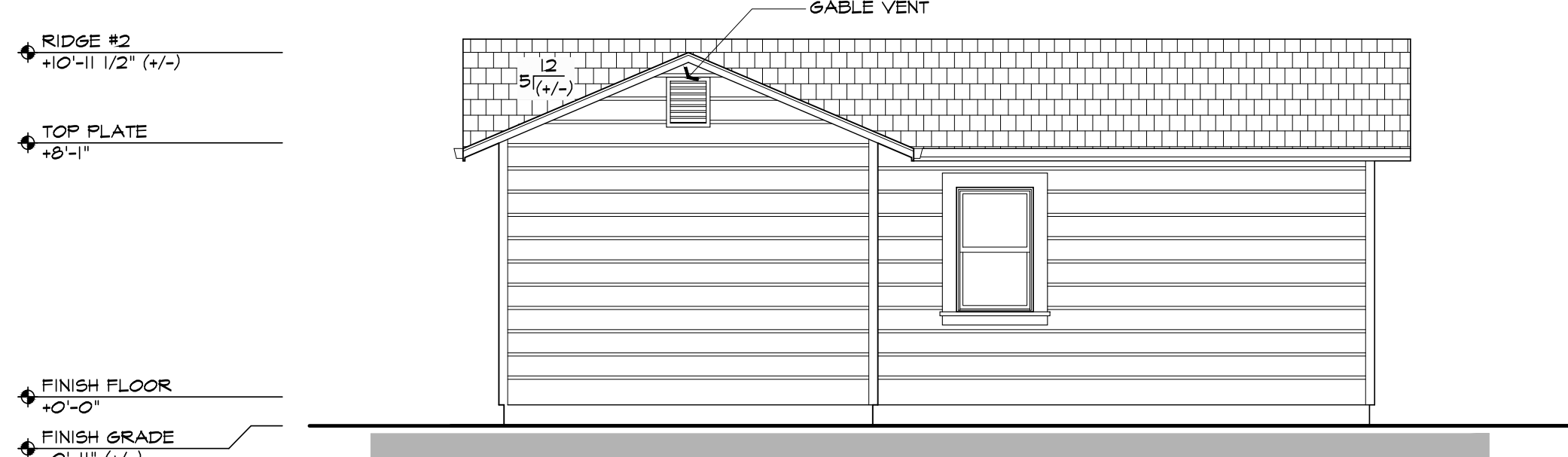
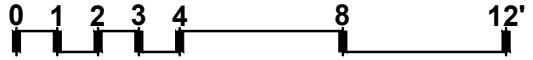
EXISTING BUILDING B -
SECOND RESIDENCE EAST EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



EXISTING BUILDING B -
SECOND RESIDENCE SOUTH EXTERIOR ELEVATION

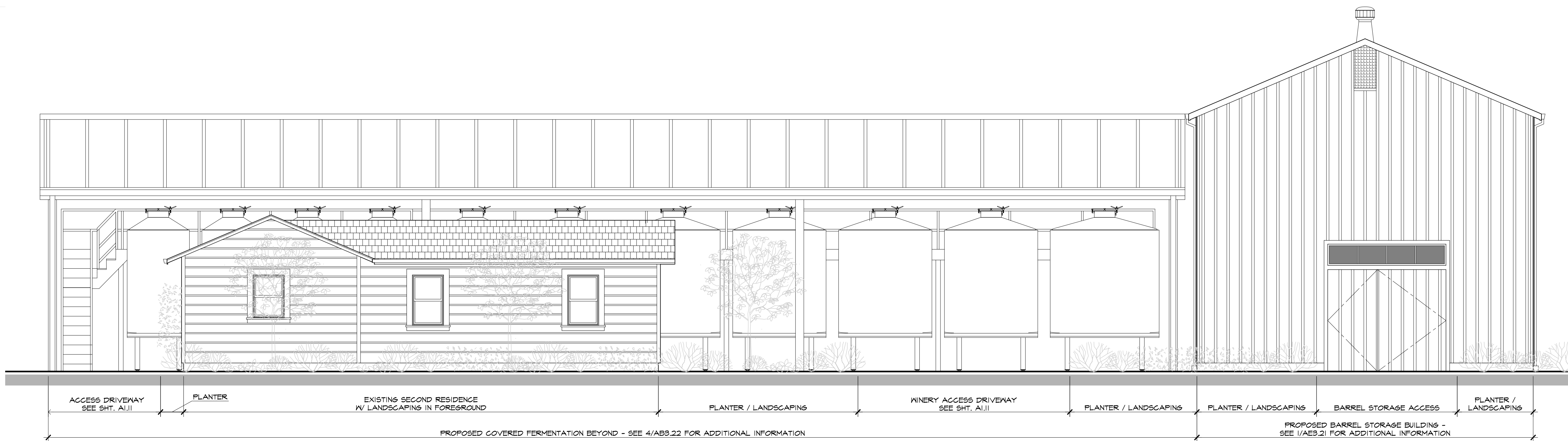
SCALE: 1/4" = 1'-0"



EXISTING BUILDING B -
SECOND RESIDENCE WEST EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

EXISTING RESIDENTIAL -
Not Part of the Permit Application



**EXISTING BUILDING B - SECOND RESIDENCE STREET ELEVATION
(AS VIEWED FROM DOWDELL LANE)**

1

SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'

Item No: 5.5

PAUL
KELLEY
ARCHITECT

1436 Second Street, No. 162, Napa, CA 94559
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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

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Date

August 28, 2015

Project No:

130401

Sheet Title:

EXISTING BLDG. B
SECOND RESIDENCE
EXTERIOR ELEVATION

Sheet #:

AB3.22

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Page 130 of 340



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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

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Date: August 28, 2015

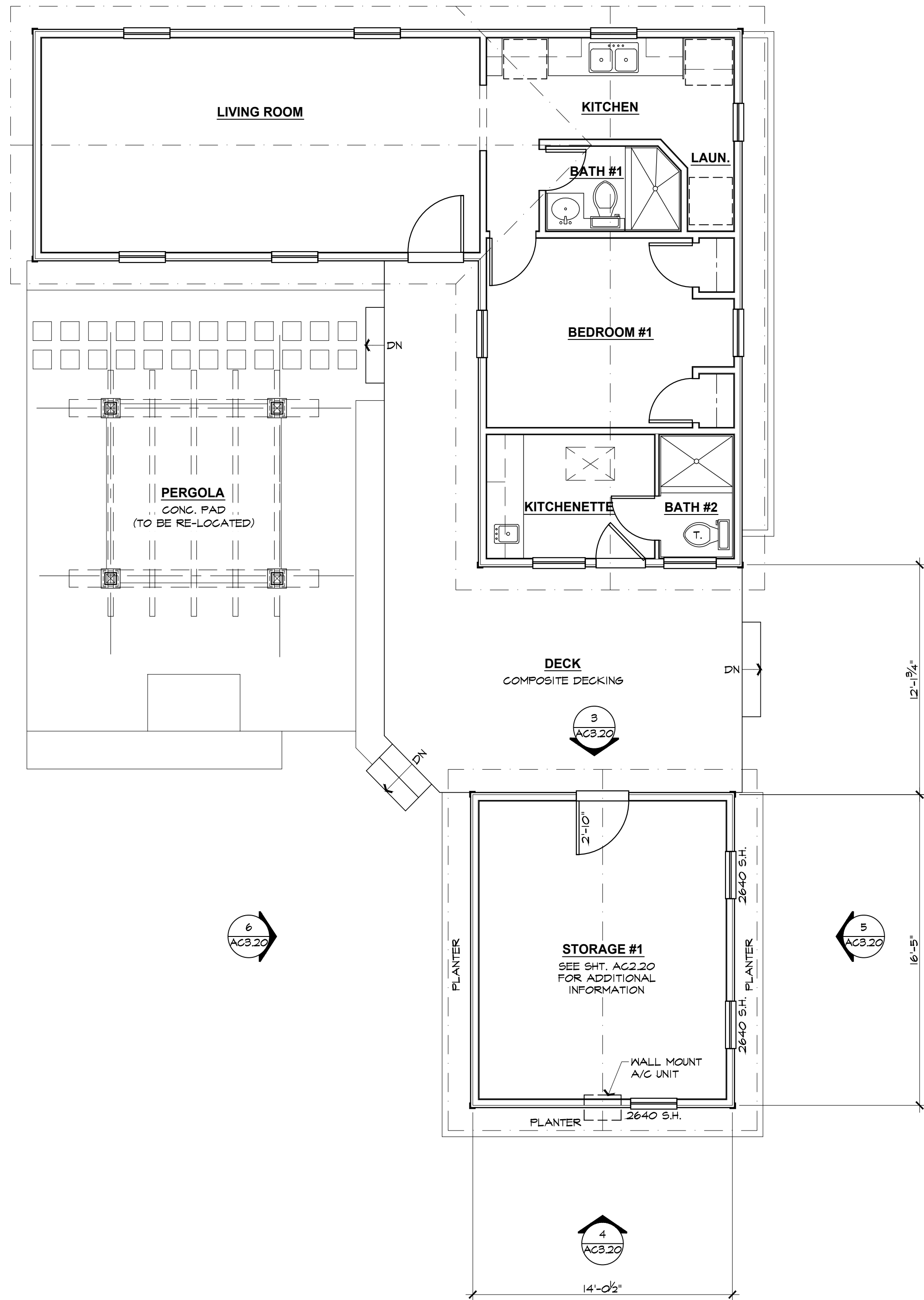
Project No: 130401

Sheet Title:
EXISTING BLDG. C
GUEST BEDROOM
FLOOR PLAN

Sheet #:

AC2.20

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EXISTING BUILDING - B
SECOND RESIDENCE

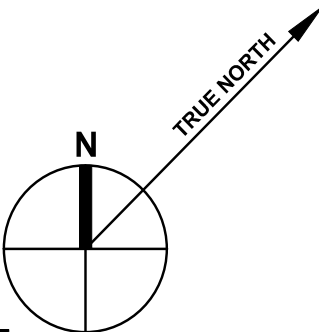
685 SQ. FT.
DOCUMENTED FOR REFERENCE - NOT PART OF THIS USE PERMIT
SEE SHEET AB2.20 FOR ADDITIONAL INFORMATION

EXISTING BUILDING - C
GUEST BEDROOM

231 SQ. FT.
TO BE RELOCATED AND CONVERTED PROPOSED ADJACENT DRY
STORAGE, SEE SHEET AC2.21 FOR ADDITIONAL INFORMATION

A EXISTING BUILDING C - GUEST BEDROOM FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'





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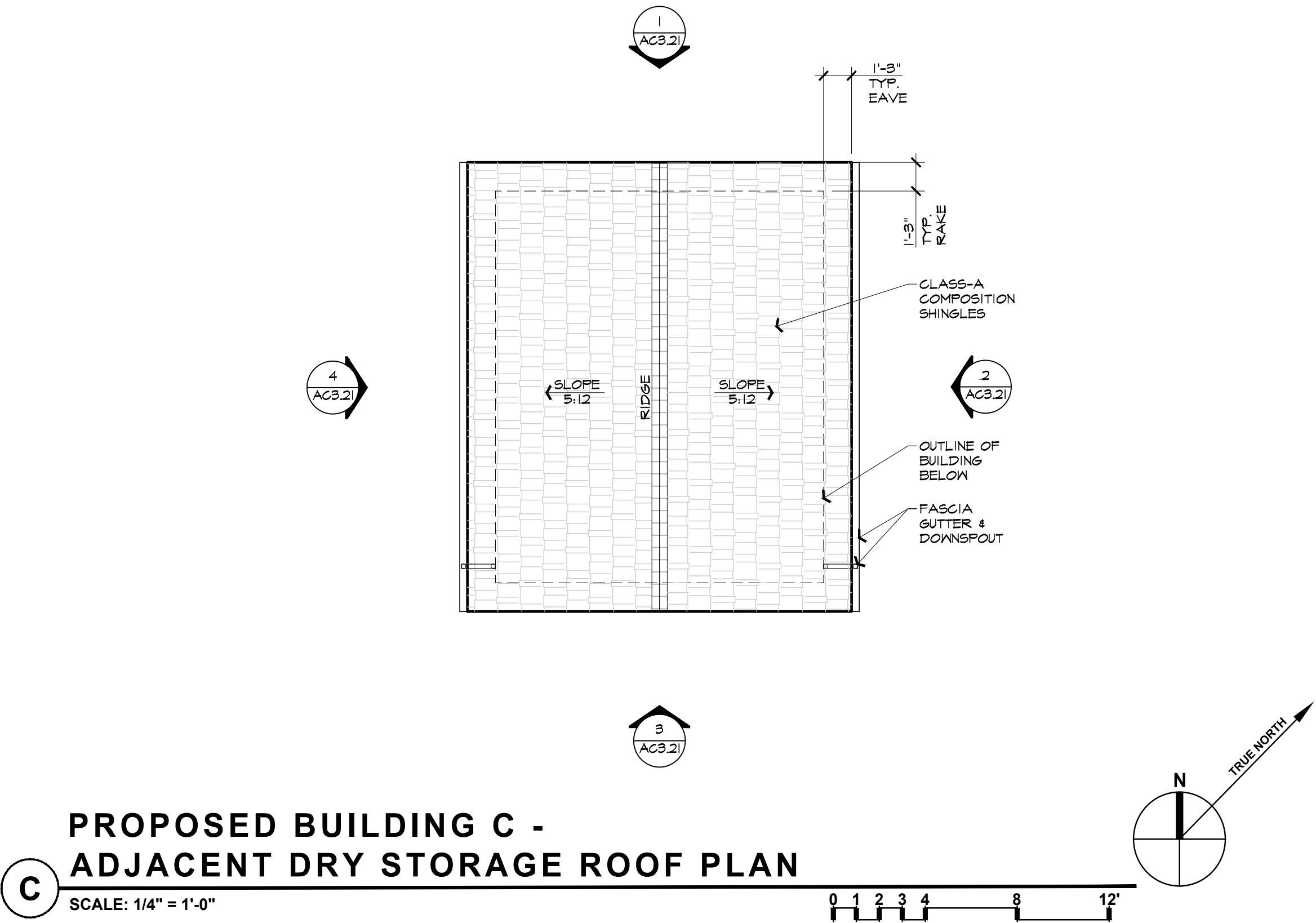
Project No: 130401

Sheet Title:
PROPOSED BLDG. C
ADJACENT DRY STOR.
FLOOR / ROOF PLAN

Sheet #:

AC2.21

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1 EXISTING BUILDING B - SECOND RESIDENCE & BUILDING C - GUEST BEDROOM EAST ELEVATION VIEW



2 EXISTING PERGOLA SOUTH ELEVATION VIEW



3 EXISTING BUILDING C - GUEST BEDROOM NORTH ELEVATION VIEW



4 EXISTING BUILDING C - GUEST BEDROOM SOUTH ELEVATION VIEW



5 EXISTING BUILDING C - GUEST BEDROOM EAST ELEVATION VIEW



6 EXISTING BUILDING C - GUEST BEDROOM WEST ELEVATION VIEW

Item No: 5.5

PAUL KELLEIGH ARCHITECT

1436 Second Street, No. 162, Napa, CA 94559
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www.paulkelleyarchitecture.com

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Date: August 28, 2015
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Sheet Title: EXISTING BLDG. C
GUEST BEDROOM
PHOTO ELEVATIONS
Sheet #:
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August 28, 2015

Project No:

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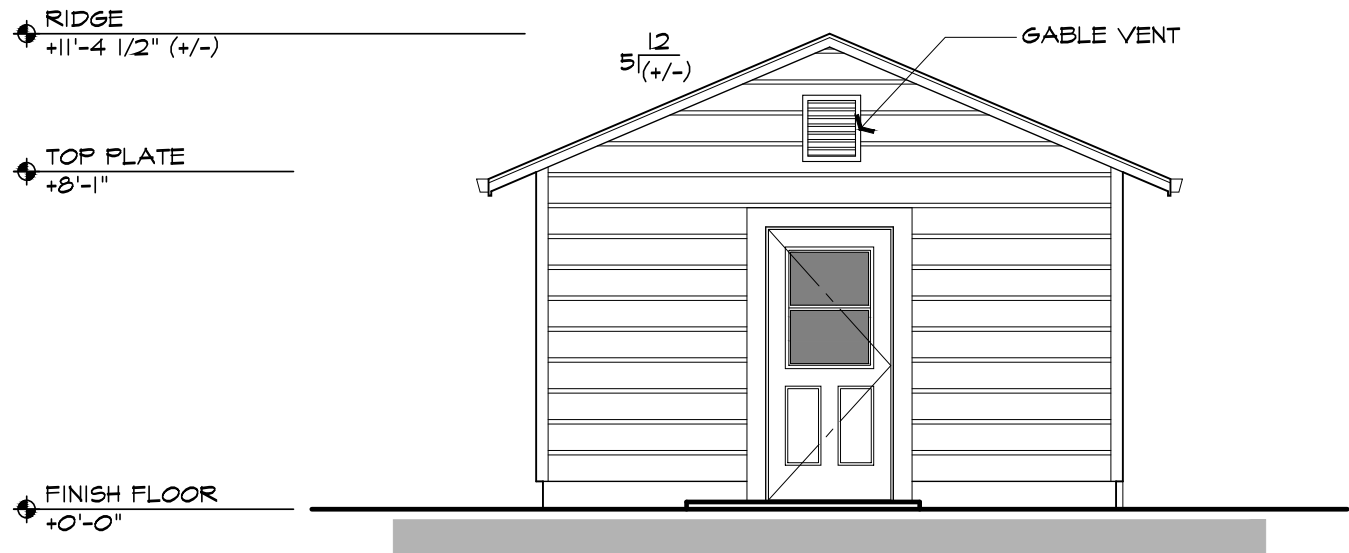
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PROPOSED BLDG. C
ADJACENT DRY STOR.
EXT. ELEVATIONS

Sheet #:

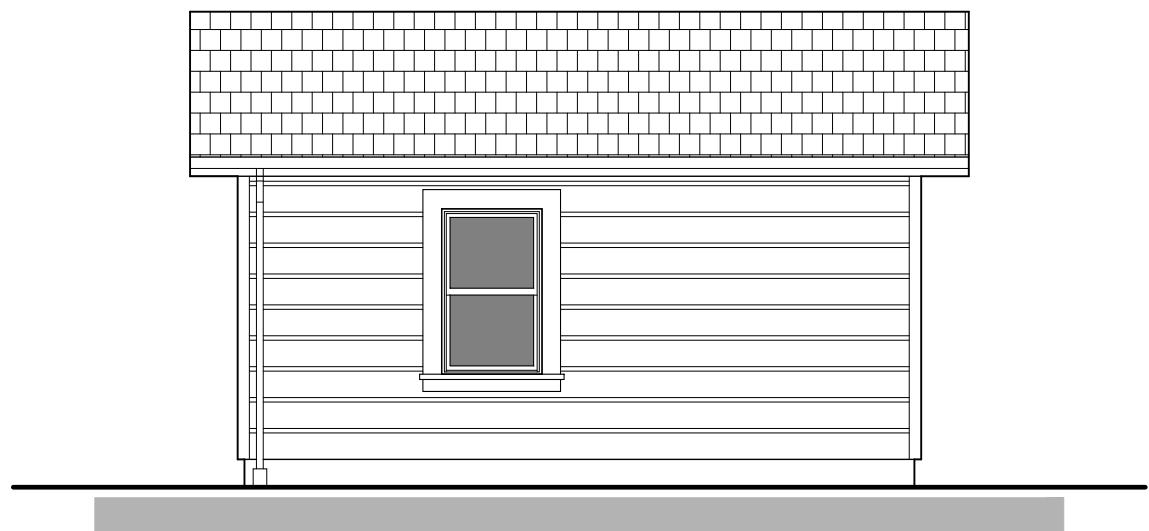
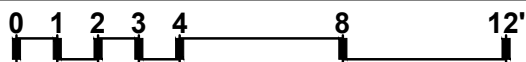
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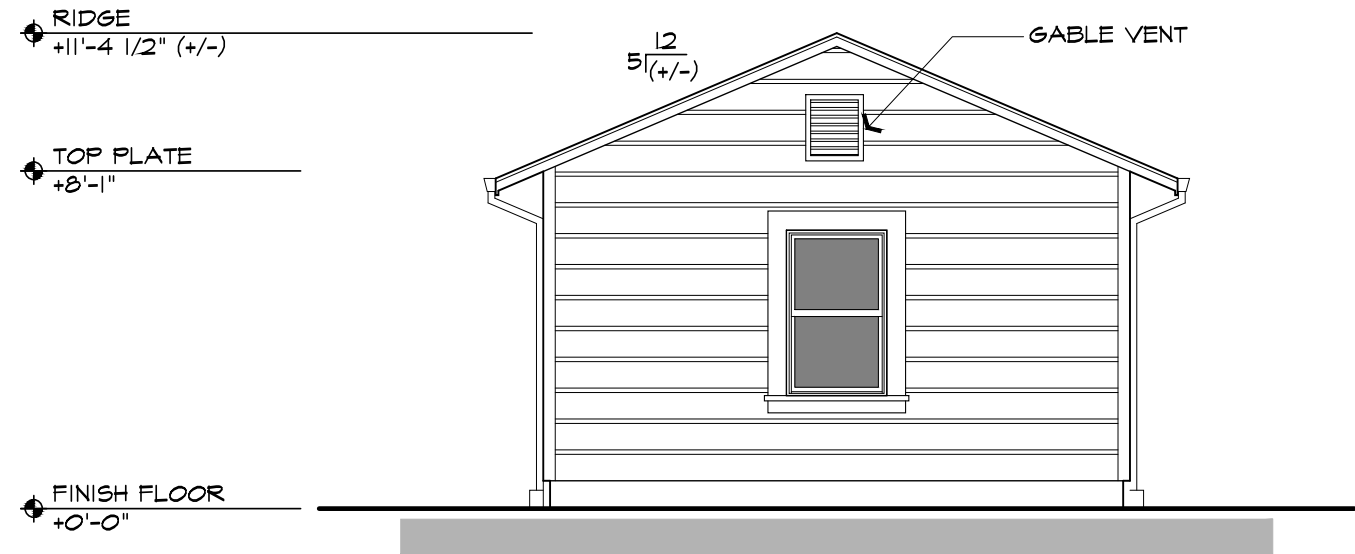
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ADJACENT DRY STORAGE NORTH EXTERIOR ELEVATION**

SCALE: 1/4" = 1'-0"



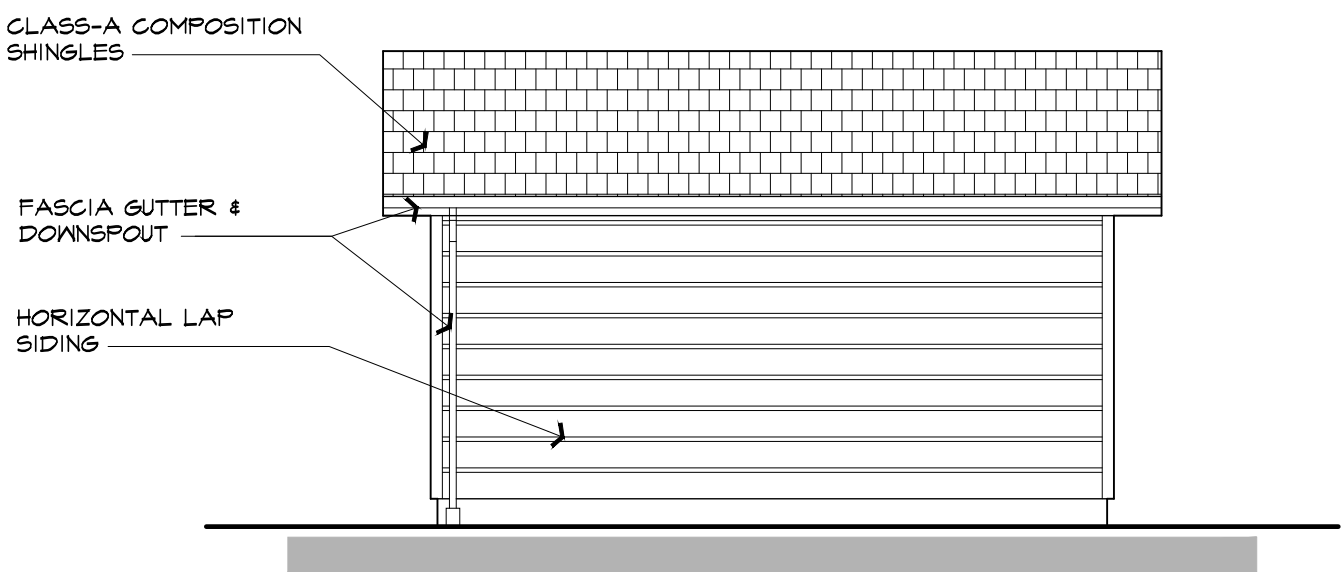
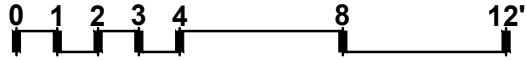
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ADJACENT DRY STORAGE EAST EXTERIOR ELEVATION**

SCALE: 1/4" = 1'-0"



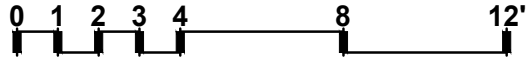
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ADJACENT DRY STORAGE SOUTH EXTERIOR ELEVATION**

SCALE: 1/4" = 1'-0"



**PROPOSED BUILDING C -
ADJACENT DRY STORAGE WEST EXTERIOR ELEVATION**

SCALE: 1/4" = 1'-0"





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Date: August 28, 2015

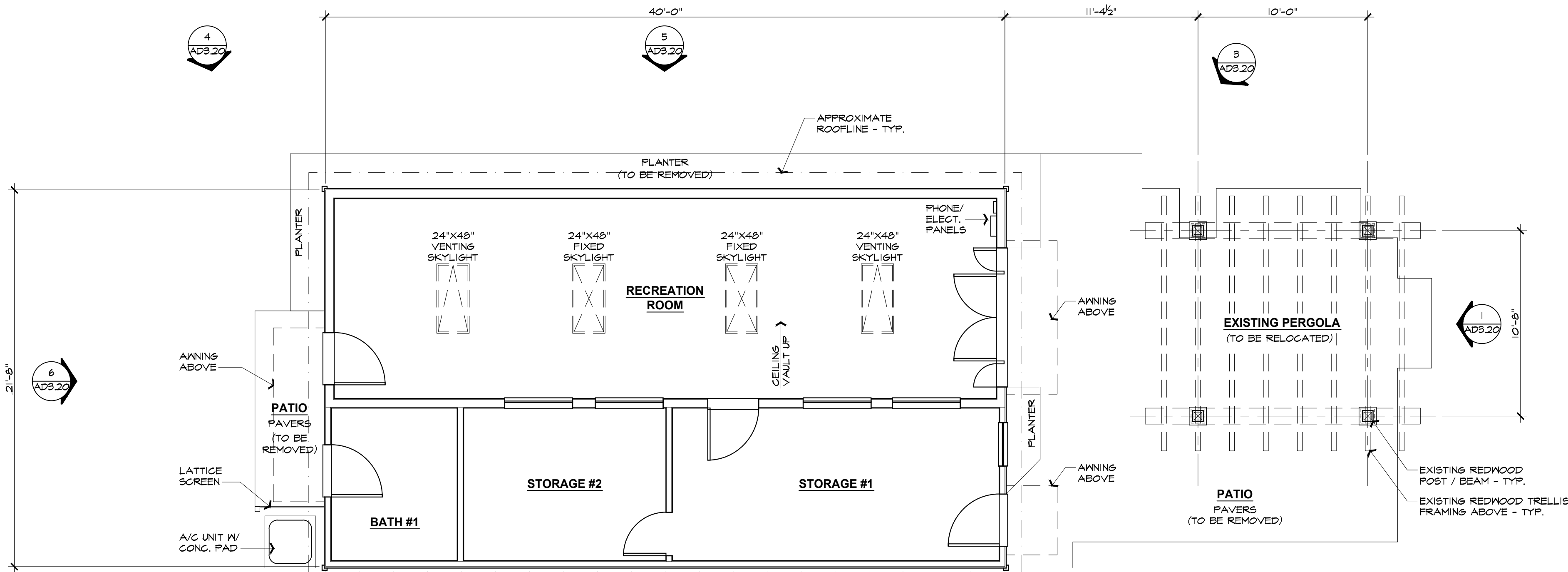
Project No: 130401

Sheet Title:
EXISTING BLDG. D
STORAGE #2
FLOOR PLAN

Sheet #:

AD2.20

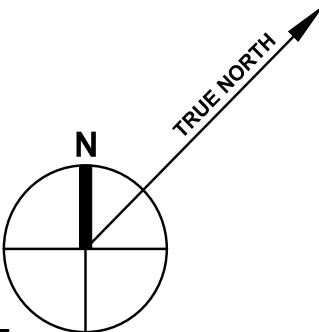
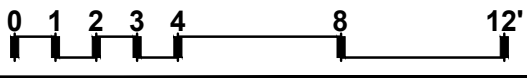
USE PERMIT SUBMITTAL



STORAGE #2

867 SQ. FT.
TO BE RELOCATED AND CONVERTED TO WINERY LAB & OFFICE

A EXISTING BUILDING D - STORAGE #2 FLOOR PLAN
SCALE: 1/4" = 1'-0"



Consultant:

**A Proposed Winery for
Redmon Ranch Winery**
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

August 28, 2015

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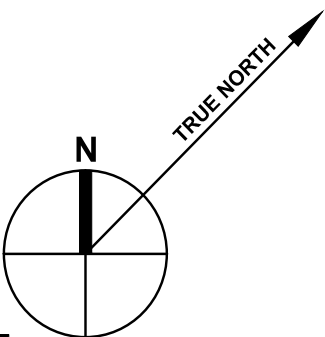
WINERY LAB & OFFICE FLOOR PLAN

AD2.21

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867 SQ. FT.

A number line is shown with tick marks at 0, 1, 2, 3, 4, 8, and 12. The segment between 4 and 8 is labeled 'a'.





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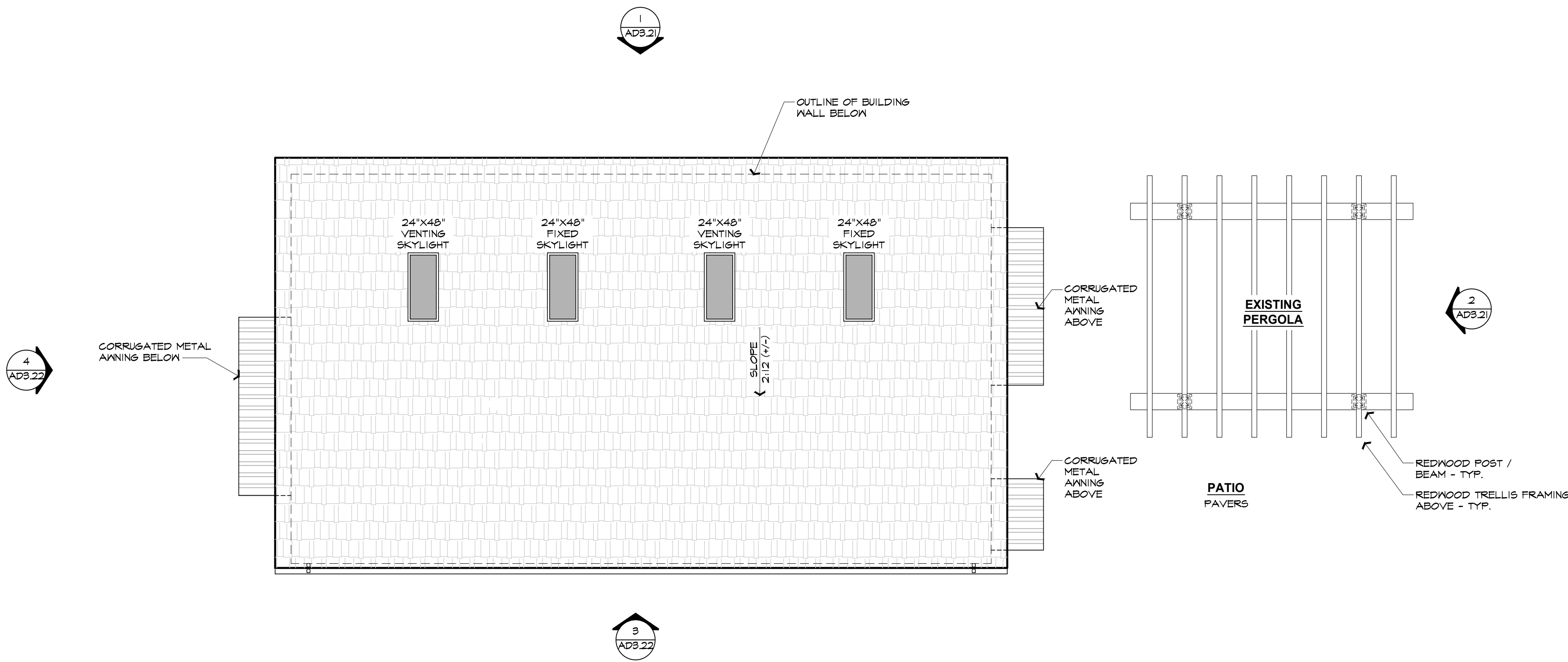
Project No: 130401

Sheet Title:
PROPOSED BLDG. D
WINERY LAB & OFFICE
ROOF PLAN

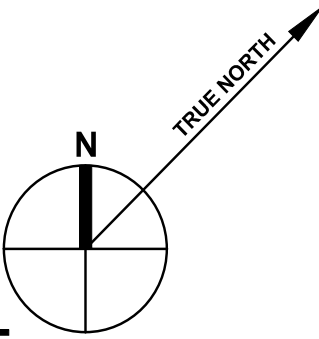
Sheet #:

AD2.22

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C PROPOSED BUILDING D - WINERY LAB & OFFICE ROOF PLAN
SCALE: 1/4" = 1'-0"



0 1 2 3 4 8 12'



**EXISTING BUILDING D -
STORAGE #2 & PERGOLA
EAST ELEVATION VIEW**

1



**EXISTING BUILDING D -
STORAGE #2 & PERGOLA
NORTHEAST ELEVATION VIEW**

2



**EXISTING BUILDING D - STORAGE #2
NORTHEAST ELEVATION VIEW**

3



**EXISTING BUILDING D - STORAGE #2
NORTHWEST ELEVATION VIEW**

4



**EXISTING BUILDING D - STORAGE #2
NORTH ELEVATION VIEW**

5



**EXISTING BUILDING D - STORAGE #2
WEST ELEVATION VIEW**

6

Item No: 5.5

PAUL
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www.paulkelleyarchitecture.com

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867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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Date: August 28, 2015

Project No: 130401

Sheet Title: EXISTING BLDG. D
STORAGE #2
PHOTO ELEVATIONS

Sheet #: AD3.20

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Page 138 of 340



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Date:

August 28, 2015

Project No:

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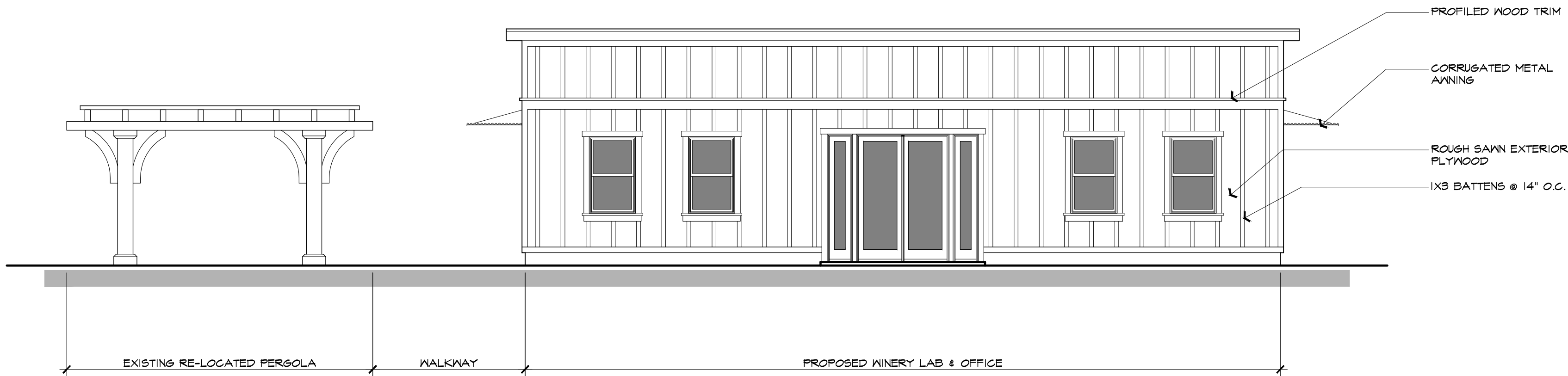
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PROPOSED BLDG. D
WINERY LAB & OFFICE
EXT. ELEVATIONS

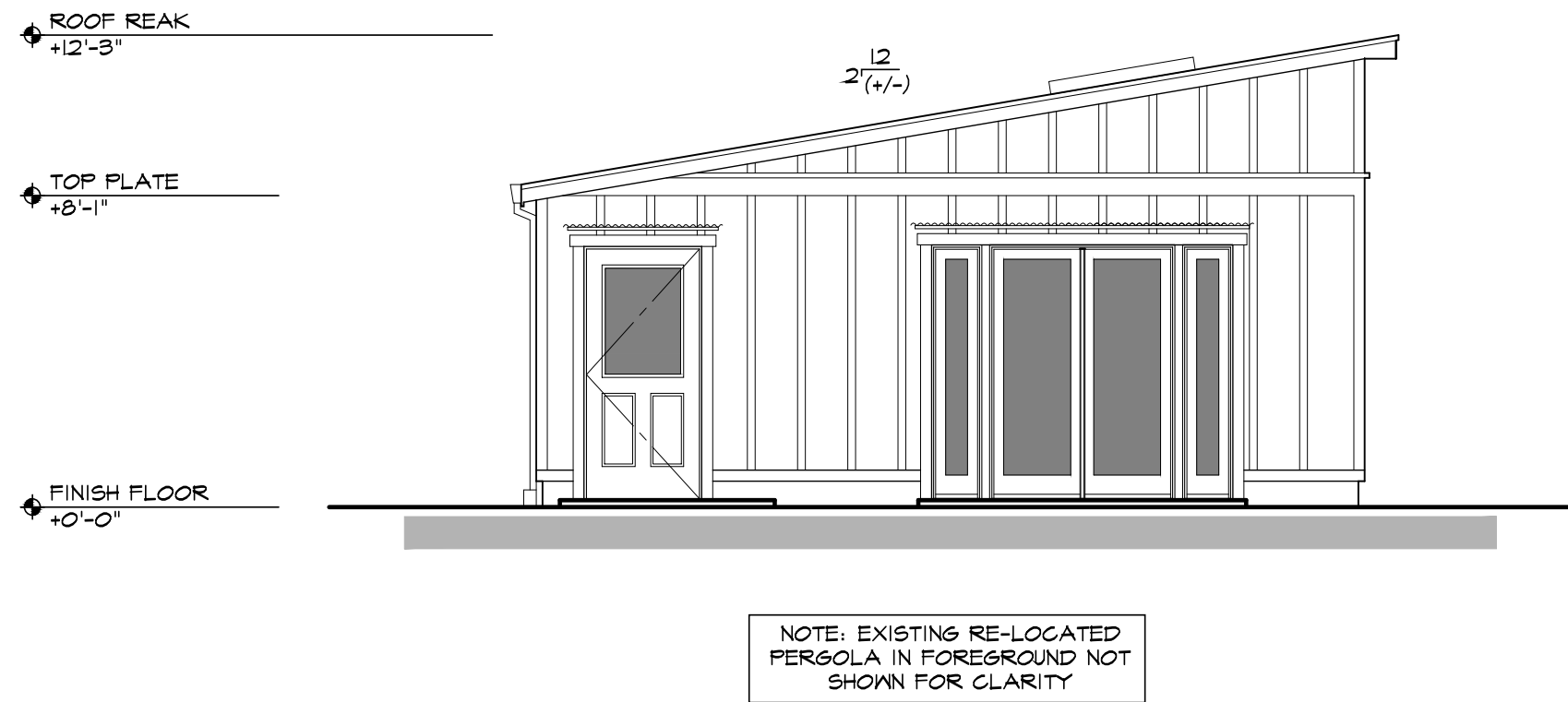
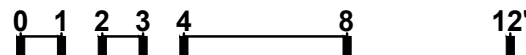
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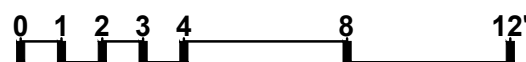
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1 PROPOSED BUILDING D - WINERY LAB & OFFICE NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



2 PROPOSED BUILDING D - WINERY LAB & OFFICE EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"





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Date:

August 28, 2015

Project No:

130401

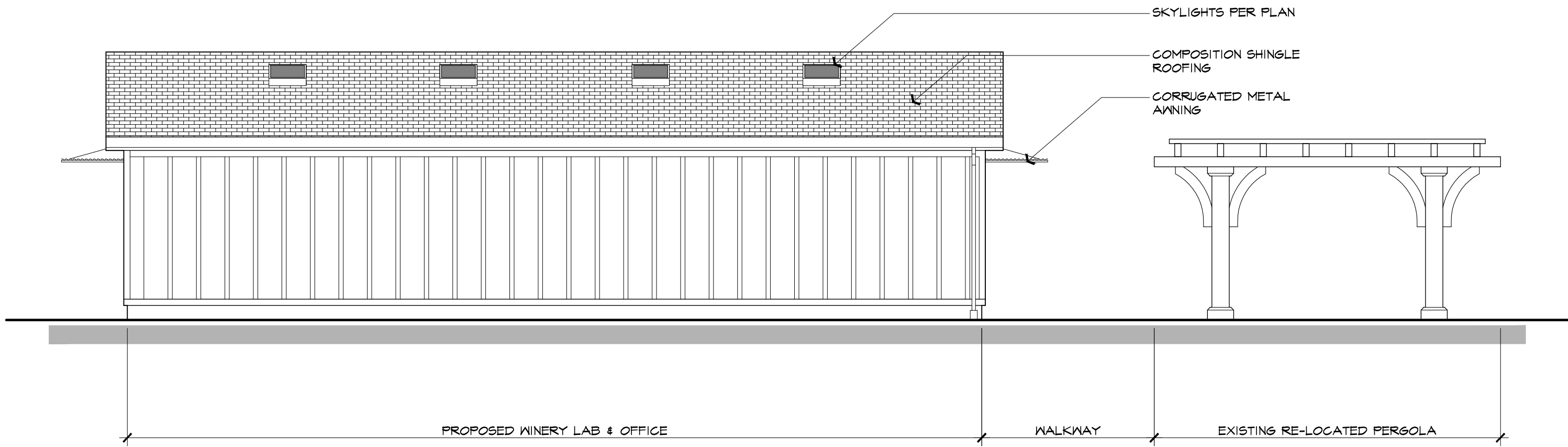
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PROPOSED BLDG. D
WINERY LAB & OFFICE
EXT. ELEVATIONS

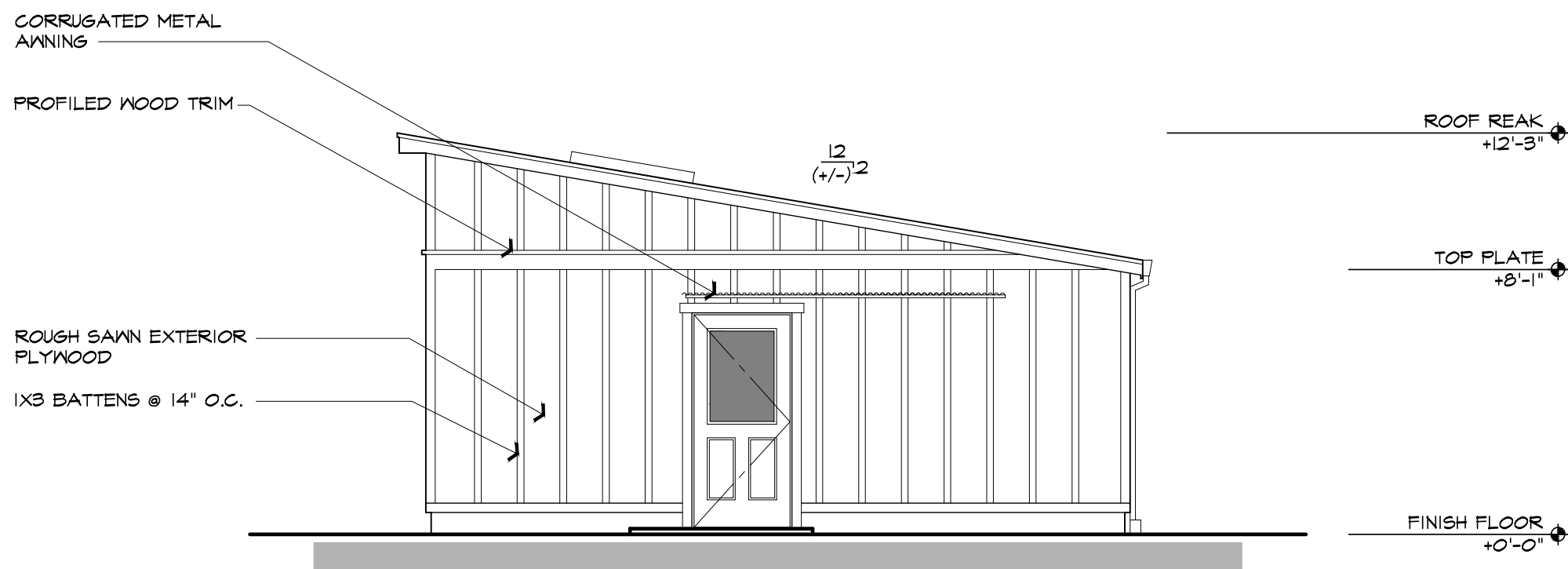
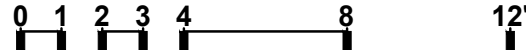
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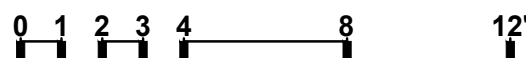
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3 PROPOSED BUILDING D - WINERY LAB & OFFICE SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



4 PROPOSED BUILDING D - WINERY LAB & OFFICE WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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Date: **August 28, 2015**

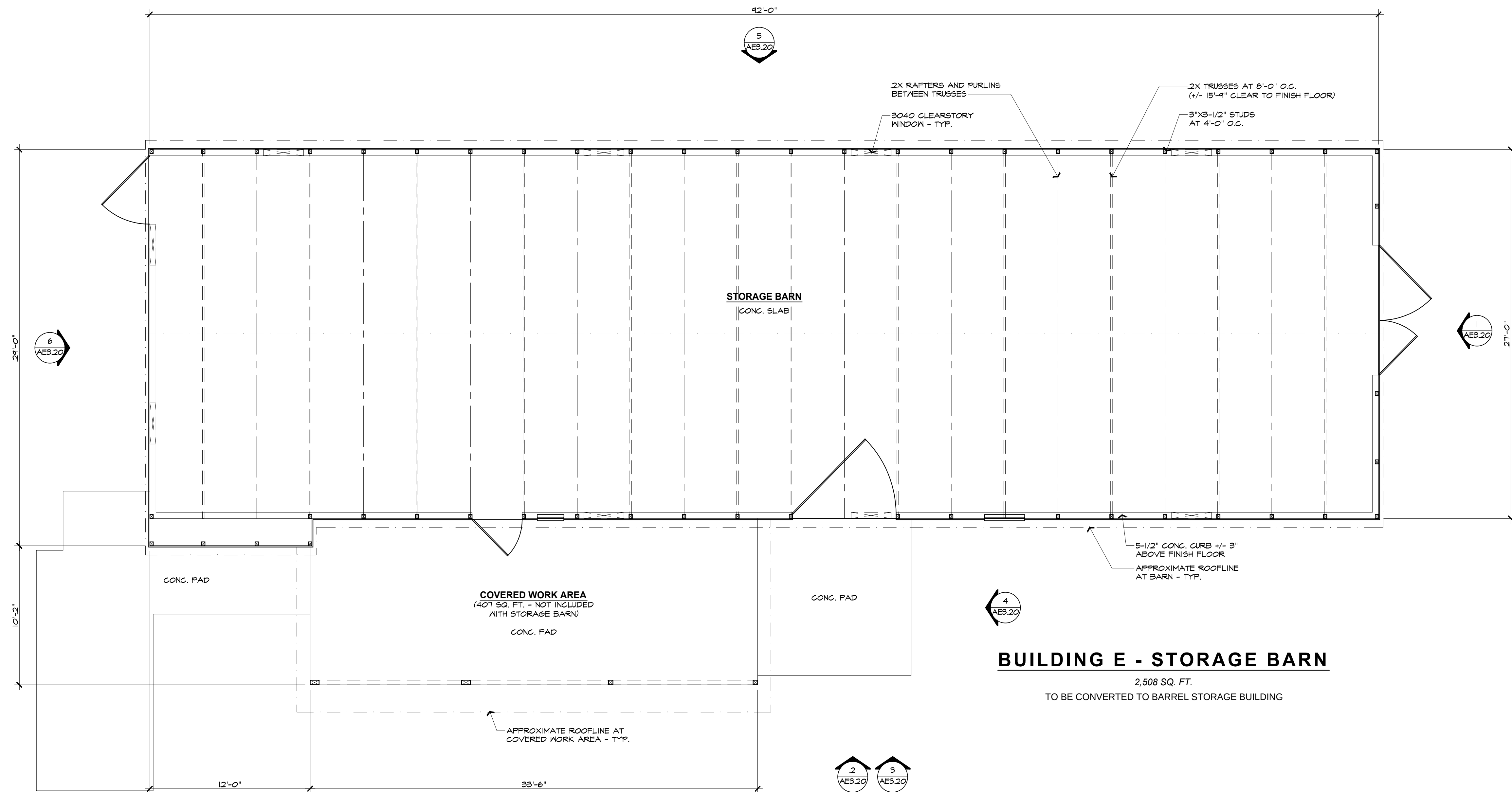
Project No: **130401**

Sheet Title:
**EXISTING BLDG. E
STORAGE BARN
FLOOR PLAN**

Sheet #:

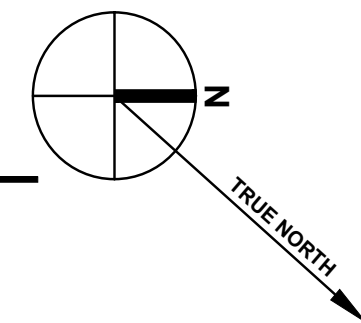
AE2.20

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A EXISTING BUILDING E - STORAGE BARN FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'





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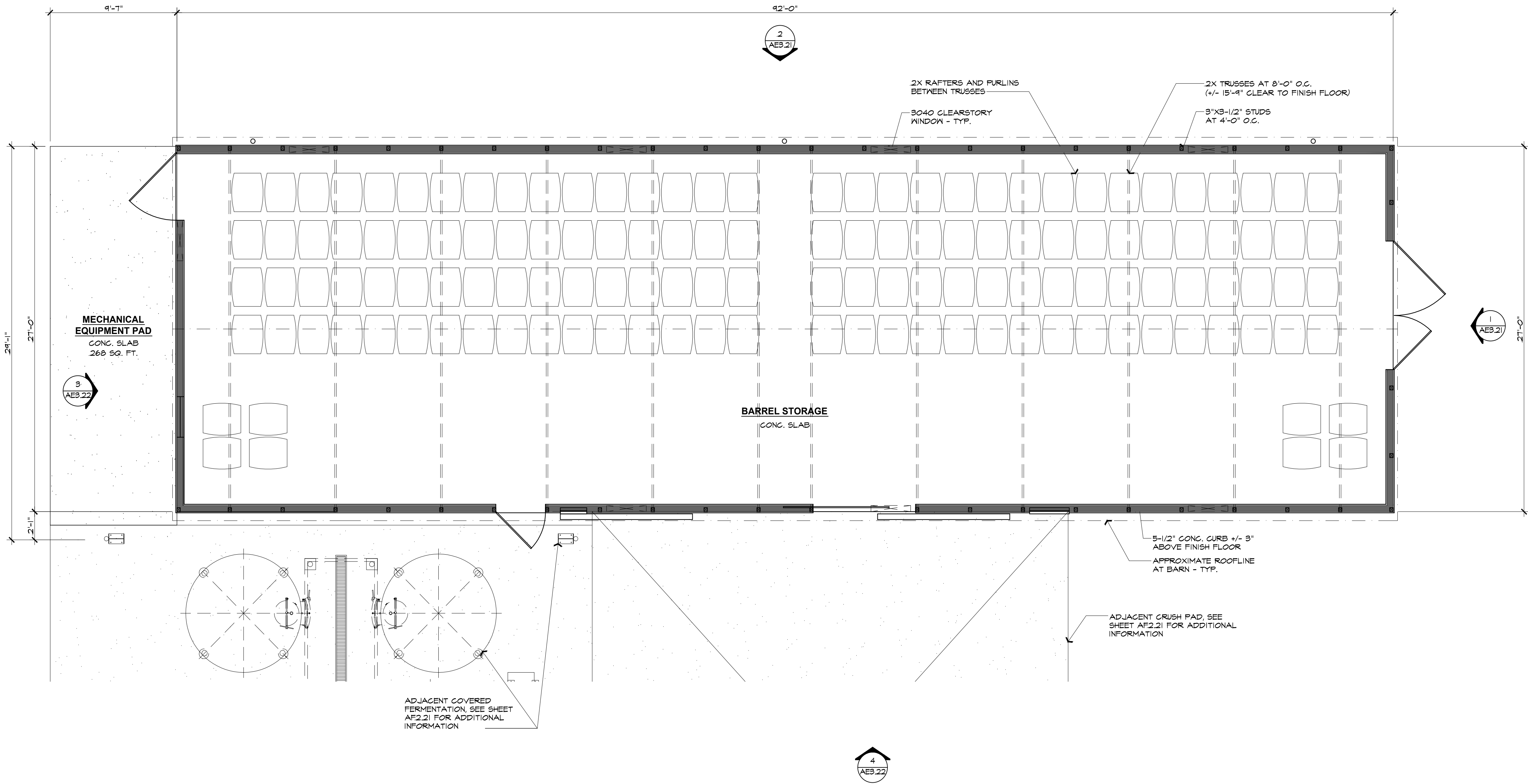
Project No: 130401

Sheet Title:
PROPOSED BLDG. E
BARREL STORAGE
BUILDING FLOOR PLAN

Sheet #:

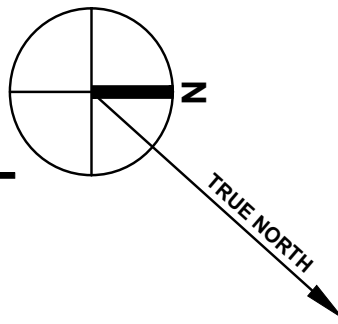
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B PROPOSED BUILDING E - BARREL STORAGE BUILDING FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'





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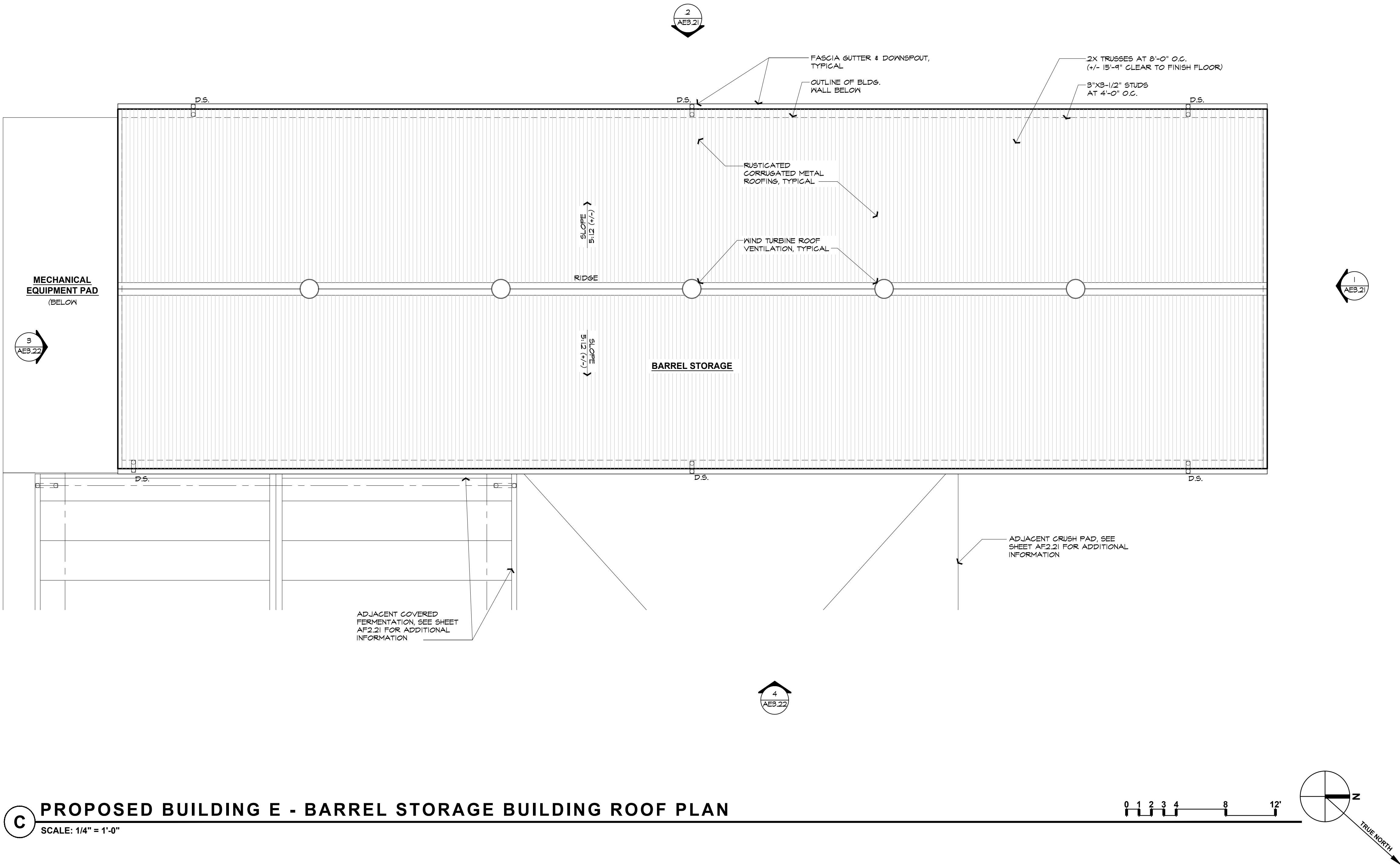
Project No: 130401

Sheet Title:
PROPOSED BLDG. E
BARREL STORAGE
BUILDING ROOF PLAN

Sheet #:

AE2.22

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1 EXISTING BUILDING E -
STORAGE BARN
NORTH ELEVATION VIEW



2 EXISTING BUILDING E -
STORAGE BARN & COVERED WORK AREA
EAST ELEVATION VIEW



3 EXISTING BUILDING E -
STORAGE BARN & COVERED WORK AREA
EAST ELEVATION VIEW



4 EXISTING BUILDING E -
COVERED WORK AREA
NORTH ELEVATION VIEW



5 EXISTING BUILDING E - STORAGE BARN
WEST ELEVATION VIEW



6 EXISTING BUILDING E - STORAGE BARN
SOUTH ELEVATION VIEW

Item No: 5.5

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EXISTING BLDG. E
STORAGE BARN
PHOTO ELEVATIONS

Sheet #:

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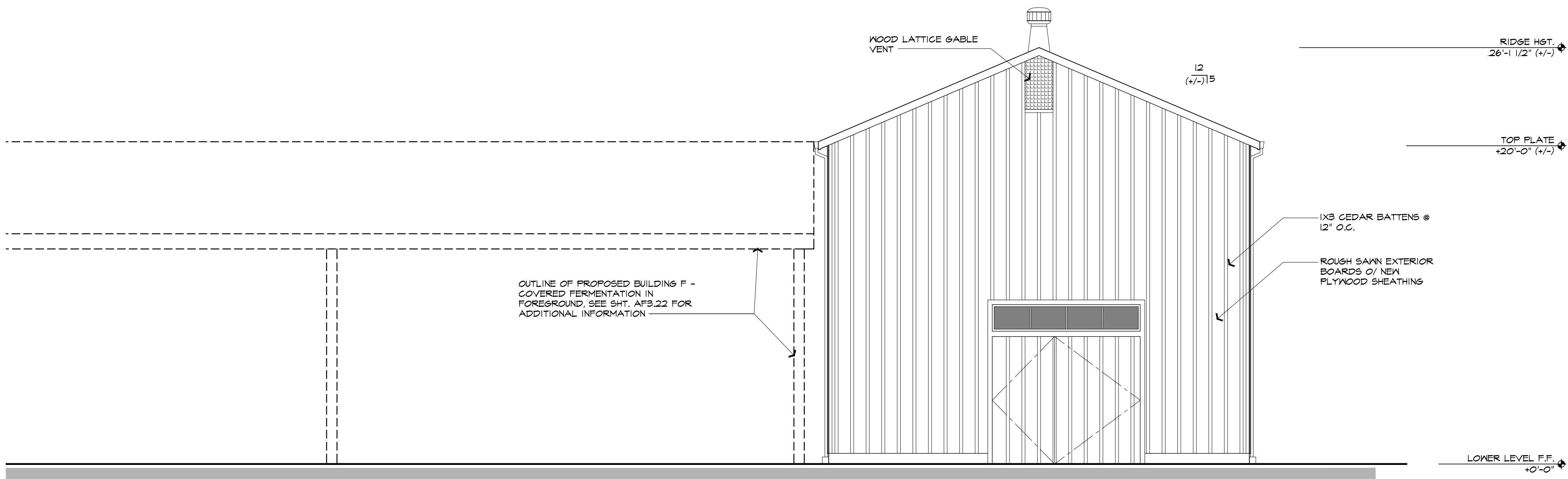
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**PROPOSED BLDG. E
BARREL STORAGE
EXT. ELEVATIONS**

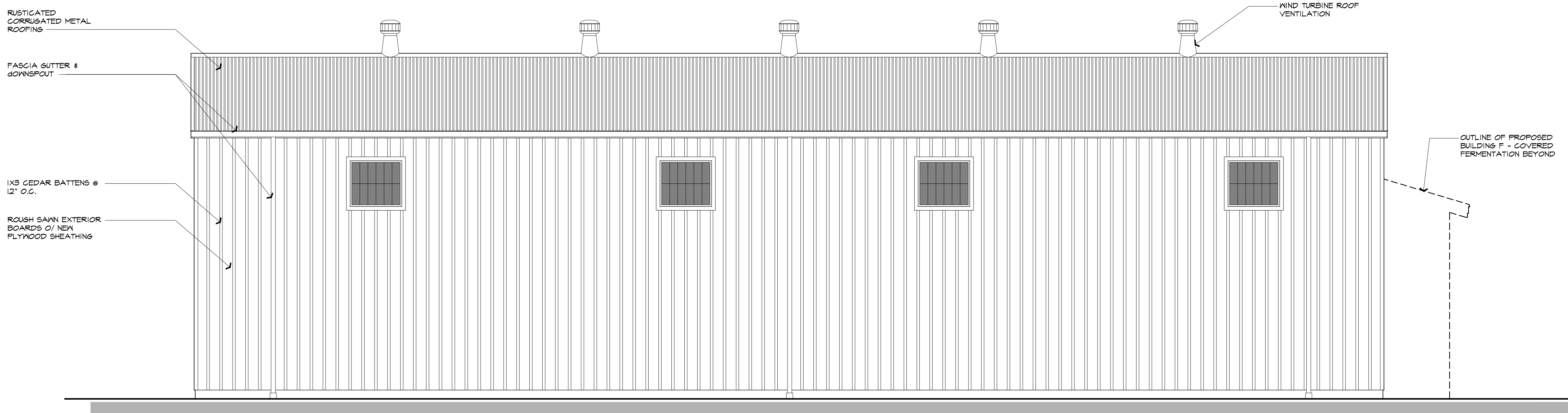
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1 PROPOSED BUILDING E - BARREL STORAGE BUILDING NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



2 PROPOSED BUILDING E - BARREL STORAGE BUILDING WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



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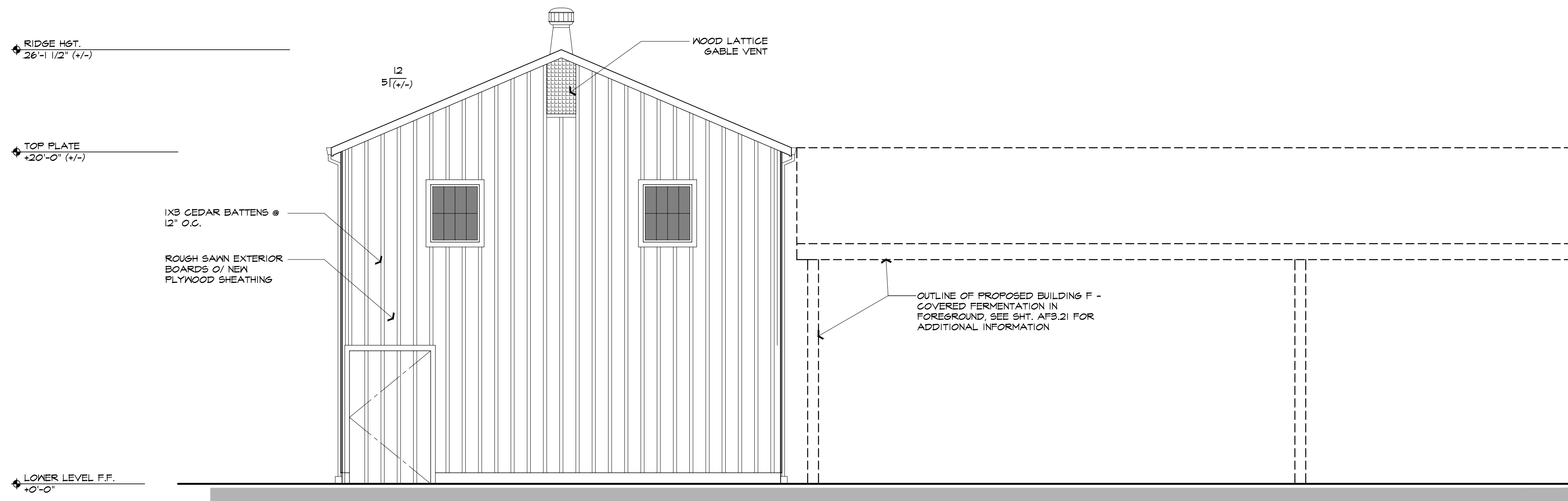
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PROPOSED BLDG. E
BARREL STORAGE
EXT. ELEVATIONS

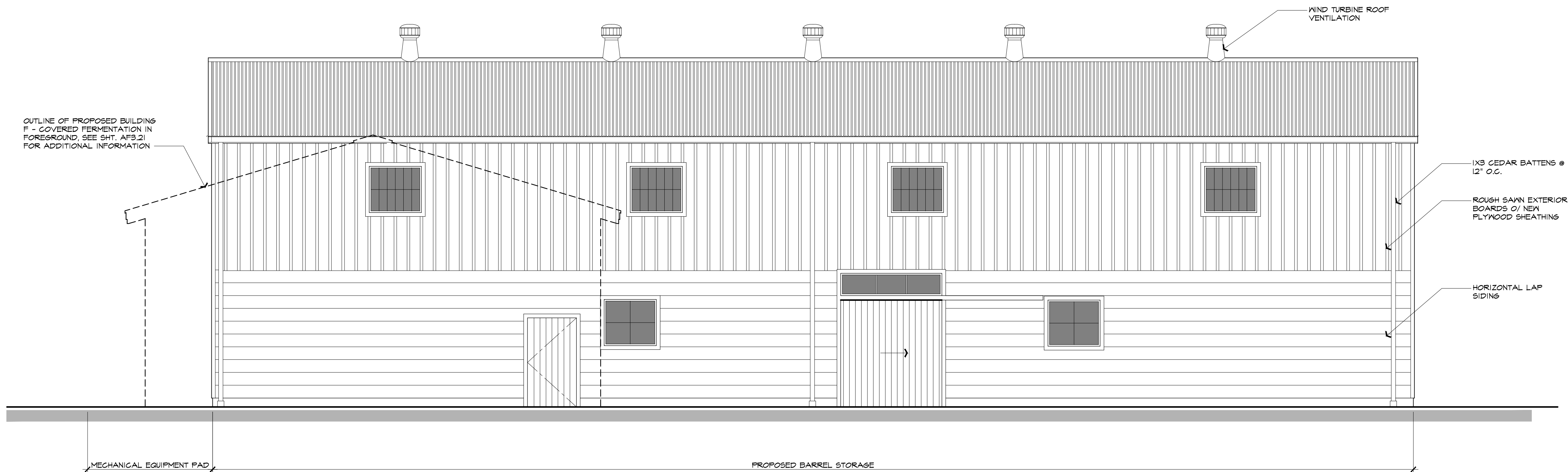
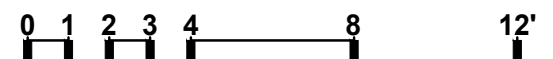
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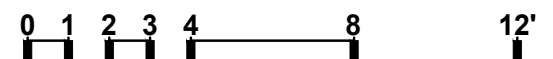
USE PERMIT SUBMITTAL



3 PROPOSED BUILDING E - BARREL STORAGE BUILDING SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



4 PROPOSED BUILDING E - BARREL STORAGE BUILDING EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



**A Proposed Winery for
Redmon Ranch Winery**
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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August 28, 2015

Project No:

130401

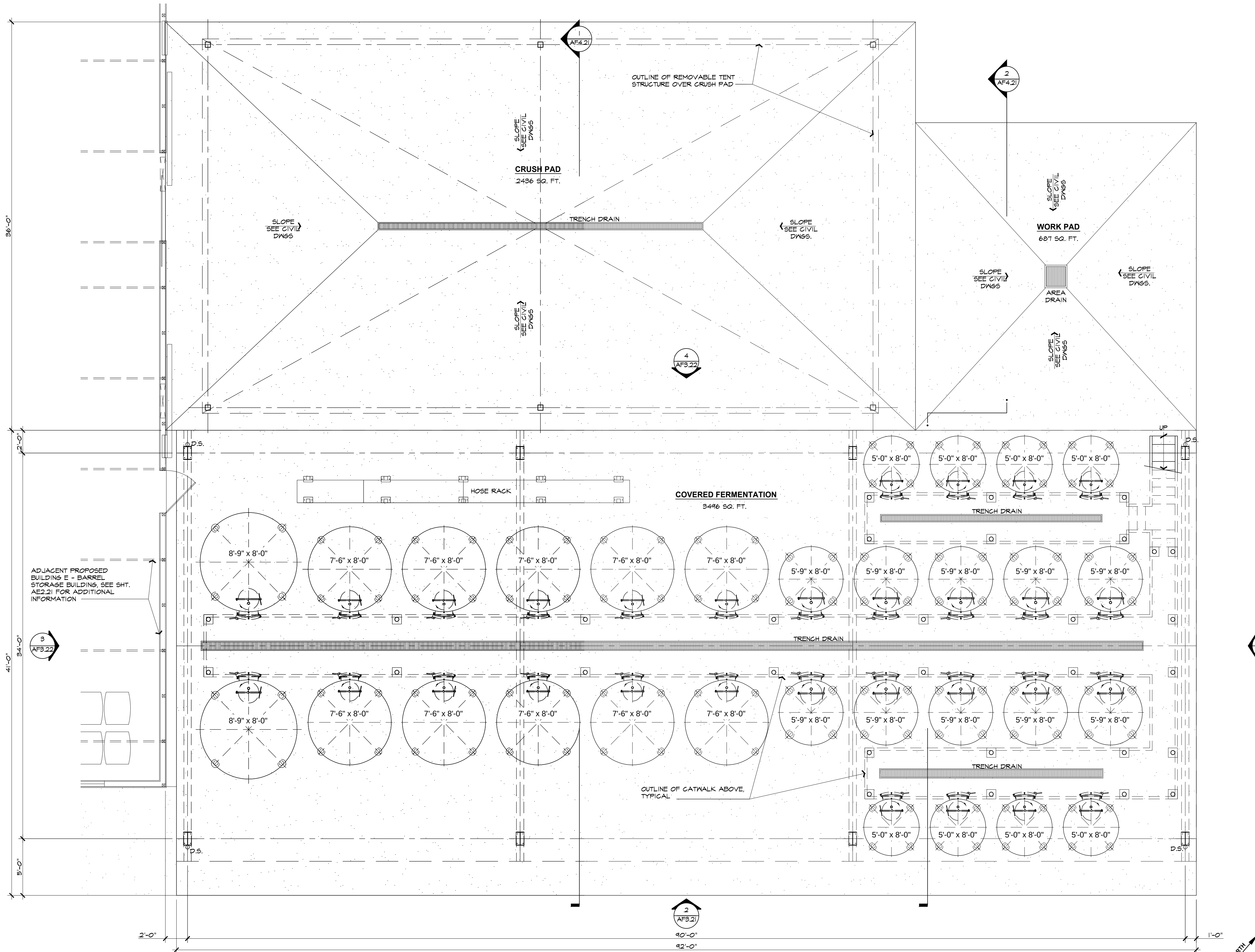
Sheet Title:

**PROPOSED BLDG. F
COVERED FERMENT.
FLOOR PLAN**

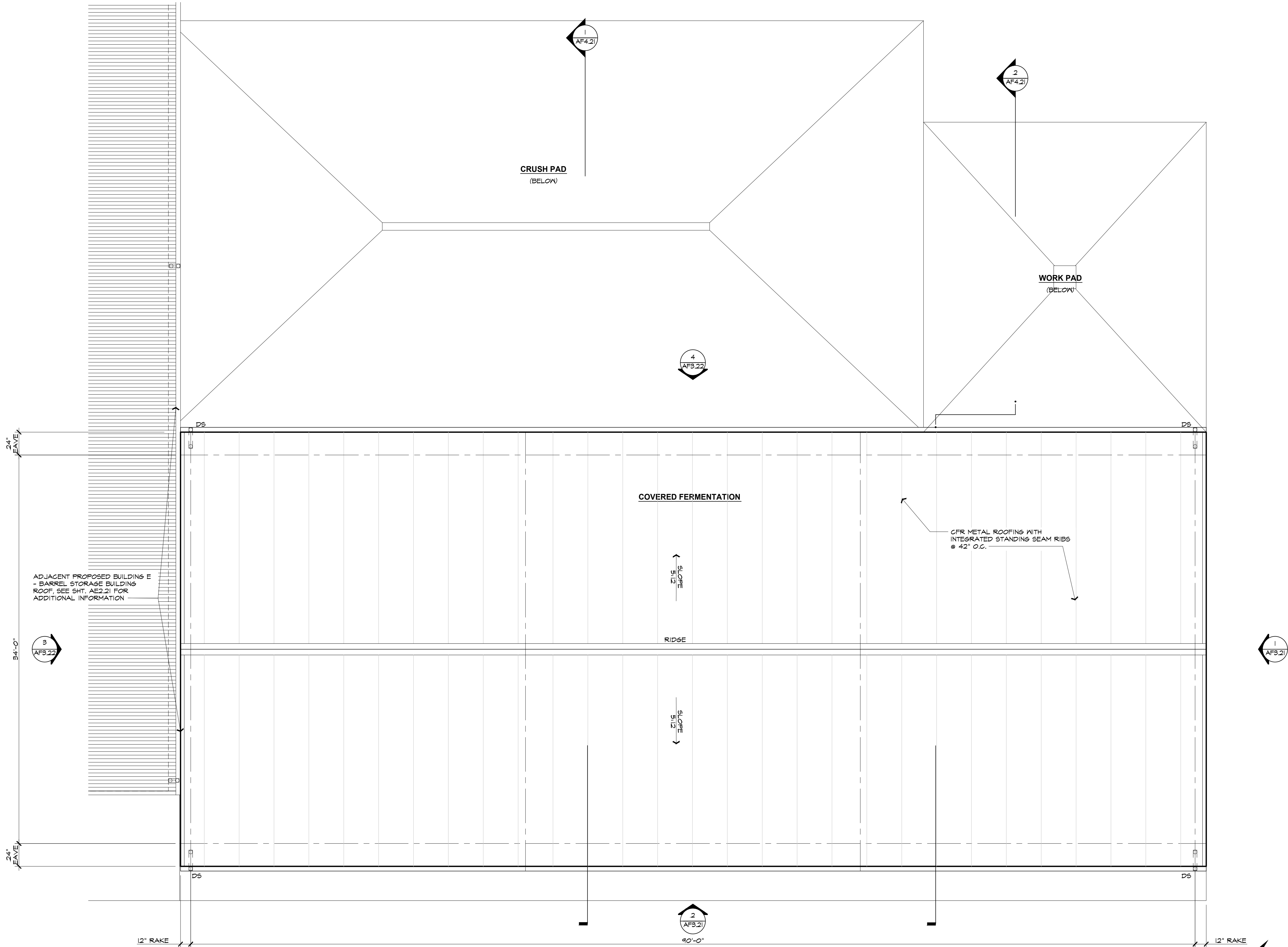
Sheet #:

AF2.21

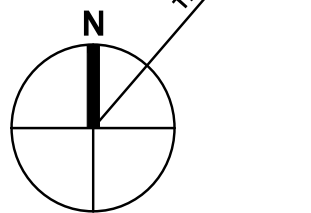
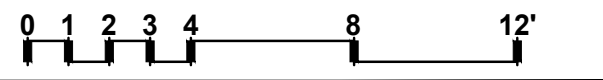
USE PERMIT SUBMITTAL



A PROPOSED BUILDING F - COVERED FERMENTATION FLOOR PLAN
SCALE: 1/4" = 1'-0"



B PROPOSED BUILDING F - COVERED FERMENTATION ROOF PLAN
SCALE: 1/4" = 1'-0"



Item No: 5.5

PAUL
KELLEY
ARCHITECT

1436 Second Street, No. 162, Napa, CA 94559
phone 707.257.1148 fax 707.266.1027
www.paulkelleyarchitecture.com

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Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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Date: August 28, 2015

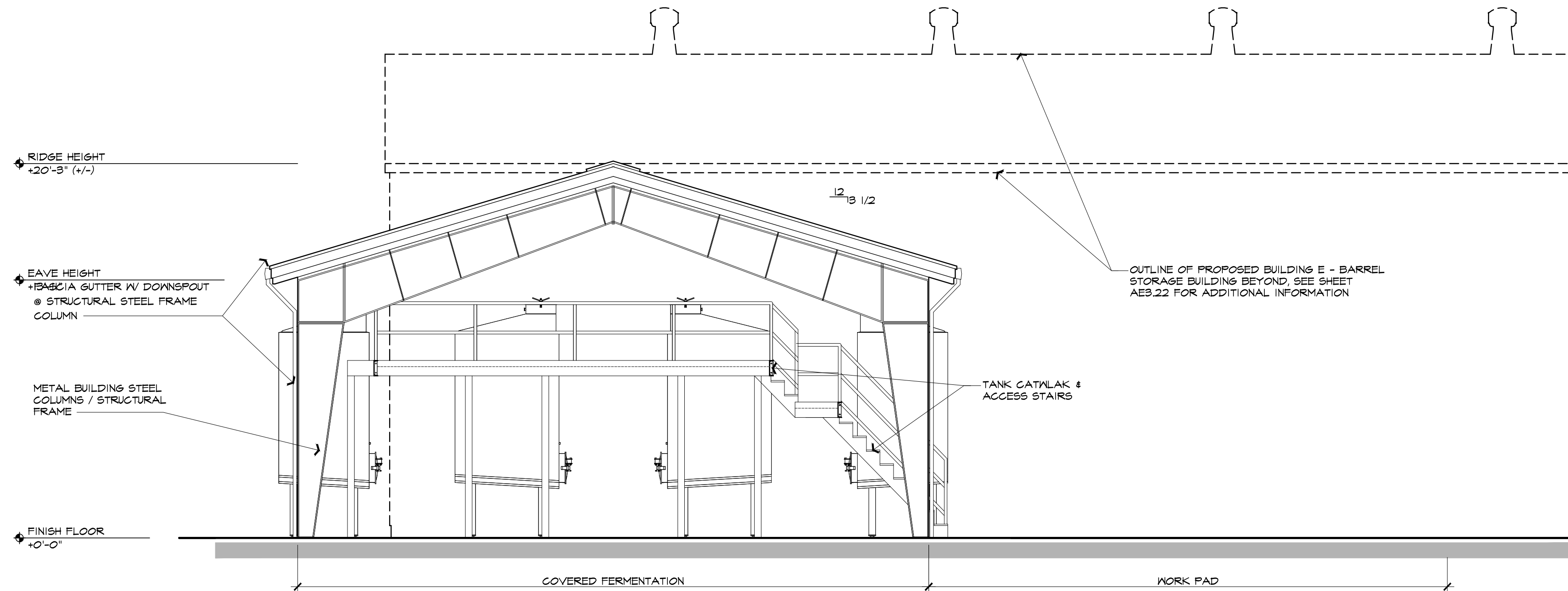
Project No: 130401

Sheet Title: PROPOSED BLDG. F
COVERED FERMENT.
ROOF PLAN

Sheet #: AF2.22

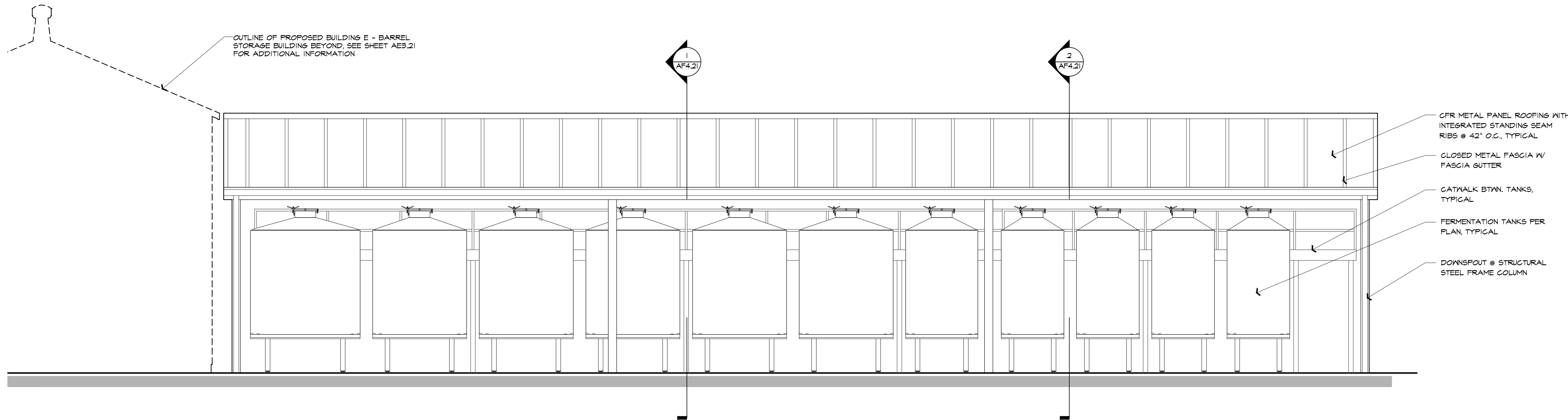
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1 PROPOSED BUILDING F - COVERED FERMENTATION EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



2 PROPOSED BUILDING F - COVERED FERMENTATION SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'

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Date: **August 28, 2015**

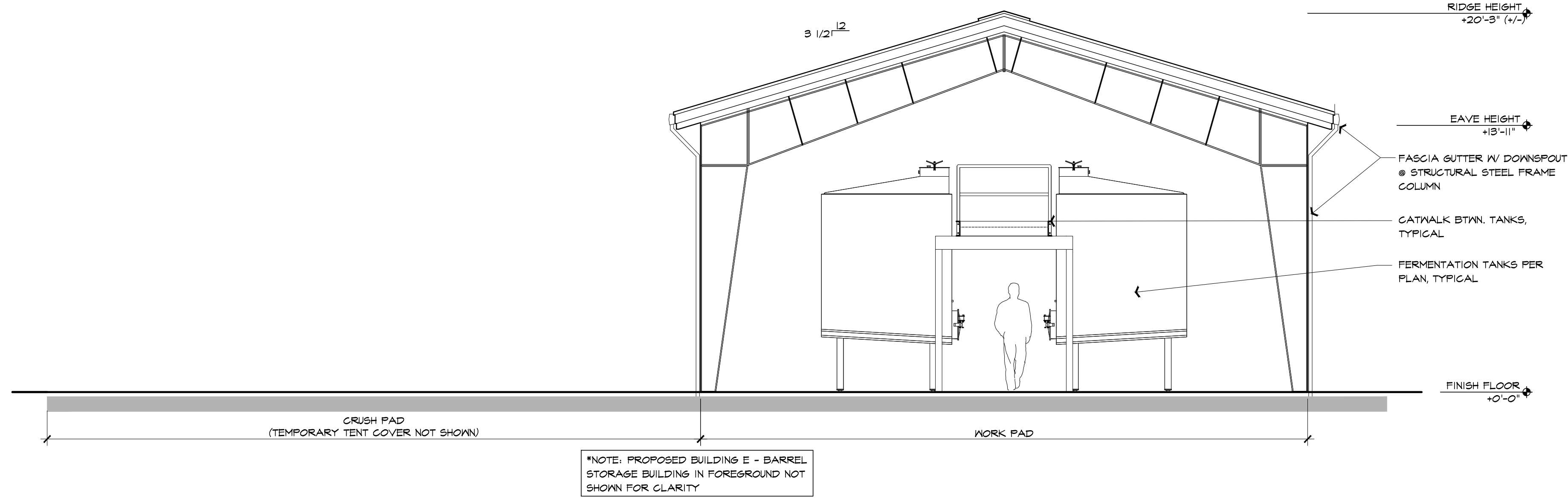
Project No: **130401**

Sheet Title:
**PROPOSED BLDG. F
COVERED FERMENT.
EXT. ELEVATIONS**

Sheet #:

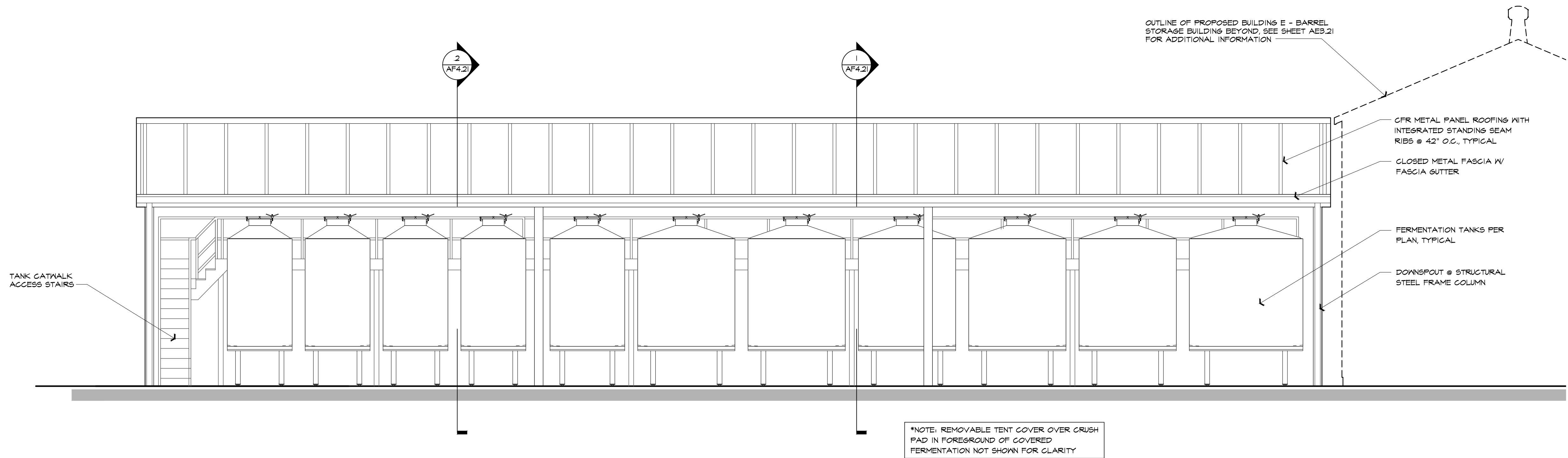
AF3.22

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3 PROPOSED BUILDING F - COVERED FERMENTATION WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



4 PROPOSED BUILDING F - COVERED FERMENTATION NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



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Date: **August 28, 2015**

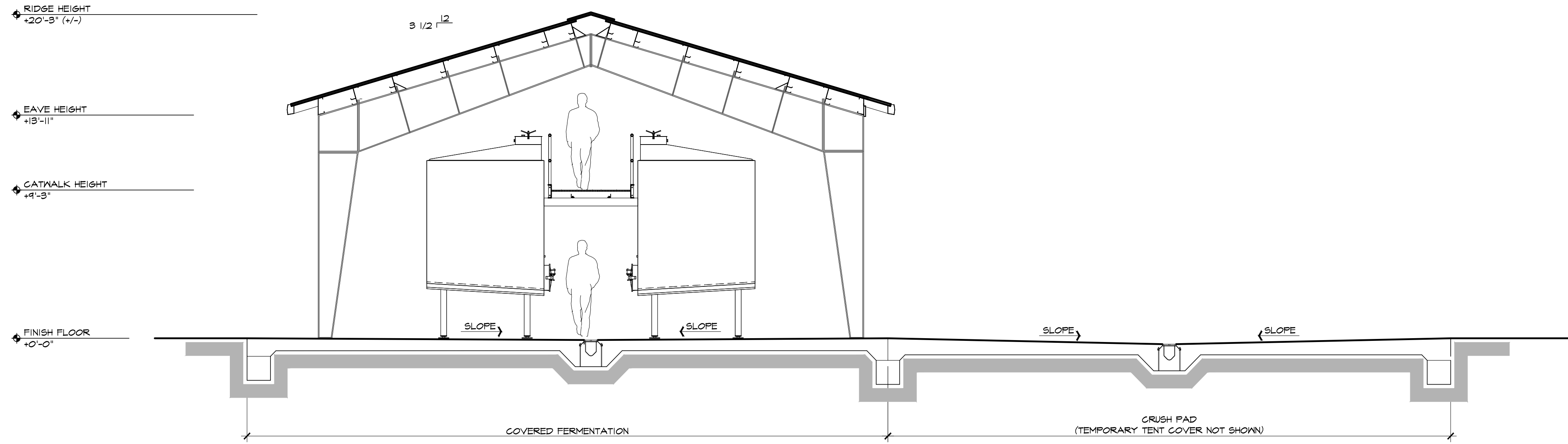
Project No: **130401**

Sheet Title:
**PROPOSED BLDG. F
COVERED FERMENT.
BUILDING SECTIONS**

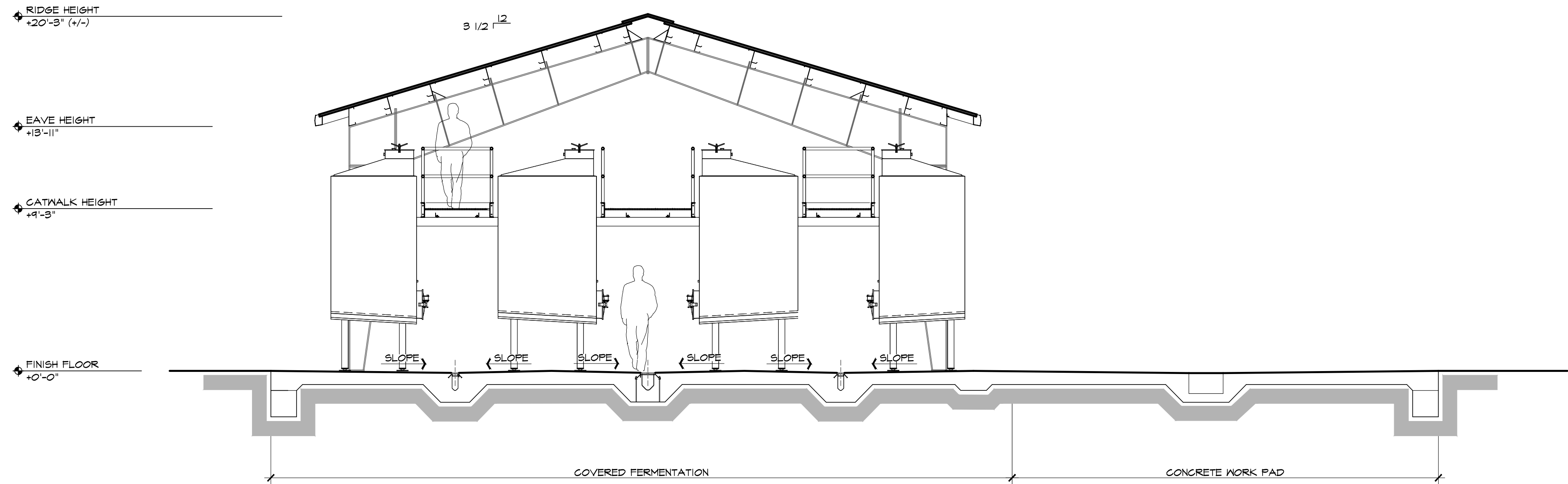
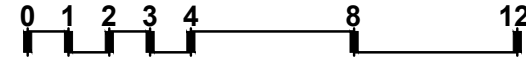
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AF4.21

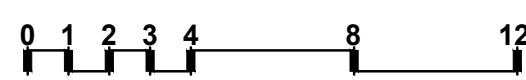
USE PERMIT SUBMITTAL



1 PROPOSED BUILDING F - COVERED FERMENTATION BUILDING CROSS SECTION
SCALE: 1/4" = 1'-0"



2 PROPOSED BUILDING F - COVERED FERMENTATION BUILDING CROSS SECTION
SCALE: 1/4" = 1'-0"





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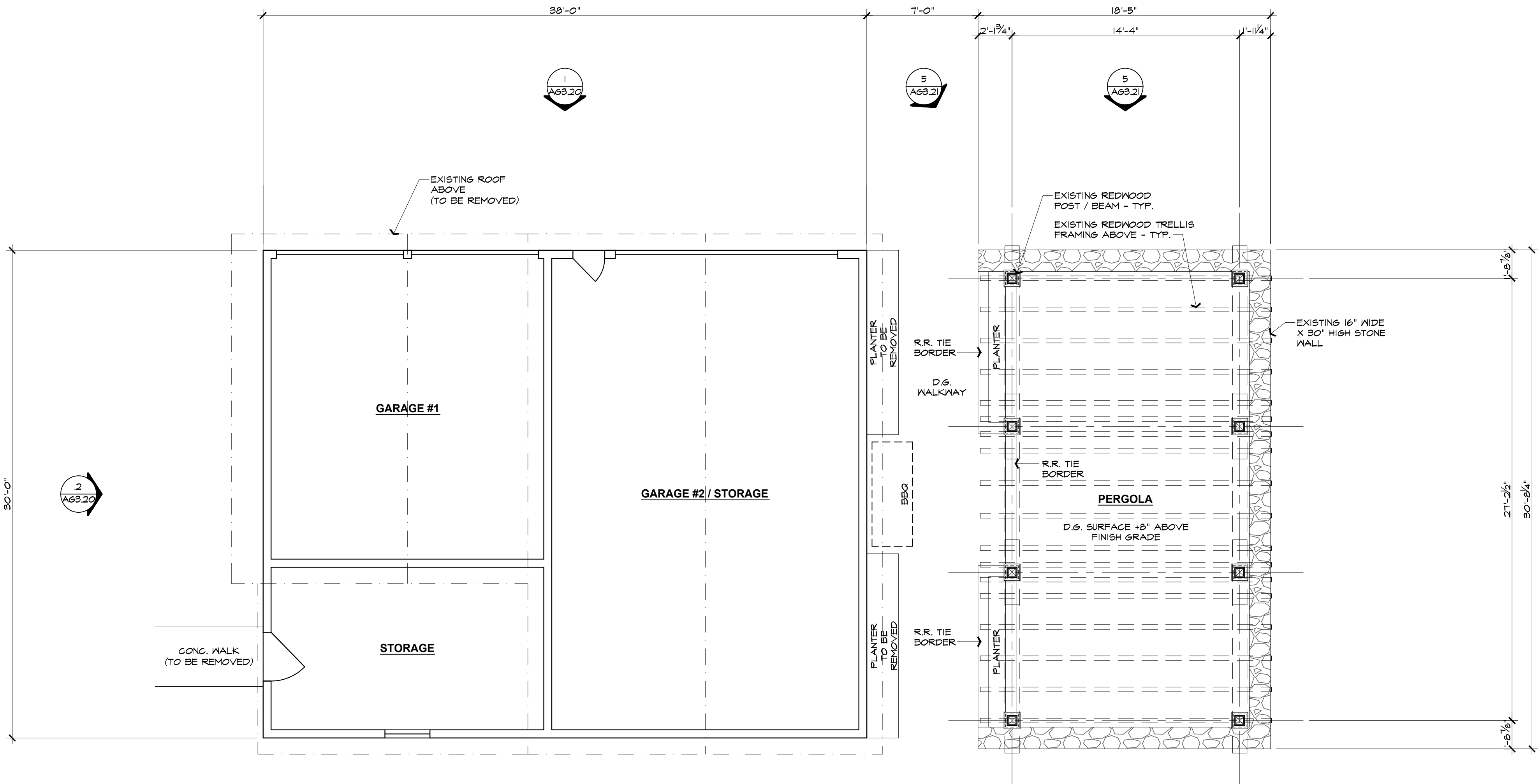
Project No: 130401

Sheet Title:
EXISTING
GARAGE / PERGOLA
FLOOR PLAN

Sheet #:

AG2.20

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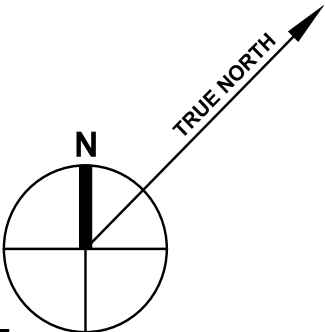
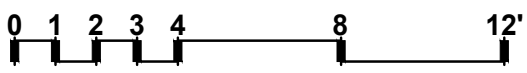
GARAGE
1,140 SQ. FT.

NOTE: EXISTING GARAGE TO BE REMOVED COMPLETE

PERGOLA
585 SQ. FT.

NOTE: EXISTING PERGOLA & STONE LANDSCAPE WALL TO REMAIN

A EXISTING GARAGE / PERGOLA - FLOOR PLAN
SCALE: 1/4" = 1'-0"





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867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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Date:

January 21, 2016

Project No:

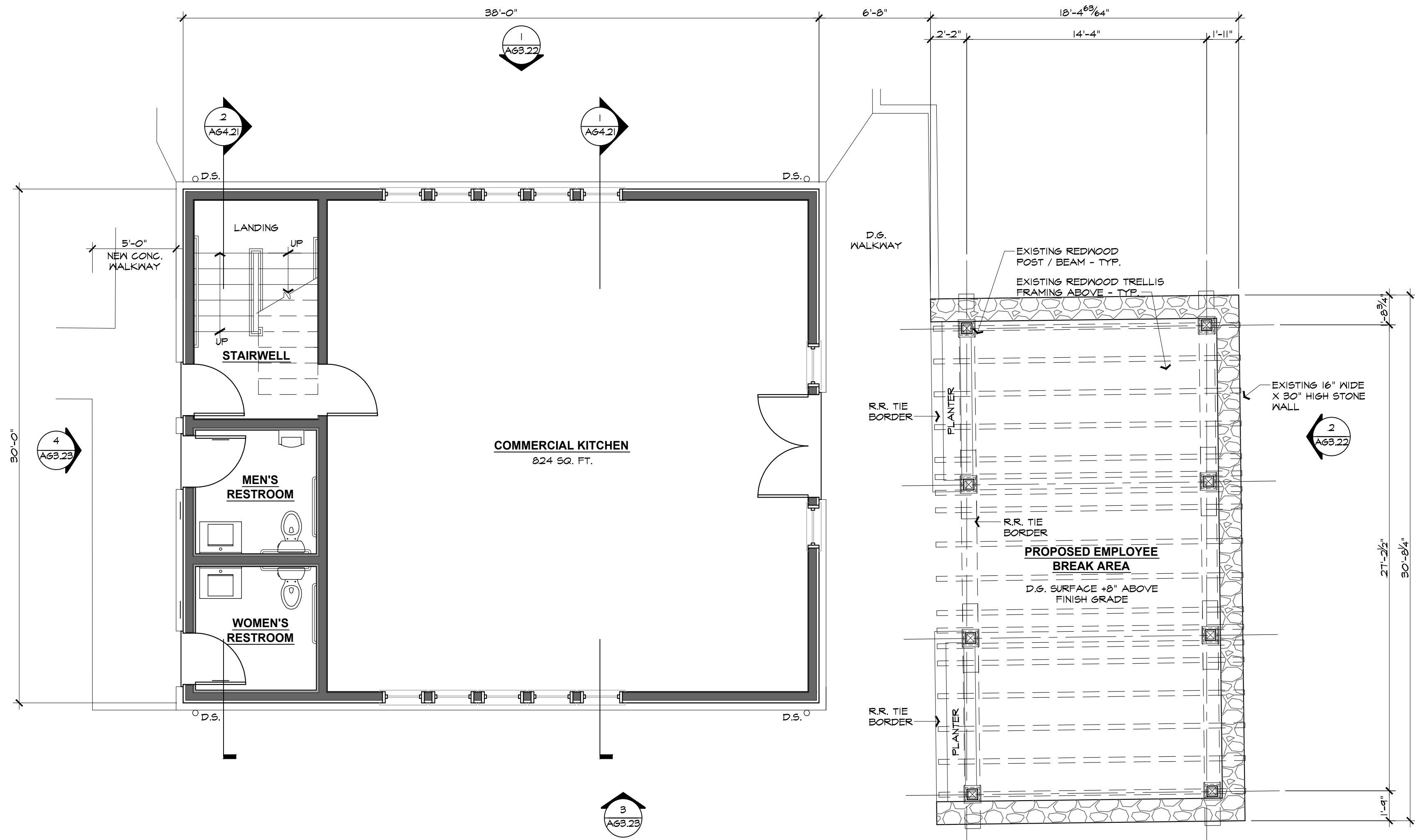
130401

PROPOSED BLDG. G
COMM. KITCHEN & DRY
STOR. LOWER FLOOR
PLAN

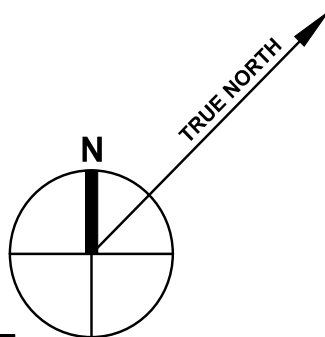
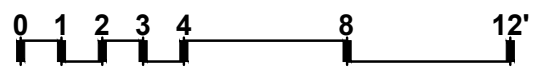
Sheet #:

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B PROPOSED BUILDING G - COMMERCIAL KITCHEN & DRY STORAGE BUILDING LOWER FLOOR PLAN
SCALE: 1/4" = 1'-0"





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Date: January 21, 2016

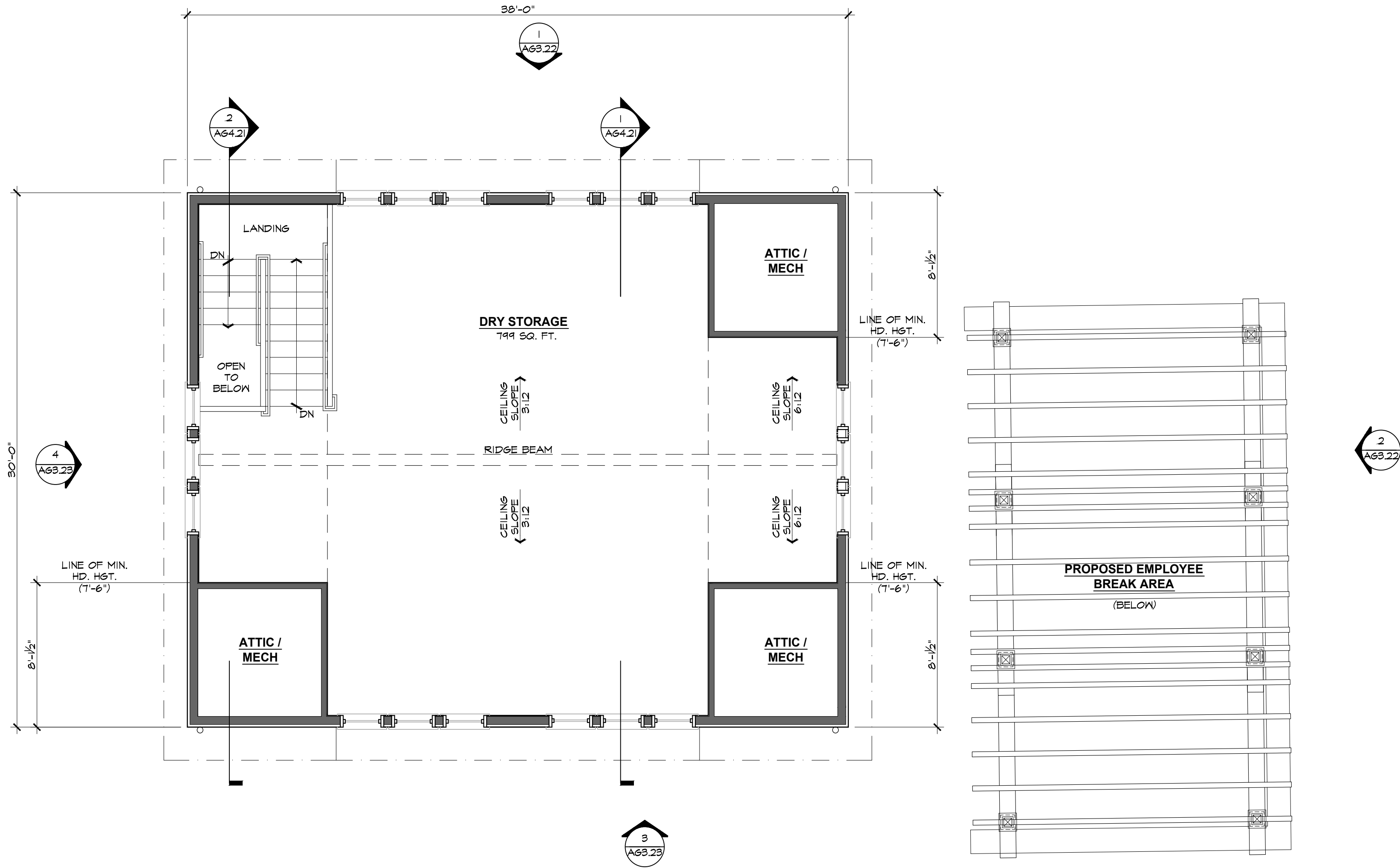
Project No: 130401

PROPOSED BLDG. G
COMM. KITCHEN / DRY
STOR. UPPER FLOOR
PLAN

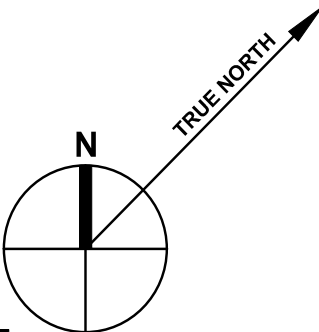
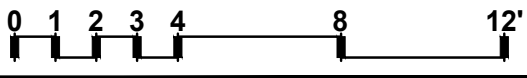
Sheet #:

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C PROPOSED BUILDING G - COMMERCIAL KITCHEN & DRY STORAGE BUILDING UPPER FLOOR PLAN
SCALE: 1/4" = 1'-0"





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Date: January 21, 2016

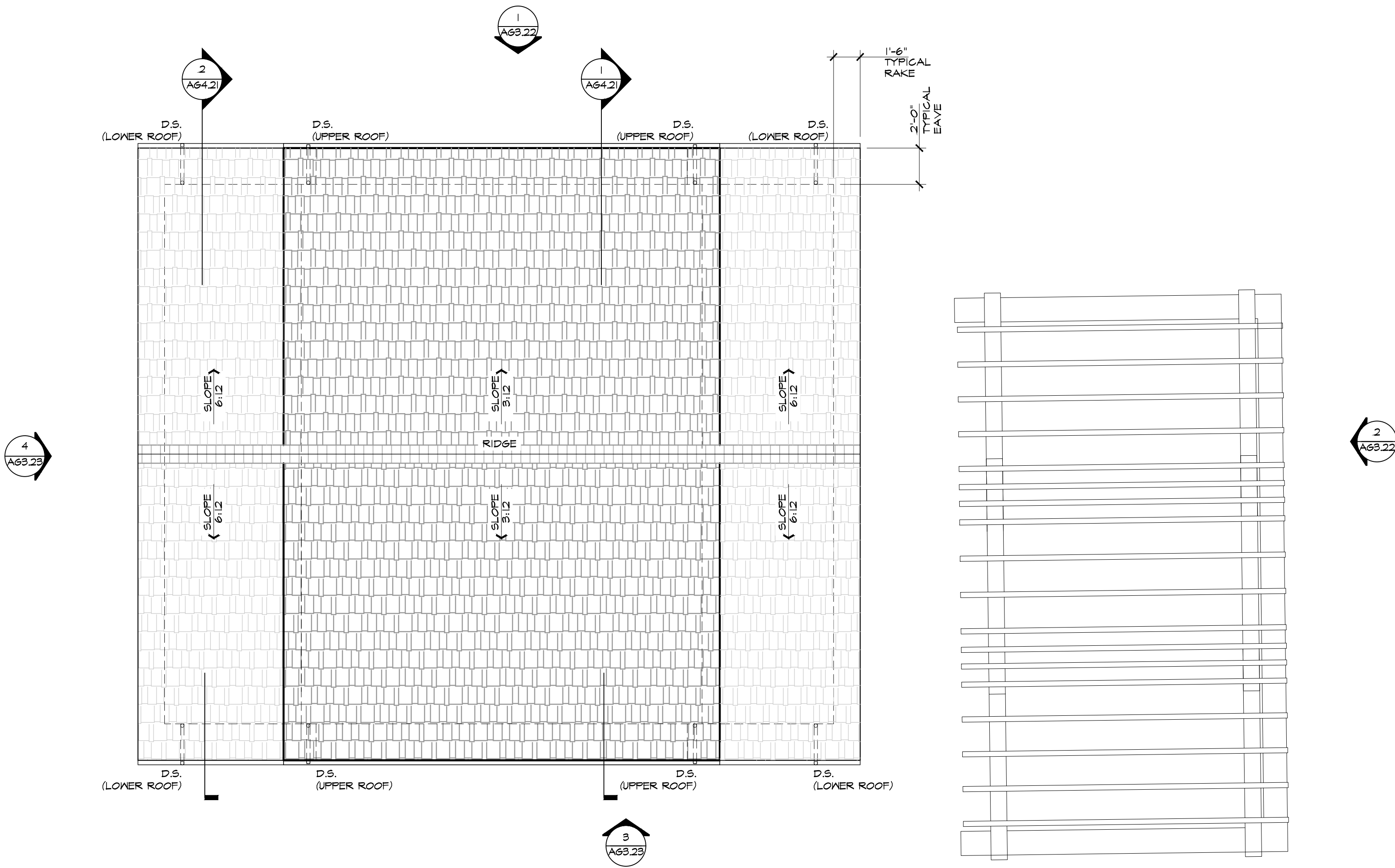
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Sheet Title:
PROPOSED BLDG. G
COMM. KITCHEN / DRY
STOR. ROOF PLAN

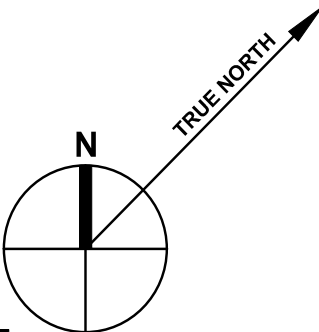
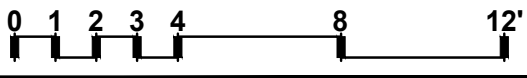
Sheet #:

AG2.23

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D PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING ROOF PLAN
SCALE: 1/4" = 1'-0"





1 EXISTING GARAGE
NORTH ELEVATION VIEW



2 EXISTING GARAGE
WEST ELEVATION VIEW



3 EXISTING GARAGE
SOUTHWEST ELEVATION VIEW



4 EXISTING GARAGE
SOUTHEAST ELEVATION VIEW

Item No: 5.5

PAUL
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130401

Sheet Title:

EXISTING
GARAGE / PERGOLA
PHOTO ELEVATIONS

Sheet #:

AG3.20

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5 EXISTING PERGOLA
NORTH ELEVATION VIEW



6 EXISTING PERGOLA
NORTHWEST ELEVATION VIEW



7 EXISTING PERGOLA
SOUTH ELEVATION VIEW



8 EXISTING PERGOLA
SOUTHEAST ELEVATION VIEW

Item No: 5.5

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Date: August 28, 2015

Project No: 130401

Sheet Title: EXISTING
GARAGE / PERGOLA
PHOTO ELEVATIONS

Sheet #: AG3.21

USE PERMIT SUBMITTAL

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August 28, 2015

Project No:

130401

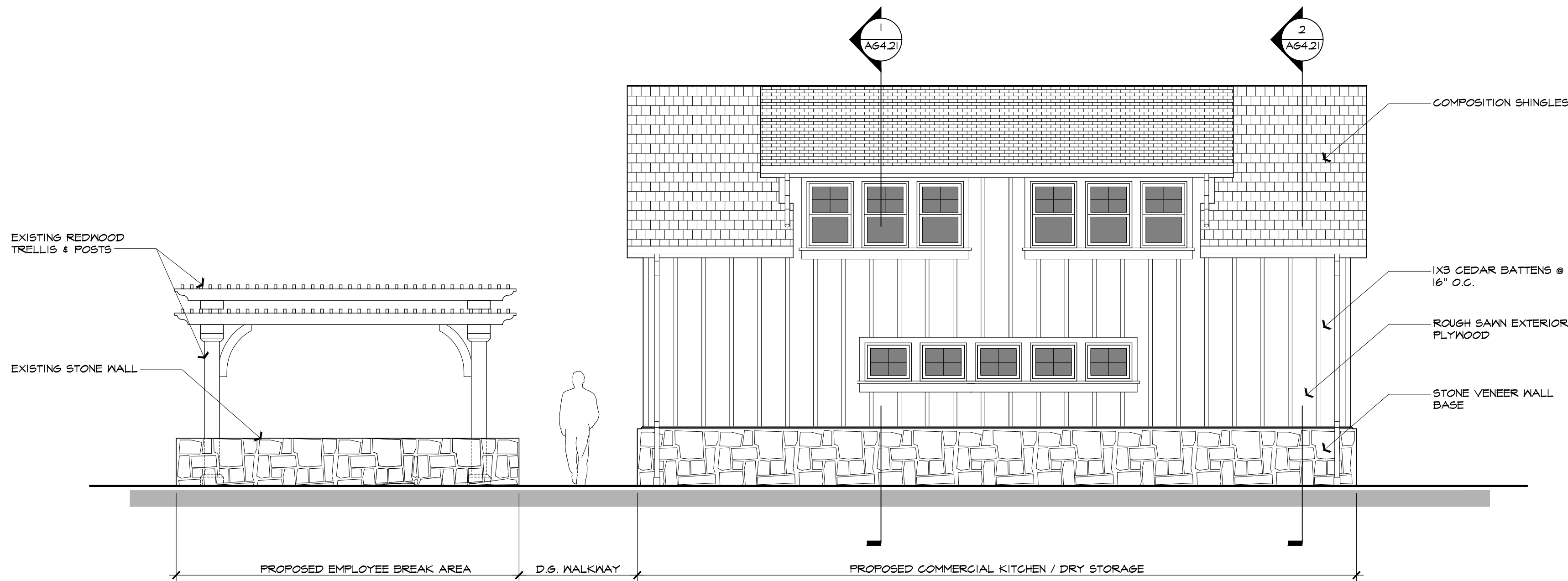
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**PROPOSED BLDG. G
COMM. KITCHEN / DRY
STOR. EXT. ELEV.**

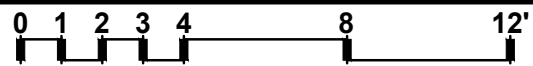
Sheet #:

AG3.22

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1 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



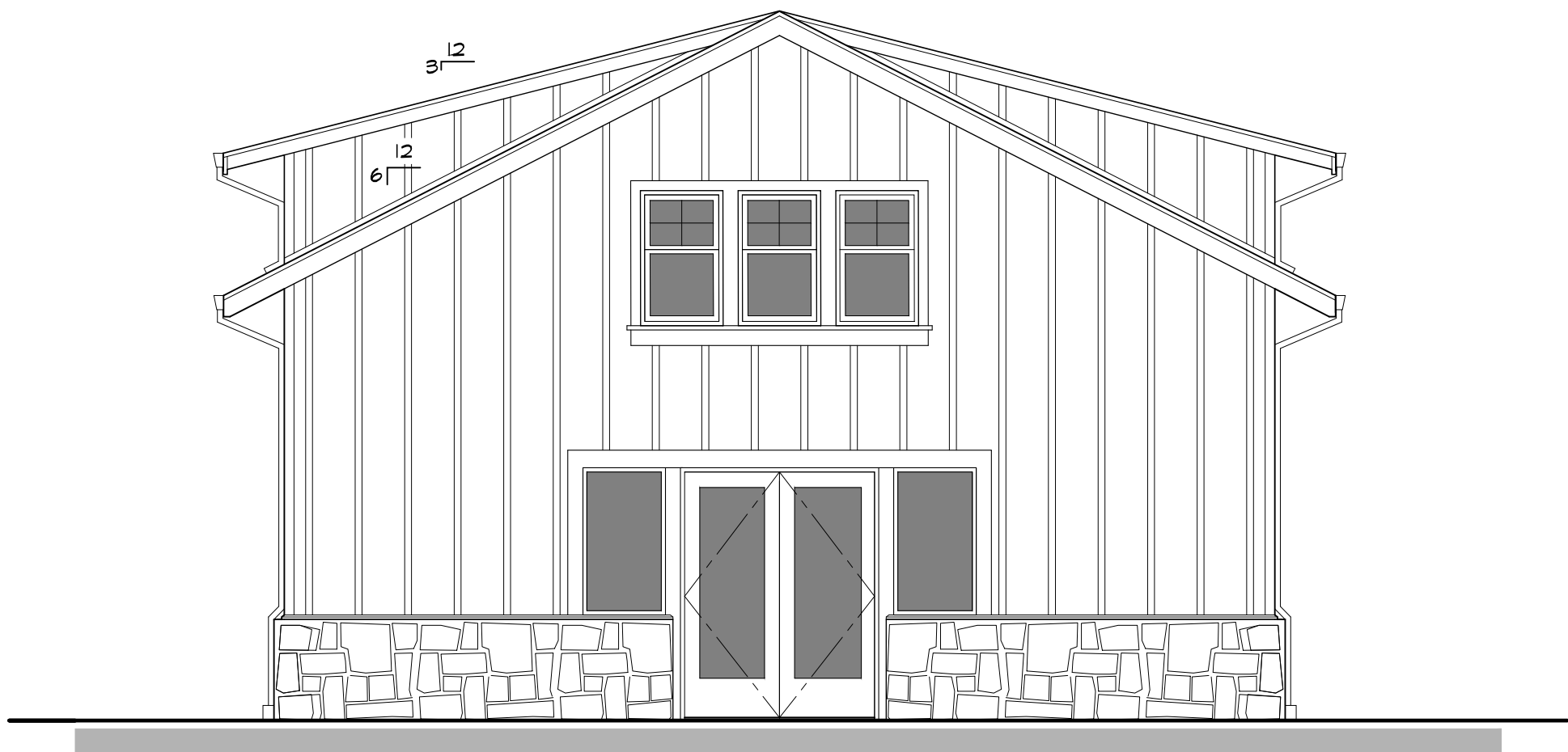
◆ RIDGE HGT.
21'-0" (+/-)

◆ DORMER ROOF TOP PLATE
+16'-9 3/4"

◆ MAIN FLOOR TOP PLATE
+13'-1 1/2"

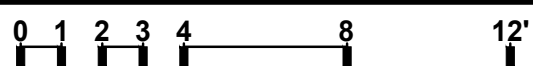
◆ UPPER FLOOR F.F.
+13'-5/4"

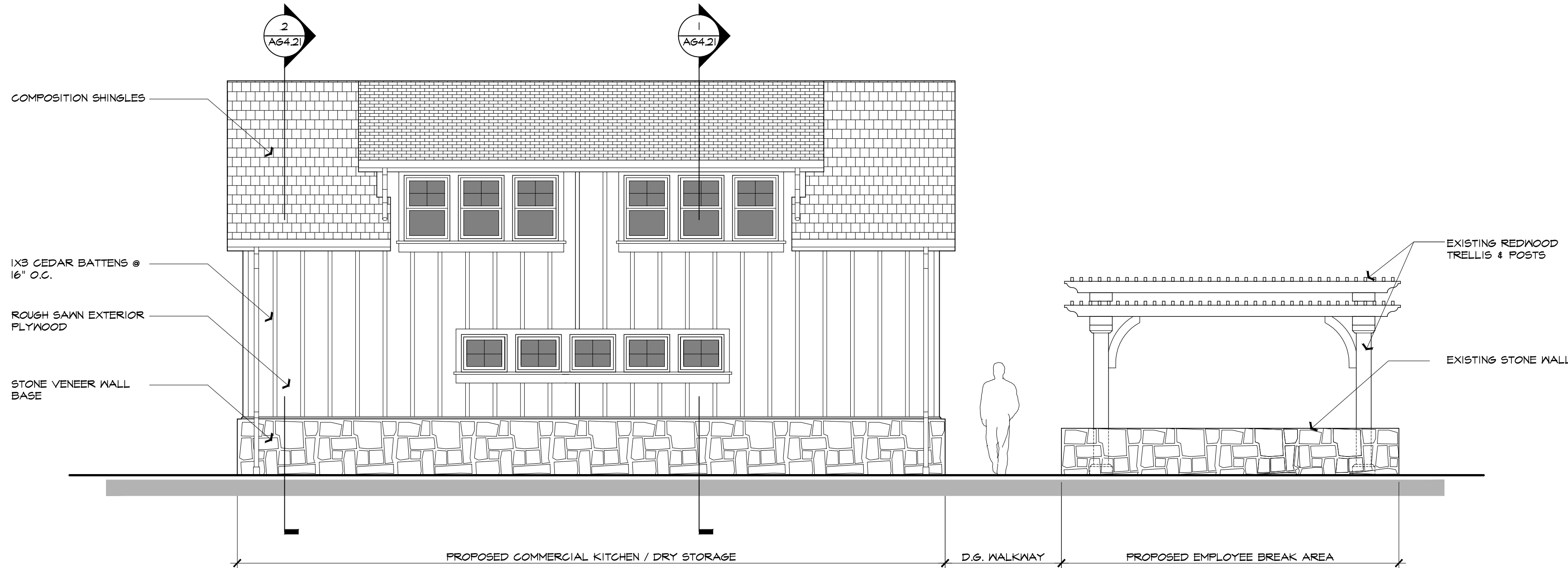
◆ LOWER LEVEL F.F.
+0'-0"



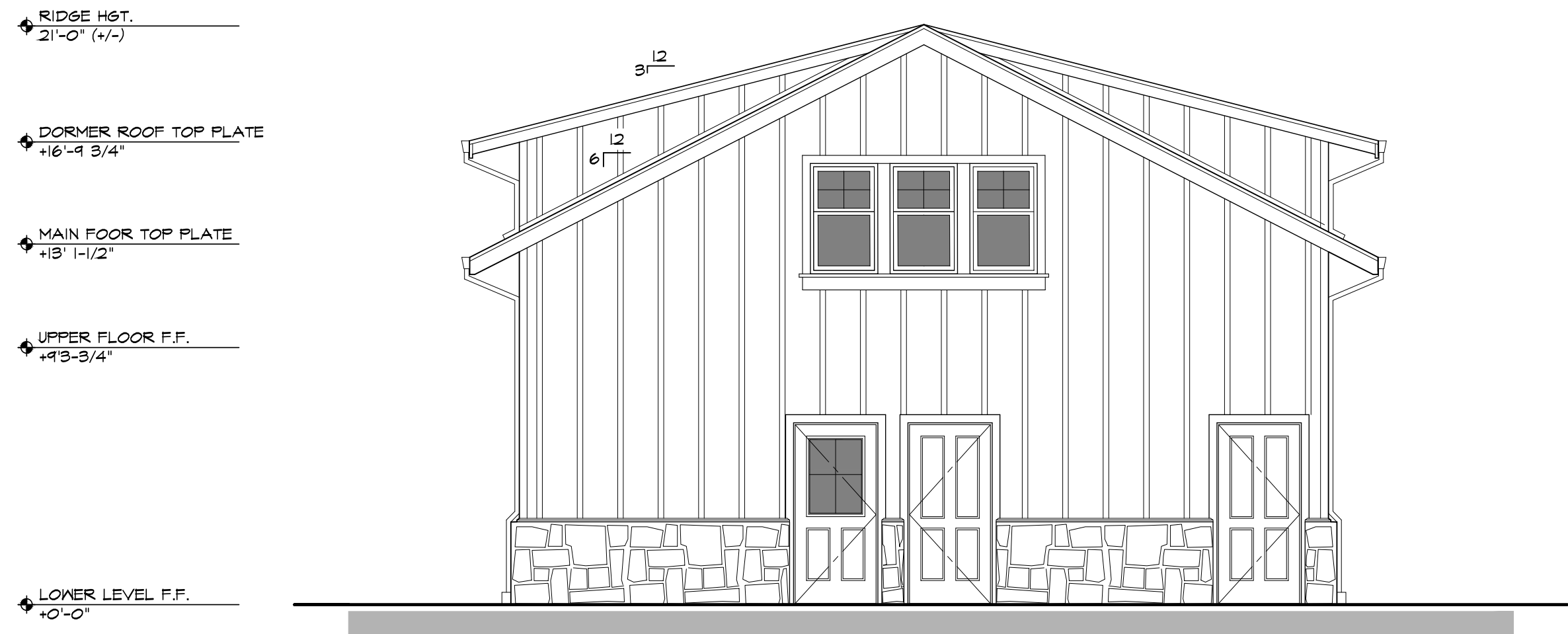
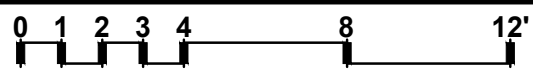
*NOTE: PROPOSED EMPLOYEE
BREAK AREA IN FOREGROUND
NOT SHOWN FOR CLARITY

2 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

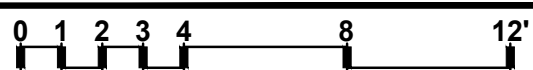




3 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



4 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"





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Consultant:

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Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

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Project No:

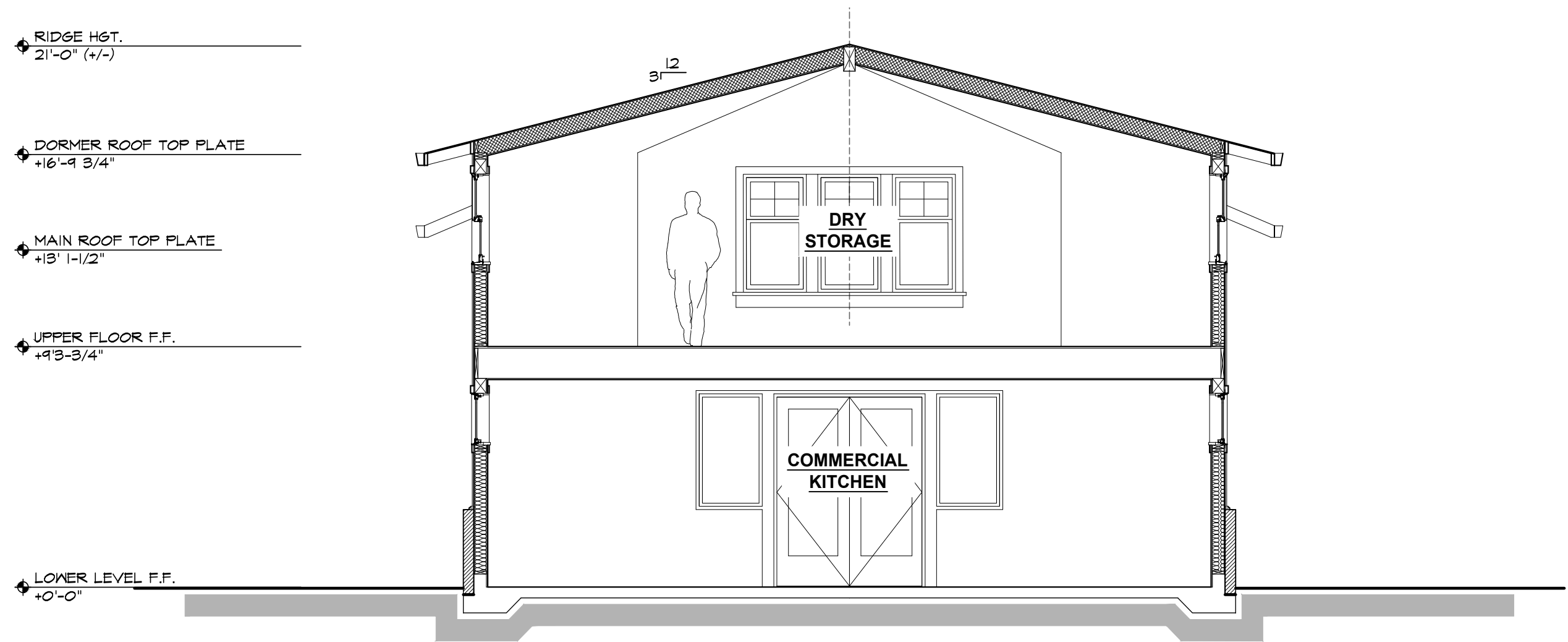
130401

PROPOSED BLDG. G
COMM. KITCHEN / DRY
STOR. BUILDING
SECTIONS

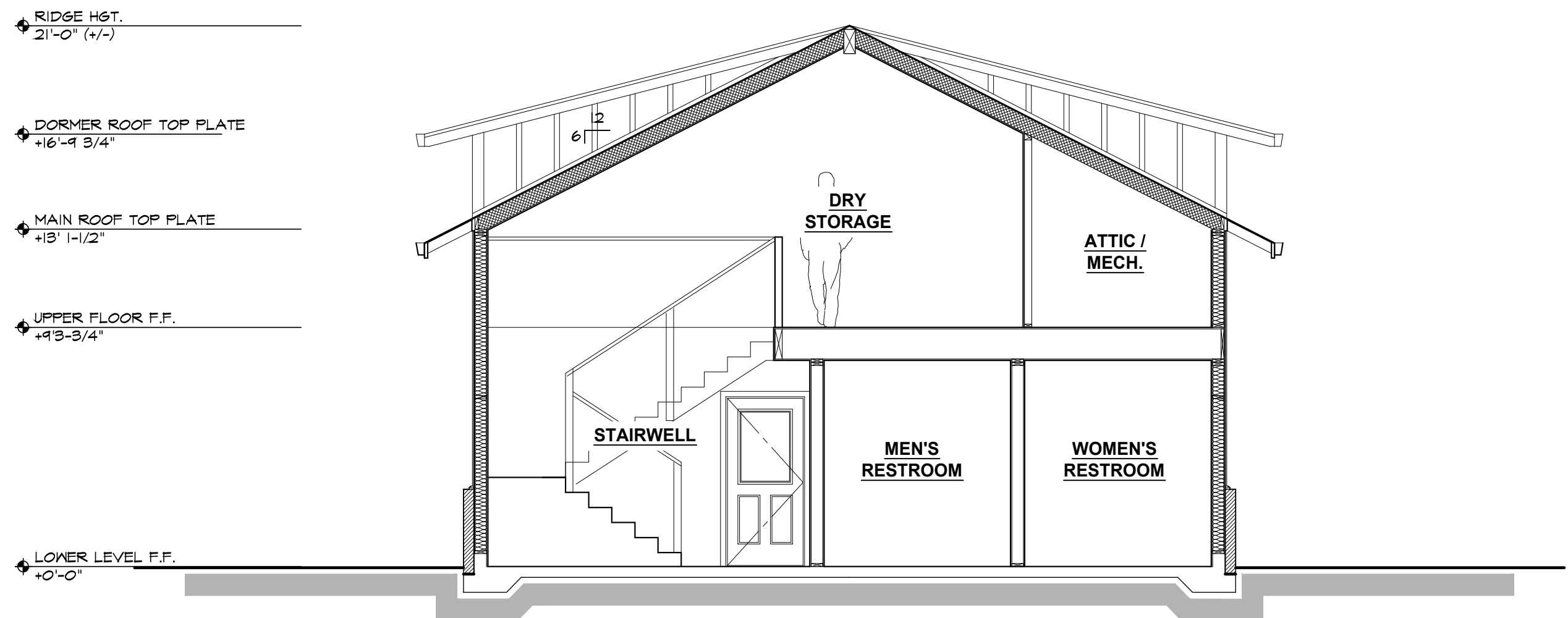
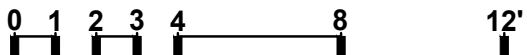
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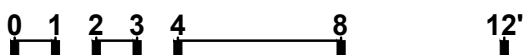
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1 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING CROSS SECTION
SCALE: 1/4" = 1'-0"



2 PROPOSED BUILDING G - COMMERCIAL KITCHEN / DRY STORAGE BUILDING CROSS SECTION
SCALE: 1/4" = 1'-0"



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A Proposed Winery for

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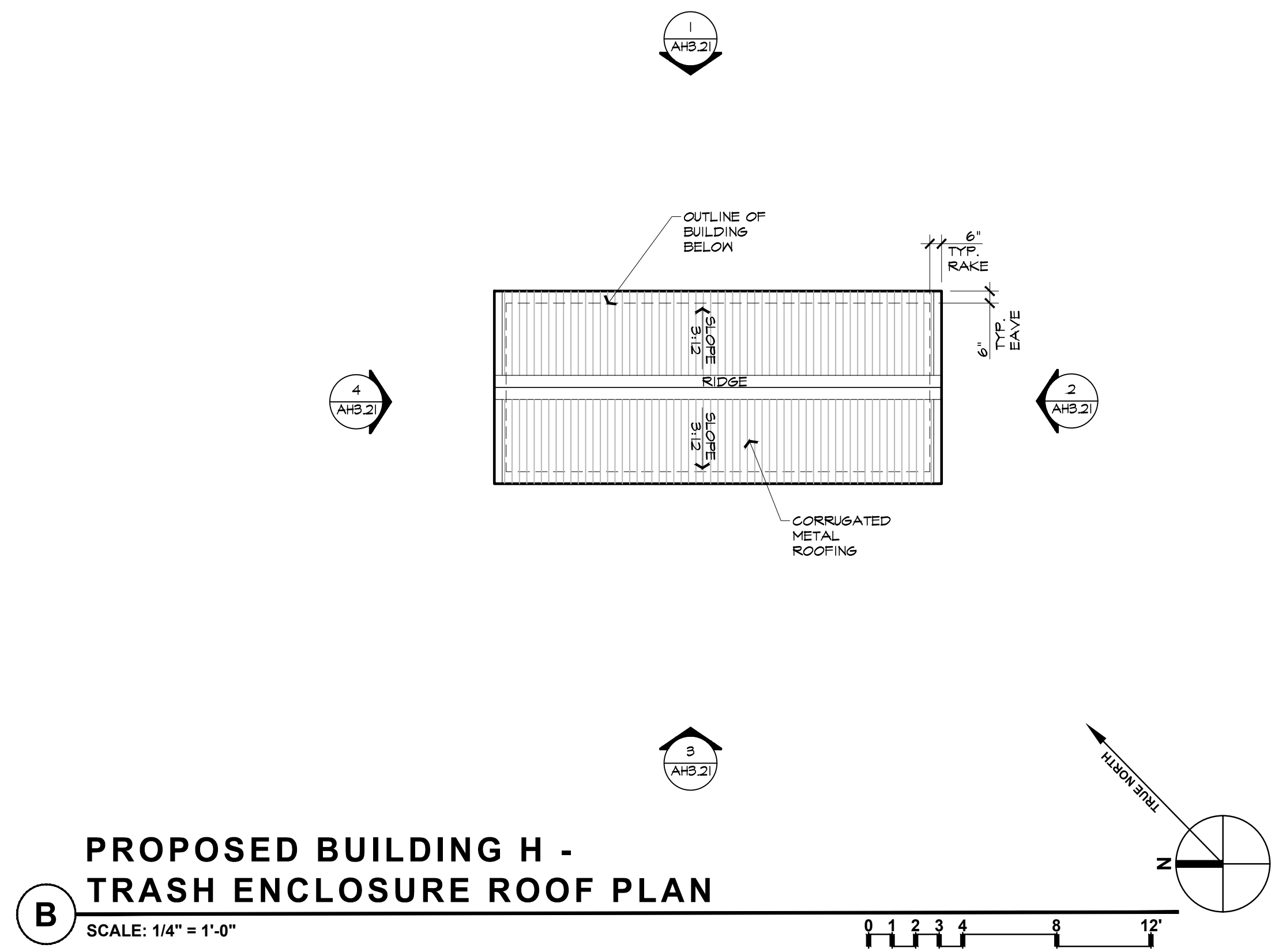
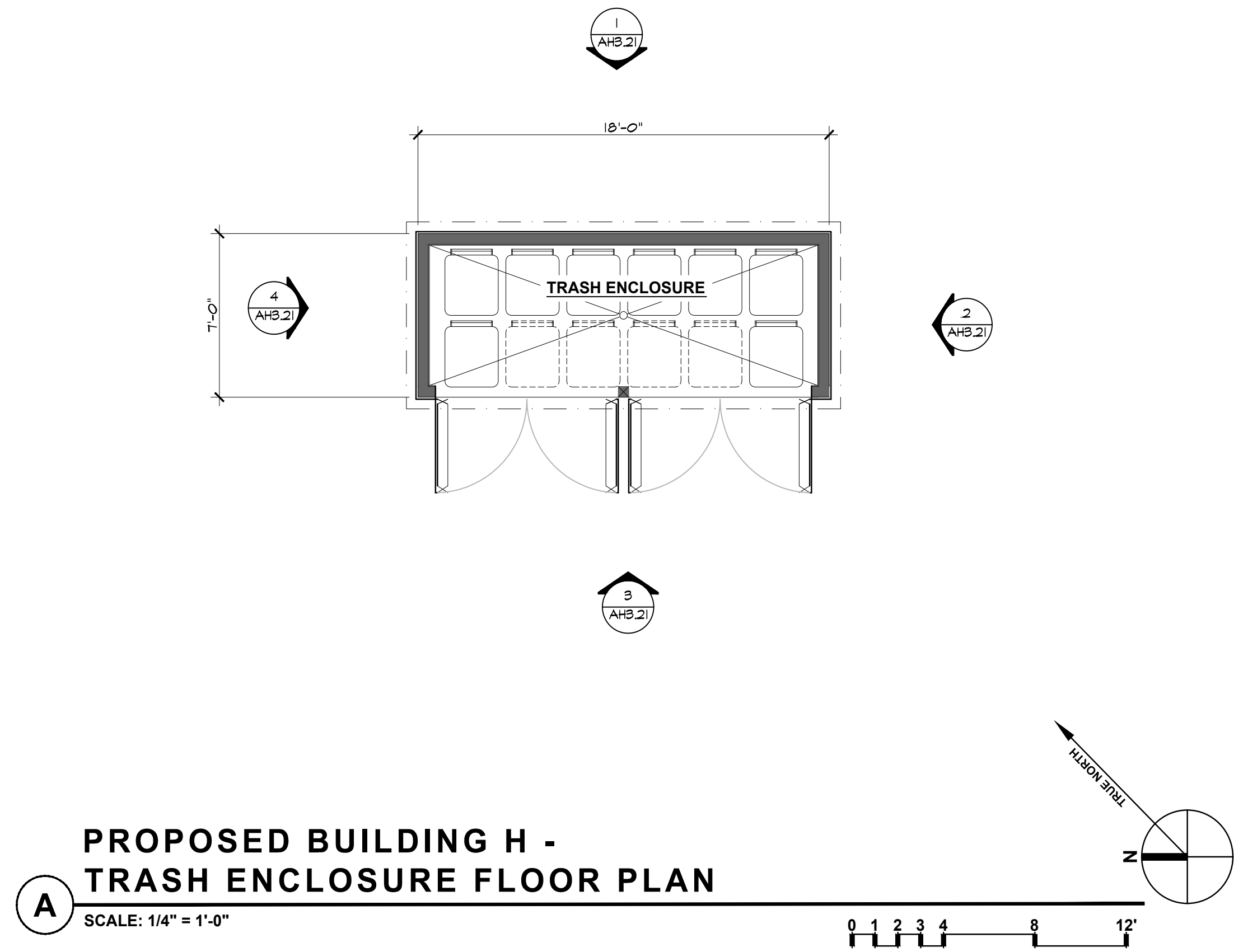
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Project No: 130401

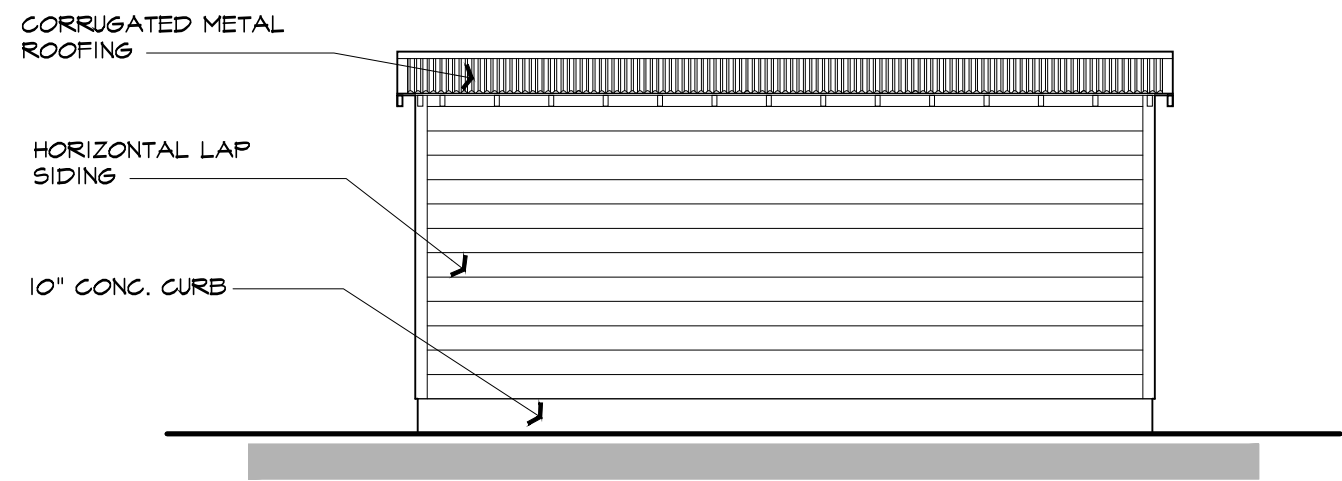
Sheet Title: PROPOSED BLDG. H
TRASH ENCLOSURE
FLOOR / ROOF PLAN

Sheet #:

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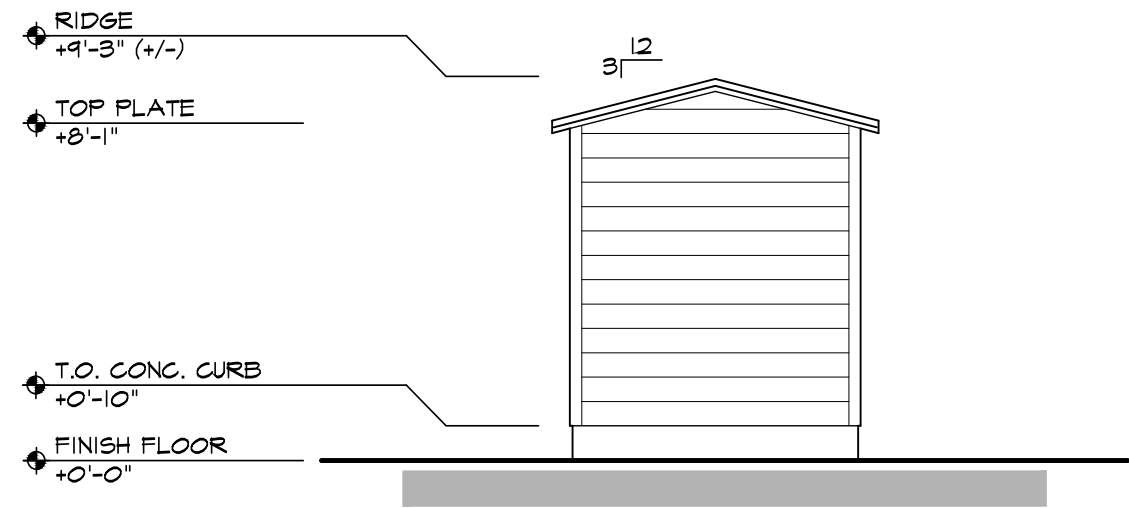




1 PROPOSED BUILDING H -
TRASH ENLCOSURE EAST EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

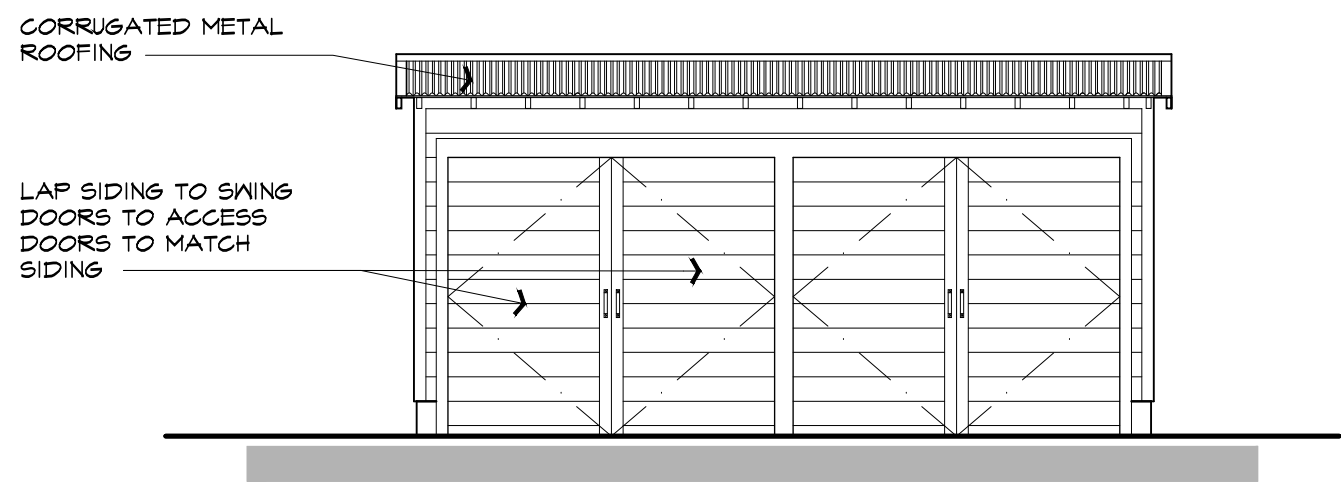
0 1 2 3 4 8 12'



2 PROPOSED BUILDING H -
TRASH ENCLOSURE SOUTH EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

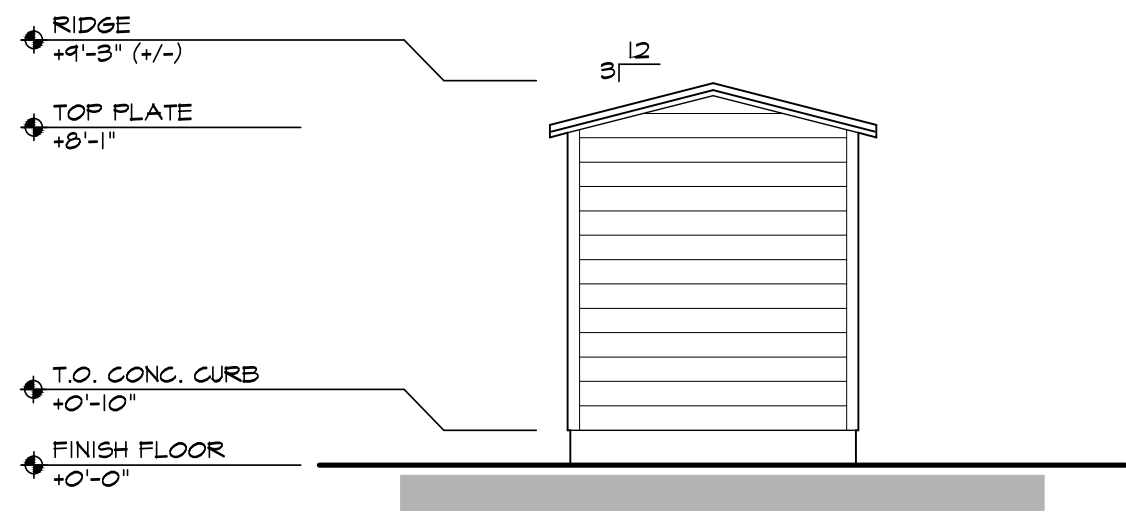
0 1 2 3 4 8 12'



3 PROPOSED BUILDING H -
TRASH ENXCLOSURE WEST EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'



4 PROPOSED BUILDING H -
TRASH ENCLOSURE NORTH EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

0 1 2 3 4 8 12'

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APN: 009-580-009

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Date: **August 28, 2015**

Project No: **130401**

Sheet Title:
**PROPOSED BLDG. H
TRASH ENCLOSURE
EXT. ELEVATIONS**

Sheet #:

AH3.21

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GENERAL NOTES

- CONTRACTOR SHALL BE APPROPRIATELY LICENSED WITH THE STATE OF CALIFORNIA TO PERFORM THE WORK OUTLINED IN THESE PLANS.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SECURE ANY CONSTRUCTION PERMITS FROM THE GOVERNING AGENCIES AS NECESSARY AND PAY ALL FEES INCLUDING INSPECTION FEES.
- ANY WORK DONE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE UNDER AN ENCROACHMENT PERMIT ISSUED BY THE GOVERNING BODY.
- HOURS OF OPERATION ARE LIMITED TO 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY, AND 8:00 AM TO 4:00 PM ON WEEKENDS OR LEGAL HOLIDAYS, UNLESS A PERMIT IS FIRST SECURED FROM THE PUBLIC WORKS DIRECTOR (OR HIS/her DESIGNEE) FOR ADDITIONAL HOURS. THERE WILL BE NO START UP OF MACHINES NOR EQUIPMENT PRIOR TO 8:00 AM, MONDAY THROUGH FRIDAY; NO DELIVERY OF MATERIALS NOR EQUIPMENT PRIOR TO 7:30 AM NOR PAST 5:00 PM, MONDAY THROUGH FRIDAY; NO CLEANING OF MACHINES NOR EQUIPMENT PAST 5:00 PM, MONDAY THROUGH FRIDAY; NO SERVING OF EQUIPMENT PAST 6:45 PM, MONDAY THROUGH FRIDAY.
- CONTRACTOR AGREES THAT HESHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT; EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNERS OR THE ENGINEER.
- SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND ANY DEFICIENCIES, ERRORS, CONFLICTS OR OMISSIONS IN THESE PLANS AND SPECIFICATIONS, OR SHOULD HE BE IN DOUBT AS TO THEIR MEANING OR INTENT, HE SHALL NOTIFY THE ENGINEER FOR A WRITTEN CLARIFICATION, ADDENDUM, ETC., SHOULD HE FAIL TO DO SO BEFORE SUBMITTING A PROPOSAL, HE CANNOT CLAIM ADDITIONAL COMPENSATION FROM WORK REQUIRED TO COMPLETE THE PROJECT.
- WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF THERE IS A CONFLICT, NOTIFY THE ENGINEER AND OBTAIN A CLARIFICATION. NO DEVIATIONS OR SUBSTITUTIONS SHALL BE ALLOWED WITHOUT OBTAINING WRITTEN APPROVAL FROM THE ENGINEER.
- ALL WORKMANSHIP AND MATERIALS FOR BOTH ONSITE AND OFFSITE IMPROVEMENTS SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE COUNTY OF NAPA, LATEST EDITION OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND STANDARD PLANS. THE ONSITE IMPROVEMENTS SHALL BE INSPECTED BY THE ENGINEERING DIVISION INSPECTOR.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR BEING FAMILIAR WITH THE PROVISIONS AND REQUIREMENTS IN THE COUNTY OF NAPA STANDARD SPECIFICATIONS. CONTRACTOR SHALL HAVE A COPY AVAILABLE AT THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION OF THE NAPA COUNTY DEPARTMENT OF PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES (PES) AT (707) 253-4351 AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL REQUEST INSPECTIONS A MINIMUM OF ONE WORKING DAY IN ADVANCE BY CALLING THE ENGINEERING DIVISION OF THE NAPA COUNTY PES DEPARTMENT AT (707) 253-4351.
- CONTRACTOR SHALL PROVIDE EMERGENCY TELEPHONE NUMBERS TO THE COUNTY SHERIFF, FIRE DEPARTMENT, AND ENGINEERING DIVISION OF THE NAPA COUNTY PES DEPARTMENT AND KEEP THEM INFORMED DAILY REGARDING STREETS UNDER CONSTRUCTION AND DETOURS. DETOURS SHALL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE PUBLIC WORKS DIRECTOR.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR.
- ALL MATERIAL SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES.

GRADING NOTES

- ANY AND/OR AL MOVEMENT OF EARTH SHALL COMPLY WITH THE COUNTY OF NAPA STANDARDS AND SPECIFICATIONS (CURRENT EDITION), THE COUNTY OF NAPA CONSERVATION REGULATIONS, THE CALIFORNIA BUILDING CODE, THE PROJECT GEOTECHNICAL REPORT (IF ANY), AND THESE PLANS.
- THE SOILS ENGINEER SHALL BE NOTIFIED AT LEAST THREE (3) DAYS IN ADVANCE OF COMMENCING WORK, INCLUDING SITE STRIPPING AND GRADING OPERATIONS. THIS WORK SHALL BE OBSERVED AND TESTED BY THE SOILS REPRESENTATIVE AT THE OWNERS EXPENSE.
- WHEN ASENT A GEOTECHNICAL REPORT FOR THE PROJECT, ALL CUT AND FILL SLOPES SHALL BE A MAXIMUM OF 2:1. ALL FILLS SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY.
- SITE SHALL BE VISUALLY INSPECTED BY THE CONTRACTOR TO DETERMINE THE EXTENT OF CLEARING, GRUBBING AND GRADING WORK TO BE DONE. NO ADDITIONAL GRADING BEYOND WHAT IS SHOWN ON THESE PLANS SHALL BE COMPLETED.
- SOIL STRIPPED IN THE AREAS TO BE PAVED SHALL BE STOCKPILED FOR USE IN LANDSCAPED AREAS. CONTRACTOR SHALL COORDINATE WITH LANDSCAPE CONTRACTOR.
- SPOILS SHALL NOT BE LEFT IN PILES EITHER ON- OR OFF-SITE. RATHER IT SHALL BE REMOVED FROM OR SPREAD OUT OVER THE PROPERTY INVOLVED.
- CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE PUBLIC WORKS DIRECTOR OR HIS DESIGNATED REPRESENTATIVE, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL CORRECTIVE MEASURES ARE TAKEN.
- ANY SPOILS GENERATED BY PROJECT CONSTRUCTION OR IMPROVED DRIVEWAY SHALL NOT BE DEPOSITED WITHIN 50 FEET OF THE TOPS OF THE BANKS OF ANY STREAM, POOL, OR LAKE; WITHIN THE FLOODWAY OF ANY STREAM; IN THE SPRINKLE ZONE ALONG ANY DRAINAGE WAY; IN ANY MARSH OR WETLAND; OR IN ANY VERNAL POOL; OR IN ANY OTHER AREA THAT IS DETERMINED BY THE DIRECTOR OF THE NAPA COUNTY DEPARTMENT OF PLANNING, BUILDING, AND ENVIRONMENTAL SERVICES (PES) TO BE BIOLOGICALLY SENSITIVE. THE LOCATION OF THE SPOILS DISPOSAL AREAS SELECTED FOR EACH PROJECT SHALL BE SUBMITTED TO BOTH THE ENGINEERING AND PLANNING DIVISIONS OF THE NAPA COUNTY PES DEPARTMENT FOR THEIR APPROVAL AT LEAST TEN (10) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY GRADING OR EXCAVATION WORK ON-SITE.
- CONTRACTOR SHALL PROVIDE TO THE ENGINEERING DIVISION OF THE NAPA COUNTY PES DEPARTMENT AN EROSION AND SEDIMENT CONTROL PLAN AND A SCHEDULE FOR IMPLEMENTATION OF SUCH MEASURES. IF ANY LOT OR STREET GRADING IS TO BE DONE BETWEEN OCTOBER 15 THROUGH APRIL 1, HYDROSEEDING OF ALL GRADED SLOPES SHALL BE COMPLETED BY NOVEMBER 1.
- 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 NOISE PRODUCING ACTIVITIES SHALL BE LIMITED TO WEEKDAYS BETWEEN 7:30 AM AND 4:30 PM.
- TREES AND/OR VINES THAT ARE TO BE REMOVED SHALL ALSO HAVE THEIR STUMPS AND MAJOR ROOT SYSTEMS REMOVED. AFTER A TREE, VINE, OR A STUMP IS REMOVED, THE RESULTING CAVITY SHALL BE CLEANED OR LARGER ROOTS (2 INCH DIAMETER OR LARGER), SOIL SHOULD BE REMOVED AND DISHD TO PROVIDE ACCESS FOR COMPACTION EQUIPMENT.
- ORGANIC MATERIAL SHALL BE HAULED OFFSITE AND DISPOSED OF BY THE CONTRACTOR IN A RESPONSIBLE MANNER (COUNTY APPROVED LANDFILL OR ANOTHER COUNTY APPROVED SITE).
- ALL EARTHWORK, SCARIFICATION, BACKFILL, AND COMPACTION SHALL BE PERFORMED PER THE PLANS AND COUNTY OF NAPA REQUIREMENTS.
- ALL STATIONS (SHOWN ON THE PLAN AND PROFILE) ARE TAKEN ALONG CENTERLINE UNLESS OTHERWISE NOTED ON PLAN, AND SHOW MEASUREMENTS IN A HORIZONTAL PLANE.

ABBREVIATIONS

AS	AGGREGATE BASE	FW	FIRE HYDRANT	PW	PROCESS WASTE
AC	ASPHALT CONCRETE	FRM	FLOOD INSURANCE RATE MAP	R	RADIUS
AD	AREA DRAIN	FL	FLOW LINE	RC	RELATIVE COMPACTION
ARV	AR RELEASE VALVE	FM	FORCE MAIN	RT	RIGHT
BC	BEGIN CURVE	FS	FINISH SURFACE	RW	RIGHT OF WAY
BFE	BASE FLOOD ELEVATION PER FRM	GB	GRADE BREAK	RSL	RAIN WATER LEADER
BM	BENCHMARK	GL	GUTTER LINE	RSP	REINFORCED CONCRETE PIPE
BO	BLOWOFF	GR	GRAVEL	S	SOUTH
BOR	BEGIN CURB RETURN	HP	HIGH POINT	S	SLOPE (FEET/FOOT)
BVC	BEGIN VERTICAL CURVE	IE	INVERT ELEVATION	SAD	SEE ARCHITECTURAL DRAWINGS
BS	BOTTOM OF STAIRS	INST	INSTALL	SD	STORM DRAIN
BSW	BACK OF SIDEWALK	INV	INVERT	SIP	SUBIRRIAN PIPE
CB	CATCH BASIN	IR	IRON PIPE	SED	SEE ELECTRICAL DRAWINGS
C&G	CURB AND GUTTER	JR	JUNCTION	SLO	SEE LANDSCAPE DRAWINGS
CMU	CONCRETE MASONRY UNIT	JP	JOINT POLE	SLE	SEE PLUMBING DRAWINGS
CP	CONCRETE PIPE	LF	LINEAL FEET/FOOT	SMD	SEE MECHANICAL DRAWINGS
CL	CENTERLINE	LH	LEAK-HOLE	SPD	TOP OF STAIRS
CO	CLEANOUT	LP	LOW POINT	SS	SANITARY SEWER
COMM	COMMUNICATION	MH	MANHOLE	SSCO	SANITARY SEWER CLEAN OUT
CV	CHECK VALVE	MON	MONUMENT	SSPH	SANITARY SEWER FLUSH-HOLE
CW	COLD WATER	(N)	NORTH	SSMH	SANITARY SEWER MANHOLE
DCV	DOUBLE CHECK VALVE	<N>	ON CENTER	STA	STATION
DG	DECOMPOSED GRANITE	OC	ON CURB	STD	STANDARD
DP	DUCTILE IRON PIPE	OG	ORIGINAL GROUND	SW	SEWER
DS	DOWNSPOUT	OH	OVERHEAD	TD	TOP OF DRAIN
DW	DRAINWAY DOMESTIC WASTE	CHL	OVERHEAD LINE	TTC	TOP FACE OF CURB
DWG	DRAWING	<P>	PROPOSED	TOC	TOP OF CONCRETE
EO	END OF CURVE	POC	PORTLAND CONCRETE CEMENT	TS	TOP OF STAIRS
(E)	EAST	PRD	PRESSURE DISTRIBUTION	TW	TOP OF WALL
<E>	EXISTING	POGE	PUMPING GAS AND ELECTRIC	TYP	TYPICAL
EGR	END CURB RETURN	PI	POINT OF INTERSECTION	UG	UNDERGROUND
EG	EXISTING GROUND	PV	POST INDICATOR VALVE	VC	VERTICAL CURVE
EGR	EDGE OF GRAVEL	P	PROPERTY LINE	VG	VALLEY GUTTER
EP	EDGE OF PAVEMENT	PRC	POINT OF REVERSE CURVE	W	WEST
EVC	END VERTICAL CURVE	PSI	POUNDS PER SQUARE INCH	WM	WATER METER
FC	FACE OF CURB	PUE	PUBLIC UTILITY ESTIMATE	WS	WATER SERVICE
FDC	FIRE DEPT. CONNECTION	PVC	POLY(VINYL CHLORIDE	WW	WATER VALVE
FG	FINISH GRADE	PVI	POINT OF VERTICAL INTERSECTION		

UTILITY NOTES

- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT 1-800-227-2600 PRIOR TO START OF ANY CONSTRUCTION.
- ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.) STANDARDS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR AND/OR THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL SECURE A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER FIVE (5) FEET IN DEPTH.
- CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES UNLESS THE COUNTY ENCROACHMENT PERMIT SPECIFIES OTHERWISE.
- ONE WEEK PRIOR TO ANY EXCAVATION IN EXISTING STREET AREAS, THE CONTRACTOR SHALL CONTACT AND REQUEST POSE, CURRENT TELEPHONE COMPANY, CITY ENGINEER (WATER DIVISION), NAPA SANITATION DISTRICT AND CURRENT CABLE PROVIDER FOR MARKING THE LOCATION OF THEIR RESPECTIVE FACILITIES. COSTS OF REPAIRING ANY INJURIES OR DAMAGES CAUSED BY THE CONTRACTOR SHALL BE BORNE BY THE CONTRACTOR. VARIOUS UNDERGROUND UTILITY LINES WERE PLOTTED ON THE PLANS FROM THE INFORMATION OBTAINED FROM THE RESPECTIVE UTILITY COMPANIES. THEREFORE, NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CORRECTNESS OF THEIR LOCATION. BURIED UTILITIES WERE NOT VERIFIED, NOR WAS ANY SUBSURFACE EXPLORATION CONDUCTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. LOCATIONS OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. SEE NOTE 3 ABOVE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING FACILITIES AND IMPROVEMENTS FROM DAMAGE RESULTING FROM CONTRACTORS WORK. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY RELOCATIONS, IF REQUIRED, WITH THE APPROPRIATE UTILITY COMPANIES AND/OR THE OWNER.
- ALL UNDERGROUND UTILITY WORK IN THE STREET AREAS SHALL BE COMPLETED PRIOR TO PLACEMENT OF BASE ROCK UNLESS OTHERWISE NOTED.
- TRENCHING AND BACKFILL WITHIN THE PUBLIC RIGHT OF WAY AND UNDER PRIVATE ROADS SHALL COMPLY WITH THE COUNTY OF NAPA STANDARDS. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY STANDARDS FOR TRENCH SAFETY.
- IF ELECTRIC, GAS, TELEPHONE, CABLE TV LINES AND/OR OTHER SERVICES, ETC., MUST BE INSTALLED BY OTHERS, THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THESE FACILITIES WITH POSE, CURRENT TELEPHONE COMPANY, CURRENT CABLE TV PROVIDER OR THEIR CONTRACTOR(S) AND COOPERATE FULLY IN THE EXECUTION OF THIS WORK CONCURRENTLY WITH THE PROGRESS OF THE REST OF THE WORK.
- EXISTING UTILITIES SHALL BE KEPT IN SERVICE AT ALL TIMES. UTILITIES THAT INTERFERE WITH THE WORK TO BE PERFORMED SHALL BE PROTECTED AS REQUIRED BY COUNTY OF NAPA, POSE, OTHER UTILITIES, AND THE OWNER.
- ALL STORM DRAIN SYSTEM INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH COUNTY OF NAPA STANDARDS. PLASTIC PIPE FOR THE STORM DRAIN SHALL COMPLY WITH SECTION 64 OF THE CALIFORNIA STANDARD SPECIFICATIONS. CORRUGATED METAL PIPE (C.M.P.) SHALL COMPLY WITH SECTION 65 OF THE CALTRANS STANDARD SPECIFICATIONS. REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE CLASS 3 PER SECTION 65 OF THE CALTRANS STANDARD SPECIFICATIONS.
- CONTRACTOR HAS THE FOLLOWING OPTIONS FOR STORM DRAIN PIPING. REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE CLASS III PER CALTRANS STANDARD SPECIFICATIONS. POLY(VINYL CHLORIDE PIPE (P.V.C.) FOR THE STORM DRAIN SHALL COMPLY WITH ANSIA/ASTM D 3034-78, SDR 35 REQUIREMENTS OR CORRUGATED POLY(ETHYLENE PIPE SUCH AS ADVANCED DRAINAGE SYSTEMS (A.D.S.) 11/12 OR APPROVED EQUAL, USE OTHER IF SPECIFIED ON THE PLANS.
- ASBESTOS CEMENT PIPE (A.C.P.) SHALL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES.

SURVEY NOTES

- THE BOUNDARY ON THESE DRAWINGS DOES NOT REPRESENT A PROPERTY LINE. SURVEY. PROPERTY LINES SHOWN HEREON ARE BASED ON RECORD DATA, AND MAY NOT REPRESENT THE TRUE POSITIONS OF THE LINES.
- THE TOPOGRAPHY IS BASED ON A FIELD SURVEY OF JULY, 2014 PERFORMED BY TERRA FIRMA SURVEYS, INC.
- THE VERTICAL DATUM OF THE SURVEY IS NAVD83.
- SITE BENCHMARK SHALL BE DETERMINED BY CONTRACTOR IN THE FIELD.
- DELTA CONSULTING & ENGINEERING ASSUMES NO LIABILITY, REAL OR ALLEGED, REGARDING THE ACCURACY OF THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS.
- CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS OR REPLACE THEM AT HIS OWN EXPENSE.

PROJECT STATEMENT

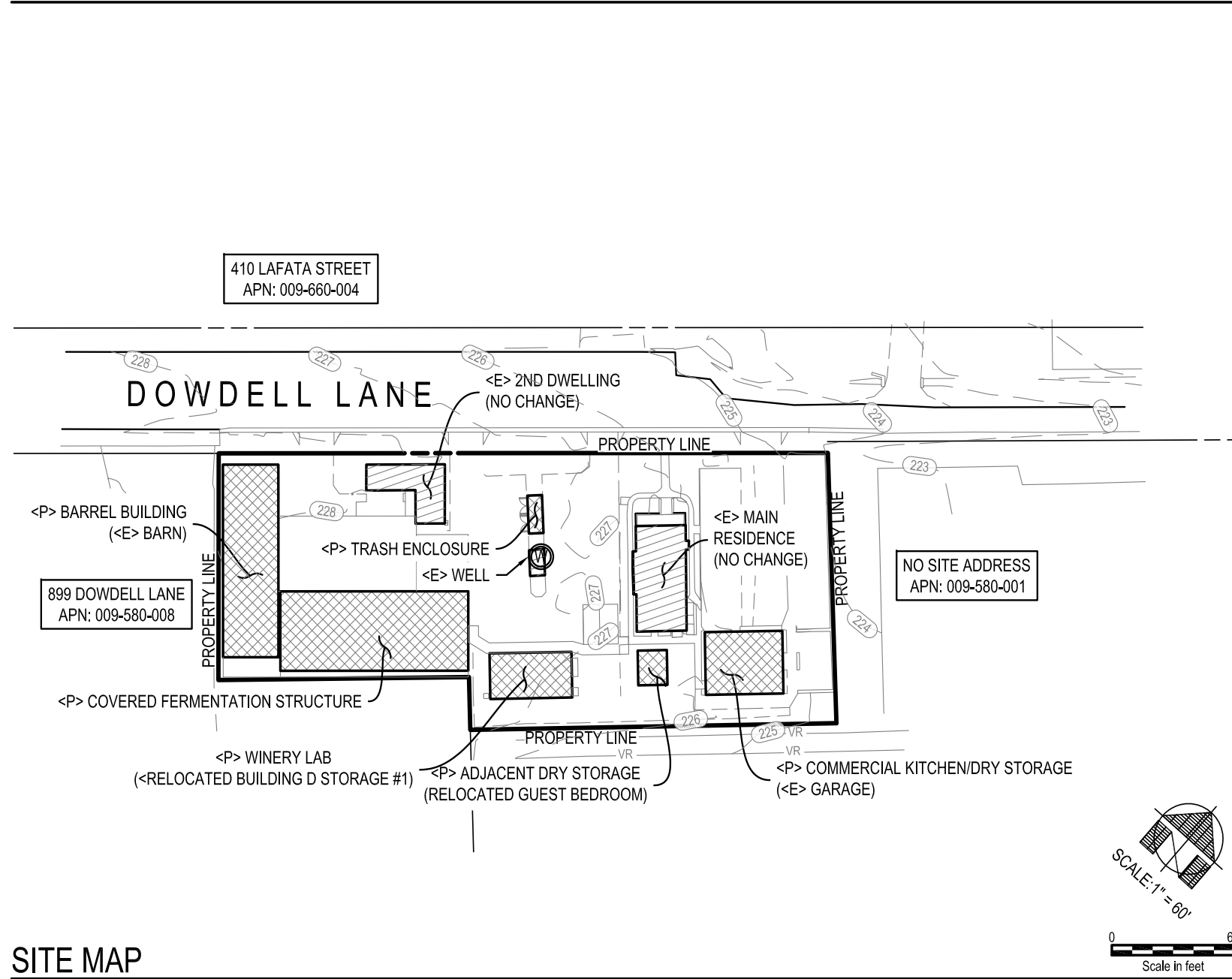
THE PURPOSE OF THIS PROJECT IS TO OBTAIN A USE PERMIT FOR A NEW WINERY, INCLUDED IN THE USE PERMIT IS THE CONSTRUCTION OF A NEW COVERED FERMENTATION STRUCTURE. ADDITIONALLY, SEVERAL OF THE EXISTING BUILDINGS WILL BE RELOCATED AND REMODELED. THERE ARE NO CHANGES TO THE EXISTING SECOND DWELLING AND MAIN RESIDENCE.

USE PERMIT PLANS FOR:

REDMON RANCH WINERY

867 DOWDELL LANE

ST HELENA, CA 94574



SITE MAP

SHEET INDEX

- UP1.0 COVER SHEET
- UP2.0 GRADING PLAN
- UP3.0 UTILITY PLAN

PROJECT INFORMATION

OWNER:	LISA REDMON REDMON WINES 1185 STARR AVE ST. HELENA, CALIFORNIA 94574	ARCHITECT:	PAUL KELLEY ARCHITECT, INC. 1436 SECOND STREET, SUITE #162 NAPA, CA 94559 PAUL KELLEY, A.I.A. 707/257-1148
SITE ADDRESS:	867 DOWDELL LANE, ST HELENA, CA 94574	LAND USE PLANNER:	PLANS A WINE 2620 PINOT WAY ST. HELENA, CA 94574 DONNA OLDFORD 707/963-9532
ASSESSOR PARCEL #:	009-580-009		
PARCEL SIZE:	±0.84 ACRES		
SURVEYOR:	TERRA FIRMA SURVEYS, INC. P.O. BOX 533 ST HELENA, CA 94574 CHRIS COLE, P.L.S. 707/963-7565		
CIVIL ENGINEER:	DELTA CONSULTING & ENGINEERING, INC. 1104 ADAMS STREET, SUITE 203 ST. HELENA, CA 94574 JOEL DICKERSON, P.E. 707/963-8456		

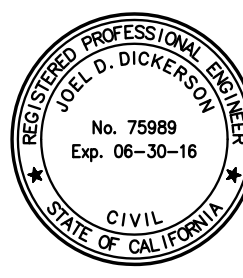
THIS PROJECT HAS BEEN REVIEWED BY DELTA CONSULTING & ENGINEERING, INC. FOR THE PURPOSES OF THE USE PERMIT. THE REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PROJECT AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED. THE REVIEW IS BASED ON THE INFORMATION PROVIDED AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED. THE REVIEW IS BASED ON THE INFORMATION PROVIDED AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED.

DELTA CONSULTING & ENGINEERING
OF ST. HELENA

1104 ADAMS STREET, SUITE 203 - ST. HELENA, CALIFORNIA 94574
707/963-8456 + 707/963-8528 FAX

USE PERMIT
COVER SHEET

REDMON RANCH WINERY
867 DOWDELL LANE
ST HELENA, CA 94574
APN: 009-580-009
PROJECT No. 108



EVERY PERSON SIGNING TO THIS
DRAWING IS A REGISTERED PROFESSIONAL
ENGINEER.

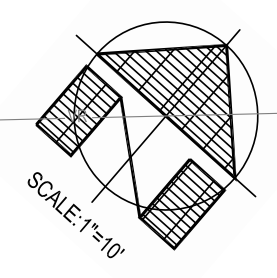


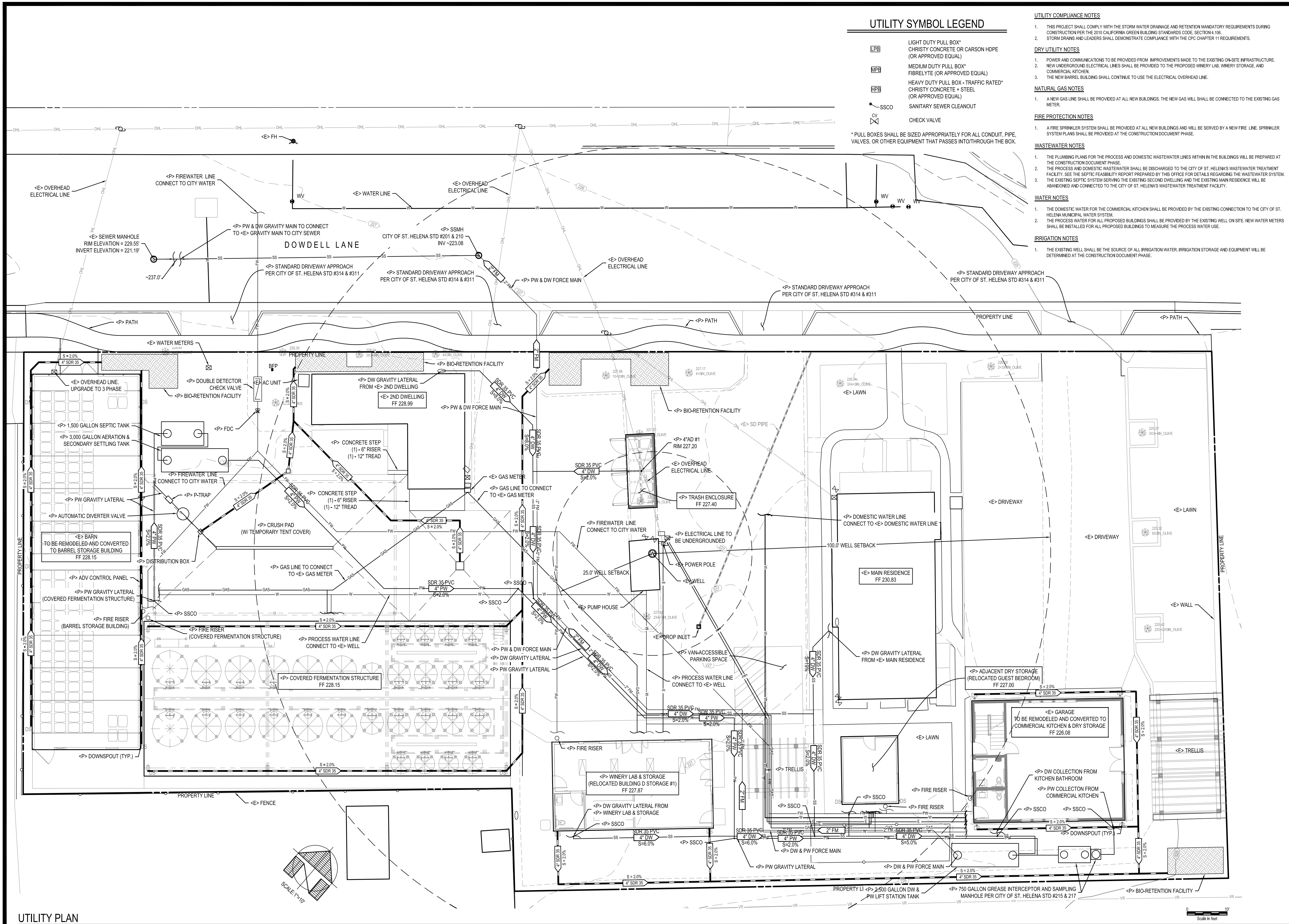
FOR MORE INFORMATION
SEE WWW.DELTACONSULTING.COM

DATE: 08/28/15 ISSUE: USE PERMIT

SHEET:

UP1.0





DELTA CONSULTING & ENGINEERING
OF ST. HELENA

1104 ADAMS STREET, SUITE 203 • ST. HELENA, CALIFORNIA 94574
707.963.8456 • 707.963.8528 FAX

USE PERMIT UTILITY PLAN

REDMON RANCH WINERY
867 DOWDELL LANE
ST HELENA, CA 94574
APN: 009-580-009
PROJECT No: 108



EVERY PERSON PLANNING TO DO
ANY WORK OF CONSTRUCTION
SHALL OBTAIN A PERMIT FROM THE
LOCAL AGENCIES.

DATE: 08/28/15
ISSUE: USE PERMIT

SHEET:
UP3.0

Project Statement

Redmon Winery and Commercial Kitchen Tenant Space
APN 009-580-009
867 Dowdell Lane, St. Helena

The proposed project is a use permit for industrial development utilizing and converting existing structures on an 0.84-acre site in the industrial park on Dowdell Lane, south of the City of St. Helena. The total square footage of existing and proposed development is 20,754 square feet. Of this, the two existing residential and accessory residential structures total 8,009 sq. ft. Winery uses and accessory structures total another 10,238 sq. ft. A proposed commercial kitchen tenant space occupies a total of 2,381 sq. ft. of kitchen and storage area.

The applicant proposes to move and convert an existing barn, which has some historical significance due to its age, to a production (only) winery, which will include wine processing areas such as crush, fermentation, and barrel storage areas, winery offices and lab. The applicant does not propose any visitation at the winery, nor will any events be held in this location. Additionally, the applicant proposes a space that will accommodate a commercial kitchen tenant and dry goods storage space in an existing structure presently used for storage. The property contains two existing residential structures, a primary residence and guesthouse, which are legal nonconforming uses in the Industrial-zoned area. These units will remain and will serve, to some extent as “live/work” uses. Design of the proposed project and appropriate landscape treatment serve to promote capability between the industrial uses and the existing residential uses on this parcel.

A total of 12,745 sq. ft. is proposed for the project (other than residential uses), basically converted existing structures on-site. Residential and residential accessory structures total 8,009 sq. ft. of space. The remaining space is allocated to the proposed winery and commercial kitchen tenant space, and to maintenance structures such as the well/pump house and refuse receptacle, which will serve all. (See all square footage allocations by structure in enclosed architect’s floor plans and elevations.)

Historic architect Juliana Inman has reviewed the structures on the site and prepared a report identifying the extent of historic significance associated with each of the structures. Her report guided the project architect, Paul Kelley in designing re-use plans for the structures slated for industrial uses. A copy of Juliana Inman’s report is included with this application filing. Essentially, the report finds that the barn retains some historic significance because of its age, in spite of having been altered significantly over the years. She recommends no permanent cover over the crush pad, in order to avoid inappropriate contrast between the historic barn and the crush operations area. Rather, automatic diversion valves will be used to prevent process water runoff from eventually going into the City’s storm drains and ultimately, into the State’s waters. The garage conversion structure does not have any historic significance. Guidelines for construction

that is consistent with the direction of the Secretary of Interior standards will be an important part of the work on this project. Detail of those standards are included in the report from Juliana Inman, included with this application.

In summary, since the location of this historically significant barn has importance in its overall context, re-use of the barn on-site for a viable commercial use is considered the best solution towards retaining what is historically and culturally significant as a community resource. In some cases, this is not a viable option and the resource has to be moved outside its contextual setting. The character and scale of the proposed Redmon Ranch Winery make it ideal for such re-use, with its vernacular protected. It is also a positive that there are several other wineries in proximity to this one so that the overall character of the area remains that of an agrarian nature. It is hard to imagine and alternative use that would work as well in terms of protecting this cultural resource.

Local Plans and Regulations

The proposed project is on a parcel of just under one acre, in the City industrial park south of Main Street, on Dowdell Lane. The uses proposed are listed as “uses allowed with an approved use permit” in the Industrial District Zoning category of the City’s Zoning Plan. The *St. Helena General Plan* land use designation for this property is also indicated as Industrial. Since the City has a limited inventory of lands suitable for industrial development and the City depends upon industrial development in part for its tax base, commercial uses involving visitation (such as with a wine tasting use) are discouraged and directed to other commercially-zoned areas of the City. The proposed winery will be a production winery, its only accessory uses being winery administrative offices and a lab. There will be no wine tasting activities at this location.

The proposed project is consistent with the goals and policies contained in the *City of St. Helena General Plan*, as well. Technical reports prepared by Delta Engineering show that the proposed project is compatible with other City policies associated with wastewater and water supply. Water use and wastewater feasibility reports are included with the submittal of materials associated with this use permit application.

The applicant will provide necessary construction plans, consistent with the *California Unified Building Code* and will abide by all other City and County (Environmental Management) requirements applying to a development of this nature and type.

Surrounding Land Uses and Existing Conditions

The subject property is located within the City’s designated industrial park, located just off Highway 29 South just before the entrance to the City on Highway 29/Main Street. The predominance of uses in this area are industrial space and light office spaces. Surrounding land uses include vineyards, rural residential development, and several wineries. Directly across Dowdell Lane from the subject property is the recently approved Crocker & Starr Winery (W Winery District zoning). There are approximately

160 acres of mature vineyards in this location to the north and east of the extension of Dowdell Lane and the Mills Avenue stubb.

Production Winery

The historic barn on-site is proposed for conversion to a production winery where crushing, fermentation, barrel storage and other aspects of winemaking occur. Visitation is not a proposed use at this location, however. The proposed level of production for this winery is 24,000 gallons per year, which qualify the winery as a “small family winery.” While the subject property does not have vineyards planted on it, the applicant acquires grapes from a number of well-known vineyards in Napa County. These are as follows.

Pat Garvey: West Zinfandel vineyard for Cabernet blend (4 tons)

Spring Mountain Vineyard: Cabernet and Merlot for new wines (4 tons)

Bob Mueller: Carneros vineyard for Chardonnay (4 tons)

Tom Redmon: Redmon Vineyard for Estate Cabernet (6 to 7 tons)

The 10,238-sq. ft. winery contains fermentation tanks and barrel storage, as well as winery administrative offices and a winemaker office and lab, employee comfort areas (including a covered and landscaped outdoor lunch break area), and winery storage areas. The covered fermentation area is 6,619 sq. ft. in size; the barrel storage area is 2,752 sq. ft. in size. And the wine lab/office/storage accessory space is 867 sq. ft. in size. There is also an 84-sq. ft. well/pump house and a 126-sq. ft. refuse enclosure that will serve all uses on the property.

Hours of operation for the winery are from 6:00 AM until 6:00 PM during most months of the year, with some necessary expansion of work hours during the harvest period that lasts from early September through the end of October of each year. The winery anticipates having two full-time employees and two part-time employees. Administrative employees of the winery will work between the hours of 8:00 AM and 6:00 PM and production employees will work between the hours of 6:00 AM and 6:00 PM most months of the year

Commercial Kitchen Space

A space appropriate for a commercial kitchen tenant is proposed in one of the converted structures currently used for storage. The applicant envisions this space as a tenant space for a licensed caterer or other type of commercial kitchen user. It will have no relationship to the proposed winery, since the winery uses do not include visitation or marketing events. The proposed commercial kitchen space and dry storage area is a total of 2,381 sq. ft. in size. Hours of operation for the commercial kitchen will be 6:00 AM until 6:00 PM.

The commercial kitchen is envisioned to prepare up to 500 meals weekly, which will be both sold and consumed off-site. The kitchen will have one full-time and one part-time employee.

The commercial kitchen will comply with all requirements of the County Environmental Management Services.

Well/Pump House and Refuse Enclosure

The proposed plan includes an 84-sq. ft. well and pump house and a 126-sq. ft. refuse enclosure that provides water and garbage disposal, respectively for the winery, commercial kitchen, and residential uses.

Main Residence and Second Residential Unit

The existing residential structures, both of which are existing structures, will remain as legal nonconforming uses on the site. The residences may serve as a “live/work” accommodation for possibly employees of the winery or the commercial kitchen. Landscaping on the subject property provides suitable buffers between the industrial and the commercial uses, as well as providing some employee break areas.

Water Availability/Use and Wastewater Treatment

The winery process water use and all landscaping water use will be provided by an on-site groundwater well. Potable water uses are provided by the City of St. Helena. The City requires that all new projects be found water-neutral. The construction of the new winery-related buildings and remodeling of the existing structures is not expected to increase the water use on the property, if the recommendations of the enclosed *Water Use and Availability Report* are complied with. Between the utilization of high-efficiency toilets and low-flow bathroom sinks, the post-construction water use will be less than the pre-construction water use and will, therefore meet the City of St. Helena’s water-neutral requirement.

The proposed project and existing uses include a 24,000-gpy winery, a total of three full-time and three part-time employees on-site (winery and commercial kitchen combined), and assume a maximum of eight residents in the two residential structures on the subject property. Assumptions include up to 500 meals prepared weekly in the commercial kitchen, with sales and consumption occurring off-site. Based on the analysis contained in the *Wastewater Feasibility Report* prepared by Delta Engineering, the project is expected to generate a combined domestic and process waste of 2,066 gallons per day.

The addition of a winery and commercial kitchen is suitable for the parcel with respect to wastewater treatment and disposal. With the proposed site development, the amount of wastewater generated is not expected to adversely affect the City of St. Helena’s Wastewater Treatment system.

Access and Parking

Access to the City's industrial park from Highway 29 South is via Dowdell Lane east. The subject property fronts onto Dowdell Lane, a City-maintained street.

Parking for residences is adjacent to each of the houses. There is a parking area next to the structures earmarked for the commercial kitchen and storage, and a parking area next to the winery. These parking areas will accommodate a total of six parking spaces, which are not proposed for paving in an effort to minimize the impervious areas on-site. There is one ADA-accessible parking space proposed, in proximity to the main residence, and this parking space will be paved and striped as per regulation.



THEORETICAL
WATER USE REPORT

FOR THE

REDMON RANCH WINERY

LOCATED AT

867 DOWDELL LANE
ST. HELENA, CA 94574

COUNTY: NAPA

INITIAL SUBMITTAL: AUGUST 28, 2015

PREPARED FOR REVIEW BY:
CITY OF ST. HELENA DEPARTMENT OF PUBLIC WORKS
1480 MAIN STREET
ST. HELENA, CA 94574

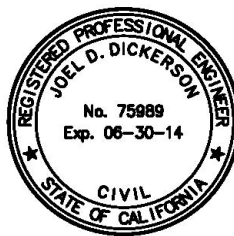


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I. BACKGROUND & INTRODUCTION

Redmon Ranch Winery proposes to remodel and relocate some of the existing buildings and add new buildings to the property located at 867 Dowdwell Lane in St. Helena. The City of St. Helena has passed an ordinance that requires all projects to be water neutral. This means the post-construction water use of the property must be less than or equal to the pre-construction water use.

The current use of the Redmon Ranch property is a residential property for a total of five bedrooms. The property has a main residence, a second dwelling and a guest bedroom building. Additionally, the property also has a barn, storage building, garage, and a well. The main residence and second dwelling units will remain unchanged for this project. All existing external water use for the landscaping is from the existing well and will remain unchanged.

Redmon Ranch Winery proposes to remodel and relocate the following: the existing barn to a barrel storage building, the guest bedroom building to an adjacent dry storage building, the storage building #1 to a winery storage building, and the garage to a commercial kitchen and dry storage building. Additionally, the project proposes to add a new covered fermentation structure and a new winery storage/commercial kitchen building. With the new winery structures, the owner anticipates producing 24,000 gallons of wine a year, preparing 500 meals from the commercial kitchen on a weekly basis to be sold off-site, and hiring three full-time and three part-time employees to assist with all wine production and food related activities. See Appendix A for the proposed site plan prepared by Paul Kelly Architect. All process water use related to the winery production will be from the existing well and all domestic water use will be from the City of St. Helena municipal water system.

Because the winery's process water use and all landscaping water use is from the existing well, the report's analysis will focus on the internal domestic water use for the residential units and the internal domestic water use for the winery and food production facilities.

II. WATER-USE ANALYSIS

A. Baseline Water Use

As mentioned earlier, the existing external water use will remain the same. As a result, the water use baseline will only consist of the domestic internal water use.

The existing domestic water flows for the property are derived within the existing three building residential buildings that have a total of five bedrooms. According to the current St. Helena Water Policy, the existing internal baseline flow for the property are able to be estimated using the Napa County Department of Environmental Management (NCDEM) Regulations for Design, Construction, and Installation of Alternative Sewage Treatment Systems. These regulations specify the demand effluent flow for a residence as 150 gallons per day. See the table below for the annual baseline water use:

ESTIMATED BASELINE WATER USE			
	Gallons		Acre Feet
	Daily	Annual	Annual
Internal	750	273,750	0.84
Total	750	273,750	0.84

Based on the above table, the existing baseline water use is approximately 750 gallons per day or 0.84 acre-feet of water per year.

B. Proposed Water Demand with Water Reduction Measures

Redmon Ranch Winery proposes to use the commercial kitchen to prepare meals to be sold at an off-site location. Based on the Napa County Department of Environmental Management, the estimated water water use is five gallons per meal served (See Appendix B). For the purpose of the report, it is assumed that Redmon Ranch Winery prepares up to 500 meals a week for a total annualized average water use of 356 gallons per day.

Redmon Ranch Winery will also install low flow water efficient bathroom fixtures and waterless urinals in the new winery lab and winery office/commercial kitchen to help offset the increased water usage. Based on the marketing plan, Redmon Ranch Winery will hire three full-time employees and three part-time employees. See Appendix C for more information on the low flow water efficient fixtures proposed.



The proposed site plan will not change the main residence and second dwelling which has a total of four bedrooms. This report estimates that 8 people will be living in the two residences. The daily and annual water demands for the entire property after construction is completed are able to be estimated as follows:

PROPOSED DAILY WATER USE								
RESIDENCE	Average Flow	Duration	Daily Use	Occupants	Servings per week	Total Daily Water Use	Total Annual Water Use	Total Annual Water Use
Low Flow Toilet	1.3 gal		3	6		23 gal	8410 gal	0.03 af
Waterless Urinal	0.0 gal		3	2		0 gal	0 gal	0.00 af
Low Flow Lavatory Faucet	1.5 gpm	0.25 min	3	8		9 gal	3285 gal	0.01 af
Kitchen Faucet	2.2 gpm	4 min	1	8		70 gal	25696 gal	0.08 af
Low Flow Shower Head	1.5 gpm	8 min	1	8		96 gal	35040 gal	0.11 af
Bath	22 gal		0.1	8		18 gal	6424 gal	0.02 af
Clothes Washer	12 gal per load		0.37	8		36 gal	12965 gal	0.04 af
Dish Washer	4 gal per cycle		0.1	8		3 gal	1168 gal	0.00 af
COMMERCIAL								
Low Flow Lavatory Faucet	1.5 gpm	0.25 min	3	6		7 gal	2464 gal	0.01 af
Low Flow Lavatory Toilet	1.28 gal		3	6		23 gal	8410 gal	0.03 af
Food preparation	5.00 gal				500	356 gal	130000 gal	0.40 af
Total						641 gal	233,861 gal	0.72 af

Utilizing the information above, the proposed water use for the property is estimated at 641 gallons per day or 0.72 acre-feet of water per year.

C. Existing and Proposed Water Demand Comparison

By adding a new commercial kitchen and storage and performing the remodels, Redmon Ranch Winery's water use will still be within the baseline water use. See the table below for the comparison between the existing and proposed water use.

REDMON RANCH WINERY WATER USE COMPARISON			
	Gallons		Acre Feet
	Daily	Annual	Annual
Existing Water Use	750	273,750	0.84
Proposed Water Use	641	233,861	0.72
Water Savings	109	39,889	0.12

Redmon Ranch Winery's water use will remain water neutral by approximately 109 gallons per day.

III. CONCLUSION

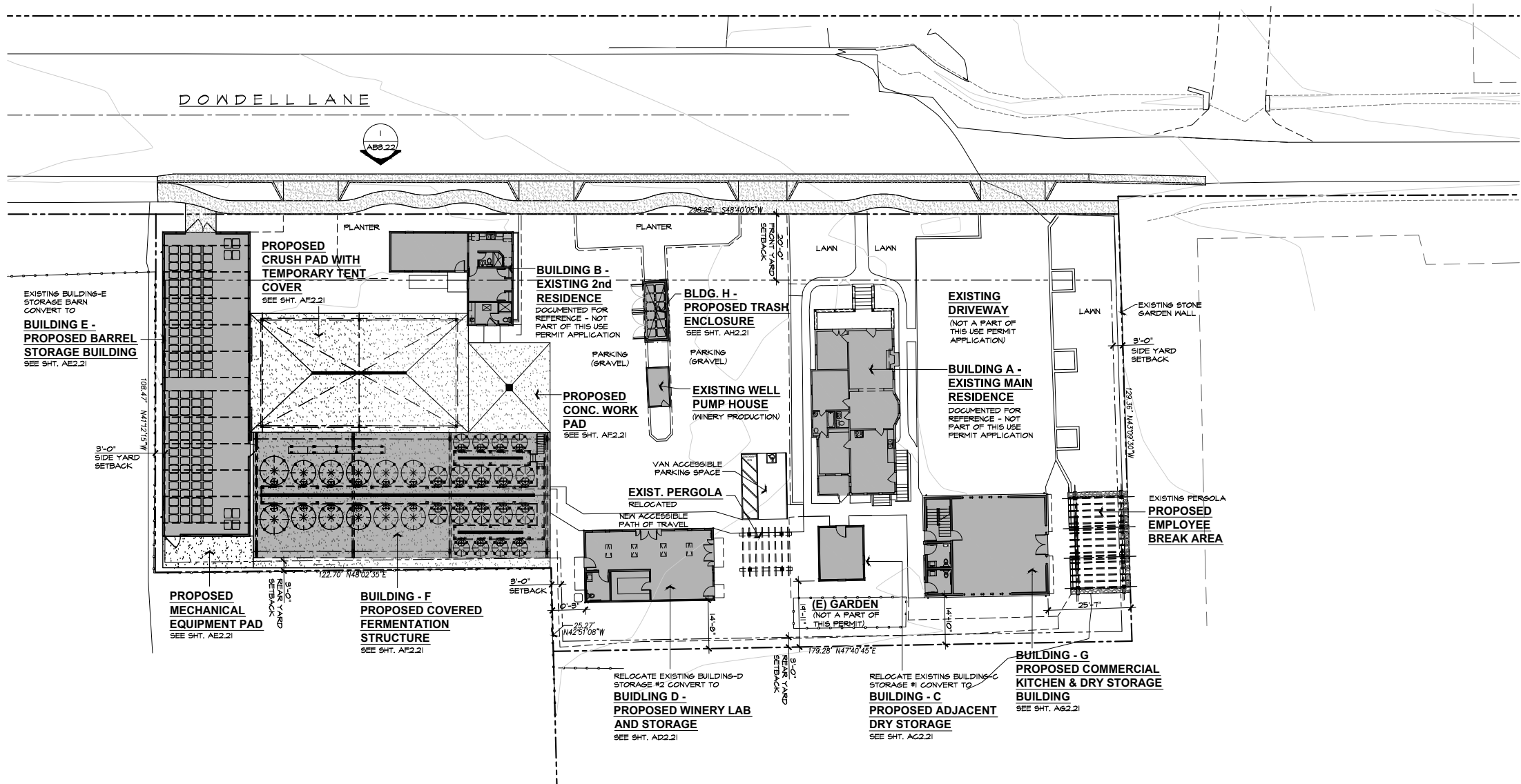
The construction of the new winery related buildings and remodeling of the existing structures is not expected to increase the water-use on the property if the recommendations of this report are followed. Between the utilization of high efficiency toilets, and low-flow bathroom sinks, the post-construction water-use will be less than the pre-construction water-use and meet the City of Stain Helena's water neutral requirement.



Item No: 5.5

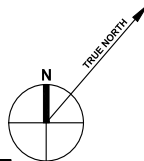
APPENDIX A

Redmon Ranch Winery's Proposed Site Plan



*DRAWING HAS BEEN SCALED DOWN FROM ORIGINAL SIZE.
SCALE NOT VALID.*

A PROPOSED SITE PLAN
SCALE: 1/16" = 1'-0"



Item No: 75



These drawings are the property of Paul Kelley Architect and have been prepared specifically for this project. These drawings are not to be used for any other project, by any other entity or in another location. Copyright 2015 Paul Kelley Architect, Inc. Consultant:

A Proposed Winery for
Redmon Ranch Winery
867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

△	
△	
△	
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△	

Date: July 16, 2015

Project No:

Sheet Title:

**PROPOSED
SITE PLAN**

Sheet #:

A1.12

USE PERMIT SUBMITTAL



Item No: 5.5

APPENDIX B

Napa County Department of Environmental Management Table 4

TABLE 4

TYPE OF OCCUPANCY	GALLONS PER DAY
Airports	5 per passenger
Campgrounds:	
Campground with central comfort station	35 per person
Campground with flush toilet, no showers	25 per person
Day Camps (no meals)	15 per person
Luxury Camp, private bath	100 per person
Summer and seasonal	50 per person
Churches (sanctuary)	5 per seat
With kitchen wastes	7 per seat
Country Club	125 per person
Factories	35 per person per shift
Hospitals	250 per bed space
Kitchen waste only	25 per bed
Laundry waste only	40 per bed
Hotels/Motels with private bathroom (no kitchen waste)	60 per two person room
Hotels/Motels without private bathroom (no kitchen waste)	50 per two person room
Hotel/Motel with private bath and kitchen	75 gallons per person
Institutions other than hospitals	125 per bed space
Movie Theaters	5 per seat
Offices	20 per employee
Picnic parks with toilets and showers	10 per person
Picnic parks with toilet waste only	5 per person
Resort camps with limited plumbing	50 gallons per person
Restaurants:	
Kitchen waste (multi-use utensils)	5 per meal served
Kitchen waste (disposable utensils)	3 per meal served
And add the following for type of facility present:	
Conventional sit down	10 per person
Short Order	8 per person
Bar and Cocktail	3 per person
School (non-boarding)	20 per student
With gym and showers add	5 per student
With cafeteria using disposable utensils	3 per meal served
Self service laundries	50 gallons per wash
Service station	10 gallons per vehicle served
Retail stores	20 per employee
For public restrooms add	1 per 10 square feet
Swimming pools and bathhouses	10 per person
Tourist camps or mobile home parks with individual bath units	100 per person
Tourist camps or trailer parks with central bathhouse	75 per person
Work or construction camps (semi-permanent)	50 per person
Wine tasting facility (no meals served)	3 per person
Employee	15 per employee

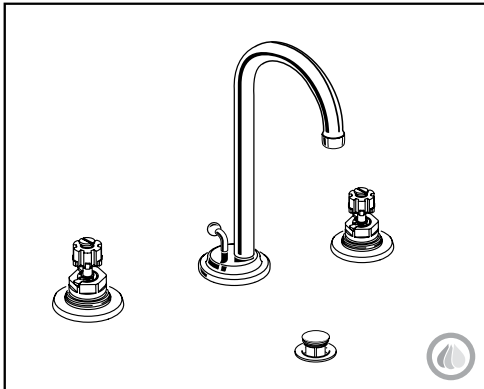


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APPENDIX C

Water Efficient Product Information

**TWO-HANDLE 8" WIDESPREAD LAVATORY FAUCET
WITH GOOSENECK SPOUT**

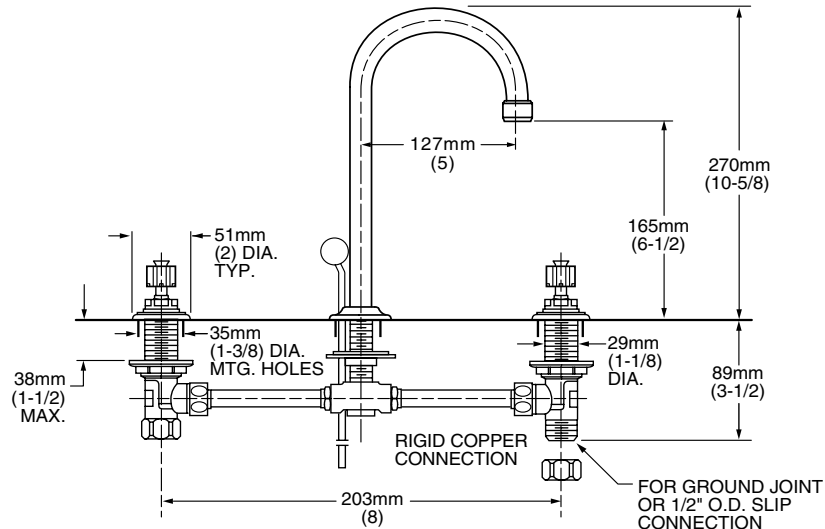


6831.000 Shown

MODEL NUMBER:

- ❑ **6830.000 8" Widespread Lavatory**
Rigid gooseneck spout. 1.5 gpm pressure compensating aerator. Less drain. Less handles. Rigid copper connection.
- ❑ **6831.000 8" Widespread Lavatory**
Rigid gooseneck spout. 1.5 gpm pressure compensating aerator. Pop-up drain. Less handles. Rigid copper connection.
- ❑ **6832.000 8" Widespread Lavatory**
Rigid gooseneck spout. 1.5 gpm pressure compensating aerator. Grid strainer drain. Less handles. Rigid copper connection.

Handles must be ordered separately.



GENERAL DESCRIPTION:

Cast brass valve bodies with rigid copper 8" (203mm) connections. Amaris 1/4 turn washerless ceramic disc valve cartridges. Fixed brass spout. One-half inch male inlet shanks with brass coupling nuts and shank nuts. All brass drain body (on applicable models) with 1-1/4" (32mm) tailpiece. 1.5gpm/5.7L/min. maximum flow rate.

PRODUCT FEATURES:

Pressure Compensating Aerator: Provides a constant water flow of 1.5 gpm throughout the pressure range.

Brass Construction: Durable - Excellent in high use applications. Ideal for prolonged contact with water.

Ceramic Disc Valve Cartridges: Assures a lifetime of drip-free performance.

Low Lead: Meets NSF Standard 61/Section 9 & Prop 65 lead requirements.

SUGGESTED SPECIFICATION:

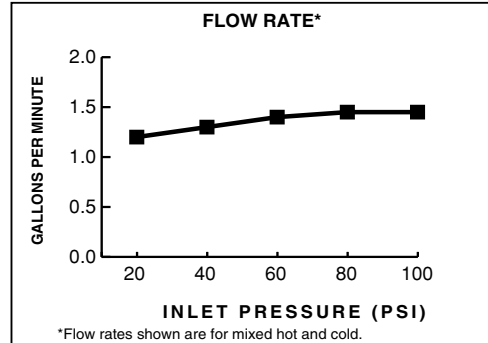
Two handle widespread lavatory faucet shall feature cast brass valve bodies with 8" rigid copper connections. All brass shank nuts and coupling nuts. Shall feature water-conserving 1.5 gpm/5.7L/min. pressure compensating aerator. Shall also feature 1/4 turn washerless ceramic disc valve cartridges. Fitting shall be American Standard Model #680_.000.____ and handle kit # 0000.____.

**TWO-HANDLE 8" WIDESPREAD LAVATORY FAUCET
WITH GOOSENECK SPOUT**

CODES AND STANDARDS

These products meet or exceed the following codes and standards:

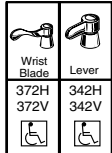
ASME A112.18.1
CSA B 125
NSF 61/Section 9



Product Number	Description	Finish
		Polished Chrome
		002
6830.000	Lavatory Faucet. 1.5 gpm/5.7L/min pressure compensating aerator. Less drain. Less handles.	
6831.000	Lavatory Faucet. 1.5 gpm/5.7L/min pressure compensating aerator. Pop-up drain. Less handles.	
6832.000	Lavatory Faucet. 1.5 gpm/5.7L/min pressure compensating aerator. Grid strainer drain. Less handles.	

Handles must be ordered separately.

The above fittings will accept the following Amarilis-Series handles.



Meets the American Disabilities Act Guidelines and **ANSI A117.1** Requirements for the physically challenged.

Other Aerators Available:

Part Suffix	Description
V15	1.5 gpm Pressure Compensating Vandal-Resistant Aerator
L15	1.5 gpm Pressure Compensating Laminar Flow
LV15	1.5 gpm Pressure Compensating Vandal-Resistant Laminar Flow Outlet
V05	0.5 gpm Pressure Compensating Vandal-Resistant Spray

Model
WETS 9000-1.28
Two Piece Floor Mounted Elongated Toilet Tank System

DESCRIPTION

Complete two piece vitreous china, elongated, floor mounted toilet tank system.

Flush Cycle

- Model WETS-9000.9010-1.28 gpf/4.8 Lpf (Left Handle)
 - ST-9000-A 1.28 Bowl
 - ST-9010-A 1.28 Left Handle Tank
- Model WETS-9000.9110-1.28 gpf/4.8 Lpf (Right Handle)
 - ST-9000-A 1.28 Bowl
 - ST-9110-A 1.28 Right Handle Tank



Left Handle Model Shown

SPECIFICATIONS

Quiet, two piece toilet tank system with vitreous china floor mounted elongated water closet and compact tank for left handle or right handle with the following features:

Two Piece Toilet System

- Contemporary design
- Siphon jet flushing action
- Depending on model selected, available with a right or left handle
- Quiet powerful gravity flush
- Elongated bowl
- 12" rough-in
- 3" valve opening for better flush performance
- Vitreous china
- Integral trap
- Color matched floor caps
- 2 1/8" fully glazed trapway
- Water pressure range: 25 to 80 PSI
- Tank and bowl must be ordered as two (2) separate items
- Water spot area 7 7/8" x 6 1/4"
- Easy handle actuation
- Water supply not included
- Toilet seat not included
- Compatible with toilet seat models: Olsonite 10CT, Bemis 1955CT & Church Commercial 295CT
- Toilet tank system is in compliance to the applicable sections of ASME A112.19.2/CSA B45.0/CSA B45.1

FEATURES

Performance

Sloan's toilet tank system incorporates a high performance flapper flush valve to ensure an efficient and optimum flushing performance. 3" valve opening offers better waste removal and powerfully clears the bowl.

Colors and Accessories

Available in the color White with polished chrome left or right trip handle. For additional information refer to our price book.

Functional

The tank valve provides a 1.28 gpf low consumption flush. Durable construction provides non-corrosive dependability. Anti-siphon ballcock allows reliable operation at high or low water pressures. Adjustment screw allows water level adjustment for individual preference.

Economical

High Efficiency Toilet tank system provides additional savings in water usage. Reduces maintenance and operation costs. Designed for commercial use and also ideal for residential.

Warranty

3 year (limited)

Product Specification

Elongated toilet tank system shall be made of vitreous china. Toilet tank system shall be installed at required height of 29" from floor to top of tank fixture. Toilet tank system shall be floor mounted. Toilet tank system shall include floor mount bolts and caps. Toilet tank system shall be a high efficiency 1.28 gpf. Toilet tank system shall be Sloan model WETS-9000.9010-1.28 (left handle) or Sloan model WETS-9000.9110-1.28 (right handle).



Listed by I.A.P.M.O.

This space for Architect/Engineer approval

Job Name	Date
Model Specified	Quantity
Variations Specified	
Customer/Wholesaler	
Contractor	
Architect	

The information contained in this document is subject to change without notice.

SLOAN®

Sloan Valve Company
10500 Seymour Avenue
Franklin Park, IL 60131
Phone: 1-800-9-VALVE-9 (982-5839)
or 1-847-671-4300
Fax: 1-800-447-8329
or 1-847-671-4380
www.sloanvalve.com

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Rev. 0b (07/10)



Model

WETS 9000-1.28

Two Piece Floor Mounted Elongated Toilet Tank System

DESCRIPTION

Complete two piece vitreous china, elongated, floor mounted toilet tank system.

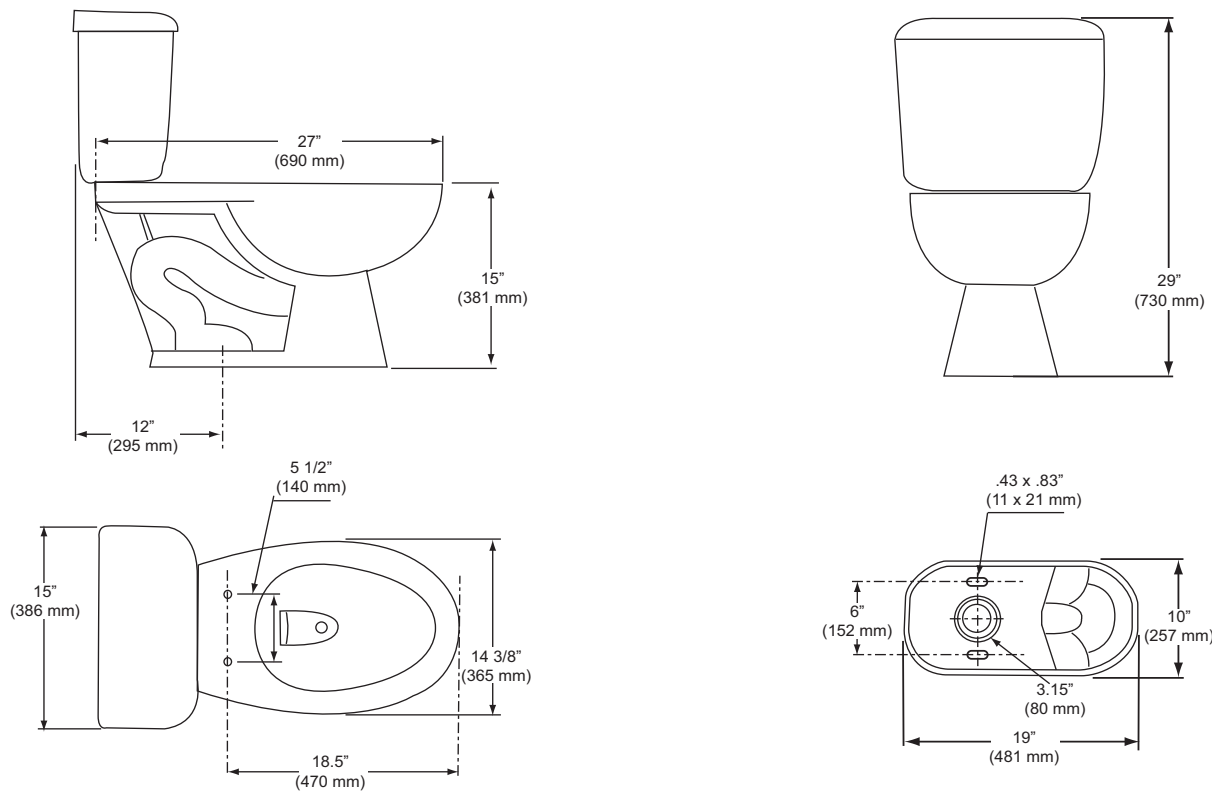
Flush Cycle

□ Model WETS-9000.9010-1.28 gpf/4.8 Lpf (Left Handle)

- ST-9000-A 1.28 Bowl
- ST-9010-A 1.28 Left Handle Tank

□ Model WETS-9000.9110-1.28 gpf/4.8 Lpf (Right Handle)

- ST-9000-A 1.28 Bowl
- ST-9110-A 1.28 Right Handle Tank

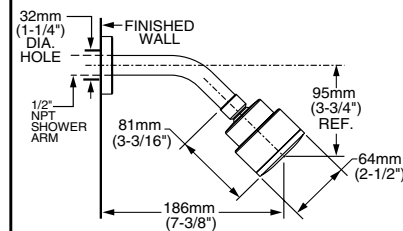
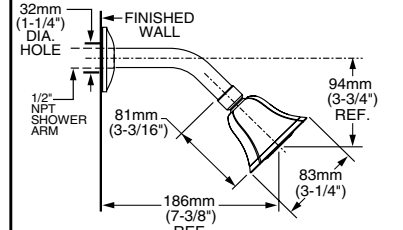
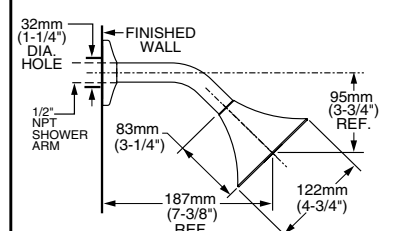
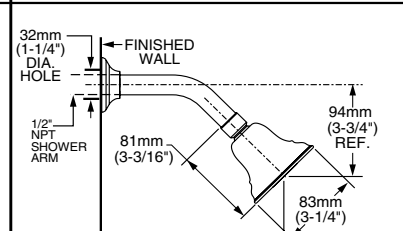
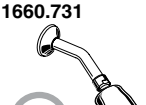
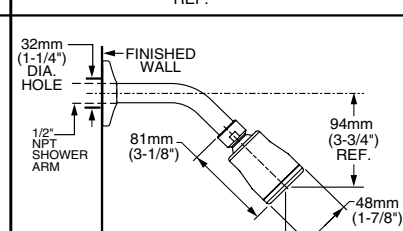
DIMENSIONS/ROUGH-IN

SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131

Phone: 1-800-9-VALVE-9 or 1-847-671-4300 • Fax: 1-800-447-8329 or 1-847-671-4380 • www.sloanvalve.com

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WETS-9000-1.28 Rev. 0b (07/10)

Model #	Description	Finishes	Roughing-In Dimensions
1660.631 	MODERN FloWise® WATER SAVING SHOWERHEAD • Up to 40% water savings • Turbine Spray at Max. 1.5 gpm/5.7L/min. • Angle adjustable	.002 Polished Chrome .075 Stainless Steel (PVD) .295 Satin Nickel (PVD)	
1660.611 	MODERN FloWise® WATER SAVING SHOWERHEAD • Showerhead only • Max. 1.5 gpm/5.7L/min.		
1660.831 	SQUARE FloWise® WATER SAVING SHOWERHEAD • Up to 40% water savings • Turbine Spray at Max. 1.5 gpm/5.7L/min. • Angle adjustable	.002 Polished Chrome .068 Blackened Bronze (PVD) .295 Satin Nickel (PVD)	
1660.811 	SQUARE FloWise® WATER SAVING SHOWERHEAD • Showerhead only • Max. 1.5 gpm/5.7L/min.		
1660.732 	TRANSITIONAL FloWise® WATER SAVING SHOWERHEAD • Up to 40% water savings • Turbine Spray at Max. 1.5 gpm/5.7L/min. • Angle adjustable	.002 Polished Chrome .099 Polished Brass (PVD) .075 Stainless Steel (PVD) .295 Satin Nickel (PVD)	
1660.715 	TRANSITIONAL FloWise® WATER SAVING SHOWERHEAD • Showerhead only • Max. 1.5 gpm/5.7L/min.		
1660.131 	TRADITIONAL FloWise® WATER SAVING SHOWERHEAD • Up to 40% water savings • Turbine Spray at Max. 1.5 gpm/5.7L/min. • Angle adjustable	.002 Polished Chrome .068 Blackened Bronze (PVD) .295 Satin Nickel (PVD)	
1660.111 	TRADITIONAL FloWise® WATER SAVING SHOWERHEAD • Showerhead only • Max. 1.5 gpm/5.7L/min.		
1660.731 	FloWise® WATER SAVING SHOWERHEAD • Up to 40% water savings • Turbine Spray at Max. 1.5 gpm/5.7L/min. • Angle adjustable	.002 Polished Chrome .068 Blackened Bronze (PVD) .075 Stainless Steel (PVD) .099 Polished Brass (PVD) .295 Satin Nickel (PVD)	
1660.710 	FloWise® WATER SAVING SHOWERHEAD • Showerhead only • Max. 1.5 gpm/5.7L/min.		



SEPTIC FEASIBILITY REPORT

FOR THE

REDMON RANCH WINERY
USE PERMIT

PROJECT LOCATED AT

867 DOWDELL LANE
ST. HELENA, CA 94574

COUNTY: NAPA
APN: 009-580-009

STANDARD INDUSTRIAL CLASSIFICATION NUMBER (SIC): 2084
INITIAL SUBMITTAL: AUGUST 28, 2015

PREPARED FOR REVIEW BY:

CITY OF ST. HELENA
1480 MAIN STREET
ST. HELENA, CA 94574



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I. INTRODUCTION

Redmon Ranch Winery is applying to the City of St. Helena for a Use Permit for a winery and commercial kitchen. This report has been prepared to evaluate the feasibility of treating and disposing of the increased wastewater flows for both domestic and process wastewater.

Redmon Ranch Winery's marketing plan that contributes to the wastewater flows is made up of the following:

- Production Capacity: 24,000 gallons of wine per year
- Employees: three full time, three part time
- Residential: Eight Residents (maximum)
- Food Preparation: 500 meals prepared per week to be sold off-site

Redmon Ranch Winery currently has the following buildings on the property: barn, second dwelling, main residence, guest bedroom building, storage building, and a garage. The owner proposes to remodel and relocate the following buildings on the property: the barn to a barrel storage building, guest bedroom building to an adjacent dry storage building, storage building to a winery lab and storage, and the garage to a new commercial kitchen and dry storage. Additionally, the owner will be constructing a new covered fermentation structure. No changes will be made to the main residence and second dwelling. See Appendix 1 for the existing and proposed site map.

The existing standard septic system treats the domestic wastewater generated from the main residence, second dwelling, and the guest bedroom building. The proposed development will demolish the existing septic system to Napa County standards and connect both domestic and process wastewater to the City of St. Helena's Wastewater Treatment Facility. The following sections provide a brief description of the existing systems, design flows, and disposal.

II. EXISTING WASTEWATER FLOWS AND TREATMENT SYSTEMS

A. Wastewater Generation

The domestic wastewater (DW) generated at the Redmon Ranch Winery is based on the number of residents. Based on Napa County Department of Environmental Management (NCDEM) Regulations for Design, Construction, and Installation of Alternative Sewage Treatments Systems¹, the existing domestic wastewater flow is able to be estimated at 120 gallons per bedroom per day. The property currently has two residential units with a total of five bedrooms. Given this information, the estimated existing domestic wastewater generated on the property is up to 600 gallons per day and is treated by an existing standard septic system on the property. The flow chart shown in Figure 1 below details the steps for domestic wastewater disposal at Redmon Ranch Winery:

¹ Napa County Regulations for Design, Construction, and Installation of Alternative Sewage Treatment Systems, Appendix 1, Table 4, 2006.

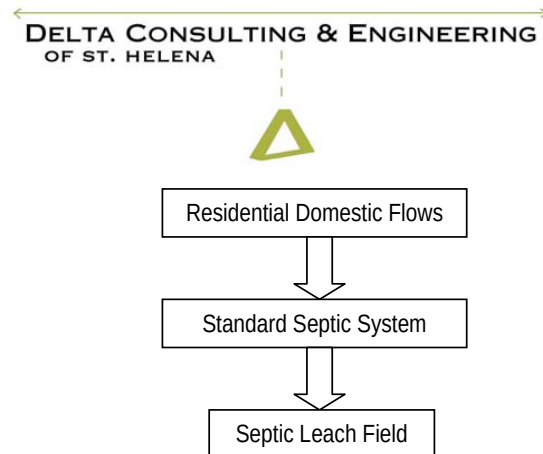


Figure 1: Existing Residential Domestic Wastewater Treatment System Schematic

III. PROPOSED WASTEWATER TREATMENT SYSTEM

A. Introduction

The new winery will have the capacity to produce 24,000 gallons of wine per year with a maximum of three (3) full-time employees and three (3) part-time employees. Additionally, the commercial kitchen will be permitted to prepare 500 meals per week to be sold at an off-site location. No visitation will be allowed at the new winery.

B. Domestic Wastewater Flow

Wastewater Generation

The domestic wastewater generated on the property is dependent on the number of employees at the new winery, the meals prepared at the commercial kitchen, and the number of residents at the two existing residences. In terms of wastewater generation, this gives the maximum number of people that will be contributing to the daily peak wastewater flow rate.

Estimating Wastewater Quantity

To calculate the daily peak DW flow rates generated on the property, the maximum number of people present at the site, as well as the amount of wastewater each person will generate, must be estimated. The winery's marketing plan proposes a total of six (6) employees, eight (8) residents and 500 meals to be prepared from the commercial kitchen on a weekly basis. Napa County estimates the wastewater generated by the employee is fifteen (15) gallons per day per employee, the wastewater generated by the residents is sixty (60) gallons per day per resident and the wastewater generated per meal is five (5) gallons per day. Based on this information, the domestic wastewater flow is 926 gallons per day. This would be the average amount of domestic wastewater entering the City of St. Helena's Wastewater Treatment Facility on a daily basis.

100 Gallon Grease Interceptor Tank – Commercial Kitchen & Dry Storage Building

A commercial kitchen will be installed in the Commercial Kitchen & Dry Storage Building. Prior to discharge to the city sewer system, kitchen wastewater must pass through a grease interceptor tank to reduce fats, oils, and grease. Grease interceptor tanks must be sized based on the maximum meals prepared per hour, gallons of wastewater generated per meal, the required amount of retention time in the tank, and a storage factor. Based on the grease interceptor sizing worksheet found in the Uniform Plumbing Code (also attached in the report as Appendix 2), the



minimum size of the grease interceptor is the following:

$$\text{Volume} = (33 \text{ Meals / Hour}) \times (2 \text{ Gallons / Meal}) \times (1.5 \text{ Hours Storage Time}) \times (1) =$$

Volume= 99 Gallons Minimum

The required minimum storage volume will be met for this project. The grease interceptor will be installed according to the City of St. Helena regulations. The location of the grease interceptor tank can be seen on sheet UP3.0 of the Use Permit Plans submitted with this report.

C. Winery Process Wastewater Flow

Wastewater Generation

Winery wastewater outflow and strength varies throughout the winemaking year. A typical winemaking year begins with harvest preparation and harvest. These events occur during the months of August, September, and October. The harvest season typically generates both the largest volume and maximum strength of process wastewater.

Estimating Wastewater Quantity

As every individual winery incorporates differing winemaking methods and equipment, the actual annual wastewater produced varies for each winery. The amount of wine produced in one year is the most important part in estimating a specific wastewater generation. Once a winery determines the volume of they will produce, various factors can be applied to estimate the wastewater that will be generated from production. Furthermore, it is very important to estimate the peak volume of wastewater that can be generated in one day. Undersized storage tanks and pumps can lead to the costly failure of wastewater treatment systems, and halt the production process.

Two methods are currently used by the local wastewater engineering consultants to determine both the annual and daily peak process wastewater flows generated from a winery. The Napa County Method is used to estimate the peak wastewater flow that could occur in one day during harvest. The Industry Method estimates the annual wastewater generation, then distributes a percentage of that flow to each month based the seasonal behaviors of winemaking. The daily peak flow is then estimated by dividing the volume wastewater generated during the peak month by the number of days in a month. The Industry Method generally produces a more realistic estimate of wastewater flows. Below will be an analysis and comparison of both methods to determine the volume of process wastewater produced. However, the Industry Method will be used to estimate the quantity of wastewater generated at the new winery.

Napa County Method:

Annual Wine Production (gallons)	# of Crush Days
<20,000	30
20,000-50,000	45
>50,000	60

Table 1: Napa County Method - Crush Days



The Napa County Method focuses on determining the maximum daily flow a wastewater system would be required to treat. This method uses two base assumptions: the amount of process wastewater generated annually is only distributed during harvest period, and a multiplication factor of 1.5 is used for process waste generation. The harvest period, shown in Table 1 above, is divided into days that grapes are crushed based on annual production in order to obtain a flow rate in gallons per day (GPD).

Based on the projected wine production of 24,000 gallons, the multiplication factor of 1.5, and forty five (45) crush days that wastewater generation is distributed over, The Napa County Method estimates a process wastewater (PW) peak harvest flow of 800 gallons per day.

Industry Method:

The Industry Method uses a ratio of 4-12 gallons of PW generated per gallon of finished wine produced to determine the annual PW volume produced. The ratio depends on the water conservation techniques utilized within each individual winery. In rare cases, if the winery is water conscious, the ratio can be as low as 4. For a typical winery, the ratio is higher. For the new winery, a value of 8 gallons of PW per gallon of wine is analyzed. The next step in estimating wastewater quantity is to determine the peak daily flow. The annual estimated PW is broken down into monthly percentage flows. This method attempts to consider the winery operations, which vary by month depending on the winemaking season. For example, with this method, the percentages increase for the harvest months and the percentages decrease for the non-harvest months.

Based on the projected annual wine production level of 24,000 gallons and 8 gallons of PW generated per gallon of wine, the Industry Method estimates 228,000 gallons of PW produced annually. Table 2 below shows the percentage breakdown for monthly and daily flows. This table is located in the 'Wastewater Flow Generation' page on the Water Balance Spreadsheet, found in Appendix 3.



Month	Day/mo	Estimated % of PW	Monthly PW Flow (gallons)	Average Daily PW Flow (gallons)	Month
Jan	31	6%	13,680	440	Jan
Feb	28	6%	13,680	490	Feb
Mar	31	7%	15,960	510	Mar
Apr	30	7%	15,960	530	Apr
May	31	7%	15,960	510	May
Jun	30	6%	13,680	460	Jun
Jul	31	6%	13,680	440	Jul
Aug	31	12%	27,360	880	Aug
Sep	30	15%	34,200	1,140	Sep
Oct	31	15%	34,200	1,100	Oct
Nov	30	7%	15,960	530	Nov
Dec	31	6%	13,680	440	Dec
TOTAL		100%	228,000		
Peak Average Daily Flow:				1,140	gpd
Peak Hourly Flow:				48	gph
30 Peak Minute Flow:				24	gallons
				Sep	

Table 2: Monthly Process Wastewater Flows

Based on Table 2 above, the peak process daily wastewater flow is 1,140 gallons per day. Using a peak hour factor of 25% of the daily wastewater flow, the peak process 30-minute wastewater flow is 285 gallons. In estimating the amount of process wastewater generated on the property, the industry method will be used as that produces the most wastewater.

Given the domestic wastewater flow of 926 gallons per day and the process wastewater flow of 1,140 gallons per day, the total wastewater generated on the property after development is 2,066 gallons per day.

The proposed method for disposal of both the process and domestic wastewater is through the City of St. Helena municipal sewer system. The main pollutants of concern affecting the sewer service charges for wastewater the 5-Day Bio-Chemical Oxygen Demand (BOD5) and the Total Suspended Solids (TSS). The typical concentrations of these pollutants in raw winery wastewater are shown below:

BOD5 – 5,000 mg/L
TSS – 500 mg/L



The treatment system described below will reduce pollutants in the raw process wastewater to levels acceptable for the municipal sewer system. The treatment options below assume the peak design flow of 2,066 gallons per day.

Discharge Option One – Direct Discharge to City Sewer System

2,500 Gallon Lift Station Tank

The proposed 2,500 gallon lift station tank would discharge the process and domestic wastewater directly into the city sewer system. All the domestic wastewater will be collected and directly connected to the lift station from the Second Unit, Main residence, Winery Lab & Storage, and the trash enclosure. The domestic wastewater from the Commercial Kitchen & Dry Storage will go through a 100 gallon grease interceptor and connect to the lift station. The process wastewater only comes from the covered fermentation structure and the exterior trench drain and will directly connect to the lift station. The force main from the lift station tank would connect to a proposed gravity main on Dowdell Lane that discharges wastewater to the city sewer system at the existing sewer manhole at Dowdell Lane/La Fata St. There would be no reduction in the wastewater strength with this option. The flow chart shown in Figure 2 below details the steps for discharge option 1:

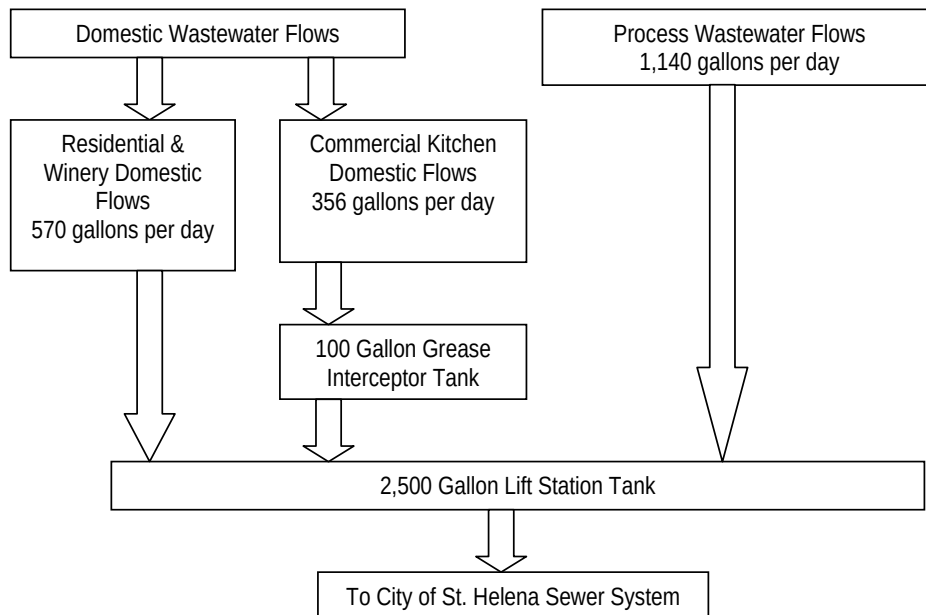


Figure 2: Discharge Option One – Direct Discharge to City of St. Helena Sewer System

Discharge Option 2 – Aeration System

This option proposes treatment of the process wastewater to provide significant BOD5 and TSS reduction, thereby reducing the wastewater strength and demand on the City Wastewater Treatment Plant.

1,500 Gallon Primary Settling Tank System

The process wastewater comes from the covered fermentation structure's interior trench drains and the exterior trench drain on the concrete pad adjacent to the covered fermentation structure. For process wastewater, the primary settling system does not provide a significant reduction in BOD5. Because of the high organic content in the wastewater, dissolved oxygen is rapidly depleted, resulting in anaerobic conditions. This leads to unsatisfactory odors and a disruption of the bacteria population that consumes and reduces the organic content in the wastewater. A primary settling system that provides too many days of storage is inefficient for the treatment of BOD5 in process wastewater. As such, the primary settling tank is sized to provide 1.5 days of storage during peak loading conditions. A 5% reduction of BOD5 is expected through the primary setting system.

The main purpose of the primary settling tank will be the reduction of TSS. In addition to the 1.5 days of storage provided, the tank will be fitted with an effluent filter designed to screen solids larger than 1/32". A reduction of 50% in TSS is expected through this stage of treatment. This assumption is based on standard solids reduction through primary settling tanks.

Nutrient Addition and pH Balance

In order to optimize the treatment process, nutrients and chemicals must be added to the process wastewater. Ideally, chemicals required to improve the treatment process will be added between the primary settling and aeration tanks. For this treatment system, the addition of chemicals will be accomplished by pumping a slurry mix into the pipeline between the primary settling and aeration tank. The addition of chemicals at the winery will be administered by a contracted septic maintenance consultant. This is to ensure satisfactory performance in maintaining pH and nutrients at optimal levels for the biological treatment of wastewater.

3,000 Gallon Combined Aeration & Secondary Settling Tank

The aeration and secondary settling tank will be combined into one tank with a baffle separating the aeration and secondary settling portion of the tank. The aeration is a critical part of the treatment process. It supplies dissolved oxygen to the wastewater and supports the bacteria population that consumes organic matter. The aeration tank must be sized to provide adequate hydraulic retention time for biological activity to take place (8-24 hours). The amount of oxygen supplied must be determined by the BOD5 reduction expected in this stage of treatment.

The proposed tank will provide a hydraulic retention time of approximately 1.5 days at peak loading conditions. The BOD5 influent concentration is expected to be 4,750 mg/L at peak loading conditions. The amount of oxygen supplied will be sufficient to reduce the BOD5 concentration in the wastewater to 400 mg/L. Because most aerators give their oxygen supply in pounds per day (lbs O2/day), the desired reduction in BOD5 must be converted from a concentration (mg/L) to lbs O2/day in order to select the appropriate aerator configuration. The conversion is shown below:



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$O_2 \text{ Required (lbs/day)} = (\text{Daily Flow MGD}) \times (\text{BOD5 Concentration mg/L}) \times (\text{Conversion Constant } 8.34 \text{ lbs/gal})$

$O_2 \text{ Required (lbs/day)} = (0.002066 \text{ MGD}) \times (4,750 - 400 \text{ mg/L}) \times (8.34 \text{ lbs/gal})$

$O_2 \text{ Required (lbs/day)} = 75 \text{ lb/day}$

From the calculation shown above, the bacteria will require 75 lbs O₂/day in order to consume the organic matter in the wastewater. The aerator configuration must be carefully selected to ensure that treatment goals are reached. For this project, the aerators to be used are from the VBT series, manufactured by The Advanced Aeration Group, LLC. One VBT600 aerator is required to provide 75 lbs O₂/day needed to support the treatment system. According to the manufacturer's specifications, the VBT600 produces 608 lbs O₂/day. However, this is not the amount of oxygen transferred to the wastewater. Orenco Systems, Inc. has produced documentation that details design guidelines for the amount of oxygen transferred to wastewater by the VBT aerator (see Appendix 4). According to Orenco design guidelines, the VBT600 will transfer 96 lbs O₂/day. Although this is greater than what is required, no additional reduction in BOD₅ concentration will be taken.

It is assumed that there will be no reduction of TSS in the aeration tank.

A summary of the wastewater strength characteristics after the aeration is shown below:

BOD₅ = 400 mg/L
TSS = 250 mg/L

The wastewater flows via gravity from the aeration portion of the tank into the secondary settling portion of the tank through a baffle. Secondary settling is an important part of the treatment system that involves aeration. The aerator in the aeration tank will keep solids suspended in solution of the air bubbles that are forced through the wastewater. Typically, secondary settling basins are sized to provide 1-2 days of hydraulic retention time. The 1,500 gallon tank for secondary settling will provide approximately 1.5 days of hydraulic retention time. The secondary settling tank is expected to reduce the TSS by 20% through gravitational settling and filter screening. The settling tank is also expected to provide a 10% reduction in BOD₅, as biological processes will continue to take place in the tank. A summary of the estimated wastewater strength characteristics after this stage of treatment are shown below:

BOD₅ = 360 mg/L
TSS = 200 mg/L

Wastewater from the combined aeration and secondary settling tank will flow via gravity to the lift station tank.

2,500 Gallon Lift Station Tank – Domestic and Process Wastewater

All the domestic wastewater will be collected and directly connected to the lift station from the Second Unit, Main residence, Winery Lab & Storage, and the trash enclosure. The domestic wastewater from the Commercial Kitchen & Dry Storage will go through a 100 gallon grease interceptor and connect to the lift station.

In addition, the lift station will also collect the process wastewater from the secondary settling tank to discharge the treated wastewater to the city sewer system. No further reduction in wastewater strength will occur in the lift station tank. A duplex pump system would be installed in the tank. The force main from the lift station tank would connect to the existing gravity main on Dowdell Lane that discharges the wastewater to the city sewer system. The flow chart shown in Figure 3 below details the steps for discharge option 2:

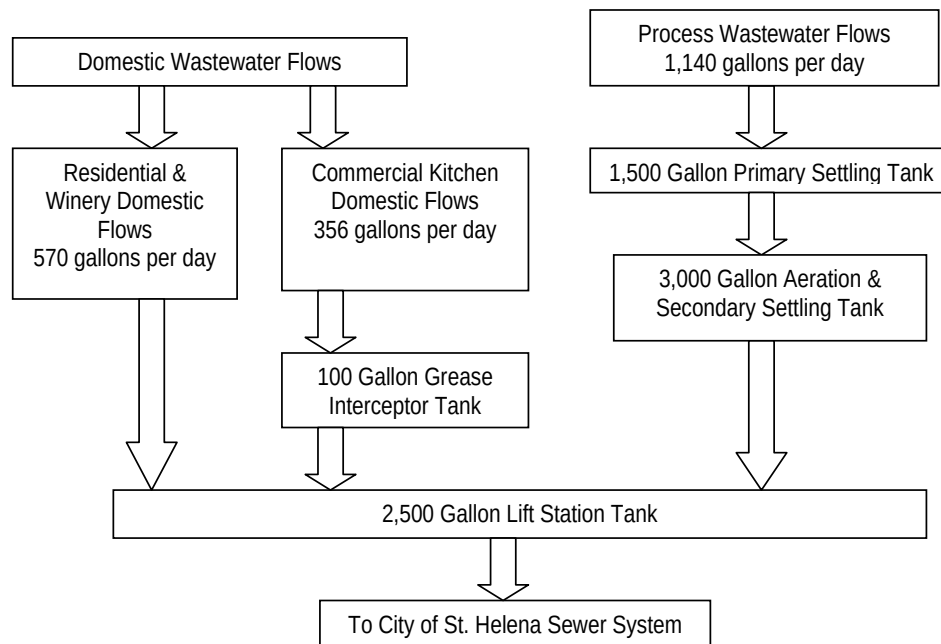


Figure 3: Discharge Option Two– Aeration System before entering City of St. Helena Sewer System

IV. CONCLUSION

Redmon Ranch Winery is requesting a use permit for an annual wine production of 24,000 gallons, a total of three full-time and three part-time employees, eight residents, and 500 meals to be prepared in the commercial kitchen and sold off-site on a weekly basis. Based on the analysis performed in this report, Redmon Ranch Winery is expected to generate a combined domestic and process waste of 2,066 gallons per day.

The existing septic system that handles all the domestic wastewater will be demolished per Napa County Standards and a new sewer connection to the City of St. Helena's Wastewater Treatment System will be established for both the domestic and process wastewater.

The addition of a winery and commercial kitchen for Redmon Ranch Winery is suitable for the parcel with respect to wastewater treatment and disposal. With the proposed site development and marketing plan, the amount of wastewater generated is not expected to adversely affect the City of St. Helena's Wastewater Treatment System.



Item No: 5.5

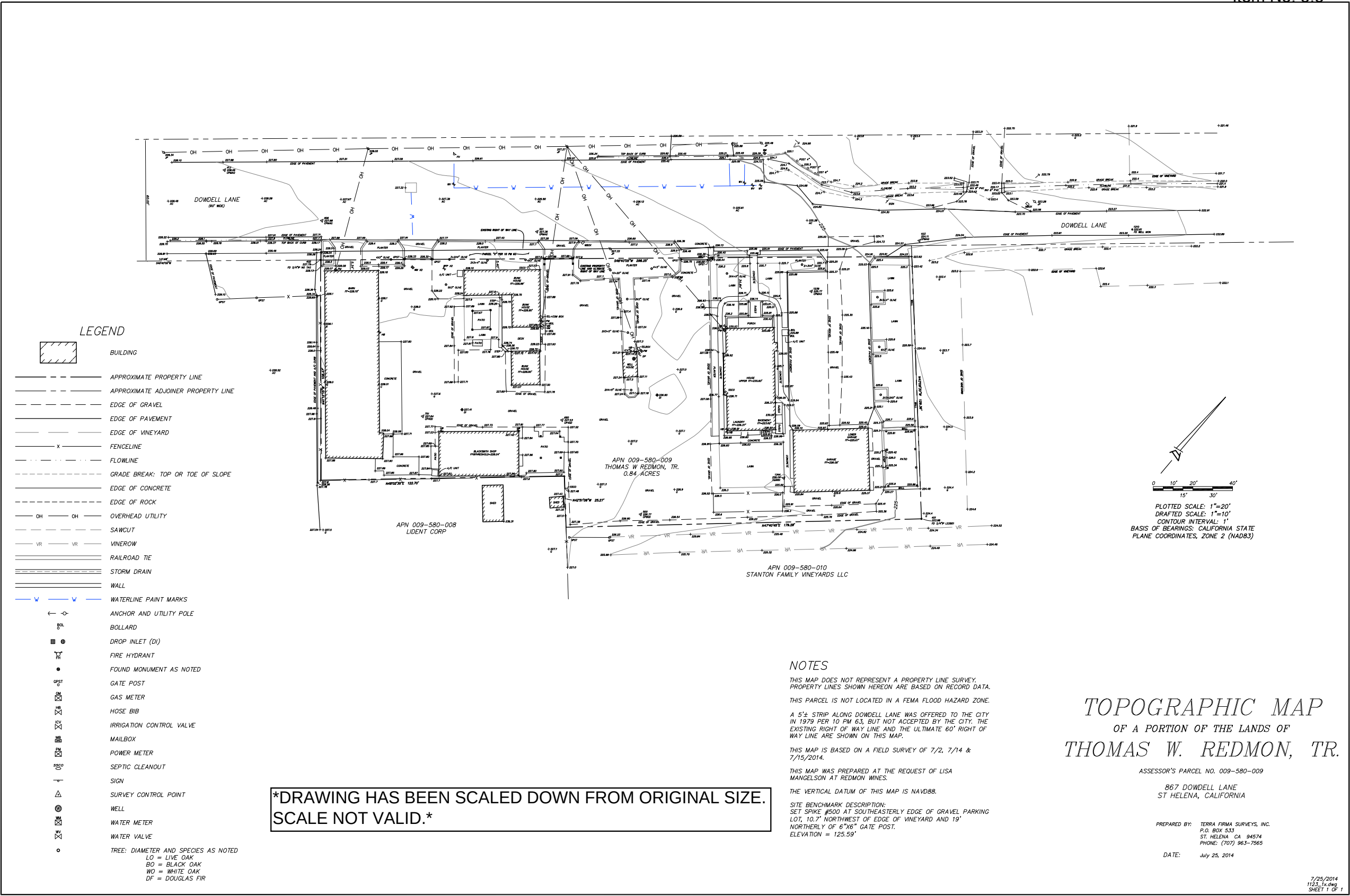
IX. APPENDIX

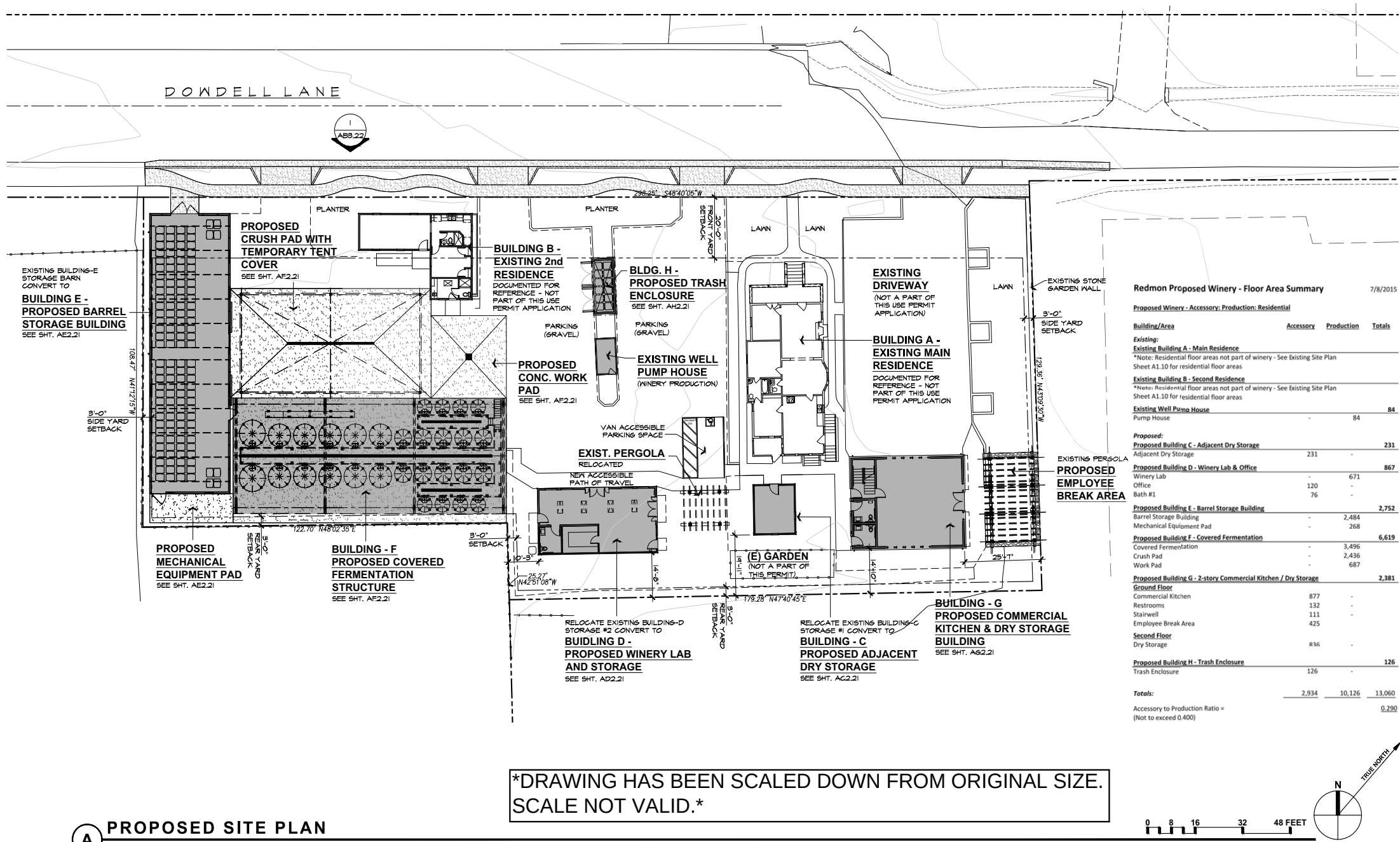
- 1 Existing & Proposed Site Map
- 2 Grease Trap Sizing Worksheet
- 3 Winery Wastewater Generation Calculations
- 4 Treatment Equipment



Item No: 5.5

APPENDIX 1:
EXISTING & PROPOSED SITE MAP





Item No: 75

PAUL KELLEIGH ARCHITECT

1438 S. Second Street, Suite 102, Napa, CA 94559
phone 707.257.1148 fax 707.266.1027
www.paulkellyarchitecture.com

These drawings are the property of Paul Kelley Architect and have been prepared specifically for this project. These drawings are not to be used for any other project, by any other entity or in another location.
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Consultant:

A Proposed Winery for
Redmon Ranch Winery

867 Dowdell Ln., St. Helena, CA 94574
APN: 009-580-009

Seal:

REVISIONS

Date: July 10, 2015

Project No:

Sheet Title: PROPOSED SITE PLAN

Sheet #:
A1.11
USE PERMIT SUBMITTAL



APPENDIX 2:

GREASE INTERCEPTOR SIZING WORKSHEET

Grease Interceptor Sizing Worksheet

The Uniform Plumbing Code Formula

Company	Delta Engineering		Calculated By	Kevin Zhang		Date	08-28-15	
Project	Redmon Ranch Winery		Location	867 Dowdell Lane				
Follow these six simple steps to determine grease interceptor size.								
Enter Calculations > Here	No of Meals Per Peak Hours	Waste Flow Rate	Retention Time	Storage Factor	Calculated Interceptor Size	Grease Interceptor		
	33	2	1.5	1	99	100		
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6		
1	Number of Meals Per Peak Hour (Recommended Formula):					Notes: Prepare up to 500 meals per week. Assume the meals are prepared 5 days out of the week with a 3-hour daily operation.		
	Seating Capacity x Meal Factor = Meals per Peak Hour							
	Establishment Type:					Meal Factor		
	Fast Food (45 min) Restaurant (60 min) Leisure Dining (90 min) Dinner Club (120 min)					1.33 1.00 0.67 0.50		
2	Waste Flow Rate:					Notes: Kitchen will have dishwashing machine		
	Condition With a Dishwashing Machine Without a Dishwashing Machine Single Service Kitchen Food Waste Disposer Only							
	Flow Rate							
	6 Gallons 5 Gallons 2 Gallons 1 Gallon							
3	Retention Time					Notes: Commercial Kitchen Waste		
	Commercial Kitchen Waste Dishwasher Single Service Kitchen Single Serving							
	Storage Factor							
	Kitchen Type Fully Equipped Commercial Hours of Operation 8 Hours 12 Hours 16 Hours 24 Hours Single Service Kitchen					Storage Factor 1.00 1.50 2.00 3.00 1.50		
5	Calculate Liquid Capacity					Notes:		
	Multiply the values obtained from step 1, 2, 3 and 4. The result is the approximate grease interceptor size for this application							
6	Select Grease Interceptor					Notes:		
	Using the approximate required liquid capacity from step 5, select an appropriate size as recommended by the manufacturer.							



APPENDIX 3:

WINERY WASTEWATER GENERATION CALCULATIONS



Wastewater Flow Generation

Overall System Operation

Process Wastewater

Winery Production (WP) = 10,000 cases/year
24,000 gallons (2.4 gallons/case)

Harvest Period: Estimated Peak Process Flows*

Number of Crush Days = 45
Process Wastewater (Harvest Period) = 800 gpd
Estimated theoretical total PEAK PW generated during Harvest period = 36,000 gallons PW generated during harvest

*Napa County Environmental Management Method

Non-Harvest (Remainder of Wine Making Year outside of Harvest Period)

Estimated Gallons of Process Water Generated per Gallon of Wine Produced = 8 gallons ww/gallon of wine produced
Gallons of Process Waste Generated Per Year = 192,000 gallons/year
MG of Process Waste Generated Per Year = 0.192 MG/year
Remaining Days of Year Outside Crush Period = 320 days
Estimated Process Daily (non-crush) Flows = 600 gpd

Process Waste Production Summary

Crush Period Flows = 36,000 Gallons/year
Non-Harvest Flows = 192,000 Gallons/year
Total Estimated PW Flows = 228,000 Gallons per year
Annual Basis, Average Daily PW Flows = 625 gpd

Process Flow Design for Peak Flow

Month	Day/mo	Estimated % of PW	Monthly PW Flow (gallons)	Average Daily PW Flow (gallons)	Month
Jan	31	6%	13,680	440	Jan
Feb	28	6%	13,680	490	Feb
Mar	31	7%	15,960	510	Mar
Apr	30	7%	15,960	530	Apr
May	31	7%	15,960	510	May
Jun	30	6%	13,680	460	Jun
Jul	31	6%	13,680	440	Jul
Aug	31	12%	27,360	880	Aug
Sep	30	15%	34,200	1,140	Sep
Oct	31	15%	34,200	1,100	Oct
Nov	30	7%	15,960	530	Nov
Dec	31	6%	13,680	440	Dec
TOTAL		100%	228,000		

Peak Average Daily Flow: 1,140 gpd
Peak Hourly Flow: 48 gph
30 Peak Minute Flow: 24 gallons
Sep



Domestic Wastewater

Use Type	Maximum Quantity (persons)	Waste Flow (GPP)*	Days Contributed	Gallons per Day	Annual DW Produced (gallons)
Residence	8	60	365	480	175,200
staff/day	6	15	250	90	22,500
Meals/week	500	5	52	356	130,000
Total Estimated DW Flows =				926	327,700
				Average Daily DW Flows=	
				897.81	

gpd

*GPP = gallons per person; Values From Napa County Department of Environmental Management

Wastewater Summary

Use Type	Gallons Per Day
Process Waste	1,140
Domestic Waste	926
Total Estimated Wastewater Flows =	2,066

gpd



APPENDIX 4:
TREATMENT EQUIPMENT



* Advanced Aeration, Inc.
102 Midway Industrial Park
Angleton TX 77515

Phone: 281-595-3456
Fax: 281-595-3458

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Products

VBTM 600 Series

Vacuum Bubble[®] Technology Aerator



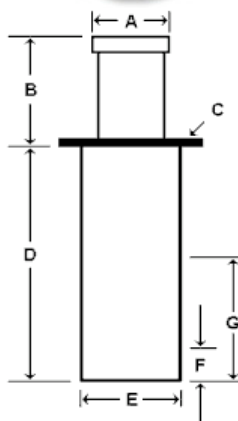
The Vacuum Bubble[®] Technology Aerator Model 600 is sized for large Dairy and Hog farming lagoons, large municipal sewage processing plants and large industrial applications. This unit has a floatation platform available as an option.

VBTM 600 Specifications

Cubic Feet/Minute(Air)	24
Cubic Feet/Day (Air)	35,000
Lb. O ₂ /Day	608
Lb. O ₂ /Hp/Hour	12.6
Approximate Flow(Gal/Day) @ 300 PPM BOD5	180,000

Motor	WEG 2Hp or 3Hp
Voltage 3 Phase	230/460
Full Load Amps	7.5/3.8

A: Motor Diameter	7.00"
B: Motor Height	11.00"
C: Motor Mount (Square)	14.00"
D: Air Tube Length	23.00"
E: Air Tube Diameter	12.00"
F: Min Water Line	6.00"
G: Max Water Line	14.00"

[VBTM 600 Installation PDF](#)

Markets

Confined Animal Feed Operations (CAFO)

- Waste Lagoon Treatment
- Deep Pit Barn Treatment
- Flush Water Treatment

[Read More](#)

Municipal Wastewater Treatment

- Aeration Lagoons
- Solid Waste Separation

[Read More](#)

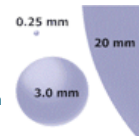
On-Site Wastewater Treatment

- Pre-Treatment
- Aerobic Combustion

[Read More](#)

Science

Advanced Aeration Inc.'s Vacuum Bubble[®] Aerators are built upon sound scientific principles and engineering practices. The bubbles are created under a partial vacuum and consequently, as they enter the water, the higher water pressure surrounding them causes them to collapse further. There are no other, documented aerators with bubbles as small as 0.25mm in diameter



Vacuum Bubble[®] Technology and Aerobic Bacteria are great for:

- Conventional Waste Treatment
- Aerobic Efficiency
- Nitrification

[Read More](#)

Redmon Ranch Winery & Commercial Kitchen

City File #PL15-051

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Lead Agency:
City of St. Helena

August 2016

City of St. Helena
Planning Department
1480 Main Street, St. Helena, CA 94574
(707) 967-2792



INITIAL STUDY OF ENVIRONMENTAL SIGNIFICANCE

PROJECT NAME: Redmon Ranch Winery

CITY FILE NUMBER: PL15-051

SITE ADDRESS: 867 Dowdell Lane

APN: 009-580-009

GENERAL PLAN: Industrial

ZONING: Industrial

APPLICANT: Tom Redmon
1620 Sylvaner
St. Helena, CA 94574
(707) 326 2838

PROJECT DESCRIPTION

Overview. The proposed project includes the construction of two new structures, the conversion of existing buildings, including the conversion of an historic barn, as well as on and off-site infrastructure improvements to accommodate a 24,000 gallon per year production winery at the Redmon Ranch, located on the south side of Dowdell Lane east of Main Street (State Route 29) at 867 Dowdell Lane. The site contains approximately 0.84 acres of land and is located in the (I) Industrial zoning district. Proposed improvements would include renovating the on-site barn and converting it to a production winery in a manner consistent with the U.S. Secretary of Interior standards for the rehabilitation of a historic structure. No tastings or tours are proposed as part of project operations. A commercial kitchen is also proposed on the site and would be leased by a licensed catering company catering company which would be separate from the proposed winery operation. Two existing non-conforming dwellings on the site would remain.

Other proposed improvements would include street improvements along the south side of Dowdell Lane, a new paved parking lot on the east side of the project site, on-site water quality features and utility extensions from Dowdell Lane (water and wastewater) to serve proposed uses.

Approval of a Demolition Permit and Design Review is required to construct the proposed project and approval of a Use Permit by the City of St. Helena is required to operate the proposed winery. The proposed commercial kitchen space is a permitted use.

Proposed buildings and uses. The applicant is proposing to convert an existing 2,915 square foot barn built in the 1890 to 1900 era to a barrel storage warehouse associated with the proposed winery. Other winery improvements would include a new 6,619 square foot, single story fermentation structure to be located on the south side of the site. A 2,436 square foot crush pad, fermentation and outdoor work area would be constructed just to the north of the fermentation structure. During wine processing, a temporary tent structure would be erected above the crush pad. Due to the historic character of the barn, the historic architect's review finds that the otherwise standard requirement for a covered crush pad area may be waived in favor of a temporary canvas cover during harvest and automatic diversion valves for directing water away from critical drainage paths.

Separate from the winery, the existing garage is would be demolished in order to make way for the proposed 2,381 square foot commercial kitchen on the southeast corner of the site. The commercial kitchen would be for the preparation

of catered foods to be sold off-site or served to the public off-site. There will be no customers for consuming food on the project site.

An existing main dwelling and a secondary dwelling on the site generally fronting on Dowdell Lane, would remain on the site and may be occupied by the owners, by employees of the winery or commercial kitchen workers or any other residential dweller.

Two other non-historic storage sheds would be relocated on the site and used for dry storage. A number of existing accessory structures on the site would be repurposed to support future winery and/or commercial kitchen uses. The total amount of building area included in the project would be 15,916 square feet.

Parking and Access. Seven parking spaces would be provided on the site, including two handicapped-accessible spaces. Parking lots would be constructed according to City standards and could include a mix of surfaces, including gravel, asphalt or concrete. Four driveways would be constructed along Dowdell Lane to allow for employees and service trucks to support proposed uses.

A public sidewalk would be constructed along the south side of Dowell Lane, consistent with City design standards.

The City of St. Helena will require the installation of on-site bicycle racks.

Site operations. The proposed Redmon Winery would be limited to wine production, bottling, a laboratory space, office, employee lounge and storage. No public tastings, tours or similar events would be allowed. During harvest, the winery would generally operate from 6 am to 6 pm. Hours would be reduced during the non-harvest period. It is anticipated that the winery would have two full-time and two part-time employees plus administrative staff.

The on-site commercial kitchen would be used by a licensed catering company and would be a separate entity not associated with the proposed winery. Hours of operation of the kitchen would be from 6 a.m. to 6 p.m. most months of the year.

Existing on-site dwellings could be occupied by live-work units, similar to any other residential use.

Building design features. The existing historic barn on the site would be restored pursuant to Secretary of Interior Standards for the rehabilitation of a historic structure and reused as a barrel storage building. The barn would be refinished with a combination of horizontal lap and board and batten siding, a rusticated corrugated metal roof and would be approximately 26 feet in height. Although interior seismic retrofitting would be undertaken to meet California Building Code standards, these upgrades would not be visible outside of the building. The commercial kitchen would be finished with board and batten siding with a stone veneer base, a composition shingle roof and would be approximately 21 feet in height. The fermentation structure would be open on all sides and supported by a steel frame with steel columns. No significant design changes are proposed to the two existing dwellings on the site, although interior improvements may be made to allow a live-work occupancy.

Landscaping. The applicant proposes to maintain the existing landscape plantings on the site and to maintain a number of ornamental trees on the site, including a number of olive trees. All existing trees would remain. Existing planter areas along the south side of Dowdell Lane would be retained as would a number of turf areas on the site. Large un-built portions of the site would be graveled. Future on-site plantings would be drip-irrigated with remote automatic controllers to minimize water use and evaporation. Planting beds would also be mulched for the same purpose. The project would be conditioned on meeting the State of California Model Water Efficient Landscape Ordinance.

Signs and lighting. One or more small business identification signs would be installed along the Dowdell Lane street frontage. Similarly, building and parking lot lighting would be installed for safety. The number, type, location and design of future signs and lighting fixtures will be subject to City requirements and the Use Permit and Design Review process. Approval of a Sign Permit by the City is also required.

Utility services. Potable water service to support on-site residential, commercial kitchen and non-winery uses would be provided by the City of St. Helena. Similarly, wastewater service would be extended to the project site by the City of St. Helena. Water to support wine production and associated uses would be provided by a private on-site well. Wastewater would be piped to the City's wastewater treatment plant southeast of the site. Wastewater will not be permitted to contain wine production byproducts and a sewer sampling manhole will be installed at or near the unit cleanout per City Standards. The project is anticipated to generate approximately 2,066 gallons of wastewater per day and the applicant will be required to obtain a Wastewater Discharge Permit from the Department of Public Works as specified in St Helena Municipal Code Section 13.24.50.

The project applicant will be required by the City to ensure that stormwater runoff is collected and transported off of the site in a manner consistent with City of St. Helena engineering standards and requirements. The project applicant will also be required to comply with City of St. Helena surface water quality requirements during building demolition, grading and construction through implementation of an erosion control plan. Long-term water quality features would also be installed as required by the City of St. Helena.

Requested Land Use Entitlements. The applicant has requested approval of a Demolition Permit, Use Permit, and Design Review by the City of St. Helena Planning Commission. These applications will be considered at a public hearing by the Commission.

The project site is also required to be annexed to the St. Helena Municipal Sewer District No. 1.

ENVIRONMENTAL SETTING

The project site contains 0.84 acres of land located on the south side of Dowdell Lane in the southern portion of St. Helena, east of the intersection of Main Street (State Route 29) and Dowdell Lane. The street address for the site is 867 Dowdell Lane and the Assessor's Parcel Number is 009-580-009.

Exhibit 1 depicts the location of the project site in context with nearby features, including nearby roadways.

The site contains several older structures, including a main and secondary dwelling unit, a historic barn structure containing approximately 2,752 square feet, a garage and other smaller out buildings. The site is known as the "Redmon Ranch."

Surrounding properties have been developed for a variety of uses, including commercial and light industrial uses to the north and west (including an automotive repair shop and Crocker & Starr winery); agriculture land planted to vineyards to the east; and a combination of vineyards and light industrial uses to the south.

GENERAL PLAN AND ZONING

The City of St. Helena General Plan provides the vision for the community's natural and built environment through a series of goals and policies. To ensure that this desired vision is realized, the General Plan has been designed to be internally consistent and cross-referenced with other documents, including the City's Zoning Ordinance which guides, controls and regulates future growth and development in a sound and orderly manner.

The project site is designated for Industrial uses in the St. Helena General Plan and is zoned as "(I): Industrial."

REQUIRED DISCRETIONARY ACTIONS

Approval of the proposed project will require the following discretionary actions:

Demolition Permit, Use Permit and Design Review by the St Helena Planning Commission.

OTHER PUBLIC AGENCY REVIEW

In addition to the required City entitlements identified above, there are no other agencies that have discretionary authority to undertake or approve all or some portion of the proposed project (and which are considered Responsible Agencies under CEQA).

An encroachment permit would be required for work with the Dowdell Lane right-of-way from the St. Helena Public Works Department. The City has requested that the project site be annexed into the St. Helena Municipal Sewer District No. 1. This action would be accomplished by the City and would not require action by the Napa County Local Agency Formation Commission.

The Napa County Planning, Building and Environmental Services Department would be required to approve the commercial kitchen.

DOCUMENTS INCORPORATED BY REFERENCE

CEQA Guidelines Section 15150 recognizes the desirability of reducing the volume of documentation necessary for environmental review and authorizes incorporation by reference any portion of relevant documents that provide general background to the environmental document. As such, this Initial Study incorporates the following documents, which were reviewed as part of the analysis of certain topical sections provided herein:

- City of St. Helena, General Plan Policy Document (1993 and amendments through 2015).
- City of St. Helena, Zoning Ordinance (1994 and amendments through 2016).

Additional documents not reflected in this section are identified and analyzed within the Initial Study. These documents are available for review at the City of St. Helena Planning Department, 1480 Main Street, St. Helena, CA 94574 (707) 967-2792.

PURPOSE OF INITIAL STUDY

The fundamental premise on which CEQA is based is that environmental protection can be achieved through informing decision-makers and the public about a project's potential environmental effects and identifying ways to reduce them. As a public disclosure document, an Initial Study must identify all effects on the environment resulting from a project and indicate the manner in which these effects can be mitigated or avoided to a less-than-significant level. Where it is uncertain that a significant effect on the environment may occur, or where a significant effect is found to exist but cannot be mitigated to a less-than-significant level, an Environmental Impact Report (EIR) must be prepared.

ENVIRONMENTAL PROCEDURES AND CHECKLIST

This Initial Study presents a preliminary evaluation of the potential environmental impacts resulting from the project. The Initial Study was prepared in accordance with the California Environmental Quality Act (Public Resources Code Section 21000-21178.1) and the Guidelines for Implementation of the California Environmental Quality Act (Chapter 3, Title 14, California Code of Regulations (*CEQA Guidelines*)). This Initial Study considers all aspects of the proposed project, as required by Section 15063(a) (1) of the CEQA Guidelines¹.

The Environmental Checklist provided below, as contained in Appendix G of the CEQA Guidelines, was utilized to focus this Initial Study on the environmental factors that may be impacted or further impacted by implementation of the proposed project. Following each of the topical areas presented in the Environmental Checklist, a brief discussion is presented regarding the topical environment setting, the relevance of the proposed project to the topical environment setting, any and all potential impacts within the topical area and, as appropriate and mitigation measures necessary to reduce potentially significant impacts to a less-than-significant level.

SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below identify "Potentially Significant Impacts" affected by this project, as indicated by the checklist on the following pages. However, as demonstrated in this Initial Study in the applicable topical sections mitigations

¹ Section 15063(a) (1) of the CEQA Guidelines requires that all phases of project planning, implementation, and operation must be considered in the Initial Study of the project.

are proposed for incorporation into the project that will reduce or eliminate these impacts to "Less Than Significant" or "No Impact."

- | | | |
|---|---|---|
| ☒ Aesthetics | ☐ Agricultural/Forestry 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 | |

DETERMINATION:

On the basis of information found in this initial evaluation, the City of St. Helena finds that:

- ☐ The proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ 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 or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ The proposed project MAY have a significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ 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.

A Notice of Mitigated Negative Declaration has been prepared and posted for the period of August 12 – September 1, 2016.

- ☐ DE MINIMIS IMPACT FINDING: finds that there is no evidence before the City that the proposed project will have the potential for an adverse effect on wildlife resources or the habitat upon which wildlife depends; therefore, on the basis of substantial evidence, the presumption of adverse effect is rebutted. A Certificate of Fee Exemption will be completed and filed with the Notice of Determination for the project.
- ☐ Based on the information in this Initial Study, wildlife resources or the habitat upon which they depend may be impacted; therefore, even if the environmental effect is satisfactorily mitigated, the project is subject to the California Department of Fish and Wildlife Environmental Fee.



Noah Housh, Planning Director
City St. Helena

Date: August 12, 2016

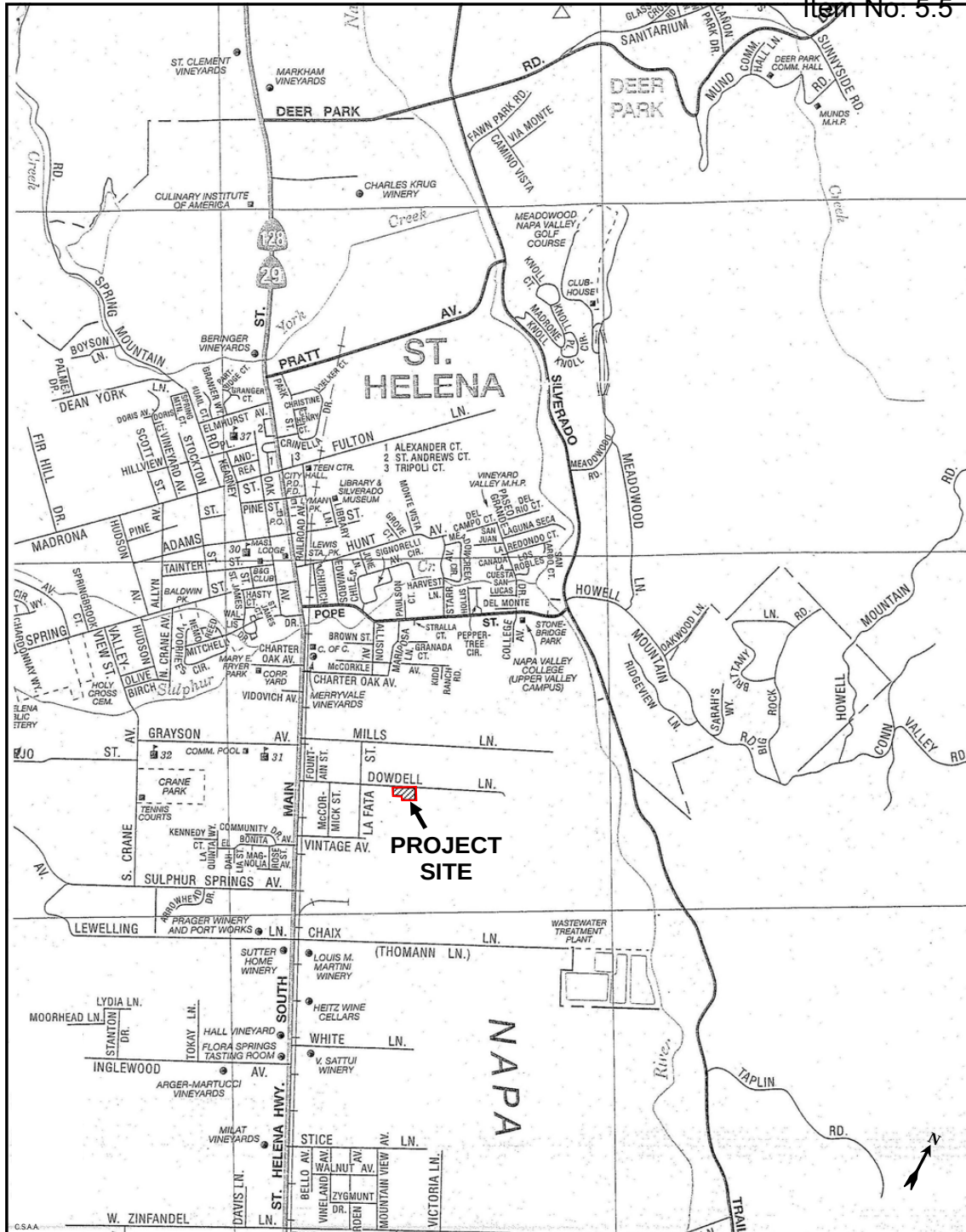


Exhibit 1
PROJECT LOCATION

CITY OF ST. HELENA
REDMON RANCH WINERY
INITIAL STUDY

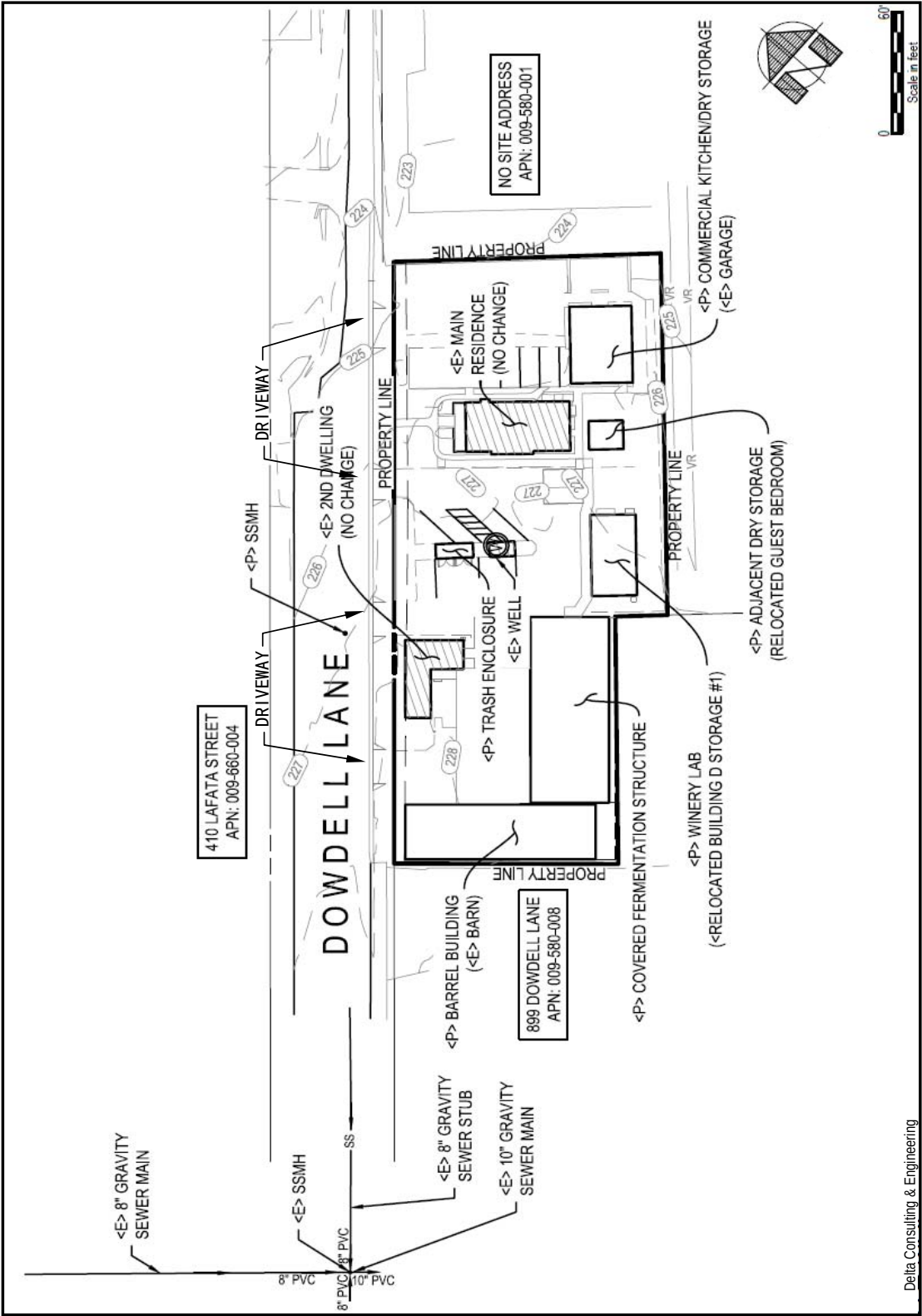


Exhibit 2
PROPOSED SITE PLAN

CITY OF ST. HELENA
REDMON RANCH WINERY
INITIAL STUDY

ENVIRONMENTAL CHECKLIST

This Environmental Checklist Form has been provided to assist in the analysis of the environmental issues associated with the project. The following standard rules, generated from the CEQA Guidelines, apply when completing and reviewing the Environmental Checklist Form:

1. *A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).*
2. *All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.*
3. *Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.*
4. *"Negative Declaration: Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).*
5. *Earlier analysis may be used where an effect has been adequately analyzed in an earlier EIR or Negative Declaration. In this case, a brief discussion should identify the following:*
 - a. *Earlier Analysis Used. Identify and state where they are available for review.*
 - b. *Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.*
 - c. *Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.*
6. *Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.*
7. *Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.*
8. *This checklist is only a suggested form, and lead agencies are free to use different formats. However, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.*
9. *The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to a level of less-than-significant.*

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
1. 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?		✓		
<u>Discussion:</u> a. No parks, playgrounds, scenic vistas or other public gathering places are located on the project site that provide views of nearby vineyards, hillsides or other scenic features. No impacts would occur with respect to this topic. b) No officially designated state scenic highways are located adjacent to or in the vicinity of the project site. State Route 29 (Main Street), is considered an eligible state scenic highway (it is not officially designated) and is located approximately 800 to 1000 feet west of the project site (http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/). No impacts would result with respect to this topic. c. The site is in a designated industrial area currently developed with two dwellings, a large historic barn building, a garage and other small ancillary buildings. Uses to the north and west of the project site include light industrial and a winery complex under construction. Proposed improvements on the property to create a winery and commercial kitchen would include construction of a crush pad, relocation of small buildings on the site and demolition of one small building. However, proposed uses would generally be located in existing buildings that have been repurposed to accommodate proposed uses. The visual character and quality of the site would be consistent and compatible with adjacent light industrial uses and would not be substantially changed as a result of the proposed project. No impact would occur with respect to this topic. d. It is likely that new exterior lighting fixtures would be proposed for the winery complex. Lighting could result in increased light and glare for nearby properties, motorists on Dowdell Lane and others. Therefore, this impact is considered potentially significant. <u>Mitigation Measure:</u> 1. Consistent with Municipal Code Section 17.124.060(D), new exterior light fixtures shall be equipped with cut-off-lenses and directed downward so as to minimize off-site light and glare from the site and shall not be more than 15 feet in height. <u>Conclusion:</u> The project would not change the visual character of the project site or significantly degrade the visual character or quality of the site, since it is located within a developed light industrial area of the community. With implementation of the Mitigation Measure listed above, impacts to aesthetics would be considered less-than-significant.				
2. AGRICULTURAL & FORESTRY RESOURCES. Would the project:				
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?				✓
b. Conflict with existing zoning for agricultural use or a Williamson Act Contract?				✓
c. Conflict with existing zoning for, or cause rezoning of forestland (as defined by PRC Sec. 12220(g), timberland (as defined in PRC Sec. 4526), or timberland zoned Timberland Production (as defined in PRC Sec. 51104 (g)?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to a non-agricultural use or conversion of forestland to a non-forest use?				✓
<u>Discussion:</u> a. The site is located in a developed area designated for industrial uses and is not listed on the Napa County Important Farmlands Map as Prime farmland or as Farmland of Statewide Importance as published by the State Department of Conservation (2014); therefore, there is no impact. b. The site is zoned for "Industrial" uses and is not under a Williamson Act contract. No impact would result. c,d. The project site is located in a developed area designated for industrial uses and developed with a barn, residences and related accessory buildings. No significant stands of trees are present on the site. Approval and construction of the project would not result any impacts to zoning for forestland or timberland. e. The project site is currently developed as documented above and approval and construction of the project would not result in conversion of farmland or timberland to either a non-agricultural or non-forest use. <u>Conclusion:</u> The proposed project will result in no impact on agricultural resources and no mitigation measures are required.				
3. AIR QUALITY & GREENHOUSE GAS EMISSIONS. [Significance criteria established by the BAAQMD 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 or dust affecting a substantial number of people?			✓	
f. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	
<u>Discussion:</u> a. The City of St. Helena and other communities are located within the Bay Area Air Quality Management District (BAAQMD). The BAAQMD has adopted a regional Clean Air Plan to preserve and enhance regional air quality consistent with State and Federal air quality standards and requirements. The Clean Air Plan is based on build-out of the respective adopted general plans of each city and county on the District. Since no amendment to the existing Industrial General Plan land use designation has been requested, there would be no conflict with or obstruction of the applicable Clean Air Plan. No impact would result with respect to this topic. b. A project will normally have a significant environmental effect if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The City of St. Helena is located within the greater San Francisco Bay Area air basin. The BAAQMD is responsible for administering provisions of Federal and State clean air requirements, which include ongoing monitoring, enforcement and policy and program development within the region. Pursuant to the BAAQMD Guidelines, total emissions that exceed the daily thresholds of significance shall be considered to have a potentially significant impact. The threshold of significance is defined as 80 lbs/day of Reactive Organic Gases (ROG), 80 lbs/day of Nitrogen Oxides				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
(NO_x), and 80 lbs/day of Small Particulate Matter (PM₁₀). Concern for regional air quality effects are addressed by monitoring these ROG's. One of the pollutants of greatest concern is carbon monoxide, which can be elevated as a result of increased levels of traffic and congestion along streets and at intersections associated with a proposed project. General Air Quality Effects – The City of St. Helena has generally good air quality due to relatively limited development within much of the Napa Valley, minimal heavy industrial uses and due to breezes that flow through the valley in the summer evenings when air quality within the region is at its worst; however, the greater San Francisco Bay Area air basin is located in a Federally non-attainment status for 1-hour ozone and in a State non-attainment status for 1-hour ozone and particulate matter. Although the City of St. Helena is a minor contributor, it is an incremental contributor to the quality of the regional air basin and the proposed project's contributions are considered minor. Traffic Related Emissions – The proposed project is not anticipated to generate a significant number of new vehicle trips. Any change in the level of carbon monoxide resulting from the additional vehicle trips would be minor (see Section 16 of this Initial Study) within the larger air basin and would be consistent with the industrial use envisioned in the City's General Plan and implementing ordinances, resulting in a less-than-significant impact. Construction Generated Dust – The project could result in temporary, short-term air quality impacts from dust generated by equipment and vehicles operating on the site during construction. This is a potentially significant impact when considering the cumulative effect on the greater San Francisco Bay Area air basin. The effects of construction activities, particularly relating to graded soils to construct the recreational improvements, would result in increased settling of dust on horizontal surfaces and locally elevated PM₁₀ (particulate matter) within or adjacent to the project site. The actual level of emissions from construction-related impacts could vary greatly depending on a number of factors. Therefore, the BAAQMD's approach to CEQA analyses of construction impacts emphasizes implementation of effective and comprehensive control measures, rather than detailed quantification of emissions. BAAQMD guidelines establish that, if the following recommended control measures are implemented, the cumulative impact on air pollutant emissions from construction activities would be considered less-than-significant on the greater air basin. - Water all active construction areas at least twice daily. - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard where transport of these materials occurs. - Pave, apply water, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. - Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. - Sweep adjacent public streets daily with water sweepers if visible soil material is carried onto streets. These guidelines are recommended to be implemented as part of the project to minimize exposure to temporary, short-term construction-related pollutants. Consistent with the BAAQMD guidelines, the mitigation measures listed below are proposed to ensure maintenance of air quality standards, including PM₁₀ in the atmosphere, and where implemented in this proposed project will result in a less-than-significant impact on the air quality within the region. c. The size of the proposed project and the limited number of normal, operational vehicular trips to and from the site (as documented in Section 16 of this Initial Study) would not contribute a cumulatively considerable amount of air pollutants to the region. There would be no impact with respect to this topic. d. The project site has been developed for service commercial/light industrial/residential uses for a number of years and the proposed expansion of the winery operation would represent a continuance of this type of use. The proposed use would include delivery of grapes and trucking of cases of wine by trucks, many of which would be diesel-powered. However, diesel truck operations would only occur during a portion of the year. Other winery production operations would be electrically powered. Therefore, this impact would be less-than-significant. e. Although proposed winery operations, especially operation of the crush pad, would be located adjacent to a residential neighborhood to the west, actual fermentation and production operations would be conducted within an enclosed building to minimize odor effects on surrounding properties. It is anticipated that the cumulative effect of increased odors resulting from the proposed facility would blend with other winery operations the northern Napa County area so as to be less-than-significant. f. Construction of the proposed project would add a number of additional vehicle trips to the site that would incrementally add to greenhouse gas emissions. However, Table 3-1 contained in the May 2011 Bay Area Air Quality Management District CEQA Guidelines demonstrates that light industrial uses under 121,000 square feet of floor area do not significantly contribute to greenhouse gas emissions. Although this methodology has been challenged in court, it is still the standard threshold hold commonly used by municipalities in practice. Since the proposed project contains would				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
contain square footage under this threshold, this impact would be less-than-significant.				
<u>Mitigation Measures:</u> 1. All grading and construction equipment shall be shut down when not in use to ensure the project's contribution to maintaining existing ambient air quality within the vicinity of the project site and to avoid unnecessarily exposing people in the area to odors and fumes associated with such equipment. 2. Grading and excavation activities shall not occur during windy periods to avoid unnecessary exportation of dust and similar materials that can degrade air quality. 3. Exposed soil surfaces shall be sprinkled with non-potable water to retard dust and disturbed areas shall be fully landscaped upon completion of the project. 4. Any demolition materials and solid waste including broken asphalt and concrete, soils stockpiles, steel, wood and metal scraps materials, domestic waste, and similar materials shall be properly managed to prevent the accumulation of dust or similar materials that can degrade air quality. The site shall be cleaned daily and such materials shall be properly placed in dumpsters or removed from the project site and placed in a licensed landfill facility. 5. Grinding asphalt on the site, if applicable, shall be conducted in a manner that avoids degrading the ambient air quality in the area. 6. The collection of materials, such as construction debris and loose dirt, within the public right-of-way adjacent to the site shall be prohibited. 7. For the importing of materials for clean fill to the site, if needed,, trucks shall maintain adequate freeboard and their materials shall be covered to minimize release of materials into the air or on public rights-of-way. 8. To the extent practicable, reusable materials shall be recycled on site (examples: asphalt/concrete paving/etc.). <u>Conclusion:</u> Due to the fact that the project will involve minimal grading and with the above mitigation measures in place, potentially significant adverse effects on air quality resulting from this project would be reduced to a less-than-significant level.				
4. BIOLOGICAL RESOURCES. Would the proposal result in:				
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 (CDFG) or U.S. Fish and Wildlife Service (USFWS)?				✓
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?				✓
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, 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?				✓
<u>Discussion:</u> a. The project site is located in a developed area designated for industrial uses and is fully developed with two residences, a barn other accessory buildings, parking areas and related improvements. Properties to the north and west are developed with light industrial land use. No special-status, candidate or sensitive species have been observed on this				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
site, nor does the site provide suitable habitat for such. No impact would result with respect to this topic. b. No riparian habitat exists on the site since it has been developed with buildings, a parking lot and related improvements. No impacts would with respect to riparian habitat. c. No wetlands exist on the project site and no impacts would occur with respect to this topic. d. The project site is located in a developed area designated for industrial uses, however, it is bordered on the east and south by unfenced vineyards and no consistent fencing exists between the site and the adjacent vineyards. It is unlikely that a significant number of wildlife would traverse the site, since urban uses exist north and west of the site that would provide no continuity of wildlife corridors beyond the project site. No streams or watercourses are present on the site that would provide a fish corridor through the site. For these reasons, this impact is considered less-than-significant. e. No significant stands of trees or other vegetation is located on the project site or proposed be removed as a result of this project. No impact would result. f. The project site is not within the jurisdiction of any Habitat Conservation Plan or Natural Community Conservation Plan and would not impact any biological resources that would be covered by such a plan, therefore there is no impact. <u>Conclusion:</u> The proposed project will result in no impact on biological resources and no mitigation measures are required.				
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of an historical resource as defined in Sec.15064.5?			✓	
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Sec. 15064.5?		✓		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d. Disturb any human remains, including those interred outside of formal cemeteries?		✓		
<u>Discussion:</u> a. An existing barn on the project site has been deemed a historic resource by Juliana Inman, an historic architect located in Napa California. Ms. Inman prepared a report to assess the qualities of the barn building and proposed changes to incorporate the barn into the project as a barrel storage building. The Inman report is dated August 3, 2015 and is hereby incorporated by reference into this Initial Study. The Inman Report is attached as Attachment 1 to this Initial Study. The report notes that the barn was likely built between 1890 and 1900 and has been altered several times since construction. The barn retains integrity of location, setting, materials, design, feeling and association. It is therefore deemed that the barn remains a contributor to the historic fabric of the community. The relationship of the barn to the surrounding neighborhood have been deemed an important character defining aspect of the resource. The Inman report concludes that the proposed treatment of the barn, to remove more recent alterations to the structure, replace historic siding and other features where broken, lost or weathered with suitable building materials would ensure that there would be a less-than-significant impact with respect to this topic. Interior improvements would be made to add seismic retrofitting, but interior work would not be visible to passersby. All work will conform to the Secretary of the Interiors Standards for the treatment and rehabilitation of an historic structure, therefore, this impact is considered less-than-significant. b. Although no archeological, cultural, historic or paleontological resources are known to exist on the site, there is a remote possibility that project grading and trenching activities could uncover such resources, therefore, this impact is considered potentially significant. However, with implementation of Mitigation Measure 1 below, this impact would be reduced to a less-than-significant level. c. It remains a possibility that paleontological resources could be uncovered on the site during grading, trenching or construction, therefore, this impact is considered potentially significant. However, with implementation of Mitigation Measure 1 below, this impact would be reduced to a less-than-significant level. d. There are no known burials present at the project site. However, the possibility exists that unknown buried remains could be uncovered during the construction phase of the project, therefore, this impact is considered potentially significant.				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
However, with implementation of Mitigation Measure 1 below, this impact would be reduced to a less-than-significant level. Mitigation Measures: 1. In the event that previously unknown paleontological artifacts, human remains or archeological resources are unearthed during excavation or grading, all work within 50 feet of the discovery area shall be immediately halted pursuant to CEQA Guidelines 15064.5 (5)(e) and (f) and barricades installed surrounding the area until a qualified archeologist approved by the City is consulted to evaluate the material or object. The consultant shall determine appropriate avoidance measures to lessen the impacts in accordance with State and Federal guidelines. The developer shall comply with all recommendations of the qualified archeologist prior to commencing work in the discovery area and shall be responsible for all costs associated with these activities. In the event human remains are found, the St. Helena Police Department, County Coroner and Native American Tribal Commission shall be contacted immediately. This wording shall be included on grading and construction plans. Conclusion: With implementation of this mitigation measure, potential adverse effects on cultural resources resulting from this project would be reduced to a less-than-significant level.				
6. 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 Pub. 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 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?				✓
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. The project would upgrade existing structures and add a covered fermentation structure and other small buildings that would be subject to moderate to severe ground shaking in the event of seismic event on a regional fault. The City of St. Helena is located in the greater San Francisco Bay Area, an area known for frequent seismic activity. St. Helena is surrounded by the following earthquake faults; Rodgers Creek, Maacama, West Napa, Concord-Green Valley, Cordelia and the Hunting Creek-Berryessa Faults. Geologic hazards on the proposed site are primarily limited to those caused by violent shaking from active faults which generate ground motion. The site is not located within an Alquist-Priolo Earthquake Fault Zone. Future construction will be required to meet the most current California Building Code to reduce the effects of ground shaking to a less-than-significant level. The project site and surrounding properties are relatively flat, so no impacts would result with respect to landslides. b. Grading and trenching associated with the project could cause or accelerate soil erosion or the loss of topsoil on the project site. The effects of construction activities, including soil excavated or graded areas could result in exposed earth				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
during construction. If these conditions are not properly designed and/or monitored, this would result in a potentially significant impact. To address these issues, short-term (during construction) and long-term erosion control (after construction) methods must be in place. Mitigation to address short-term impacts include minimizing erosion of exposed soil during construction through use of approved and appropriately implemented best management practices (BMPs). Long-term water quality protection would include filtration of storm water runoff and permanent erosion control measures as required by the City of St. Helena. With implementation of the mitigation measure described below, this impact is considered less-than-significant. c. As part of the normal and customary development process, the City of St. Helena will require the project developer to obtain a soils and geotechnical report from a California-registered geologist or recognized equivalent professional. Building and site improvements will then be required to confirm with specific recommendations included in the report to ensure no significant impacts to soil hazards will result. d. See item "c," above. e. The applicant proposes to connect to the City's municipal wastewater system, so there would not be any remaining use of septic systems and no impact would result. <u>Mitigation Measures:</u> 1. Temporary erosion control measures, as approved by the City of St. Helena shall be placed adjacent to graded areas or stockpiled material. 2. Unless otherwise approved by the City, the project applicant shall ensure that grading or excavation activities shall be limited to the period between April 15 and October 15. No such grading or excavation shall be performed except in accordance with the approved plan and schedule. Modifications to the construction time frame may be imposed/ approved by the City based on weather and site conditions. <u>Conclusion:</u> With implementation of these mitigation measures, the effect on geology and soils is reduced to a less-than-significant level.				
7. Hazards and Hazardous Materials				
a. Create a significant hazard to the public or the environment through the routing, transport, use or disposal of hazardous materials?				✓
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e. For a project located within an airport land use plan, 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, 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				✓

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
intermixed with wild lands?				
<u>Discussion:</u> a. The proposed project use would not require the transportation, use, handling or disposal of substantial quantities hazardous materials during its operational phase. Minor amounts and customary quantities of hazardous materials would likely be used during project construction, including but not limited to solvents, fuels for construction equipment, paints and similar products. However, the project contractor will be required to follow all applicable local, State, and Federal regulations to ensure the safe handling and disposal of hazardous materials and no significant hazards to the public would occur; therefore, no impact would result. b. The project would include major updating and improvement to the historic barn structure and demolition of one or more small structures on the site. Remodeling and demolition of older buildings could release lead based paint particles and/or asbestos containing material into the atmosphere. This could be a potentially significant impact and would be reduced to a less-than-significant impact with adherence to the mitigation measure below. c. Refer to (a) above. d. The project site is not listed as a hazardous materials site (see: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm) so there would be no impact with respect to this topic. e. The project site is not within the area of an airport land use plan or within two miles of a public airport or public use airport. No impact would occur with respect to this topic. f. The project site is not within the vicinity of a private airstrip and no impact would occur. g. The project would not interfere with an adopted emergency response plan or emergency evacuation plan since all improvements would be located on private property owned by the applicant and no blockage of public roads or other rights-of-way would occur. Therefore, there is no impact. h. The project site is located adjacent to an urbanized and cultivated portion of St. Helena with no significant wildlands located on or near the site that could result in a major fire hazard. Therefore, there is no impact. <u>Mitigation Measure:</u> Prior to demolition of any structure on the site, a licensed contractor shall determine the presence or absence of lead based paints or asbestos material on the site. If found in quantities at or above actionable levels as determined by the St. Helena Building Department or authorized agent, these materials shall be safely removed consistent with the Occupational Safety and Health Administration (OSHA) and other applicable standards and disposed of in an appropriate location. Necessary permits and approvals shall be secured from appropriate regulatory agencies for the activities described above. <u>Conclusion:</u> The proposed project will result in less-than-significant impact with respect to hazards or hazardous materials with adherence to the above mitigation measure.				
8. HYDROLOGY AND WATER QUALITY. Would the project:				
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				✓

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
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 storm water 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 applicant proposes to remove the current septic wastewater system currently on the site and connect to the City's municipal wastewater system. Based on a project-specific technical report ("Septic Feasibility Report for the Redmon Ranch Winery" prepared by Delta Engineering dated 8/28/15), Typically, wastewater sourced from wine production is considered high-strength and disposal of winery waste into the City's system could result in a violation of the City's Waste Discharge Permit from the Regional Water Quality Control Board. This would normally be a potentially significant impact however, the St. Helena Public Works Department has indicated that the project approval would be required to comply with stringent requirements on effluent generated by the project (S. Palmer, City Engineer, 4/14/16). The proposed conditions of approval would require limitations on discharges into the sewer system, obtain a Wastewater Discharge Permit from the City, limit the quality of constituent effluents entering the wastewater system, conduct monthly sampling of effluents and a number of similar requirements intended to limit impacts of winery wastewater on the municipal system. With adherence to the conditions of approval, this impact would be less-than-significant. b. The project would include pumping of existing groundwater supplies as the source of process water for the proposed winery from an on-site, approved well. Domestic water to support winery employee use and the proposed commercial kitchen would be supplied by the City of St. Helena. In terms of potable water use, the applicant has submitted an analysis of historic and proposed water use for the facility ("Theoretical Water Use Report, for the Redmon Ranch Winery" by Delta Consulting Engineers dated August 28, 2015. This report hereby incorporated by reference into this Initial Study and is available for review at the St. Helena Planning Department during normal business hours.) The Delta report notes the applicant proposes to continue to use an existing, approved water well for winery process water and for exterior yard landscaping. To minimize potable interior water use, the applicant proposes to install high-efficiency toilets within the facility, low-flow faucets and high-efficiency dishwashers. The Delta report determined that at full build-out of interior winery improvements, the commercial kitchen and continued use of existing on-site residences would require an estimated 641 gallons per day, which would result in a net reduction of 109 gallons per day. Therefore the proposed project would be "water neutral" as required by the City of St. Helena and use of potable water would be less-than-significant. According to City staff, monthly use by all water customers in the City is closely monitored to ensure that proposed water use would be significantly exceed historic water use for each customer. This impact would be less-than-significant. In terms of proposed use of groundwater, the applicant is relying on a recent wastewater analysis for a nearby project west of this project site ("Septic Feasibility Report for the Davies Use Permit Modification, prepared by Delta Consulting Engineers, dated September 27, 2014.") This report is hereby incorporated by reference into this Initial Study and is available for review at the St. Helena Planning Department during normal business hours. This earlier report notes that water used for wine production would range from 640 to 1,000 gallons per year, depending on methodology used. Use of the approved water well would draw from the local aquifer as from the other project. A recent report prepared for the Napa County Groundwater Resources Committee (GRAC) by the firm of Luhdorff & Scalmanini entitled "Napa County Groundwater Conditions and Groundwater Monitoring" dated February 2012 found that the aquifer under St. Helena has proven to be stable over time. Although the aquifer does experience draw-down during the late summer and fall months as much as 25 feet, it is generally recharged during winter months. Since St. Helena remains in a serious drought,				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
despite the recent El Nino condition, use of pumped groundwater, although generally stable, is considered a potentially significant impact. The project developer shall be required to adhere to Mitigation Measures 1 through 10 listed below to minimize groundwater use. Implementation of these mitigation measures would reduce this impact to a less-than-significant level. c. The project site is currently developed with buildings, paved surfaces and landscaped areas. No significant changes are proposed to impervious surfaces on the site. No creeks, streams or other bodies of water are located on or adjacent to the site that would be impacted by the proposed development. No impacts would result with this topic. d. Refer to (c) above. The project does not involve the alteration of any stream or river since no streams or rivers exist on or adjacent to the project site. There would be no impact with respect to this topic. e. Refer to the discussion under (c) above. f. Refer to (c) above. g. The project does not include a significant housing component. No changes are proposed to the two dwellings on the site and no impact would result. h. The project site lies outside of a 100-year flood hazard area. No impacts would occur with respect to this topic. i. According to inundation maps on record with the City's Public Works Department, the project site would not be affected in the result of any dam and/or levee structures, therefore, there is no impact. j. Due to its location (approximately 30 miles north of the San Francisco Bay) the project site would not be affected by seiche or tsunamis. The site and surrounding properties are relatively flat so that no impact would result with respect to mudflow. Although the impacts resulting from the project on hydrology and water quality are considered to be less than significant, the following mitigations are provided as precautionary measures to address construction-related impacts on water quality: <u>Mitigation Measures:</u> 1. Prior to the issuance of a building permit, the applicant shall submit a study by a qualified hydrogeologist, or equivalent professional, to ascertain the potential effects of the proposed well on the Napa Valley Floor-St. Helena Subarea groundwater basin or upon existing wells in the immediate vicinity of the subject well; and a Groundwater Reduction Plan to the St. Helena Public Works Department demonstrating specific methods to result in a 10% reduction in peak groundwater use from the Industry Standard Method of calculating winery process water. The Plan shall include annual monitoring and reporting to the City to ensure that the amount of groundwater is minimized into the future. The Owner shall submit an annual fee with the annual report to pay for City costs to administer and review. 2. The applicant shall ensure that no construction materials (e.g., concrete, paint, sediment) are conveyed into the storm drain system. The developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials entering into the storm water drainage system. 4. All materials that could cause water pollution (i.e., motor oil, fuels, paints, etc.) shall be stored and used in a manner that will not cause any pollution. All discarded material and any accidental spills shall be removed and disposed of at an approved disposal site. All spills shall be brought to the attention of the Public Works Department. 5. All construction activities shall be performed in a manner that minimizes, to the maximum extent practicable, any pollutants entering directly or indirectly the storm water system or waters of the State. The applicant shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the storm water drainage system. 6. The applicant shall meet the requirements of the City of St. Helena's construction and post-construction standards and comply with all applicable State and Federal laws. 7. The applicant shall mark all new drain inlets with permanent markings, which state "No Dumping—Flows to River." This work shall be shown on improvement plans. 8. Demolition materials and solid waste, including broken asphalt and concrete, soils stockpiles, steel, wood and metal scraps, domestic waste, and similar materials, shall be properly managed to prevent the accumulation of dust or similar materials that can degrade water quality. The site shall be cleaned daily and such materials shall be properly placed in dumpsters or removed from the project site and placed in a licensed landfill facility. 9. The collection of materials, such as construction debris and dirt, within the public right-of-ways adjacent to the site shall be prohibited.				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
10. Drainage shall be designed as required by adopted City standards and shall not impede any natural existing drainage from or substantially change drainage to adjacent parcels. <u>Conclusion:</u> The potential for adverse effects on hydrology and water quality would be reduced to a less-than-significant impact with implementation of the mitigation measures listed above.				
9. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?				✓
b. Conflict with any applicable land use plan, policy, or resolution 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?				✓
<u>Discussion:</u> a. The project would not physically divide an established community since the project would represent a continuation of light industrial and related uses on the property, consistent with surrounding properties. There would be no impact with respect to this topic. b. The project site is designated as Industrial in the General Plan and is also zoned as Industrial. No changes are proposed for these designations. Similarly, no changes are proposed to other City land use regulations governing environmental protections. No impact would occur with respect to this topic. c. No habitat conservation plan or natural community conservation plan applies to the project site and no impact would result. <u>Conclusion:</u> The proposed project would have no impact on land use and planning related issues, and therefore no mitigations are required.				
10. 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?				✓
<u>Discussion:</u> a. The St. Helena General Plan does not identify the presence of mineral resources on the project site. b. No locally important mineral resources are located on the site as identified in the General Plan. <u>Conclusion:</u> The proposed project will result in no impact on mineral resources and no mitigations are required.				
11. 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 ground borne vibration or ground borne noise levels?				✓

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
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, would the project expose people residing or working in the project area to excessive noise levels?				✓
<u>Discussion:</u> a. Under CEQA Guidelines and City standards, a project would normally have a significant environmental effect if it substantially increases the ambient noise levels in the project area area. The City of St. Helena General Plan defines significance criteria as an increase in the noise environment of 5 dBA, constituting a noise impact. Land uses north and west of the site are industrial uses and do not constitute sensitive noise receptors. Uses to the east and south of the project site include vineyards. No residences, schools, parks, hospitals or other sensitive noise receptors are located in the vicinity of the site. The proposed winery could generate high levels of noise during the harvest season when the winery would operate earlier in the morning (starting approximately 6 a.m). However, it is anticipated that no nearby uses or activities would be subject to significant noise impacts. The future winery will be required to comply with the City's exterior maximum noise exposure level of 80 decibels (Ldn or CNEL noise scales). By comparison, a single-family residential area is limited to an exterior noise exposure level of 60 decibels on either the Ldn or CNEL scale. Operation of the proposed winery and commercial kitchen will be required to comply with City exterior noise levels. For these reasons, this impact is deemed to be less-than-significant. b. A review of the project plans indicate that the project would be built using normal and customary construction techniques that would not involve significant boring, pile driving or similar activities that would generate substantial groundborne vibration or noise levels. Therefore, there would be no impact with respect to ground borne vibration or noise. c. See item "a," above. d. No sensitive noise receptors are located in close proximity to the project site that would be impacted by short-term construction noise or winery operations during peak season, therefore there would be a less-than-significant impact with respect to this topic area. e. The project is not located within an airport land use plan, so there would be no impacts with respect to this topic. <u>Conclusion:</u> As described above, no significant impacts would result from the proposed project with respect to noise. Therefore, impacts related to this topic area are considered less-than-significant.				
12. POPULATION AND HOUSING. Would the project:				
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 and other infrastructure)?				✓
b. Displacing 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?				✓
<u>Discussion:</u> a. No changes are proposed to on-site housing that would include a population increase in the community. No impacts would result with respect to this impact. b. The project site is occupied by dwellings, a vacant barn structure and various outbuildings. No housing would be displaced by the project and no impact would result.				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
c. Refer to (b) above <u>Conclusion:</u> This project would have no impact on population and housing.				
13. PUBLIC SERVICES. Would the project:				
a. Result in 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 including:				
i) Fire Protection?				✓
ii) Police Protection?				✓
iii) Schools?				✓
iv) Parks?				✓
v) Other Public Facilities?				✓
<u>Discussion:</u> i. Based on discussions with the St. Helena Fire Department, no new or expanded Fire Department facilities would be needed to serve this proposed project and there would be no impact with respect to this topic (source: Jim Capponi, St. Helena Fire Department, 5/16/16), ii. Based on discussions with the St. Helena Police Department, no new or expanded Police Department facilities would be needed to serve the proposed project (source: William Imboden, St. Helena Police Department, 4/14/6). iii. No new school-aged children would be generated as a result of project construction since no additional new dwellings would be constructed. iv. The proposed project would be a combination commercial/industrial and residential (no new residences constructed) use and would not increase the local population that would use community and regional parks v. No significant impacts are anticipated to other local public services, including but not limited to roads and general governmental services. <u>Conclusion:</u> For the reasons provided above, this project would have no impact on public services.				
14. RECREATION. Would the project:				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that a 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?				✓
<u>Discussion:</u> a. The project would involve conversion of an existing barn structure into a winery and construction of a commercial kitchen. Two existing residences would remain on the site as part of the project. The operation of the project would be largely industrial/commercial in nature and would not result in any increases in the use of local or regional recreation facilities or the deterioration of an existing park facility. Therefore, there would be no impact.				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
b. The proposed project does not include a significant residential component or recreational component, therefore, no impacts would result with respect to this topic. <u>Conclusion:</u> This project would have no impact on the demand for recreation resources.				
15. 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 result in substantial safety risks?				✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?			✓	
e. Result in inadequate emergency access?				✓
f. Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓
<u>Discussion:</u> a. This analysis is based on a traffic impact analysis prepared by the firm of Omni Means Transportation Engineers and Planners dated April, 2016. The Omni Means report is attached to this Initial Study as Attachment 1. A summary of the report as follows: Existing Traffic Conditions: Existing nearby public streets and roads that serve the proposed winery site include Main Street (also State Route 29/128) to the west of the site. This road provides regional access for St. Helena through the Napa Valley and is also the center for the main business district, located northwest of the project site. Dowdell Lane extends east from SR-29 for approximately 0.95 miles and provides access to commercial-retail, light-industrial, residential, and agricultural areas. A two-lane street, the roadway is paved for approximately the first 0.30 mile segment to just east of the proposed project site and is about 38-40 feet wide. This segment provides access primarily to commercial and light-industrial areas and parking is allowed on both sides of the street. Once past the project site, the roadway narrows significantly (10-20 feet) and is unimproved. Vintage Avenue is located south of the project site and extends in an easterly direction from SR-29 for approximately 0.25 miles. A two-lane street, Vintage Avenue provides access to light-industrial and commercial areas with vehicle parking on both sides of the street. Mills Lane is located north of the project site and extends in an easterly direction from SR-29 for approximately 0.83 miles. The roadway is paved to La Fata Street with unimproved sections further east adjacent to agricultural and residential areas. The roadway width is narrow (approximately 15-feet) and does not readily accommodate two-way traffic flow. However, roadway shoulders are not improved and vehicles can pull to the side to allow passing traffic. Railroad tracks parallel SR-29 approximately 25 feet east of the highway crossing over Dowdell Lane in the project study area. The rail crossing is controlled by automated gates and flashing red lights. This single-track rail line serves the Napa Valley Wine Train. Based on discussions with Wine Train staff, there is one (1) train per day on weekdays and two (2) trains per day on weekends travelling through the study area between St. Helena and points south. Caltrans is currently constructing the Highway 29 St. Helena Lane Channelization project in the study area. Specifically, the project will "rehabilitate the pavement, widen the shoulders, construct a two-way-left-turn-lane, and improve the bicycle/railroad crossing at Whitehall Lane." The project limits extend between Mee Lane and Charter Oak Avenue. Work on the project is expected to be completed in early 2017. This project is noted in that one of the staging areas for construction equipment and workers is in a field directly north of Dowdell Lane extending to Mills Avenue. The staging area can be accessed from Dowdell Lane (via Fountain Street). Temporary construction activities are adding traffic to existing volumes on Dowdell Lane and SR-29 in the project study area.				

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
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Traffic conditions along SR-29 (particularly south of Pope Street) are also influenced by northbound vehicle queues, which can extend from Pope Street beyond Mills Lane and Dowdell Lane. During these times, traffic flows reflect "stop-and-go" conditions with vehicle speeds below 25 mph. Field observations noted that traffic flows on SR-29 near Dowdell Lane fluctuated between relatively free-flow conditions and stop-and-go conditions dependent on day (weekday or weekend) and time period. In addition, Caltrans is continuing construction of the Highway 29 Channelization Project through Dowdell Lane. Construction hours tend to be concentrated on the weekdays between 9:00 am and 5:00 pm and these temporary construction activities are adding to overall vehicle delays and congestion along SR-29.

Intersection traffic operating conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. The operating conditions were evaluated using the Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections. Minor street stop-sign controlled intersection LOS (such as evaluated in this analysis) typically reflect delays experienced by the minor street approach. Level of service definitions are shown in Table 1.

Existing weekday and weekend peak hour LOS (adjusted for peak seasonal crush/harvest conditions) are shown in Table 2. As calculated, the SR-29/Dowdell Lane intersection is operating at LOS D (22.3-27.3 seconds of delay) during all three peak hour periods. The calculated LOS of D for the SR-29/Dowdell Lane intersection represents overall vehicle delay for the stop-sign controlled westbound left-turn and right-turn movements from Dowdell Lane onto SR-29. The remaining La Fata Street/Dowdell Lane and Projection Driveway/Dowdell Lane intersections are both operating at LOS (8.6-9.1 seconds of delay) during the same three weekday and weekend time periods for the northbound and southbound stop-sign controlled movements.

Table 1. Existing Harvest (No Project) Conditions-Peak Hour Intersection Level of Service (LOS)

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	D	27.3	D	25.9	C	22.3
2	La Fata Street / Dowdell Lane	TWSC	A	9.1	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	0.1	A	8.6	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.

Source: Omni Means, 2016

In terms of traffic signal warrants, based on the California Manual on Uniform Traffic Control Devices (CAMUTCD) for peak hour signal warrant criteria, the SR-29/Dowdell Lane intersection was evaluated for signalization. The peak hour warrant is one of several standards to help determine if installation of a traffic signal may be appropriate. Qualifying for signalization using the peak hour warrant does not necessarily mean a signal should be installed. The SR-29/Dowdell Lane intersection qualifies for signalization under the peak hour warrant using existing PM peak hour volumes. As previously noted, construction traffic from the Highway 29 Channelization project is ongoing in the study area and uses both SR-29 and Dowdell Lane for access. For these reasons, overall peak hour volumes at the SR-29/Dowdell Lane intersection contributing to signal warrant satisfaction are temporarily high at this time and likely do not reflect base traffic volumes. The La Fata Street/Dowdell Lane intersection does not qualify for peak hour signal warrant satisfaction under existing conditions.

Near-Term (No Project) Traffic Conditions: Near-term traffic conditions represent existing and other approved/pending development traffic that can reasonably be assumed to be generated in the short-term horizon. Based on previous development studies conducted in the City of St. Helena, the horizon year 2020 was established for near-term conditions. Weekday and weekend peak hour approved development trips were based on traffic projections provided for recently updated City of St. Helena General Plan Circulation Element and specific development projects as follows:

- Crocker-Star Winery: The winery is located just east of the project site on the north side of Dowdell Lane (700 Dowdell Lane). The winery is currently under construction and would produce up to 25,000 gallons per year. Tasting and visitation would be small with a maximum of 12 guests during a typical weekday and 16 guests on a Saturday. Employment would range from seven full-time and three part-time employees. Operation is

Environmental Issue Area			Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
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scheduled to begin in mid-summer (July-August 2016);

- Davies Winery: The winery is located north of the proposed project site on Main Street at northwest corner of Main Street/Grayson Avenue intersection (555 Main Street). The winery is currently being modified to produce 75,000 gallons per year. Tasting and visitation would consist of 160 guests per day weekday and weekend. Employment would range from 15 full-time employees with an additional 30 part-time employees (harvest season). Operation is scheduled to begin mid-summer (July 2016).

Larger development projects and other infill project traffic are contained within the General Plan update volume projections. The weekday and weekend peak hour approved/pending development trips were added to existing (seasonal) volumes at the study intersections.

In terms of planned local road improvements, Caltrans is currently constructing the Highway 29 St. Helena Lane Channelization project in the study area. A traffic signal is planned to be installed at the Main Street/Grayson Avenue intersection. Based on correspondence from City Public Works staff, the signal will be incorporated into the Highway 29 Channelization project. Anticipated completion is by summer (2016).

With near-term (no project) volumes, study intersection LOS have been calculated and are shown in Table 2. With planned circulation improvements on SR-29 the minor street, stop-sign controlled intersection of SR-29/Dowdell Lane would improve in overall operations. During the three peak periods, overall intersection operation would be LOS C. The creation of two-way-left-turn lane on SR-29 allows outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manor by allowing a "refuge" area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would continue to operate at LOS A during all three time periods with near-term (no project) traffic.

Table 2. Near Term Harvest (No Project) Conditions-Peak Hour Intersection Level of Service (LOS)

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	C	19.6	C	19.6	C	18.5
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	0.1	A	8.7	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.
Source: Omni Means, 2016

Project Short Term Impacts: The proposed project's weekday and weekend peak hour traffic volumes have been calculated and are shown in Table 4 of the full traffic analysis (see Attachment 1.) The trip generating components of the project are based on information supplied by the project applicant's planning consultant (Project Statement) in combination with winery production and employment trip ratios research by Napa County (Napa County Planning, Building & Environmental Department Use Permit trip rates).

With the proposed winery and commercial kitchen have no visitation or marketing events, the project trip generation would represent just production, employment, and associated truck deliveries. Based on proposed project components, the following weekday AM and PM and weekend (Saturday) trip generation has been estimated:

Weekday:
AM Peak Hour: 9 trips (6 in, 3 out)
PM Peak Hour: 9 trips (3 in, 6 out)

Weekend (Saturday):
Saturday Mid-Day Peak Hour (non-Crush): 7 trips (4 in, 3 out)
Saturday PM Peak Hour (Crush): 12 trips (3 in, 9 out)

With proposed project traffic added to existing harvest season traffic, study intersection LOS was calculated and is

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
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shown in Table 3. As calculated, the three study intersections would continue to operate at the same conditions under existing (no project) conditions with very slight increases in vehicle delay (less than one-second of delay at SR-29/Dowdell Lane). In addition, proposed project trips would represent less than one (1) percent of the overall peak hour volumes at the SR-29/Dowdell Lane intersection. As a conservative measure, proposed project trips accessing the project site to/from Dowdell Lane were assumed to use one project driveway.

Table 3. Existing Plus Project Conditions-Peak Hour Intersection Level of Service (LOS)

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	D	28.3	D	26.8	C	23.7
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	8.6	A	8.6	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.
Source: Omni Means, 2016

The above table shows proposed project trips added to near-term (no project) intersection volumes for the weekday AM and PM and weekend mid-day peak hours.

With near-term plus project volumes, study intersection LOS has been calculated and are shown in Table 4. With planned circulation improvements on SR-29, the minor street stop-sign controlled intersection of SR-29/Dowdell Lane would improve in overall operations. During the three peak periods, overall intersection operation would be continue at LOS C with proposed project trips adding less than one second of vehicle delay. As noted previously, the creation of a two-way-left-turn lane on SR-29 allows outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manor by allowing a "refuge" area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would continue to operate at LOS A during all three time periods with near-term (no project) traffic. Proposed project trips would make up less than one (1) percent of overall traffic volumes at the SR-29/Dowdell Lane intersection and would not result in a significant impact.

Table 4. Near Term Plus Project Conditions-Peak Hour Intersection Level of Service (LOS)

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	C	19.9	C	19.7	C	18.8
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.2	A	8.8
3	Projection Driveway / Dowdell Lane	TWSC	A	8.7	A	8.7	A	8.7

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.
Source: Omni Means, 2016

Cumulative Project Impacts: The long-term cumulative year 2035 conditions were derived from traffic projections provided for the City of St. Helena General Plan update (Circulation Element). The Year 2035 volumes reflect projected traffic growth with buildout of the City's General Plan. The long-term cumulative volumes include the Year 2020 harvest season volumes calculated for the near-term approved development scenario plus an added growth rate of 2.25 percent per year to year 2035 (15 years). It is noted that traffic growth related to General Plan buildout was applied to through-traffic volumes on SR-29. Future traffic growth on Dowdell Lane was generated from local approved/pending project-specific volumes.

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
Under cumulative Year 2035 (no project) conditions, peak hour volumes are shown in Table 7. As calculated, the SR-29/Dowdell intersection would operate at LOS D during all three study periods for the Dowdell Lane outbound (westbound) approaches at SR-29. The two-way-left-turn lane on SR-29 would continue to allow outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manor by allowing a "refuge" area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would operate at LOS A during all three time periods with cumulative (no project) traffic. <u>Conclusion:</u> The proposed project would not generate traffic which is significant in relation to existing traffic load and the capacity of the local street system under short-term and cumulative conditions. No significant impacts would result with respect to the project and no mitigation measures are required. b. See item "a," above. c. The project would have no impact on air traffic patterns since it involves a commercial winery and restaurant project. d. In terms of potential traffic hazards, sight distances for vehicles turning in/out of the winery driveways were evaluated in the traffic analysis (see Attachment 1). The desired vehicle visibility or "corner sight distance" is a function of the travel speeds on the primary street. 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 cross road and the driver of an approaching vehicle in the right lane of the main highway. The speed limit on Dowdell Lane is 25 mph but traffic flows are generally unimpeded resulting in speeds of 25-30 mph. Based on the Caltrans design standards, the Dowdell Lane project driveway(s) require a sight distance of about 250 feet. Visibility on Dowdell Lane to the east and west is approximately 600-800 feet, therefore the sight distance is adequate and no impacts would occur with respect to this topic. e. Emergency access to and from the site would occur from multiple vehicular driveways along Dowdell Lane. The driveways would provide adequate access to the site during emergency conditions and no impacts would result. f. The project would not conflict with any policies supporting alternative transportation and no impact would occur with respect to this topic. <u>Conclusion:</u> The project would have a less-than-significant impact on transportation and traffic conditions.				
16. Utilities and Service Systems. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
b. Require or result in the construction of 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 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?				✓

Environmental Issue Area	Potentially Significant Impact, Unmitigated	Potentially Significant Impact, Mitigated	Less Than Significant Impact	No Impact
g. Impact with Federal, State, and local statutes and regulations related to solid waste?				✓
<u>Discussion:</u> a. The applicant's proposal to dispose of wastewater in the City's system. This could result in a significant impact as identified and discussed in Section 8, Hydrology and Water Quality. See the City of Hydrology and Water Quality section of this Initial Study to demonstrate how adherence to City conditions of approval would ensure this would be less-than-significant. b. The applicant proposes minor extension of below-grade sewer lines to connect to the municipal wastewater system. Proposed improvements would either be on-site or within public rights-of-way no impacts would result with respect to this topic. c. The applicant proposes to construct an on-site stormwater retention pond to ensure that no significant impact would occur to the City's storm drain system. d. Water for the project would be supplied by use of City potable water for winery employees and on-site residents. As documented in Section 8 of this Initial Study (Hydrology and Water Quality), on-site improvements and upgrades would be made to on-site plumbing systems to ensure that the project would be water neutral. Winery process and irrigation water would be provided by an approved on-site well. See the discussion in the Hydrology section regarding potential impacts on the local aquifer and mitigation measures to reduce this impact to a less-than-significant level. e. See section 8, Hydrology and Water Quality, subsection "a" for a discussion of wastewater impacts of the proposed project. f,g. The project would not create any additional significant landfill demands. Existing on-site uses currently generate solid waste and recyclable material and no significant increase of this material is anticipated. The project would not result in the violation or impact to any federal, state or local regulations dealing with solid waste and no impacts would result,. <u>Conclusion:</u> This project would have a less-than-significant impact on the demand for water resources and wastewater treatment capacity with adherence to mitigation measures set forth in the Hydrology and Water Quality section of this Initial Study.				
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?				No
b. Does the project have impacts which are individually limited, but cumulatively considerable? (<i>"Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in conjunction with the effects of past projects, the effects of other current projects and the effects of probable future projects.</i>)				No
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly				No

Initial Study Preparers

Jerry Haag, Urban Planner, project manager and principal author
Rob Tuma, report graphics

Agencies and Organizations Consulted

The following agencies and organizations were contacted in the course of this Initial Study:

City of St. Helena

Noah Housh, Planning Director
Aaron Hecock, Senior Planner
Steve Palmer, PE, City Engineer
Jim Capponi, Fire Department
William Imboden, Police Department

California Department of Transportation (CalTrans)
California Department of Toxic Substances Control (DTSC)

References

Municipal Code, City of St. Helena

St. Helena General Plan, updated through 1993

St. Helena General Plan Draft General Plan EIR, June 2016

Bay Area Air Quality Management District's Clean Air Plan, September 15, 2010

Napa County Groundwater Conditions and Groundwater Monitoring, Luhdorff & Scalmanini.
February 2012

Theoretical Water Use Report for the Redmon Ranch Winery, Delta Consulting and
Engineering, August 2015

Stormwater Control Plan for the Redmon Ranch Winery, Delta Consulting and Engineering,
August 2015

Septic Feasibility Report for the Redmon Ranch Winery, Delta Consulting and Engineering,
August 2015

Redmon Ranch Historical Review, Juliana Inman, August 2015

Focused Traffic Impact Analysis for the Redmon Winery and Commercial Kitchen, Omni
Means Engineers, April 2016

Attachment 1 Historical Survey

Juliana Inman
ARCHITECT

Item No: 5.5

3 August 2015

Aaron Hecock, Planner
Planning and Building Department
1480 Main Street
St. Helena, CA 94574

Re: Redmon Ranch
Historical Review
867 Dowdell Lane
St. Helena, CA
APN: 009-580-009

Via email to: aaronh@cityofstheleena.org

Dear Mr. Hecock,

I was requested to make a visit to the Redmon Ranch at 867 Dowdell Lane by Architect Paul Kelly to review plans for converting the barn and portion of the site to a winery use and whether those alterations meet the Secretary of the Interior's Standards. Below is a discussion of the Standards, the building and site "integrity", and the California Environmental Quality Act. I reviewed resources at the National Park Service, Northwest Information Center, Napa County Landmarks, Inc. (1978 Survey), and City of St. Helena Historic Resource Inventory and General Plans (Appendix A for the 1993 General Plan and Historical Resource Element for the current April 2015 Draft General Plan). In the current draft General Plan, the relevant policies include:

HR1.3 Encourage the adaptive reuse, rehabilitation and retrofit of historic buildings in which the original use is no longer feasible.

HR1.K Require that rehabilitation or restoration of historical resources be done according to the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation, Rehabilitation, Restoration, Restoration, and Reconstruction of Historic Buildings.

I also reviewed drawings by Paul Kelley, Architect dated 7/17/15 showing planned alterations. I have included some photographs taken in July, 2015 in this report.

The site of the Redmon Ranch is not identified in the 1993 survey. The main house was built circa 1890, and retains a finely detailed stick style porch. The stucco wall finish, french doors and many of the windows appear to be alterations. The proposed project does not include the main house. (See Figure 4.)

The main focus of the proposed project is the conversion of a very large two story wood-framed gable end barn to commercial winery use. The barn will be used for barrel storage. The barn appears to have been built in the 1890-1900 period, and altered several times since then. Its massive size is notable, and it accommodates large pieces of equipment. An open shed addition appears to be of a more recent construction date.

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867 Dowdell Lane
3 August 2015

A heavily altered garage originally built in about the 1930's is not historic due to its lack of integrity. A second gable front bay was added, a shed addition at the back obscures the original single car gable front garage, and the entire structure was stuccoed. The project proposes demolition of this structure. (See Figure 5.)

Several small dwelling units built from the early to the mid-1900's are spaced between the large barn and the main house. These appear to have originally been employee housing, later converted to guest use.

The proposed project will replace the shed with an open fermentation "el" addition next to the barn, and a seasonal crush pad cover. This reviewer strongly recommends that a permanent crush pad cover not be constructed since it would obscure the long elevation of the barn and diminish its distinctive massing and scale. (See Figure 1.)



Figure 1. Side elevation of barn showing lean-to shed addition.

The single story shed attached to the main barn structure will be removed and replaced. (See Figures 1 and 2.)



Figure 2. Current shed.

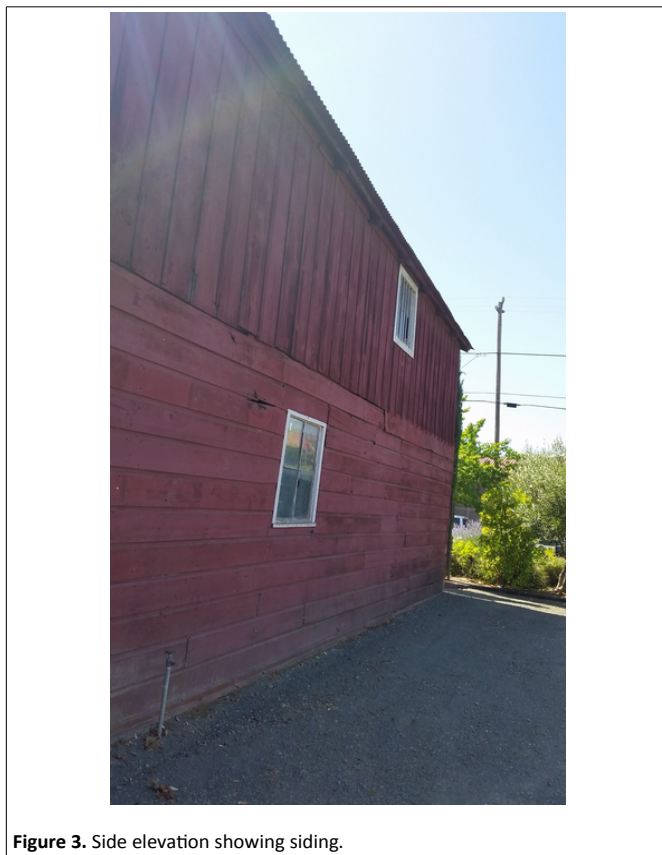


Figure 3. Side elevation showing siding.

Siding and appearance of the main barn will be preserved. Interior seismic retrofitting will not be visible from the exterior. (See Figure 3.)

The front of the main house shows a finely detailed full-width porch. (See Figure 4.)



Figure 4. Front elevation, main house.

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3 August 2015

The garage has been altered from its original single bay, wood-sided appearance. (See Figures 5 and 6.)



Figure 5. Garage to be demolished, showing addition at rear.

A small non-historic storage building which appears to have been built in the past 30 years is proposed to be relocated. (See Figure 7).



Figure 6. Non-historic garage, front.



Figure 7. Non-historic storage shed to be relocated.

Supporting information

California Environmental Quality Act (CEQA):

The California Register regulations define “integrity” as “the authenticity of an historic resource’s physical identity, evidenced by the survival of characteristics that existed during the resource’s period of significance” (State Office of Historic Preservation, 1997). These regulations specify that integrity is a quality that applies to historic resources in seven ways: **location, design, setting, materials, workmanship, feeling and association**. A property must retain **most** of these qualities to possess integrity.

The barn retains integrity of **location, setting, materials, design, feeling and association**. The barn no longer retains integrity of **workmanship** due to deterioration. **Due to the strong visual presence of this large barn in its original location, it remains a contributor to the historic fabric of St. Helena. The relationship of the barn to the surrounding neighborhood are important character-defining aspects of the resource.**

The garage lacks integrity of **materials, design, feeling, association, and workmanship**. It retains integrity of **location and setting**. Overall the building lacks integrity.

According to current CEQA regulation:

Title 14. California Code of Regulations, Chapter 3. Guidelines for Implementation of the California Environmental Quality Act Article 5. Preliminary Review of Projects and Conduct of Initial Study, Section 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources:

(3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

Secretary of the Interior Standards:

The City of St. Helena references compliance with The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, in the design review conditions and/or negative declaration for projects containing historic resources. St. Helena also references compliance with the Standards in the draft 2015 General Plan. Compliance with these guidelines avoids any negative impacts on the existing building.

Work proposed by the architect generally conforms to *The Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings*. Included with the comment is a citation of the Standard or guideline language involved, and specific recommendations are in **boldface**:

1. ***Standard 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.*

Use will change from a commercial storage use to a commercial winery use. Character defining aspects of the barn, including location, setting, massing, scale, design, workmanship, and materials will remain.

2. ***Standard 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 alteration of the building is described under Standard 9 below. Historical material will be retained.

3. ***Standard 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.*

No features from other buildings will be added. No conjectural features are proposed. New construction does not create a false sense of historical development. No inappropriate light fixtures, finishes or materials will be added.

4. ***Standard 4*** *Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.*

Existing alterations that have become part of the historic fabric of the building will remain. Inappropriate and poor quality additions will be removed.

5. **Standard 5** *Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.*

Distinctive features and finishes will not be removed. Original wood siding, trim and windows will remain or be restored.

6. **Standard 6** *Deteriorated historic features shall be repaired rather than replaced. Where 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.*

Replacement of historic materials will be done where original material has been broken, lost or weathered to an extent making repair infeasible. Replacement features will match the old in design, color, texture, visual qualities, and material.

7. **Standard 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.*

No sand blasting or chemical treatments are proposed.

8. **Standard 8** *Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures must be taken.*

St. Helena standard archeological mitigation measures should apply to all ground disturbing activities on the site.

9. **Standard 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, scale, and architectural features to protect the historic integrity of the property and its environment.*

New construction should be respectful of the historic building, while at the same time avoiding creating a false sense of what is historic on the site. The standards and guidelines allow for a wide range of design options and styles.

According to the Guidelines, "...additions should be designed and constructed so that the character-defining features of the historic building are not radically changed, obscured, damaged, or destroyed in the process of rehabilitation. New design should always be clearly differentiated so that the addition does not appear to be part of the historic resource." The Guidelines further recommend:

- Constructing a new addition so that there is the least possible loss of historic materials and so that character-defining features are not obscured, damaged, or destroyed.
- Designing new additions in a manner that makes clear what is historic and what is new.
- Design for the new work may be contemporary or may reference design motifs from the historic building. In either case, it should always

be clearly differentiated from the historic building and be compatible in terms of mass, materials, relationship of solids to voids, and color.

- Placing new additions such as balconies and greenhouses on non-character-defining elevations and limiting size and scale in relationship to the historic building.

The existing barn will remain in its historic setting and location. An open fermentation structure will be located at the rear of the property and next to the large barn. It's design is clearly contemporary, but similar in massing to the historic barn. **This reviewer agrees with the design of a removable crush pad cover that is used seasonally so that the large barn is not obscured by a permanent structure in this location.**

This reviewer recommends that all windows of the barn be repaired.

- 10. Standard 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.*

Original material will remain on the building. No addition is attached to the historic barn. If the fermentation structure is removed in the future, there is no impact on the barn.

Relocation of the non-historic storage building and landscape structures does not affect the barn, the house or the site.

Conclusions:

Work in the proposed project and as recommended herein meets the Secretary of the Interior's Standards.

Regards,



Juliana Inman

Attachment 2 Traffic Analysis

Focused Traffic Impact Analysis for
the Proposed:

**Redmon Winery and
Commercial Kitchen
Project**

City of St. Helena

Prepared for:

Jerry Haag, Urban Planner

Prepared by:



PROPOSED REDMON WINERY & COMMERCIAL KITCHEN PROJECT

Prepared For:
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Prepared By:
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APRIL, 2016

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APPENDIX

Weekday AM and PM and Saturday Mid-Day Intersection Level-of-Service Calculation Sheets
 Weekday Signal Warrant (PM Peak Hour)

1. Executive Summary

The proposed Redmon Winery and Commercial Kitchen would consist of a production winery (24,000 gpy) and small commercial kitchen located at 867 Dowdell Lane. There would be no guest tastings, tours, or marketing events associated with the proposed project. The proposed project would generate 9 AM and 9 PM weekday peak hour trips and 12 Saturday peak hour trips. The project vehicle trips were added to existing, near-term, and cumulative background volumes. The SR-29/Dowdell Lane intersection would be operating at LOS D during the weekday AM and PM and weekend time periods with proposed project traffic. Proposed project traffic would add less than one (1) second of overall vehicle delay to the intersection and would make up less than one (1) percent of overall peak hour volumes at this intersection consistent with City of St. Helena significance thresholds for unsignalized intersections on Main Street (SR-29). There are two reasons for acceptable level-of-service (LOS) at the SR-29/Dowdell Lane intersection:

1. The completion of the St. Helena SR-29 Channelization Project (Summer—2017). The installation of a two-way-left-turn-lane on SR-29 at Dowdell Lane would greatly improve vehicle access to Dowdell Lane to/from SR-29 and reduce overall vehicle delays. The new two-way-left-turn-lane would allow stop-sign controlled outbound vehicles (making a left-turn) to merge more safely onto SR-29 by providing a refuge lane to merge into southbound through-traffic. Similarly, the TWLTL would also allow southbound motorists on SR-29 to make a left-turn (inbound) to Dowdell Lane without delaying through-traffic on the highway. Indirectly, the planned signal for the SR-29/Grayson Avenue intersection just north of Mills Lane would also benefit traffic at Dowdell Lane (at times) by providing more “gaps” in southbound traffic;
2. The proposed project description does not include any guest visitation or marketing events what-so-ever (just this fact alone greatly reduces the overall traffic generation). The project description focuses on employment and truck deliveries related to proposed winery production and commercial kitchen uses. Again, there would be no tastings, tours, or marketing events.

All remaining study intersections on Dowdell Lane at La Fata Street and proposed project driveway would continue to operate within accepted City of St. Helena LOS thresholds with proposed project traffic (LOS A during all three weekday and weekend time periods). Primary access to the proposed project site would be provided directly by Dowdell Lane through four (4) driveways along the project frontage. Vehicle sight distance to the east and west on Dowdell Lane from proposed project driveway(s) on Dowdell Lane meets the recommended sight distances of 150-200 feet based on vehicle speeds of 25-30 mph.

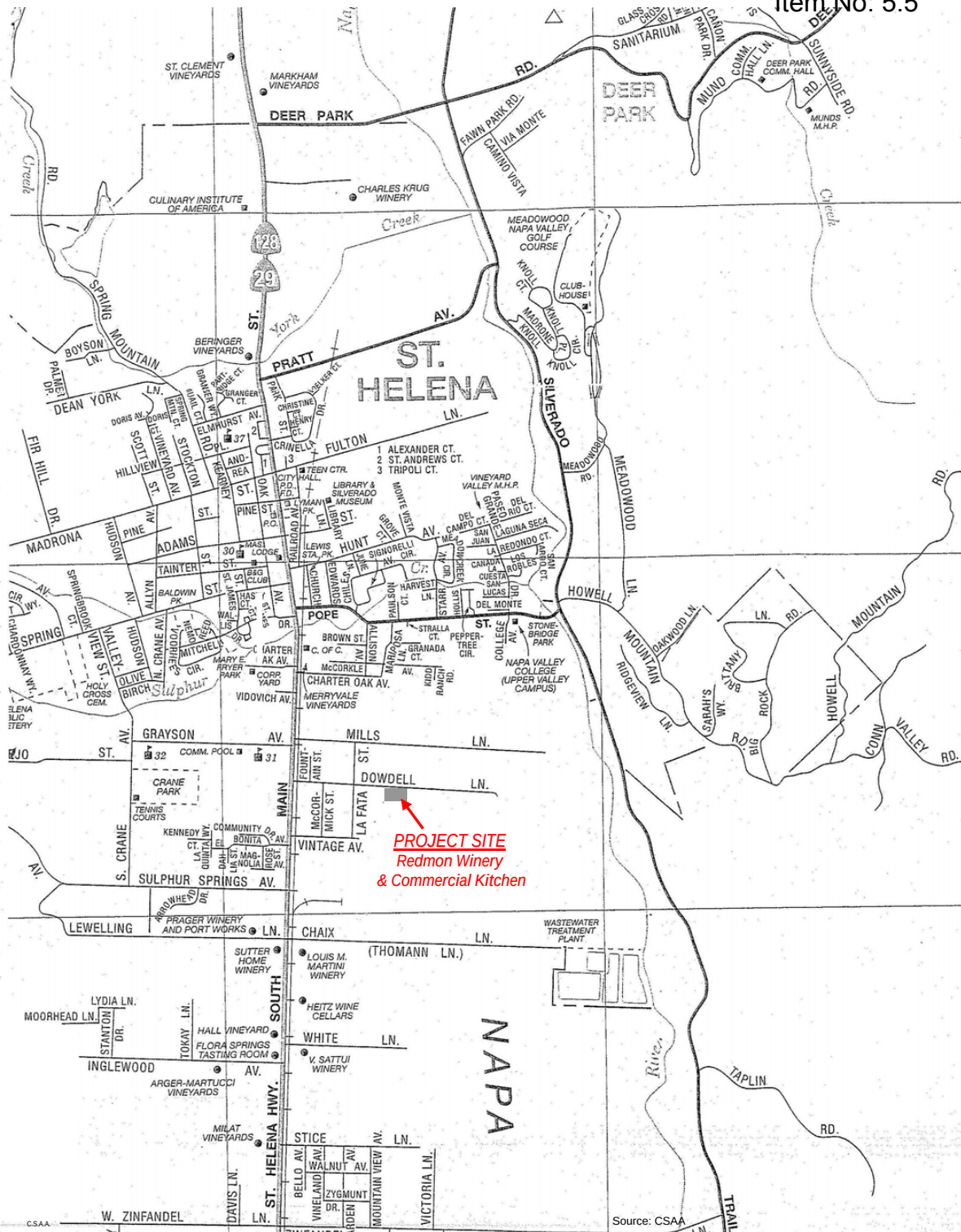
With regard to driveway access; given that multiple driveways would provide access to various winery production facilities it is recommended that truck deliveries use the first and third driveways (respectively). These driveways would be connected by an internal parking and circulation area. Trucks could enter one driveway and exit out the other driveway without having to turn around.

2. Introduction

The following report provides a focused traffic analysis for the proposed Redmon Winery and Commercial Kitchen project located at 867 Dowdell Lane in the City of St. Helena (see Figure 1—Project Vicinity Map). The proposed project would consist of converting 12,614 square feet of existing on-site structures to winery uses, accessory structures, and a commercial kitchen tenant space. Two existing residential structures on the property would make up 8,009 square feet. The total existing and proposed on-site development totals 20,754 square feet. Based on the project statement, the applicant proposes to convert (and move) an existing barn and convert it into a production winery producing 24,000 gallons per year. Winery related activities would include crush, fermentation, barrel storage, office, and lab facilities. Another on-site space would accommodate a commercial kitchen tenant and dry goods storage (the current structure is currently used for dry goods storage). The two existing residential structures include a primary residence and a guesthouse. These units will remain unchanged and will primarily serve as “live/work” areas.¹ One of key components of the proposed project as it relates to potential traffic generation; the applicant proposes no winery visitation and no marketing events for these facilities. Traffic generation would primarily consist of production, employment, and delivery components associated with the proposed winery and commercial kitchen uses as well as deliveries and seasonal activities related to the crush/harvest. This analysis is based on our discussions with you, winery information provided by the project applicant, and our familiarity with the study area in and around Dowdell Lane and State Route 29. Some of the key traffic issues related to proposed project development would be as follows:

- Existing and future traffic conditions at key study intersections along Dowdell Lane and SR-29 including proposed project driveway operations;
- Unique characteristics of proposed winery and commercial kitchen uses related to employees, hours of operation for different project components, deliveries, catering activities (if any), and lab operations;
- Proposed project daily and peak hour trip generation associated with proposed winery and commercial kitchen uses during the weekday and weekend peak periods;
- Project access and circulation from proposed (existing) driveways off Dowdell Lane;
- Future traffic projections and/or circulation improvements based on the Updated St. Helena General Plan Circulation Element.

¹ Project Statement, Redmon Winery and Commercial Kitchen Space, APN 009-580-009, 867 Dowdell Lane, St. Helena, CA, March, 2016.



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Project Vicinity Map



figure 1

3. Existing Conditions

Proposed Project Site

The proposed Redmon Winery and Commercial Kitchen project would be located at 867 Dowdell Lane on the south side of the roadway east of State Route 29 and just east of the La Fata Street/Dowdell Lane intersection. As noted, there are currently existing residential and outbuildings (including a barn) on the site that would be converted to proposed winery and commercial kitchen uses. The site is served by three existing driveways with a gravel base parking areas. The entire project frontage along Dowdell Lane extends for approximately 190 feet. On-street vehicle parking is allowed on Dowdell Lane (both sides) in the study area. Dowdell Lane is one of three parallel streets that extend east from SR-29 that provide direct and indirect access to the site. A description of both local and state roadway facilities in the project study area is provided as follows:

Roadways

Main Street (State Route 29/128), also referred to as the St. Helena Highway, is the primary north-south travel route through the Napa Valley and extends between St. Helena and Rutherford in the project area. Beyond the study area, SR 29 provides access north through the town of Calistoga and south through the towns of Yountville, Napa, and American Canyon. It is classified as a two-lane rural arterial road and in the immediate project area consists of two 12-foot wide travel lanes with small striped shoulder areas (2-4 feet) and no street parking is allowed. The speed limit on Main Street is 35 mph in the project area. It is noted that there is ongoing construction on SR-29 for the "Highway 29 Channelization Project" in the vicinity of Dowdell Lane. This "channelization" project will be discussed in detail in the Planned Circulation Improvements section.

Dowdell Lane extends east from SR-29 for approximately 0.95 miles and provides access to commercial-retail, light-industrial, residential, and agricultural areas. A two-lane street, the roadway is paved for approximately the first 0.30 mile segment to just east of the proposed project site and is about 38-40 feet wide. This segment provides access primarily to commercial and light-industrial areas and parking is allowed on both sides of the street. Once past the project site, the roadway narrows significantly (10-feet) and is unimproved. This segment provides access to agricultural and residential areas. The speed limit on Dowdell Lane is 25 mph and this roadway would provide direct access to the project site.

La Fata Street extends in a north-south direction between Mills Lane and Vintage Avenue approximately 200 feet west of the proposed project site. A two-lane street, La Fata Street provides access to commercial-retail and light-industrial areas. Similar to the improved segment of Dowdell Lane, La Fata Street is approximately 38-feet wide with parallel parking on both sides of the street. It is noted that at its intersection with Dowdell Lane, the north and south legs of La Fata Street is slightly off-set by approximately 18 feet. However, field observations indicate no significant operational issues given the low traffic volumes on the roadway. Access to the proposed project site can be gained indirectly via La Fata Street to Dowdell Lane using Mills Lane or Vintage Avenue.

Vintage Avenue is located south of the project site and extends in an easterly direction from SR-29 for approximately 0.25 miles. A two-lane street, Vintage Avenue provides access to light-industrial and commercial areas with vehicle parking on both sides of the street (38-foot width) and a 25 mph speed limit.

Mills Lane is located north of the project site and extends in an easterly direction from SR-29 for approximately 0.83 miles. The roadway is paved to La Fata Street with unimproved sections further east adjacent to agricultural and residential areas. The roadway width is narrow (approximately 15-feet) and does not readily accommodate two-way traffic flow. However, roadway shoulders are not improved and vehicles can pull to the side to allow passing traffic. Traffic calming measures (large boulders) have been placed at its intersection with La Fata Street to prevent large vehicles (trucks) from turning through the Mills Lane/La Fata Street intersection.

Rail Activity

Railroad tracks currently parallel SR-29 approximately 25 feet east of the highway crossing over Dowdell Lane in the project study area. The rail crossing is controlled by automated gates and flashing red lights. This single-track rail line serves the Napa Valley Wine Train. Based on discussions with Wine Train staff, there is one (1) train per day on weekdays and two (2) trains per day on weekends travelling through the study area between St. Helena and points south.

Construction Activity

Caltrans is currently constructing the Highway 29 St. Helena Lane Channelization project in the study area. Specifically, the project will “rehabilitate the pavement, widen the shoulders, construct a two-way-left-turn-lane, and improve the bicycle/railroad crossing at Whitehall Lane.” The project limits extend between Mee Lane and Charter Oak Avenue. Work on the project is expected to be tentatively completed in early 2017. This project is noted in that one of the staging areas for construction equipment and workers is in a field directly north of Dowdell Lane extending to Mills Avenue. The staging area can be accessed from Dowdell Lane (via Fountain Street). Temporary construction activities are adding traffic to existing volumes on Dowdell Lane and SR-29 in the project study area.

Existing Volumes

For the purpose of this traffic analysis, new weekday and weekend peak period intersection counts were conducted at the following intersections:

<u>Intersection</u>	<u>Control</u>
1. SR-29/Dowdell Lane	Stop-Sign (Dowdell Ln.)
2. La Fata Street/Dowdell Lane	Stop-Sign (La Fata St.)

The counts (conducted in February-March 2016) were adjusted upward to reflect peak harvest season conditions by comparing them to peak seasonal volumes identified in the Caltrans traffic volumes for SR-29. The peak periods during the weekday AM commute period (7:00-9:00 am), PM commute period (4:00-6:00 pm), and Saturday afternoon peak period (Noon-6:00 pm) were evaluated. From these peak period counts, the highest peak hour volumes were utilized for analysis: AM 7:45-8:45 am, PM 4:30-5:30 pm, and Saturday 2:00-3:00 pm. Similarly, the highest peak hour of project trips generated during the same periods were applied to the “plus project” conditions. To supplement the intersection turning volume counts, new driveway counts at the existing project site were conducted during the same peak hours as a part of this study.

Traffic conditions along SR-29 (particularly south of Pope Street) are also influenced by northbound vehicle queues, which can extend from Pope Street beyond Mills Lane and Dowdell Lane. During these times, traffic flows reflect “stop-and-go” conditions with vehicle speeds below 25 mph. Field observations noted that traffic flows on SR-29 near Dowdell Lane fluctuated

between relatively free-flow conditions and stop-and-go conditions dependent on day (weekday or weekend) and time period. In addition, Caltrans is continuing construction of the Highway 29 Channelization Project through Dowdell Lane. Construction hours tend to be concentrated on the weekdays between 9:00 am and 5:00 pm and these temporary construction activities are adding to overall vehicle delays and congestion along SR-29.

Existing peak period weekday and weekend counts conducted at the proposed project site driveways indicate very low activity at the site from existing businesses. Three (3) vehicle trips were observed (in/out) during the weekday AM peak hour with four (4) vehicle trips during PM peak hour. During the weekend mid-day peak hour, four (4) mid-day peak hour trips were observed.

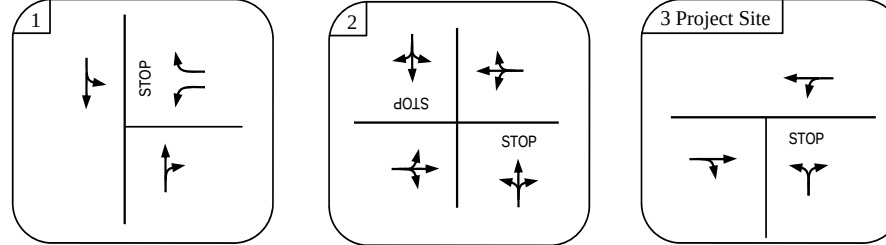
Existing weekday AM and PM and weekend mid-day intersection volumes are shown in Figure 2.

Existing Intersection Operation

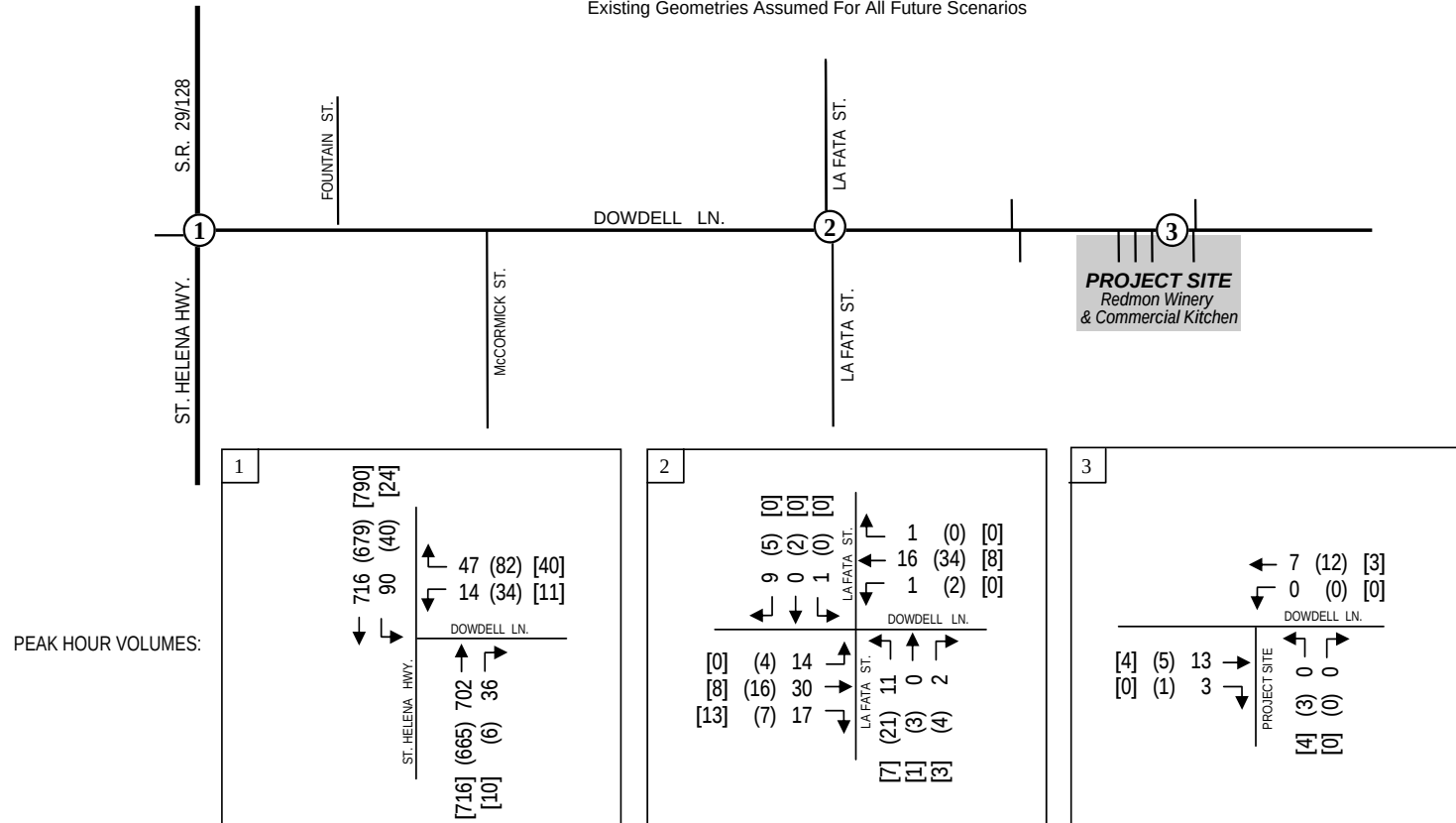
Intersection traffic operating conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. The operating conditions were evaluated using the Highway Capacity Manual (*HCM 2010*) operations methodology for unsignalized intersections. Minor street stop-sign controlled intersection LOS (such as evaluated in this analysis) typically reflect delays experienced by the minor street approach. Level of service definitions are shown in Table 1.

Existing weekday and weekend peak hour LOS (adjusted for peak seasonal crush/harvest conditions) are shown in Table 2. As calculated, the SR-29/Dowdell Lane intersection is operating at LOS D (22.3-27.3 seconds of delay) during all three peak hour periods. The calculated LOS of D for the SR-29/Dowdell Lane intersection represents overall vehicle delay for the stop-sign controlled westbound left-turn *and* right-turn movements from Dowdell Lane onto SR-29. The remaining La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane intersections are both operating at LOS (8.6-9.1 seconds of delay) during the same three weekday and weekend time periods for the northbound and southbound stop-sign controlled movements.

GEOMETRIES / CONTROLS:



Existing Geometries Assumed For All Future Scenarios



Existing Volumes: Weekday AM, (PM), and [Saturday] Peak Hours



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figure 2

**TABLE 1
INTERSECTION LEVEL-OF-SERVICE DEFINITIONS**

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle (sec)	
				Signalized/ Roundabouts	Unsignalized/ All-Way Stop
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
B	Stable Flow	Good 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
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
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
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
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

References: 2010 Highway Capacity Manual

TABLE 2
EXISTING HARVEST (NO PROJECT) CONDITIONS: PEAK HOUR INTERSECTION LOS

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	D	27.3	D	25.9	C	22.3
2	La Fata Street / Dowdell Lane	TWSC	A	9.1	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	0.1	A	8.6	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.

Signal Warrant

Based on the California Manual on Uniform Traffic Control Devices (CAMUTCD) for peak hour signal warrant criteria, the SR-29/Dowdell Lane intersection was evaluated for signalization.² The peak hour warrant is one of several standards to help determine if installation of a traffic signal may be appropriate. Qualifying for signalization using the peak hour warrant does not necessarily mean a signal should be installed. The SR-29/Dowdell Lane intersection qualifies for signalization under the peak hour warrant using existing PM peak hour volumes. As previously noted, construction traffic from the Highway 29 Channelization project is ongoing in the study area and uses both SR-29 and Dowdell Lane for access. For these reasons, overall peak hour volumes at the SR-29-/Dowdell Lane intersection contributing to signal warrant satisfaction are temporarily high at this time and likely do not reflect base traffic volumes. The La Fata Street/Dowdell Lane intersection does not qualify for peak hour signal warrant satisfaction under existing conditions.

² California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Peak hour signal warrant (#3), 2012.

4. Near-Term Year 2020 (No Project) Conditions

Near-Term Methodology

Near-term traffic conditions represent existing and other approved/pending development traffic that can reasonably be assumed to be generated in the short-term horizon. Based on previous development studies conducted in the City of St. Helena, the horizon year 2020 was established for near-term conditions.³ Weekday and weekend peak hour approved development trips were based on traffic projections provided for recently updated City of St. Helena General Plan Circulation Element and specific development projects as follows:

- Crocker-Star Winery: The winery will be located just east of the project site on the north side of Dowdell Lane (700 Dowdell Lane). The winery is currently under construction and would produce 25,000 gallons per year. Tasting and visitation would be small with a maximum of 12 guests during a typical weekday and 16 guests on a Saturday. Employment would range from seven full-time and three part-time employees. Operation is scheduled to begin in mid-summer (July-August 2016);
- Davies Winery: The winery will be located north of the proposed project site on Main Street at northwest corner of Main Street/Grayson Avenue intersection (555 Main Street). The winery is currently being modified to produce 75,000 gallons per year. Tasting and visitation would consist of 160 guests per day weekday and weekend. Employment would range from 15 full-time employees with an additional 30 part-time employees (harvest season). Operation is scheduled to begin mid-summer (July 2016).

Larger development projects and other infill project traffic are contained within the General Plan update volume projections. The weekday and weekend peak hour approved/pending development trips were added to existing (seasonal) volumes at the study intersections. The forecast weekday AM, PM, and Saturday peak hour near-term traffic volumes are shown in Figure 3.

Near-Term Roadway Improvements

Scheduled roadway and intersection circulation improvements in the study area include the St. Helena Highway 29 Channelization project and signal installation at the Main Street/Grayson Avenue intersection. A brief description and update on each follows:

As noted previously, Caltrans is currently constructing the Highway 29 St. Helena Lane Channelization project in the study area. Specifically, the project will “rehabilitate the pavement, widen the shoulders, construct a two-way-left-turn-lane, and improve the bicycle/railroad crossing at Whitehall Lane.” The project limits extend between Mee Lane and Charter Oak Avenue. Work on the project is expected to be tentatively completed in early 2017. This project is noted in that one of the staging areas for construction equipment and workers is in a field directly north of Dowdell Lane extending to Mills Avenue. The staging area can be accessed

³Omni-Means Engineering Solutions, *Traffic Impact Analysis for the Proposed Davies Vineyards Winery Use Permit Modification, City of St. Helena, August 19, 2014.*

from Dowdell Lane (via Fountain Street). Temporary construction activities are adding traffic to existing volumes on Dowdell Lane and SR-29 in the project study area;

A new traffic signal will be installed at the Main Street/Grayson Avenue intersection. Based on correspondence from City Public Works staff, the signal will be incorporated into the Highway 29 Channelization project. Anticipated completion is by summer (2016).

The forecast weekday AM, PM, and Saturday mid-day peak hour near-term (no project) traffic volumes are shown in Figure 3.

Near-Term (No Project) Intersection Operation

With near-term (no project) volumes, study intersection LOS have been calculated and are shown in Table 3. With planned circulation improvements on SR-29 the minor street, stop-sign controlled intersection of SR-29/Dowdell Lane would improve in overall operations. During the three peak periods, overall intersection operation would be LOS C. The creation of two-way-left-turn lane on SR-29 allows outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manor by allowing a "refuge" area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would continue to operate at LOS A during all three time periods with near-term (no project) traffic.

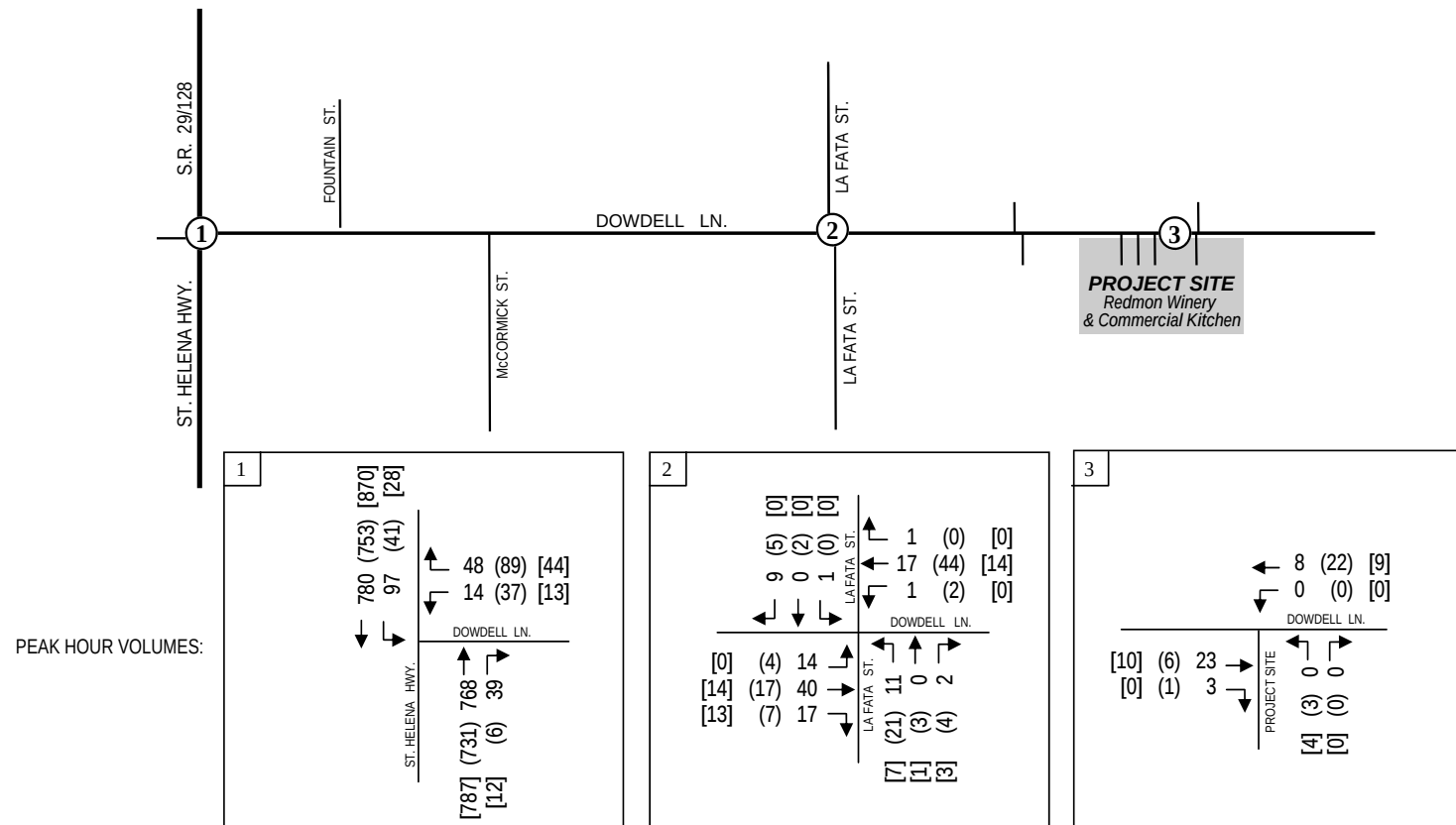
Signal Warrant

The SR-29/Dowdell Lane would continue to meet the peak hour signal warrant with near-term (no project) traffic volumes. However, in light of the current circulation improvements (two-way-left-turn-lane) being installed on SR-29 and improved operations at the stop-sign controlled intersection; a signal would not be recommended for this location at this time. In addition, a new signal is being installed at the SR-29/Grayson Avenue intersection approximately 550 feet north of Dowdell Lane. This new signal will provide "gaps" in southbound through-traffic on SR-29 allowing greater opportunity for outbound left-turning vehicles to merge into traffic. However, there would likely be additional northbound vehicle queuing on SR-29 during peak commute periods.

TABLE 3
NEAR-TERM (NO PROJECT) HARVEST CONDITIONS: PEAK HOUR INTERSECTION LOS

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	C	19.6	C	19.6	C	18.5
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	0.1	A	8.7	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.



Near Term Without Project Volumes
Weekday AM, (PM), and [Saturday] Peak Hours



omni-means

figure 3

5. Proposed Project Impacts

Significance Criteria

The significance criteria applied in this study are based on the City of St Helena's General Plan Circulation Element documentation for roadway and intersection operations. Based on this information, the significance criteria are provided as follows:

The City's current LOS standard is LOS D for signalized intersections on Main Street (SR 29/128) and LOS C elsewhere. Based on City of St. Helena and CEQA standards, a project's impact would be considered significant if any of the following conditions occur:

- If operating conditions at a signalized intersection on Main Street (SR 29/128) deteriorate from LOS D without the project to LOS E or F with the project.
- If operating conditions at a signalized intersection on Main Street (SR 29/128) operating at LOS E without the project deteriorate to LOS F with the project.
- If the average intersection delays at a signalized intersection operating at LOS E or F without the project increases by more than five seconds with the project.
- If operating conditions at an unsignalized intersection on Main Street (SR 29/128) operating at LOS D or better without the project degrade to LOS E or F with the project and the volumes would qualify for signalization under the Caltrans peak hour volume warrants for signalization. If operating conditions at an unsignalized intersection not on Main Street operating at LOS C or better without the project degrade to LOS D, E, or F with the project and the volumes would qualify for signalization under the Caltrans peak hour volume warrants for signalization.
- If average delay at an unsignalized intersection on Main Street (SR 29/128) operating at LOS E or F without the project increases by five or more seconds with the project and the volumes qualify for signalization under the Caltrans peak hour volume warrants for signalization. If average delay at an unsignalized intersection not on Main Street operating at LOS D, E, or F without the project increases by five or more seconds with the project and the volumes qualify for signalization under the Caltrans peak hour volume warrants for signalization.
- If traffic volumes at an unsignalized intersection meet the peak hour signal warrant thresholds, then a significant impact is considered if volumes increase by one percent with the project.
- For vehicle queuing, if the lane storage length sufficiently accommodates the 95th percentile vehicle queue length without the project and the vehicle queue length would increase to exceed the available storage with the project. If the 95th percentile queue length exceeds the available storage length without the project and the turning movement volume would increase by three percent or more with the project and increase the total intersection volume by one percent.

Project Components

The proposed Redmon Winery and Commercial Kitchen project would consist of wine production, employment, and associated truck deliveries. There would be absolutely no wine tasting, tours, or marketing events associated with the proposed use permit. Therefore, the proposed project would consist of the following vehicle trip generation components:

Proposed Winery:

- Winery production: 24,000 gallons per year;
- Employment: 2 full-time and 2 part-time employees during the weekday period (no weekend employment during non-crush periods). Harvest/crush activities would employ 2 full-time and 4 part-time employees (weekday/weekend) during the eight-week period;
- Trucks: 1 truck per day (non-crush periods). 3 trucks per day (harvest/crush period).

Commercial Kitchen:

- Employment; 2 full-time and 1 part-time employee (both weekdays and Saturday);
- Trucks: 2 trucks per day (weekdays and Saturday).

Project Trip Generation

The proposed project's weekday and weekend peak hour traffic volumes have been calculated and are shown in Table 4. The trip generating components of the project are based on information supplied by the project applicant's planning consultant (Project Statement) in combination with winery production and employment trip ratios research by Napa County (Napa County Conservation, Development, and Planning Department Use Permit trip rates).^{4 5}

With the proposed winery and commercial kitchen have no visitation or marketing events, the project trip generation would represent just production, employment, and associated truck deliveries. Based on proposed project components, the following weekday AM and PM and weekend (Saturday) trip generation has been estimated:

Weekday:

AM Peak Hour:	9 trips (6 in, 3 out)
PM Peak Hour:	9 trips (3 in, 6 out)

Weekend (Saturday):

Saturday Mid-Day Peak Hour (non-Crush):	7 trips (4 in, 3 out)
Saturday PM Peak Hour (Crush):	12 trips (3 in, 9 out)

⁴ Ms. Donna Oldford, Winery Entitlement Consultant/Planner, Redmon Winery and Commercial Kitchen, Project Statement, APN 009-580-009, 867 Dowdell Lane, St. Helena, March, 2016.

⁵ County of Napa, Conservation, Development, and Planning Department, "Use Permit Application Package," Winery Traffic Information/Trip Generation Sheet (page 15), June 8, 2015.

TABLE 4
DAILY AND PEAK HOUR PROJECT TRIP GENERATION:
PROPOSED REDMON WINERY AND COMMERCIAL KITCHEN PROJECT

Weekday Daily, AM & PM Peak Hour Traffic: Winery & Commercial Kitchen

Daily Trips:

4 full time employees x 3.05 one-way trips:	=	12.2 daily trips
3 part-time employees x 1.90 one-way trips:	=	5.7 daily trips
24,000 gallons/1,000 x .009 daily trucks x 2 o-w trips =		1 daily trips
2 daily trucks x 2 one-way trips (kitchen):	=	4 daily trips
Total Weekday Daily Trips	=	22.9 daily trips

Total AM and PM Peak Hour Trips:

22.9 daily trips x 0.38% (65% in, 35% out—AM Peak)=	9 (6 in, 3 out)
22.9 daily trips x 0.38% (35% in, 65% out—PM Peak)=	9 (3 in, 6 out)

Weekend (Saturday) Daily and Mid-Day Peak Hour Traffic: Commercial Kitchen Only

Daily Trips:

2 full time employees x 3.05 one-way trips	=	6.1 daily trips
1 part-time employees x 1.90 one-way trips	=	1.9 daily trips
2 daily trucks x 2 one-way trips	=	4 daily trips
Total Weekend (Saturday) Daily Trips	=	12 daily trips

Total Saturday Mid-Day Peak Hour Trips:

12 daily trips x 0.57% (50% in, 50% out—M-D Peak) =	7 (4 in, 3 out)
---	------------------------

Weekend Crush (Saturday) Daily & PM Peak Hour Traffic: Winery & Commercial Kitchen

Daily Trips:

4 full time employees x 3.05 one-way trips:	=	12.2 daily trips
4 part-time employees x 1.90 one-way trips:	=	9.5 daily trips
24,000 gallons/1,000 x .009 daily trucks x 2 o-w trips =		1 daily trips
2 daily trucks x 2 one-way trips (kitchen):	=	4 daily trips
25 tons on-haul grapes x .11 truck trips x 2 o-w trips =		5.5 daily trips
Total Crush Saturday Daily Trips	=	32.2 daily trips

Total Crush Saturday PM Peak Hour Trips:

32.2 daily trips x 0.38% (25% in, 75% out- PM peak) =	12 (3 in, 9 out)
---	-------------------------

Source: Production, employee, and truck data provided by Ms. Donna Oldford (Planning Consultant), March, 2016. Daily and peak hour calculations based on County of Napa, Conservation, Development, and Planning Department, "Use Permit Application Package," Napa County Winery Traffic Generation Characteristics, June 2015.

Overall project trip generation compares favorably with total winery and kitchen employment for weekday and weekend (7 employees and 9 employees, respectively) and related trucks associated for each use. For the proposed commercial kitchen, there would be an average of two (2) trucks per day associated with catering and/or deliveries for weekday and weekend periods. For proposed winery uses there would be one (1) truck per day under normal (non-crush conditions). For crush activities, the winery would be producing 24,000 gallons of wine per year. Assuming 1,098 gallons per truck (standard), this would equate to 22 trucks or 44 truck trips over the course of the 8-week crush period. This production would result in approximately 5-6 truck trips per week. However, crush activities tend to a bell curve where production can occur slowly then reach a peak before beginning to ease down over the eight-week period. Therefore, a peak crush activity of three (3) trucks per day has been assumed for peak crush activities as a conservative measure. In addition, proposed project trip generation characteristics are driven by employment and truck deliveries and not visitation or marketing events. For this reason, proposed project traffic tends to peak during the weekday AM and PM and weekend mid-late afternoon hours when employees are either traveling to or from the site.

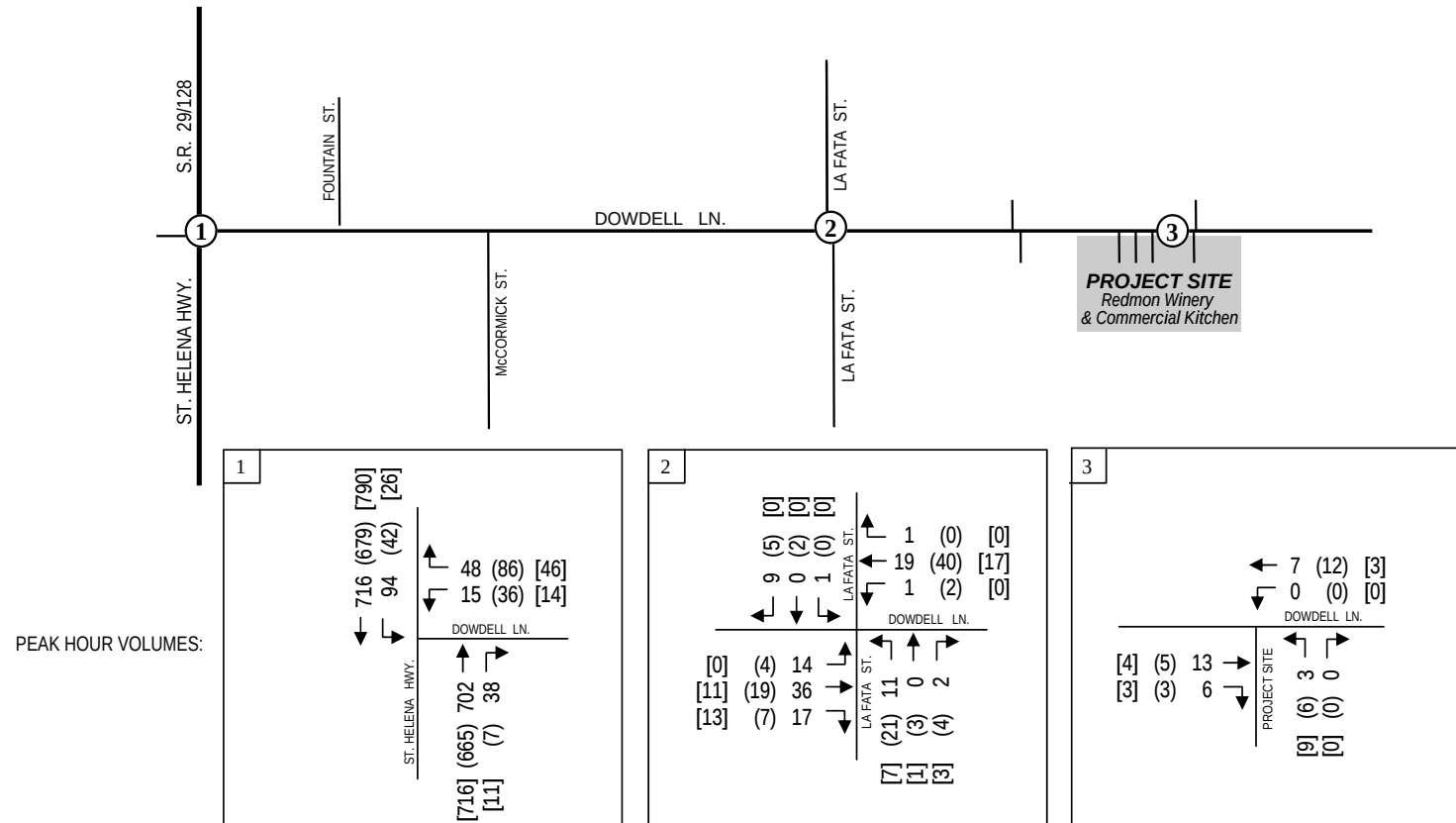
Project Trip Assignment

The proposed project would gain access directly from Dowdell Lane via four closely spaced gated driveways that currently serve existing site uses. The most direct route to/from the proposed project site is via Dowdell Lane to SR-29. However, indirect access to site can also be gain via La Fata Street using Mills Lane (to the north) or Vintage Avenue (to the south) to access SR-29. As a conservative measure, all project trips have been routed to/from SR-29 via Dowdell Lane with 70% to/from the north and 30% to/from the south on SR-29. Proposed project distribution is based on existing traffic flows at the SR-29/Dowdell Lane intersection, previous transportation studies, and the unique employee characteristics associated with the project (no guest visitation or marketing events).

Proposed weekday AM and PM and weekend peak hour (crush) project trips have been shown in Figure 4.

Existing plus Project Conditions

With proposed project traffic added to existing harvest season traffic, study intersection LOS was calculated and is shown in Table 5. As calculated, the three study intersections would continue to operate at the same conditions under existing (no project) conditions with very slight increases in vehicle delay (less than one-second of delay at SR-29/Dowdell Lane). In addition, proposed project trips would represent less than one (1) percent of the overall peak hour volumes at the SR-29/Dowdell Lane intersection. As a conservative measure, proposed project trips accessing the project site to/from Dowdell Lane were assumed to use one project driveway (please see Project Site Access for a discussion of driveway access).



Existing Plus Project Volumes
Weekday AM, (PM), and [Saturday] Peak Hours



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figure 4

TABLE 5
EXISTING PLUS PROJECT HARVEST CONDITIONS: PEAK HOUR INTERSECTION LOS

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	D	28.3	D	26.8	C	23.7
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.1	A	8.7
3	Projection Driveway / Dowdell Lane	TWSC	A	8.6	A	8.6	A	8.6

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.

Near-Term plus Project Conditions

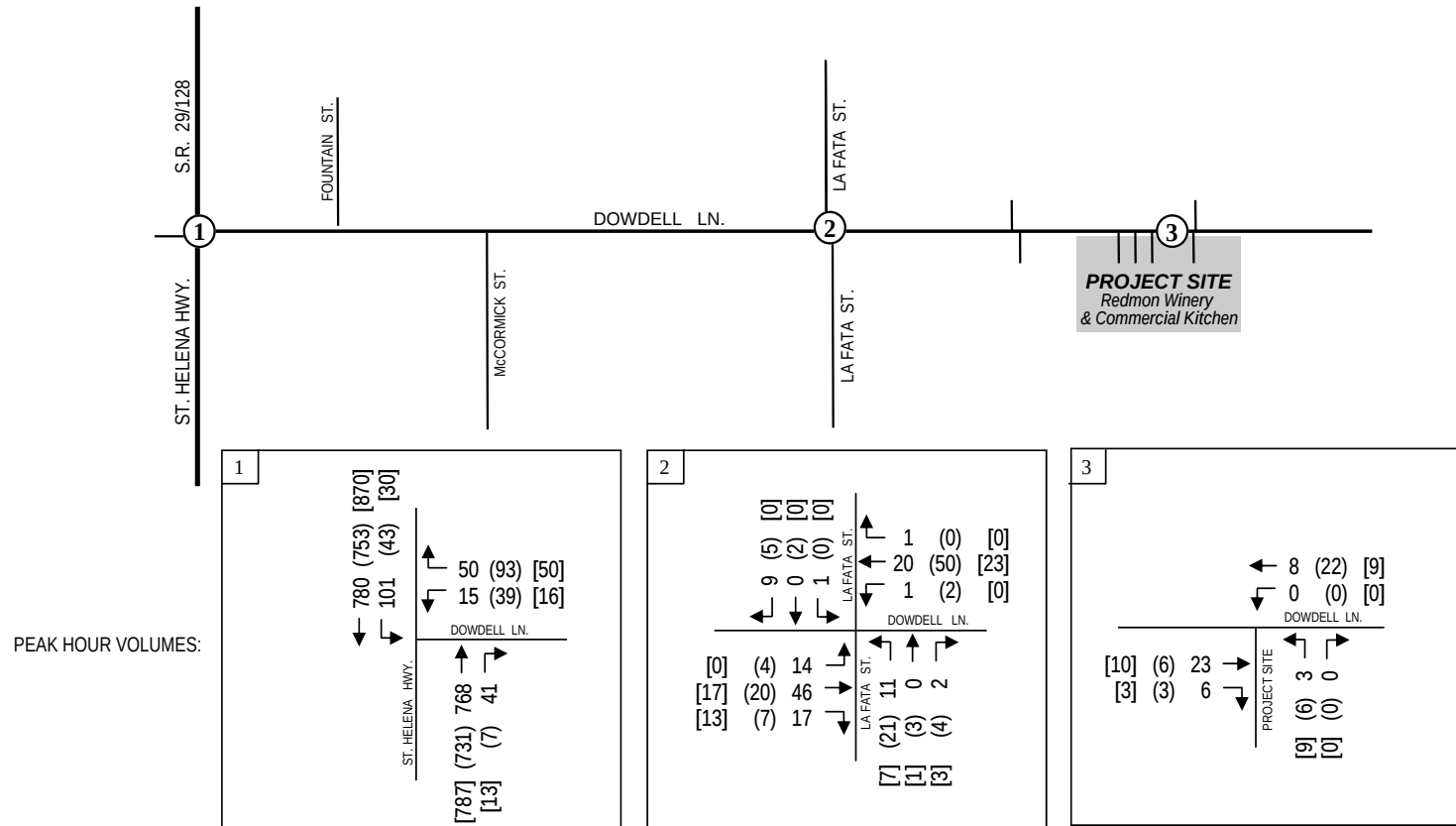
Proposed project trips were added to near-term (no project) intersection volumes for the weekday AM and PM and weekend mid-day peak hours and are shown in Figure 5.

With near-term plus project volumes, study intersection LOS has been calculated and are shown in Table 6. With planned circulation improvements on SR-29, the minor street stop-sign controlled intersection of SR-29/Dowdell Lane would improve in overall operations. During the three peak periods, overall intersection operation would be continue at LOS C with proposed project trips adding less than one second of vehicle delay. As noted previously, the creation of a two-way-left-turn lane on SR-29 allows outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manor by allowing a “refuge” area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would continue to operate at LOS A during all three time periods with near-term (no project) traffic. Proposed project trips would make up less than one (1) percent of overall traffic volumes at the SR-29/Dowdell Lane intersection.

TABLE 6
NEAR-TERM PLUS PROJECT HARVEST CONDITIONS: PEAK HOUR INTERSECTION LOS

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			LOS	Delay	LOS	Delay	LOS	Delay
1	SR-29 /Dowdell Lane	TWSC	C	19.9	C	19.7	C	18.8
2	La Fata Street / Dowdell Lane	TWSC	A	9.2	A	9.2	A	8.8
3	Projection Driveway / Dowdell Lane	TWSC	A	8.7	A	8.7	A	8.7

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.



Near Term Plus Project Volumes
Weekday AM, (PM), and [Saturday] Peak Hours



6. Cumulative Conditions

Cumulative Year 2035 Projections

The long-term cumulative year 2035 conditions were derived from traffic projections provided for the City of St. Helena General Plan update (Circulation Element). The Year 2035 volumes reflect projected traffic growth with buildout of the City's General Plan. The long-term cumulative volumes include the Year 2020 harvest season volumes calculated for the near-term approved development scenario plus an added growth rate of 2.25 percent per year to year 2035 (15 years). It is noted that traffic growth related to General Plan buildout was applied to through-traffic volumes on SR-29. Future traffic growth on Dowdell Lane was generated from local approved/pending project-specific volumes.

Cumulative Year 2035 (No Project) Conditions

The cumulative Year 2035 (no project) peak hour volumes are shown in Figure 6 and the intersection LOS are shown in Table 7. As calculated, the SR-29/Dowdell intersection would operate at LOS D during all three study periods for the Dowdell Lane outbound (westbound) approaches at SR-29. The two-way-left-turn lane on SR-29 would continue to allow outbound vehicles from Dowdell Lane (turning left) to merge into through-traffic in a safer manner by allowing a "refuge" area. The remaining intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would operate at LOS A during all three time periods with cumulative (no project) traffic.

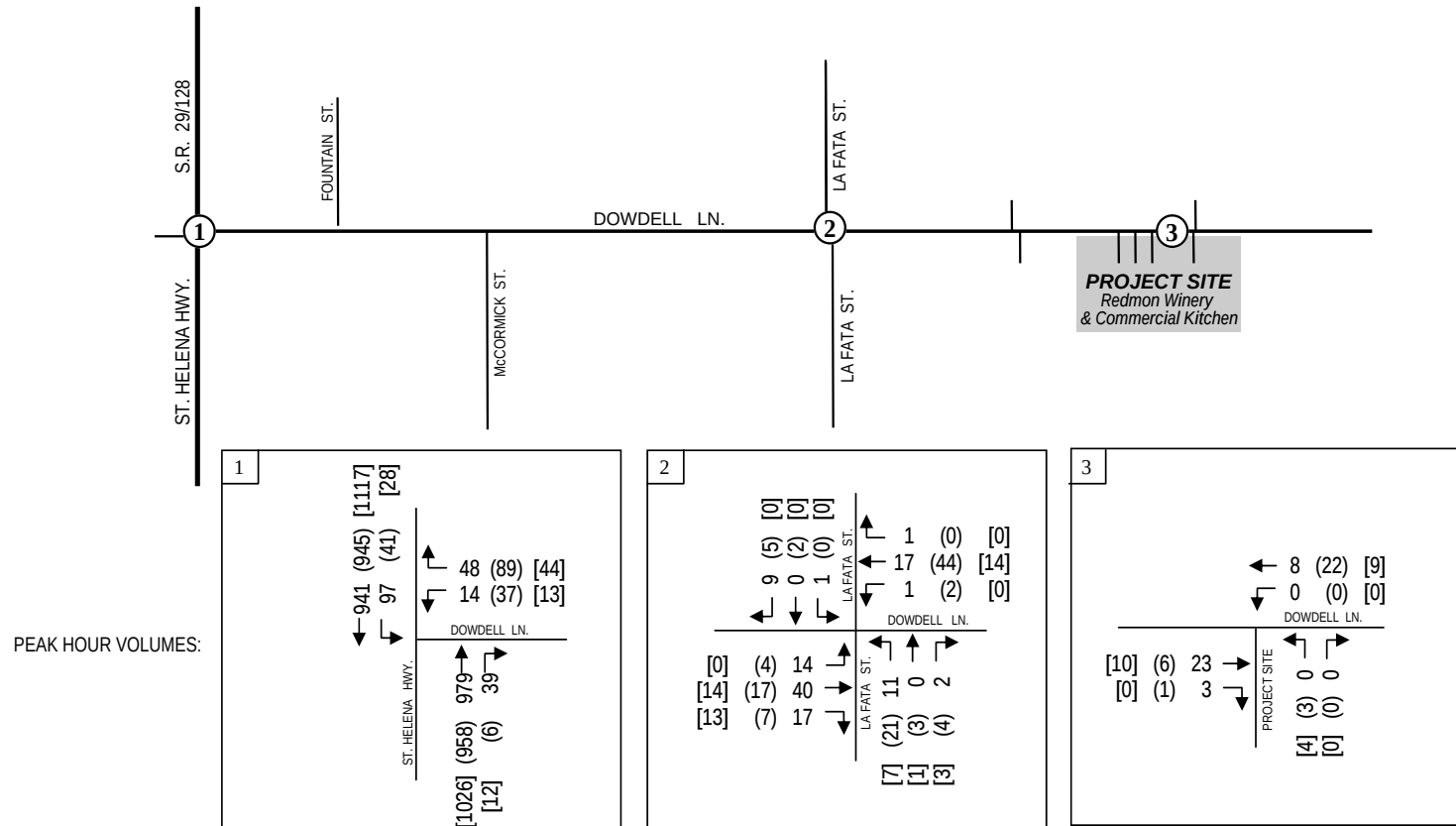
Cumulative Year 2035 plus Project Conditions

The Year 2035 plus project volumes are presented in Figure 7 and the calculated intersection LOS are listed in Table 7. The SR-29/Dowdell Lane intersection would continue to operate at LOS D' during the weekday AM and PM and Saturday peak hours, with delay increases of less than one second. The proposed project trips would not constitute a significant impact, as the delay increases would be less than the significance threshold of one second at the SR-29 (Main Street) intersection. The remaining study intersections of La Fata Street/Dowdell Lane and Project Driveway/Dowdell Lane would operate at LOS A with cum

TABLE 7
YEAR 2035 NO PROJECT AND PLUS PROJECT HARVEST CONDITIONS: PEAK HOUR INTERSECTION LOS

	Intersection	Control Type	Wkdy. AM		Wkdy. PM		Saturday Peak	
			2035 NP	2035 + Prj	2035 NP	2035 + Prj	2035 NP	2035 + Prj
1	SR-29 /Dowdell Lane	TWSC	D 26.5	D 27.3	D 28.1	D 28.7	D 25.1	D 25.9
2	La Fata Street / Dowdell Lane	TWSC	A 9.2	A 9.2	A 9.1	A 9.2	A 8.7	A 8.8
3	Projection Driveway / Dowdell Lane	TWSC	A 0.1	A 8.7	A 8.7	A 8.7	A 8.6	A 8.7

Intersection LOS based on Highway Capacity Manual (HCM 2010) operations methodology for unsignalized intersections and yields a vehicle delay in seconds.

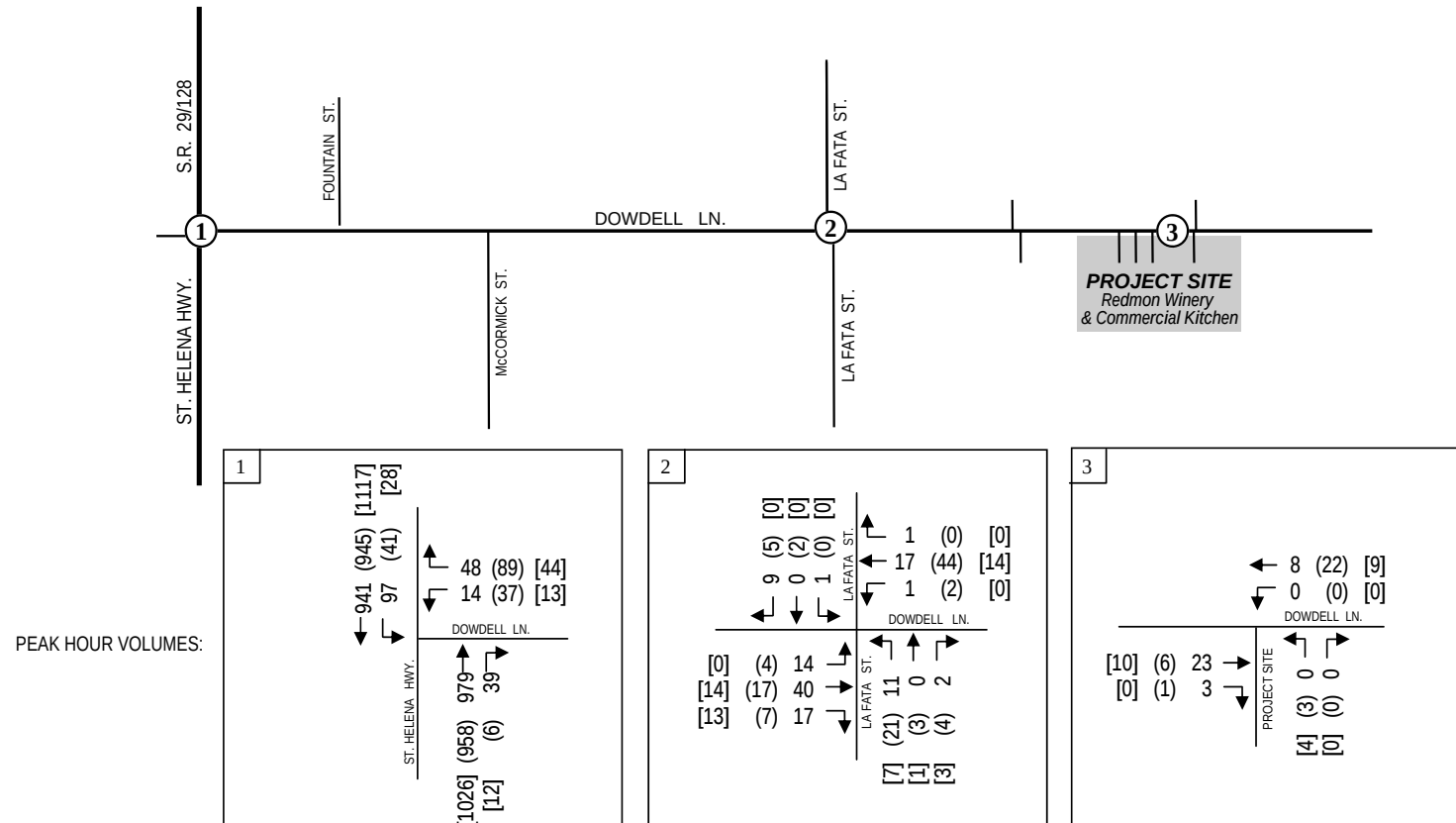


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Cumulative Without Project Volumes
Weekday AM, (PM), and [Saturday] Peak Hours



figure 6



omni-means

Cumulative Without Project Volumes
Weekday AM, (PM), and [Saturday] Peak Hours



figure 6

7. Project Site Access, Circulation, and Design Parameters

Access/Onsite Circulation

The project site plan is illustrated in Figure 8. There would be a total of four driveways serving the site (as with current existing conditions) located directly off Dowdell Lane. All four driveways have gated control and can be easily opened or closed depending on current needs and/or truck access. The first project driveway is located approximately 225 feet east of La Fata Street. From this first access driveway, the remaining three project driveways are successively spaced about 75 feet apart continuing east on Dowdell Lane. On an internal basis, the first three driveways would all be interconnected through a common work/parking area for proposed winery uses. The fourth or eastern-most project driveway would serve proposed commercial kitchen and "live/work areas. Based on overall project trip generation by use, it is likely that employees and trucks associated with proposed winery production would use the first three driveways and employees/trucks associated with commercial kitchen uses would use the fourth project driveway. Actual peak period project trips at these driveways would be quite low with nine (9) vehicle trips to/from the site during the weekday AM and PM peak hours and 12 vehicle trips to/from the site during the weekend harvest/crush periods.

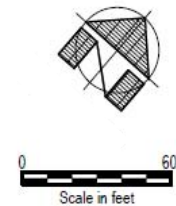
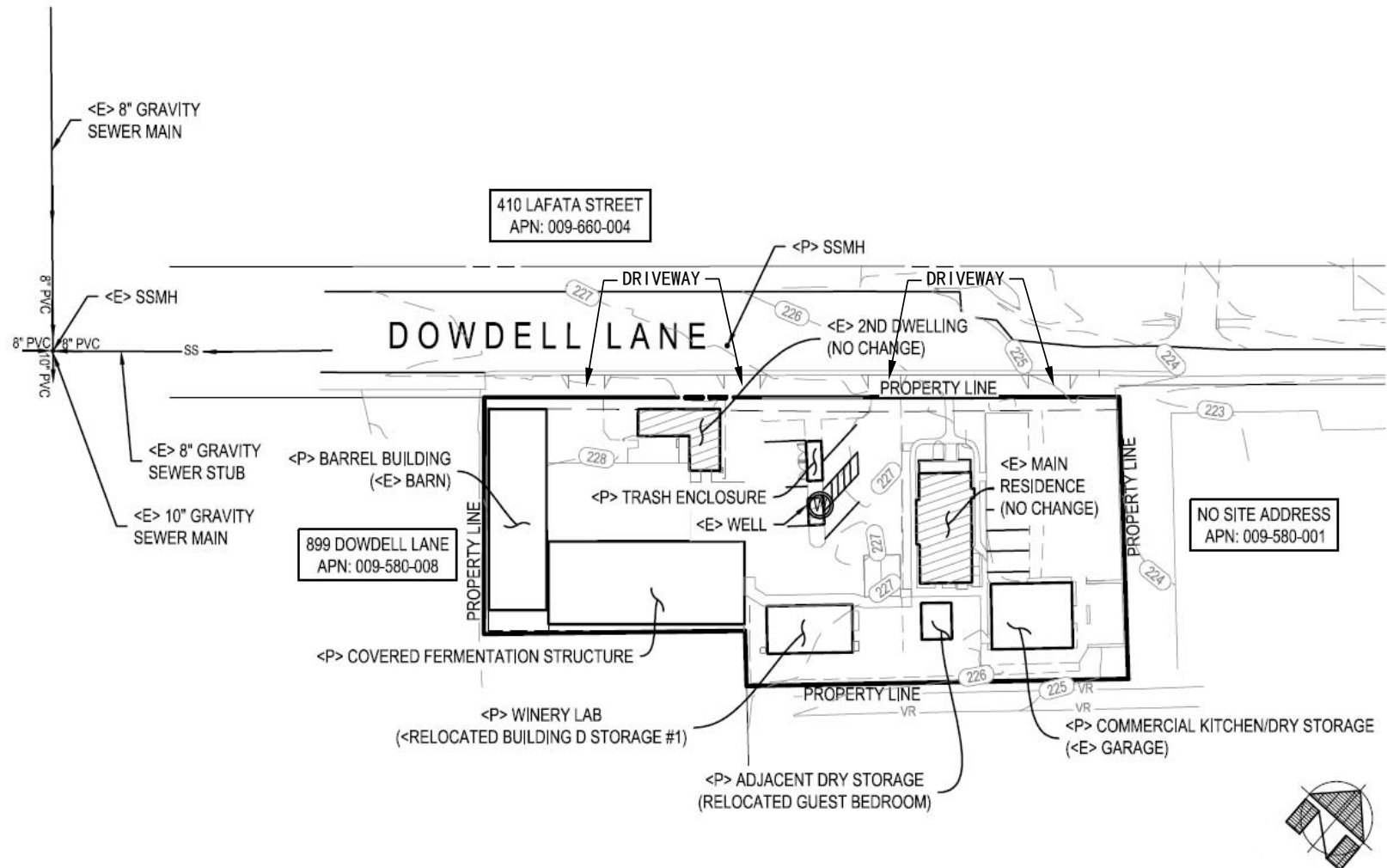
Currently, there are no pedestrian or bicycle facilities on Dowdell Lane along the proposed project frontage. The project site plan indicates a new pedestrian path would be constructed along the entire project frontage interior from the face-of-curb along the south side of Dowdell Lane. The pedestrian path would connect to existing pedestrian sidewalk facilities that begin immediately west of the proposed project site on Dowdell Lane.

Dowdell Lane Operations

Weekday peak hour and weekend mid-day peak hour trips estimated for proposed project uses have all been assigned to Dowdell Lane via SR-29. As with proposed project driveways, this would equate to nine (9) weekday AM and PM peak hour trips and 12 mid-day weekend peak hour trips. However, it is likely that some employee trips may use La Fata Street north or south to access Mills Lane or Vintage Avenue as an alternative to Dowdell Lane to reach SR-29. On a daily basis, the proposed project is expected to add 23 weekday and 32 weekend trips (harvest/crush season). With the exception of the SR-29/Dowdell Lane intersection, all study intersections along Dowdell Lane would continue to operate at LOS A during the weekday and weekend peak hour time periods. With respect to truck trips, the project would generate approximately 5-6 truck trips during the weekday (non-harvest) and about 11-12 daily truck trips on Dowdell Lane during the crush/harvest season.

Sight Distance

Sight distances for vehicles turning in/out of the winery driveways were evaluated. The desired vehicle visibility or "corner sight distance" is a function of the travel speeds on the primary street. 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 cross road and the



Source: Delta Consulting & Engineering, St. Helena (UP 1.0, Plan Check 2, 3/4/16)



omni-means

Project Site Plan



figure 8

driver of an approaching vehicle in the right lane of the main highway.⁶ The speed limit on Dowdell Lane is 25 mph but traffic flows are generally unimpeded resulting in speeds of 25-30 mph.

Based on the Caltrans design standards, the Dowdell Lane project driveway(s) require a sight distance of about 250 feet. Visibility on Dowdell Lane to the east and west is approximately 600-800 feet, therefore the sight distance is adequate.

8. Conclusions/Recommendations

The proposed Redmon Winery and Commercial Kitchen project's weekday and weekend peak hour trip generation would not significantly affect intersection LOS on Dowdell Lane. The SR-29/Dowdell Lane intersection would be operating at LOS D during the weekday AM and PM and weekend time periods with proposed project traffic. Proposed project traffic would add less than one (1) second of overall vehicle delay to the intersection and would make up less than one (1) percent of overall peak hour volumes at this intersection consistent with City of St. Helena significance thresholds for unsignalized intersections on Main Street (SR-29). There are two reasons for acceptable level-of-service (LOS) at the SR-29/Dowdell Lane intersection:

3. The completion of the St. Helena SR-29 Channelization Project (Summer—2017). The installation of a two-way-left-turn-lane on SR-29 at Dowdell Lane would greatly improve vehicle access to Dowdell Lane to/from SR-29 and reduce overall vehicle delays. The new two-way-left-turn-lane would allow stop-sign controlled outbound vehicles (making a left-turn) to merge more safely onto SR-29 by providing a refuge lane to merge into southbound through-traffic. Similarly, the TWLTL would also allow southbound motorists on SR-29 to make a left-turn (inbound) to Dowdell Lane without delaying through-traffic on the highway. Indirectly, the planned signal for the SR-29/Grayson Avenue intersection just north of Mills Lane would also benefit traffic at Dowdell Lane (at times) by providing more "gaps" in southbound traffic;
4. The proposed project description does not include any guest visitation or marketing events what-so-ever (just this fact alone greatly reduces the overall traffic generation). The project description focuses on employment and truck deliveries related to proposed winery production and commercial kitchen uses. Again, there would be no tastings, tours, or marketing events.

The proposed project is estimated to generate 9 AM weekday peak hour trips and 9 PM weekday peak hour trips. During the weekend harvest/crush season (worst case), the project is estimated to generate 12 mid-day (late afternoon) peak hour trips. Truck delivery trips would include 5-6 daily trips during non-harvest conditions and 11-12 daily truck trips during the harvest/crush period. All study intersections on Dowdell Lane would continue to operate within accepted City of St. Helena LOS thresholds with proposed project traffic.

Vehicle sight distance to the east and west on Dowdell Lane from proposed project driveway(s) on Dowdell Lane meets the recommended sight distances of 150-200 feet based on vehicle speeds of 25-30 mph.

⁶ Caltrans, *Highway Design Manual, Sixth Edition, July 1, 20009*.

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With regard to driveway access; given that multiple driveways would provide access to various winery production facilities it is recommended that truck deliveries use the first and third driveways (respectively). These driveways would be connected by an internal parking and circulation area. Trucks could enter one driveway and exit out the other driveway without having to turn around.

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	14	47	702	36	90	716
Future Vol, veh/h	14	47	702	36	90	716
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	15	51	763	39	98	778
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1757	783	0	0	802	0
Stage 1	783	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	93	394	-	-	822	-
Stage 1	450	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	73	394	-	-	822	-
Mov Cap-2 Maneuver	73	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	27.3	0		1.1		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	73 394	822	-	
HCM Lane V/C Ratio	-	-	0.208 0.13	0.119	-	
HCM Control Delay (s)	-	-	66.9 15.5	10	0	
HCM Lane LOS	-	-	F C	A	A	
HCM 95th %tile Q(veh)	-	-	0.7 0.4	0.4	-	

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	30	17	1	16	1	11	0	2	1	0	9
Future Vol, veh/h	14	30	17	1	16	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	33	18	1	17	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	51	0	0	97	93	42	93	102	18
Stage 1	-	-	-	-	-	-	72	72	-	20	20	-
Stage 2	-	-	-	-	-	-	25	21	-	73	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1555	-	-	885	797	1029	891	788	1061
Stage 1	-	-	-	-	-	-	938	835	-	999	879	-
Stage 2	-	-	-	-	-	-	993	878	-	937	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1555	-	-	869	788	1029	882	779	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	869	788	-	882	779	-
Stage 1	-	-	-	-	-	-	929	827	-	989	878	-
Stage 2	-	-	-	-	-	-	983	877	-	926	819	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.4			9.1			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	890	1599	-	-	1555	-	-	1040				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.01				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	13	3	0	7	0	0
Future Vol, veh/h	13	3	0	7	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	14	3	0	8	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	17	0	24	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	8	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1600	-	992	1063
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1600	-	992	1063
Mov Cap-2 Maneuver	-	-	-	-	992	-
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	1015	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1600	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

HCM 2010 TWSC
1: SR-29 & Dowdell Ln.

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PM Existing Weekday Conditions
4/14/2016

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	34	82	665	6	40	679
Future Vol, veh/h	34	82	665	6	40	679
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	37	89	723	7	43	738
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1551	726	0	0	729	0
Stage 1	726	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	125	425	-	-	875	-
Stage 1	479	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	115	425	-	-	875	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	25.9	0		0.5		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	115 425	875	-	
HCM Lane V/C Ratio	-	-	0.321 0.21	0.05	-	
HCM Control Delay (s)	-	-	50.5 15.7	9.3	0	
HCM Lane LOS	-	-	F C	A	A	
HCM 95th %tile Q(veh)	-	-	1.3 0.8	0.2	-	

Exist (Peak Season)

Synchro 9 Report
Page 1

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	16	7	2	34	0	21	3	4	0	2	5
Future Vol, veh/h	4	16	7	2	34	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	17	8	2	37	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	37	0	0	25	0	0	75	71	21	75	75	37
Stage 1	-	-	-	-	-	-	30	30	-	41	41	-
Stage 2	-	-	-	-	-	-	45	41	-	34	34	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1574	-	-	1589	-	-	915	819	1056	915	815	1035
Stage 1	-	-	-	-	-	-	987	870	-	974	861	-
Stage 2	-	-	-	-	-	-	969	861	-	982	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1574	-	-	1589	-	-	906	816	1056	906	812	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	816	-	906	812	-
Stage 1	-	-	-	-	-	-	984	867	-	971	860	-
Stage 2	-	-	-	-	-	-	961	860	-	971	864	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			9.1			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	914	1574	-	-	1589	-	-	960				
HCM Lane V/C Ratio	0.033	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	5	1	0	12	3	0
Future Vol, veh/h	5	1	0	12	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	5	1	0	13	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	19	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	998	1077
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1614	-	998	1077
Mov Cap-2 Maneuver	-	-	-	-	998	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1010	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	998	-	-	1614	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	11	40	716	10	24	790
Future Vol, veh/h	11	40	716	10	24	790
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	12	43	778	11	26	859
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1695	784	0	0	789	0
Stage 1	784	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	102	393	-	-	831	-
Stage 1	450	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	96	393	-	-	831	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.3	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	96 393	831	-	
HCM Lane V/C Ratio	-	-	0.125 0.111	0.031	-	
HCM Control Delay (s)	-	-	47.8 15.3	9.5	0	
HCM Lane LOS	-	-	E C	A A		
HCM 95th %tile Q(veh)	-	-	0.4 0.4	0.1	-	

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	13	0	8	0	7	1	3	0	0	0
Future Vol, veh/h	0	8	13	0	8	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	14	0	9	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	23	0	0	25	25	16	27	32	9
Stage 1	-	-	-	-	-	-	16	16	-	9	9	-
Stage 2	-	-	-	-	-	-	9	9	-	18	23	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1611	-	-	1592	-	-	986	868	1063	983	861	1073
Stage 1	-	-	-	-	-	-	1004	882	-	1012	888	-
Stage 2	-	-	-	-	-	-	1012	888	-	1001	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1611	-	-	1592	-	-	986	868	1063	979	861	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-	986	868	-	979	861	-
Stage 1	-	-	-	-	-	-	1004	882	-	1012	888	-
Stage 2	-	-	-	-	-	-	1012	888	-	997	876	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	993	1611	-	-	1592	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	4	0	0	3	4	0
Future Vol, veh/h	4	0	0	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	0	0	3	4	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	7	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	3	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1014	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1618	-	1014	1080
Mov Cap-2 Maneuver	-	-	-	-	1014	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1020	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1014	-	-	1618	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Traffic Vol, veh/h	14	48		768	39	97 780
Future Vol, veh/h	14	48		768	39	97 780
Conflicting Peds, #/hr	0	0		0	0	0 0
Sign Control	Stop	Stop		Free	Free	Free Free
RT Channelized	-	Stop		-	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	15	52		835	42	105 848
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1915	856	0	0	877	0
Stage 1	856	-	-	-	-	-
Stage 2	1059	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	74	357	-	-	770	-
Stage 1	416	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	55	357	-	-	770	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.6	0		1.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	165	357	770	-
HCM Lane V/C Ratio	-	-	0.092	0.146	0.137	-
HCM Control Delay (s)	-	-	29	16.8	10.4	0
HCM Lane LOS	-	-	D	C	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.5	0.5	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	40	17	1	17	1	11	0	2	1	0	9
Future Vol, veh/h	14	40	17	1	17	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	43	18	1	18	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	62	0	0	109	105	53	105	113	19
Stage 1	-	-	-	-	-	-	83	83	-	21	21	-
Stage 2	-	-	-	-	-	-	26	22	-	84	92	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1596	-	-	1541	-	-	870	785	1014	875	777	1059
Stage 1	-	-	-	-	-	-	925	826	-	998	878	-
Stage 2	-	-	-	-	-	-	992	877	-	924	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1541	-	-	855	776	1014	866	768	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	776	-	866	768	-
Stage 1	-	-	-	-	-	-	916	818	-	988	877	-
Stage 2	-	-	-	-	-	-	982	876	-	913	811	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.4			9.2			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	876	1596	-	-	1541	-	-	1036				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.01				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	23	3	0	8	0	0
Future Vol, veh/h	23	3	0	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	25	3	0	9	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	28	0	36	27
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1585	-	977	1048
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1585	-	977	1048
Mov Cap-2 Maneuver	-	-	-	-	977	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1014	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1585	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	37	89	731	6	41	753
Future Vol, veh/h	37	89	731	6	41	753
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	40	97	795	7	45	818
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1706	798	0	0	801	0
Stage 1	798	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	100	386	-	-	822	-
Stage 1	443	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	90	386	-	-	822	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	443	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.6	0		0.5		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	220	386	822	-
HCM Lane V/C Ratio	-	-	0.183	0.251	0.054	-
HCM Control Delay (s)	-	-	25	17.4	9.6	0
HCM Lane LOS	-	-	D	C	A	A
HCM 95th %tile Q(veh)	-	-	0.7	1	0.2	-

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	17	7	2	44	0	21	3	4	0	2	5
Future Vol, veh/h	4	17	7	2	44	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	18	8	2	48	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	26	0	0	87	83	22	87	87	48
Stage 1	-	-	-	-	-	-	31	31	-	52	52	-
Stage 2	-	-	-	-	-	-	56	52	-	35	35	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1588	-	-	899	807	1055	899	803	1021
Stage 1	-	-	-	-	-	-	986	869	-	961	852	-
Stage 2	-	-	-	-	-	-	956	852	-	981	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1588	-	-	890	804	1055	890	800	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	890	804	-	890	800	-
Stage 1	-	-	-	-	-	-	983	866	-	958	851	-
Stage 2	-	-	-	-	-	-	948	851	-	970	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.3			9.1			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	900	1559	-	-	1588	-	-	946				
HCM Lane V/C Ratio	0.034	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	6	1	0	22	3	0
Future Vol, veh/h	6	1	0	22	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	7	1	0	24	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	31	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	983	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1612	-	983	1075
Mov Cap-2 Maneuver	-	-	-	-	983	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	999	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	983	-	-	1612	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	13	44	787	12	28	870
Future Vol, veh/h	13	44	787	12	28	870
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	75	-	-	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	14	48	855	13	30	946
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1869	862	0	0	868	0
Stage 1	862	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	79	355	-	-	776	-
Stage 1	414	-	-	-	-	-
Stage 2	353	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	76	355	-	-	776	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.4	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	204	355	776	-
HCM Lane V/C Ratio	-	-	0.069	0.135	0.039	-
HCM Control Delay (s)	-	-	24	16.7	9.8	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.5	0.1	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	13	0	14	0	7	1	3	0	0	0
Future Vol, veh/h	0	14	13	0	14	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	14	0	15	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	29	0	0	37	37	22	39	44	15
Stage 1	-	-	-	-	-	-	22	22	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	24	29	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1603	-	-	1584	-	-	968	855	1055	966	848	1065
Stage 1	-	-	-	-	-	-	996	877	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	994	871	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1584	-	-	968	855	1055	962	848	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	968	855	-	962	848	-
Stage 1	-	-	-	-	-	-	996	877	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	990	871	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	978	1603	-	-	1584	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	10	0	0	9	4	0
Future Vol, veh/h	10	0	0	9	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	11	0	0	10	4	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	21	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1608	-	996	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1608	-	996	1070
Mov Cap-2 Maneuver	-	-	-	-	996	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1013	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	996	-	-	1608	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Traffic Vol, veh/h	15	48		702	38	94 716
Future Vol, veh/h	15	48		702	38	94 716
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	16	52		763	41	102 778
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1767	784	0	0	804	0
Stage 1	784	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	92	393	-	-	820	-
Stage 1	450	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	72	393	-	-	820	-
Mov Cap-2 Maneuver	72	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	28.3	0		1.2		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	72	393	820	-
HCM Lane V/C Ratio	-	-	0.226	0.133	0.125	-
HCM Control Delay (s)	-	-	69.1	15.6	10	0
HCM Lane LOS	-	-	F	C	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.5	0.4	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	36	17	1	19	1	11	0	2	1	0	9
Future Vol, veh/h	14	36	17	1	19	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	39	18	1	21	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	58	0	0	107	103	48	103	111	21
Stage 1	-	-	-	-	-	-	79	79	-	23	23	-
Stage 2	-	-	-	-	-	-	28	24	-	80	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1593	-	-	1546	-	-	872	787	1021	877	779	1056
Stage 1	-	-	-	-	-	-	930	829	-	995	876	-
Stage 2	-	-	-	-	-	-	989	875	-	929	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1593	-	-	1546	-	-	857	778	1021	868	770	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	857	778	-	868	770	-
Stage 1	-	-	-	-	-	-	921	821	-	985	875	-
Stage 2	-	-	-	-	-	-	979	874	-	918	814	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			9.2			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	879	1593	-	-	1546	-	-	1034				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.011				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	13	6	0	7	3	0
Future Vol, veh/h	13	6	0	7	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	14	7	0	8	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	21	0	25	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	8	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1595	-	991	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1595	-	991	1062
Mov Cap-2 Maneuver	-	-	-	-	991	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1015	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	991	-	-	1595	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	36	86	665	7	42	679
Future Vol, veh/h	36	86	665	7	42	679
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	39	93	723	8	46	738
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1556	727	0	0	730	0
Stage 1	727	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	124	424	-	-	874	-
Stage 1	478	-	-	-	-	-
Stage 2	429	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	113	424	-	-	874	-
Mov Cap-2 Maneuver	113	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	26.8	0		0.5		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	113 424	874	-	
HCM Lane V/C Ratio	-	-	0.346 0.22	0.052	-	
HCM Control Delay (s)	-	-	52.9 15.9	9.3	0	
HCM Lane LOS	-	-	F C	A	A	
HCM 95th %tile Q(veh)	-	-	1.4 0.8	0.2	-	

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	19	7	2	40	0	21	3	4	0	2	5
Future Vol, veh/h	4	19	7	2	40	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	21	8	2	43	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	28	0	0	85	81	24	85	85	43
Stage 1	-	-	-	-	-	-	33	33	-	48	48	-
Stage 2	-	-	-	-	-	-	52	48	-	37	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1566	-	-	1585	-	-	901	809	1052	901	805	1027
Stage 1	-	-	-	-	-	-	983	868	-	965	855	-
Stage 2	-	-	-	-	-	-	961	855	-	978	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1566	-	-	1585	-	-	892	806	1052	892	802	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	892	806	-	892	802	-
Stage 1	-	-	-	-	-	-	980	865	-	962	854	-
Stage 2	-	-	-	-	-	-	953	854	-	967	861	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.3			9.1			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	901	1566	-	-	1585	-	-	951				
HCM Lane V/C Ratio	0.034	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	5	3	0	12	6	0
Future Vol, veh/h	5	3	0	12	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	5	3	0	13	7	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	20	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1611	-	997	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1611	-	997	1075
Mov Cap-2 Maneuver	-	-	-	-	997	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1010	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	997	-	-	1611	-	
HCM Lane V/C Ratio	0.007	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Traffic Vol, veh/h	14	46		716	11	26 790
Future Vol, veh/h	14	46		716	11	26 790
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	15	50		778	12	28 859
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1699	784	0	0	790	0
Stage 1	784	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	101	393	-	-	830	-
Stage 1	450	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	94	393	-	-	830	-
Mov Cap-2 Maneuver	94	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	23.7	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	94	393	830	-
HCM Lane V/C Ratio	-	-	0.162	0.127	0.034	-
HCM Control Delay (s)	-	-	50.6	15.5	9.5	0
HCM Lane LOS	-	-	F	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4	0.1	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	11	13	0	17	0	7	1	3	0	0	0
Future Vol, veh/h	0	11	13	0	17	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	14	0	18	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	26	0	0	37	37	19	39	44	18
Stage 1	-	-	-	-	-	-	19	19	-	18	18	-
Stage 2	-	-	-	-	-	-	18	18	-	21	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1588	-	-	968	855	1059	966	848	1061
Stage 1	-	-	-	-	-	-	1000	880	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	998	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1588	-	-	968	855	1059	962	848	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	968	855	-	962	848	-
Stage 1	-	-	-	-	-	-	1000	880	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	994	874	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	979	1599	-	-	1588	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	4	3	0	3	9	0
Future Vol, veh/h	4	3	0	3	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	3	0	3	10	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	9	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	3	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1011	1077
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1612	-	1011	1077
Mov Cap-2 Maneuver	-	-	-	-	1011	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1020	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1011	-	-	1612	-	
HCM Lane V/C Ratio	0.01	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	15	50	768	41	101	780
Future Vol, veh/h	15	50	768	41	101	780
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	16	54	835	45	110	848
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1924	857	0	0	879	0
Stage 1	857	-	-	-	-	-
Stage 2	1067	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	73	357	-	-	769	-
Stage 1	416	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	53	357	-	-	769	-
Mov Cap-2 Maneuver	162	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.9	0		1.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	162	357	769	-
HCM Lane V/C Ratio	-	-	0.101	0.152	0.143	-
HCM Control Delay (s)	-	-	29.7	16.9	10.5	0
HCM Lane LOS	-	-	D	C	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.5	0.5	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	46	17	1	20	1	11	0	2	1	0	9
Future Vol, veh/h	14	46	17	1	20	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	50	18	1	22	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	68	0	0	119	115	59	115	123	22
Stage 1	-	-	-	-	-	-	90	90	-	24	24	-
Stage 2	-	-	-	-	-	-	29	25	-	91	99	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1592	-	-	1533	-	-	857	775	1007	862	767	1055
Stage 1	-	-	-	-	-	-	917	820	-	994	875	-
Stage 2	-	-	-	-	-	-	988	874	-	916	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1533	-	-	842	766	1007	853	759	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	842	766	-	853	759	-
Stage 1	-	-	-	-	-	-	908	812	-	984	874	-
Stage 2	-	-	-	-	-	-	978	873	-	905	805	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.3			9.2			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	864	1592	-	-	1533	-	-	1031				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.011				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	23	6	0	8	3	0
Future Vol, veh/h	23	6	0	8	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	25	7	0	9	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	32	0	37	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1580	-	975	1047
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1580	-	975	1047
Mov Cap-2 Maneuver	-	-	-	-	975	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1014	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	975	-	-	1580	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Traffic Vol, veh/h	39	93		731	7	43 753
Future Vol, veh/h	39	93		731	7	43 753
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		-	-	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	42	101		795	8	47 818
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1710	798	0	0	802	0
Stage 1	798	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	100	386	-	-	822	-
Stage 1	443	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	94	386	-	-	822	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	443	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.7	0		0.5		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	226	386	822	-
HCM Lane V/C Ratio	-	-	0.188	0.262	0.057	-
HCM Control Delay (s)	-	-	24.6	17.6	9.6	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	0.7	1	0.2	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	20	7	2	50	0	21	3	4	0	2	5
Future Vol, veh/h	4	20	7	2	50	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	22	8	2	54	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	29	0	0	97	93	26	97	97	54
Stage 1	-	-	-	-	-	-	34	34	-	59	59	-
Stage 2	-	-	-	-	-	-	63	59	-	38	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1551	-	-	1584	-	-	885	797	1050	885	793	1013
Stage 1	-	-	-	-	-	-	982	867	-	953	846	-
Stage 2	-	-	-	-	-	-	948	846	-	977	863	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1584	-	-	876	794	1050	876	790	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	876	794	-	876	790	-
Stage 1	-	-	-	-	-	-	979	864	-	950	845	-
Stage 2	-	-	-	-	-	-	940	845	-	966	860	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			9.2			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	887	1551	-	-	1584	-	-	937				
HCM Lane V/C Ratio	0.034	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	6	3	0	22	6	0
Future Vol, veh/h	6	3	0	22	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	7	3	0	24	7	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	10	0	32	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	982	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1610	-	982	1074
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	999	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	982	-	-	1610	-	
HCM Lane V/C Ratio	0.007	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	16	50	787	13	30	870
Future Vol, veh/h	16	50	787	13	30	870
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	-	-	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	17	54	855	14	33	946
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1874	863	0	0	870	0
Stage 1	863	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	79	354	-	-	775	-
Stage 1	413	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	76	354	-	-	775	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	413	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.8	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	204	354	775	-
HCM Lane V/C Ratio	-	-	0.085	0.154	0.042	-
HCM Control Delay (s)	-	-	24.3	17	9.8	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.5	0.1	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	17	13	0	23	0	7	1	3	0	0	0
Future Vol, veh/h	0	17	13	0	23	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	14	0	25	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	33	0	0	51	51	26	53	58	25
Stage 1	-	-	-	-	-	-	26	26	-	25	25	-
Stage 2	-	-	-	-	-	-	25	25	-	28	33	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1589	-	-	1579	-	-	948	840	1050	946	833	1051
Stage 1	-	-	-	-	-	-	992	874	-	993	874	-
Stage 2	-	-	-	-	-	-	993	874	-	989	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1589	-	-	1579	-	-	948	840	1050	942	833	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	948	840	-	942	833	-
Stage 1	-	-	-	-	-	-	992	874	-	993	874	-
Stage 2	-	-	-	-	-	-	993	874	-	985	868	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	962	1589	-	-	1579	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	10	3	0	9	9	0
Future Vol, veh/h	10	3	0	9	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	11	3	0	10	10	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	23	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1604	-	993	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1604	-	993	1067
Mov Cap-2 Maneuver	-	-	-	-	993	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1013	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	993	-	-	1604	-	
HCM Lane V/C Ratio	0.01	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	14	48	979	39	97	941
Future Vol, veh/h	14	48	979	39	97	941
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	15	52	1064	42	105	1023
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2319	1085	0	0	1107	0
Stage 1	1085	-	-	-	-	-
Stage 2	1234	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	41	263	-	-	631	-
Stage 1	324	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	25	263	-	-	631	-
Mov Cap-2 Maneuver	112	-	-	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	26.5		0		1.1	
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	112	263	631	-
HCM Lane V/C Ratio	-	-	0.136	0.198	0.167	-
HCM Control Delay (s)	-	-	42.1	22	11.8	0
HCM Lane LOS	-	-	E	C	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.7	0.6	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	40	17	1	17	1	11	0	2	1	0	9
Future Vol, veh/h	14	40	17	1	17	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	43	18	1	18	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	62	0	0	109	105	53	105	113	19
Stage 1	-	-	-	-	-	-	83	83	-	21	21	-
Stage 2	-	-	-	-	-	-	26	22	-	84	92	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1596	-	-	1541	-	-	870	785	1014	875	777	1059
Stage 1	-	-	-	-	-	-	925	826	-	998	878	-
Stage 2	-	-	-	-	-	-	992	877	-	924	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1541	-	-	855	776	1014	866	768	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	776	-	866	768	-
Stage 1	-	-	-	-	-	-	916	818	-	988	877	-
Stage 2	-	-	-	-	-	-	982	876	-	913	811	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.4			9.2			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	876	1596	-	-	1541	-	-	1036				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.01				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	23	3	0	8	0	0
Future Vol, veh/h	23	3	0	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	25	3	0	9	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	28	0	36	27
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1585	-	977	1048
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1585	-	977	1048
Mov Cap-2 Maneuver	-	-	-	-	977	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1014	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1585	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	37	89	958	6	41	945
Future Vol, veh/h	37	89	958	6	41	945
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	40	97	1041	7	45	1027
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2161	1045	0	0	1048	0
Stage 1	1045	-	-	-	-	-
Stage 2	1116	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	52	278	-	-	664	-
Stage 1	339	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	44	278	-	-	664	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	28.1	0		0.4		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	155	278	664	-
HCM Lane V/C Ratio	-	-	0.259	0.348	0.067	-
HCM Control Delay (s)	-	-	36.2	24.7	10.8	0
HCM Lane LOS	-	-	E	C	B	A
HCM 95th %tile Q(veh)	-	-	1	1.5	0.2	-

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	17	7	2	44	0	21	3	4	0	2	5
Future Vol, veh/h	4	17	7	2	44	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	18	8	2	48	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	26	0	0	87	83	22	87	87	48
Stage 1	-	-	-	-	-	-	31	31	-	52	52	-
Stage 2	-	-	-	-	-	-	56	52	-	35	35	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1588	-	-	899	807	1055	899	803	1021
Stage 1	-	-	-	-	-	-	986	869	-	961	852	-
Stage 2	-	-	-	-	-	-	956	852	-	981	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1588	-	-	890	804	1055	890	800	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	890	804	-	890	800	-
Stage 1	-	-	-	-	-	-	983	866	-	958	851	-
Stage 2	-	-	-	-	-	-	948	851	-	970	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.3			9.1			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	900	1559	-	-	1588	-	-	946				
HCM Lane V/C Ratio	0.034	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	6	1	0	22	3	0
Future Vol, veh/h	6	1	0	22	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	7	1	0	24	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	31	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	983	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1612	-	983	1075
Mov Cap-2 Maneuver	-	-	-	-	983	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	999	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	983	-	-	1612	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	13	44	1026	12	28	1117
Future Vol, veh/h	13	44	1026	12	28	1117
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	-	-	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	14	48	1115	13	30	1214
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2397	1122	0	0	1128	0
Stage 1	1122	-	-	-	-	-
Stage 2	1275	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	37	251	-	-	619	-
Stage 1	311	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	251	-	-	619	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	250	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	25.1	0		0.3		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	142	251	619	-
HCM Lane V/C Ratio	-	-	0.1	0.191	0.049	-
HCM Control Delay (s)	-	-	33.1	22.7	11.1	-
HCM Lane LOS	-	-	D	C	B	-
HCM 95th %tile Q(veh)	-	-	0.3	0.7	0.2	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	13	0	14	0	7	1	3	0	0	0
Future Vol, veh/h	0	14	13	0	14	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	14	0	15	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	29	0	0	37	37	22	39	44	15
Stage 1	-	-	-	-	-	-	22	22	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	24	29	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1603	-	-	1584	-	-	968	855	1055	966	848	1065
Stage 1	-	-	-	-	-	-	996	877	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	994	871	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1584	-	-	968	855	1055	962	848	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	968	855	-	962	848	-
Stage 1	-	-	-	-	-	-	996	877	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	990	871	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	978	1603	-	-	1584	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	10	0	0	9	4	0
Future Vol, veh/h	10	0	0	9	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	11	0	0	10	4	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	21	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1608	-	996	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1608	-	996	1070
Mov Cap-2 Maneuver	-	-	-	-	996	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1013	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	996	-	-	1608	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	15	50	979	41	101	941
Future Vol, veh/h	15	50	979	41	101	941
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	16	54	1064	45	110	1023
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2328	1086	0	0	1109	0
Stage 1	1086	-	-	-	-	-
Stage 2	1242	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	41	263	-	-	630	-
Stage 1	324	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	24	263	-	-	630	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	162	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	27.3	0		1.2		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	108	263	630	-
HCM Lane V/C Ratio	-	-	0.151	0.207	0.174	-
HCM Control Delay (s)	-	-	44.2	22.2	11.9	0
HCM Lane LOS	-	-	E	C	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.8	0.6	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	14	46	17	1	20	1	11	0	2	1	0	9
Future Vol, veh/h	14	46	17	1	20	1	11	0	2	1	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	50	18	1	22	1	12	0	2	1	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	68	0	0	119	115	59	115	123	22
Stage 1	-	-	-	-	-	-	90	90	-	24	24	-
Stage 2	-	-	-	-	-	-	29	25	-	91	99	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1592	-	-	1533	-	-	857	775	1007	862	767	1055
Stage 1	-	-	-	-	-	-	917	820	-	994	875	-
Stage 2	-	-	-	-	-	-	988	874	-	916	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1533	-	-	842	766	1007	853	759	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	842	766	-	853	759	-
Stage 1	-	-	-	-	-	-	908	812	-	984	874	-
Stage 2	-	-	-	-	-	-	978	873	-	905	805	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.3			9.2			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	864	1592	-	-	1533	-	-	1031				
HCM Lane V/C Ratio	0.016	0.01	-	-	0.001	-	-	0.011				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	23	6	0	8	3	0
Future Vol, veh/h	23	6	0	8	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	25	7	0	9	3	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	32	0	37	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1580	-	975	1047
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1580	-	975	1047
Mov Cap-2 Maneuver	-	-	-	-	975	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1014	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	975	-	-	1580	-	
HCM Lane V/C Ratio	0.003	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	39	93	958	7	43	945
Future Vol, veh/h	39	93	958	7	43	945
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	42	101	1041	8	47	1027
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2166	1045	0	0	1049	0
Stage 1	1045	-	-	-	-	-
Stage 2	1121	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	52	278	-	-	663	-
Stage 1	339	-	-	-	-	-
Stage 2	311	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	43	278	-	-	663	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	28.7	0		0.5		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	154	278	663	-
HCM Lane V/C Ratio	-	-	0.275	0.364	0.07	-
HCM Control Delay (s)	-	-	37	25.2	10.8	0
HCM Lane LOS	-	-	E	D	B	A
HCM 95th %tile Q(veh)	-	-	1.1	1.6	0.2	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	20	7	2	50	0	21	3	4	0	2	5
Future Vol, veh/h	4	20	7	2	50	0	21	3	4	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	22	8	2	54	0	23	3	4	0	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	29	0	0	97	93	26	97	97	54
Stage 1	-	-	-	-	-	-	34	34	-	59	59	-
Stage 2	-	-	-	-	-	-	63	59	-	38	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1551	-	-	1584	-	-	885	797	1050	885	793	1013
Stage 1	-	-	-	-	-	-	982	867	-	953	846	-
Stage 2	-	-	-	-	-	-	948	846	-	977	863	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1584	-	-	876	794	1050	876	790	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	876	794	-	876	790	-
Stage 1	-	-	-	-	-	-	979	864	-	950	845	-
Stage 2	-	-	-	-	-	-	940	845	-	966	860	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			9.2			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	887	1551	-	-	1584	-	-	937				
HCM Lane V/C Ratio	0.034	0.003	-	-	0.001	-	-	0.008				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	6	3	0	22	6	0
Future Vol, veh/h	6	3	0	22	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	7	3	0	24	7	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	10	0	32	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	982	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1610	-	982	1074
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	999	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	982	-	-	1610	-	
HCM Lane V/C Ratio	0.007	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

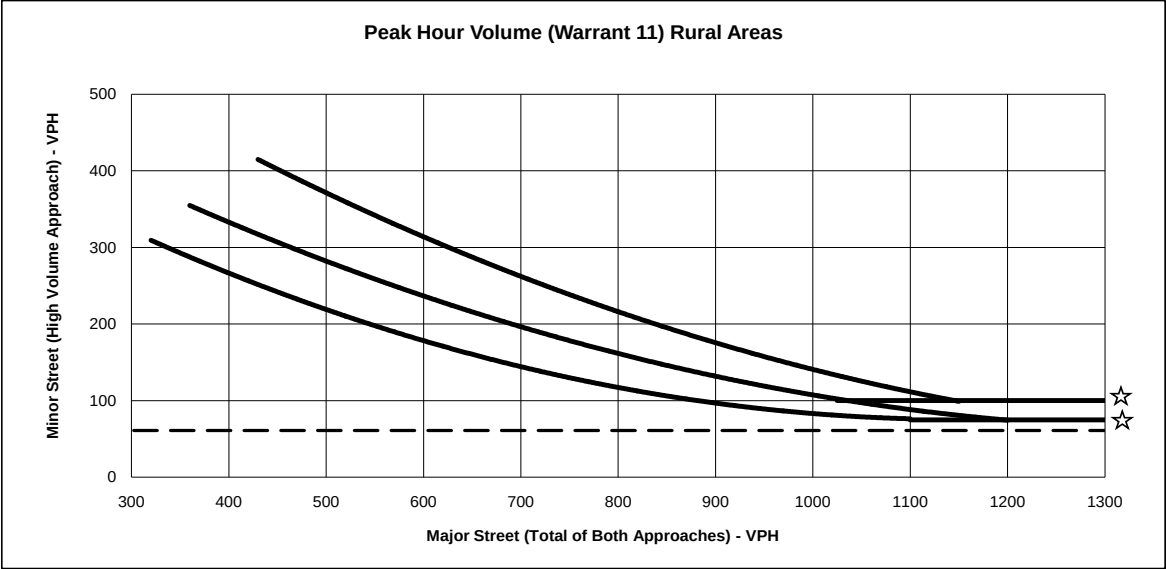
Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	16	50	1026	13	30	1117
Future Vol, veh/h	16	50	1026	13	30	1117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	-	-	0	-
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	17	54	1115	14	33	1214
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2401	1122	0	0	1129	0
Stage 1	1122	-	-	-	-	-
Stage 2	1279	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	37	251	-	-	619	-
Stage 1	311	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	251	-	-	619	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	25.9	0		0.3		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	141	251	619	-
HCM Lane V/C Ratio	-	-	0.123	0.217	0.053	-
HCM Control Delay (s)	-	-	34.1	23.3	11.1	-
HCM Lane LOS	-	-	D	C	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.8	0.2	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	17	13	0	20	0	7	1	3	0	0	0
Future Vol, veh/h	0	17	13	0	20	0	7	1	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	14	0	22	0	8	1	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	33	0	0	48	48	26	50	55	22
Stage 1	-	-	-	-	-	-	26	26	-	22	22	-
Stage 2	-	-	-	-	-	-	22	22	-	28	33	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1593	-	-	1579	-	-	953	844	1050	950	836	1055
Stage 1	-	-	-	-	-	-	992	874	-	996	877	-
Stage 2	-	-	-	-	-	-	996	877	-	989	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1593	-	-	1579	-	-	953	844	1050	946	836	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	953	844	-	946	836	-
Stage 1	-	-	-	-	-	-	992	874	-	996	877	-
Stage 2	-	-	-	-	-	-	996	877	-	985	868	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	966	1593	-	-	1579	-	-	-				
HCM Lane V/C Ratio	0.012	-	-	-	-	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	0	-	-	0				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-				

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	10	3	0	9	9	0
Future Vol, veh/h	10	3	0	9	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	11	3	0	10	10	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	23	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1604	-	993	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1604	-	993	1067
Mov Cap-2 Maneuver	-	-	-	-	993	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1013	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	993	-	-	1604	-	
HCM Lane V/C Ratio	0.01	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

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
370	280				
400	270	460	297	430	410
500	215	500	290	500	380
600	185	600	230	600	310
700	140	700	198	700	265
800	115	800	170	800	210
900	99	900	125	900	180
1000	85	1000	105	1000	140
1100	75	1100	90	1100	110
1200	75	1200	75	1150	100
1300	75	1300	75	1300	100

* Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation



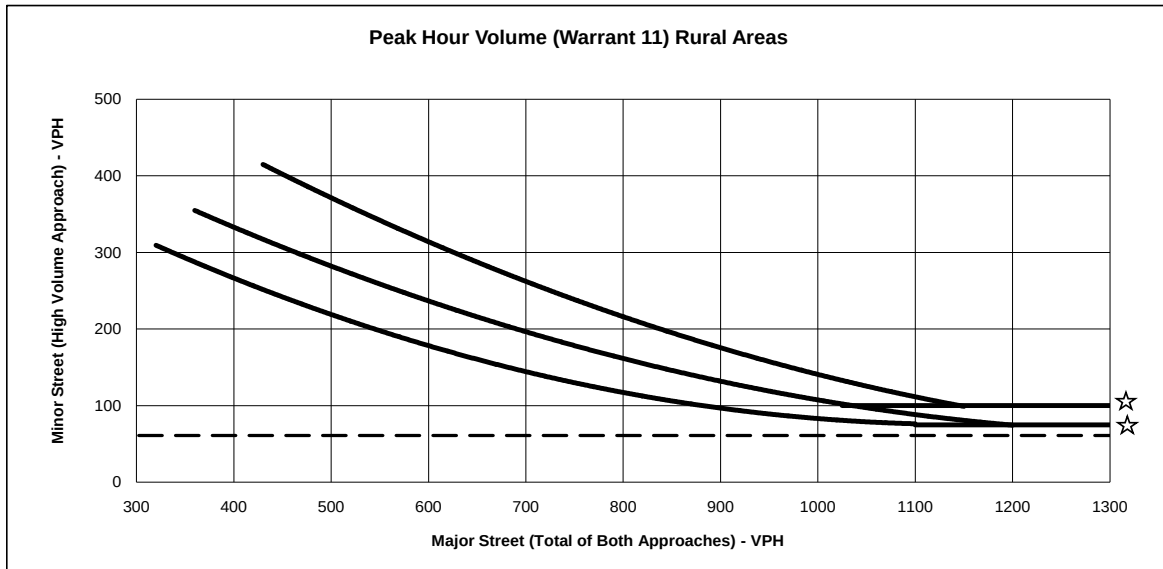
☆ NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Intersection: SR-29 / Dowdell Lane
Scenario: Existing AM Peak Hour Conditions
Minor St. Volume: 61
Major St. Volume: 1544
Warrant Met?: **NO**

Item No: 5.5

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
370	280				
400	270	460	297	430	410
500	215	500	290	500	380
600	185	600	230	600	310
700	140	700	198	700	265
800	115	800	170	800	210
900	99	900	125	900	180
1000	85	1000	105	1000	140
1100	75	1100	90	1100	110
1200	75	1200	75	1150	100
1300	75	1300	75	1300	100

* Note: Values in Table are approximate, actual curves based upon 2nd order polynomial equation



☆ NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Intersection: SR-29 / Dowdell Lane
 Scenario: Existing AM Peak Hour Conditions
 Minor St. Volume: 61
 Major St. Volume: 1544
 Warrant Met?: **NO**

**Redmon Ranch Winery Project
Mitigation Monitoring and Reporting Program**

October 18, 2016

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
Aesthetics. Consistent with Municipal Code Section 17.124.060(D), new exterior light fixtures shall be equipped with cut-off-lenses and directed downward so as to minimize off-site light and glare from the site and shall not be more than 15 feet in height.	Project Developer	Planning Department	During project construction	
Air Quality. All grading and construction equipment shall be shut down when not in use to ensure the project's contribution to maintaining existing ambient air quality within the vicinity of the project site and to avoid unnecessarily exposing people in the area to odors and fumes associated with such equipment.	Project Developer	Planning Department	During project construction	
Air Quality. Grading and excavation activities shall not occur during windy periods to avoid unnecessary exportation of dust and similar materials that can degrade air quality.	Project Developer	Planning & Building Department	During project construction	
Air Quality. Exposed soil surfaces shall be sprinkled with non-potable water to retard dust and disturbed areas shall be fully landscaped upon completion of the project.	Project Developer	Planning & Building Department	During project construction	
Air Quality. Any demolition materials and solid waste including broken asphalt and concrete, soils stockpiles, steel, wood and metal scraps materials, domestic waste, and similar materials shall be properly managed to prevent the accumulation of dust or similar materials that can degrade air quality. The site shall be	Project Developer	Planning & Building Department	During project construction	

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
cleaned daily and such materials shall be properly placed in dumpsters or removed from the project site and placed in a licensed landfill facility.				
Air Quality. Grinding asphalt on the site, if applicable, shall be conducted in a manner that avoids degrading the ambient air quality in the area.	Project Developer	Planning & Building Department	During project construction	
Air Quality. The collection of materials, such as construction debris and loose dirt, within the public right-of-way adjacent to the site shall be prohibited.	Project Developer	Planning & Building Department	During project construction	
Air Quality. For the importing of materials for clean fill to the site, trucks shall maintain adequate freeboard and their materials shall be covered to minimize release of materials into the air or on public rights-of-way.	Project Developer	Planning & Building Department	During project construction	
Air Quality. To the extent practicable, reusable materials shall be recycled on site (examples: asphalt/concrete paving/etc.).	Project Developer	Planning & Building Department	During project construction	
Cultural Resources. In the event that previously unknown paleontological artifacts, human remains or archeological resources are unearthed during excavation or grading, all work within 50 feet of the discovery area shall be immediately halted pursuant to CEQA Guidelines 15064.5 (5)(e) and (f) and barricades installed surrounding the area until a	Project Developer	Planning Department	During project construction	

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
qualified archeologist approved by the City is consulted to evaluate the material or object. The consultant shall determine appropriate avoidance measures to lessen the impacts in accordance with State and Federal guidelines. The developer shall comply with all recommendations of the qualified archeologist prior to commencing work in the discovery area and shall be responsible for all costs associated with these activities. In the event human remains are found, the St. Helena Police Department, County Coroner and Native American Tribal Commission shall be contacted immediately. This wording shall be included on grading and construction plans.				
Geology & Soils. Temporary erosion control measures, as approved by the City of St. Helena shall be placed adjacent to graded areas or stockpiled material.	Project Developer	Planning & Building Department	During project construction	
Geology & Soils. Unless otherwise approved by the City, the project applicant shall ensure that grading or excavation activities shall be limited to the period between April 15 and October 15. No such grading or excavation shall be performed except in accordance with the approved plan and schedule. Modifications to the construction time frame may be imposed/ approved by the City based on weather and site conditions.	Project Developer	Planning & Building Department	During project construction	
Hazards and Hazardous Materials. Prior to				

City of St. Helena
Mitigation Monitoring and Reporting Program
Redmon Ranch Winery Project

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
demolition of any structure on the site, a licensed contractor shall determine the presence or absence of lead based paints or asbestos material on the site. If found in quantities at or above actionable levels as determined by the St. Helena Building Department or authorized agent, these materials shall be safely removed consistent with the Occupational Safety and Health Administration (OSHA) and other applicable standards and disposed of in an appropriate location. Necessary permits and approvals shall be secured from appropriate regulatory agencies for the activities described above.				
Hydrology & Water Quality. Prior to the issuance of a building permit, the applicant shall submit a study by a qualified hydrogeologist, or equivalent professional, to ascertain the potential effects of the proposed well on the Napa Valley Floor-St. Helena Subarea groundwater basin or upon existing wells in the immediate vicinity of the subject well; and a Groundwater Reduction Plan to the St. Helena Public Works Department demonstrating specific methods to result in a 10% reduction in peak groundwater use from the Industry Standard Method of calculating winery process water. The Plan shall include annual monitoring and reporting to the City to ensure that the amount of groundwater is minimized into the future. The Owner shall submit an annual fee with the annual report to pay for City costs to administer and review.	Project Developer	Public Works Department	Prior to issuance of a building permit	
Hydrology & Water Quality. The applicant shall	Project Developer	Public Works	During project	

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
ensure that no construction materials (e.g., concrete, paint, sediment) are conveyed into the storm drain system. The developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials entering into the storm water drainage system.		Department	construction	
Hydrology & Water Quality. The applicant shall ensure that no construction materials (e.g., concrete, paint, sediment) are conveyed into the storm drain system. The developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials entering into the storm water drainage system.	Project Developer	Public Works Department	During project construction	
Hydrology & Water Quality. All materials that could cause water pollution (i.e., motor oil, fuels, paints, etc.) shall be stored and used in a manner that will not cause any pollution. All discarded material and any accidental spills shall be removed and disposed of at an approved disposal site. All spills shall be brought to the attention of the Public Works Department.	Project Developer	Public Works Department	During project construction	
Hydrology & Water Quality. All construction activities shall be performed in a manner that minimizes, to the maximum extent practicable, any pollutants entering directly or indirectly the storm water system or waters of the State. The applicant shall pay for any required cleanup, testing and City administrative costs resulting from	Project Developer	Public Works Department	During project construction	

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
consequence of construction materials into the storm water drainage system.				
Hydrology & Water Quality. The applicant shall meet the requirements of the City of St. Helena's construction and post-construction standards and comply with all applicable State and Federal laws.	Project Developer	Public Works Department	During project construction	
Hydrology & Water Quality. The applicant shall mark all new drain inlets with permanent markings, which state "No Dumping—Flows to River." This work shall be shown on improvement plans.	Project Developer	Public Works Department	During project construction	
Hydrology & Water Quality. Demolition materials and solid waste, including broken asphalt and concrete, soils stockpiles, steel, wood and metal scraps, domestic waste, and similar materials, shall be properly managed to prevent the accumulation of dust or similar materials that can degrade water quality. The site shall be cleaned daily and such materials shall be properly placed in dumpsters or removed from the project site and placed in a licensed landfill facility.	Project Developer	Building & Planning Departments	During project construction	
Hydrology & Water Quality. Demolition materials and solid waste, including broken asphalt and concrete, soils stockpiles, steel, wood and metal scraps, domestic waste, and similar materials, shall be properly managed to prevent the accumulation of dust or similar materials that can degrade water quality. The site shall be cleaned daily and such materials shall be properly placed in dumpsters or removed from the project site	Project Developer	Building & Planning Departments	During project construction	

Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Monitoring Schedule	Verification
and placed in a licensed landfill facility.				
Hydrology & Water Quality. The collection of materials, such as construction debris and dirt, within the public right-of-ways adjacent to the site shall be prohibited.	Project Developer	Building & Planning Departments	During project construction	
Hydrology & Water Quality. Drainage shall be designed as required by adopted City standards and shall not impede any natural existing drainage from or substantially change drainage to adjacent parcels.	Project Developer	Public Works Department	During project construction	