



**City of St. Helena
Planning Commission
Regular Meeting
Tuesday, January 21, 2020 @ 7:10 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 four minutes.

Page

1. PLEDGE OF ALLEGIANCE
2. CALL TO ORDER AND ROLL CALL
Chairperson: Lester Hardy
Vice Chair: John Ponte
Commissioners: Autumn Anderson, Daniel Hale and Bobbi Monnette
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 four 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)
 - 4.1. Approval of Minutes: December 17, 2019 5 - 9
[Commission Minutes 12-17-19](#)
5. PUBLIC HEARINGS
 - 5.1. The applicant is proposing to demolish an existing two-bedroom, one-bath residence in order to construct a new two-story, three-bedroom, three-bath residence with a total of 2,204 square feet at 1620 Spring Street in the Medium Density Residential District. 11 - 55

CEQA Determination: Exempt pursuant to CEQA Guidelines Sections 15301 and 15303.
Prepared By: Chris Gustin, Contract Planner
Recommendation:
The Planning Department recommends that the Planning Commission adopt a resolution finding that:
 1. The project is exempt from the requirements of CEQA pursuant to CEQA Section 15301 and 15303, and

2. Accepting the required findings and approving the requested Demolition Permit and Design Review for a new single family residence at 1620 Spring Street.

[1620 Spring St. - Staff Report](#)

- 5.2. The City of St. Helena Public Works Department requests Demolition Permit and Design Review approval in order to demolish and reconstruct the Crinella Pump Station facility at 1758 Crinella Drive in the Medium Density Residential district.

57 - 123

CEQA Determination: The project is exempt from the requirements of CEQA pursuant to Section 15302.

Prepared By: Aaron Hecock, Senior Planner

Recommendation:

For the reasons stated above, staff recommends that the Planning Commission:

1. Determine that the project is exempt from the requirements of CEQA pursuant to Section 15302; and
2. Accept the required findings and approve a demolition permit and design review for the proposed reconstruction of the Crinella Pump Station facility on 1758 Crinella Drive in the MR: Medium Density Residential district.

[Crinella Pump Station Facility - Staff Report](#)

6. SCHEDULED MATTERS

7. DEPARTMENT REPORTS

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

8. AGENDA FORCAST

Below is a link to a list of pending and upcoming projects which may be of interest to the community.

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.

A list of all current planning projects is available on our city website in the link below:

http://www.cityofsthenana.org/projects?term_node_tid_depth=21

Please contact the assigned project Planner for additional questions.

9. ADJOURNMENT

The next Regular Planning Commission meeting is scheduled for February 4, 2020, 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 January 8, 2020.



Aaron Hecock, Acting Planning & Building 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://cityofstheleena.org> and will be available for public review at the respective meeting.

MINUTES
City of St. Helena
Planning Commission Meeting
Tuesday, December 17, 2019 @ 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena

A complete video recording of this meeting, except for closed session, can be found at <https://sthelena.civicweb.net/Portal/> or by calling the City Clerk at (707) 967-2792. The City Council video is the official record of the Council meeting.

Present: Vice-Chair John Ponte, Commissioner Daniel Hale, Commissioner Bobbi Monnette, and Commissioner Autumn Anderson
Absent: Chair Lester Hardy
Staff Present: Aaron Hecock, Acting Planning & Building Director and Xinia Gamero, Planning Technician II

1. PLEDGE OF ALLEGIANCE

2. CALL TO ORDER AND ROLL CALL

3. PUBLIC FORUM:

No public comment was received.

4. CONSENT ITEMS

Acting Chair Ponte pulled item 4.2 on the consent calendar.

4.1 Approval of Minutes: November 19, 2019

4.2 Request by Eames Construction on behalf of 1126 Adams St. LLC., for approval of a resolution granting a sign permit for new signage at 1126 Adams Street in the Central Business (CB) zoning district.

~~CEQA Determination: This project is exempt from the requirements of CEQA pursuant to Section 15311, Class 11(a) of the CEQA Guidelines which exempts on-premise business signs.~~

~~Prepared By: Xinia Gamero, Administrative Assistant~~

Recommendation:

~~For the reasons stated above, staff recommends that the Planning Commission:~~

~~1. Determine that the sign is exempt from the requirements of CEQA pursuant to Section 15311; and~~

~~2. Approve a resolution granting sign permit approval for new signage on the property located at 1126 Adams St.~~

- 4.3 Presentation of an Administrative Approval granted to PCSH, LLC authorizing a Lot Line Adjustment at 156 Main Street in the Service Commercial zoning district.

CEQA Determination: Exempt pursuant to CEQA Guidelines Section 15305.

Prepared By: Chris Gustin, Contract Planner

Recommendation:

For the reasons described above, staff recommends that the Planning Commission:

1. Consider and concur with the staff finding that the project is exempt from the requirements of CEQA as a Class 5 categorical exemption pursuant to Section 15305, and
2. Accept the staff approval to grant the Lot Line Adjustment to PCSH, LLC and American Ag Credit creating one legal parcel where two currently exist; or request to formally consider this LLA at a Public Hearing and identify the specific concerns the Commission would like to be addressed with such a review.

Commissioner Bobbi Monnette moved to approve items 4.1 and 4.3 on the Consent Calendar. The motion was seconded by Commissioner Daniel Hale and on roll call carried by the following vote:

AYES: Daniel Hale, Bobbi Monnette, John Ponte, and Autumn Anderson

NOES: None

ABSENT: Lester Hardy

ABSTAIN: None

RECUSE: None

- 4.2 Request by Eames Construction on behalf of 1126 Adams St. LLC., for approval of a resolution granting a sign permit for new signage at 1126 Adams Street in the Central Business (CB) zoning district.

CEQA Determination: This project is exempt from the requirements of CEQA pursuant to Section 15311, Class 11(a) of the CEQA Guidelines which exempts on-premise business signs.

Prepared By: Xinia Gamero, Planning Technician II

Recommendation:

For the reasons stated above, staff recommends that the Planning Commission:

1. Determine that the sign is exempt from the requirements of CEQA pursuant to Section 15311; and
2. Approve a resolution granting sign permit approval for new signage on the

property located at 1126 Adams St.

Commissioner Daniel Hale moved to approve item 4.2 on the Consent Calendar. The motion was seconded by Commissioner Bobbi Monnette and on roll call carried by the following vote:

AYES: Daniel Hale, Bobbi Monnette, John Ponte, and Autumn Anderson

NOES: None

ABSENT: Lester Hardy

ABSTAIN: None

RECUSE: None

5. PUBLIC HEARINGS

- 5.1 The applicants request adoption of a resolution approving a Short-Term Rental Permit to rent one unit of the duplex located at 1326 Monte Vista Avenue in the Medium Density Residential District in accordance with the requirements of the Short-Term Rental Ordinance.

CEQA Determination: Exempt from CEQA pursuant to Section 15061(B)3.

Prepared By: Aaron Hecock, Acting Planning & Building Director

Recommendation:

For the reasons described above, staff recommends that the Planning Commission:

1. Determine that the project is exempt from the requirements of CEQA pursuant to Section 15061(B)3; and
2. Approve a resolution allowing for a short-term rental permit at 1326 Monte Vista Avenue.

Acting Planning and Building Director Aaron Hecock reported on the item.

Applicant, Scott Dale addressed the Planning Commission.

Acting Chair Ponte opened the public comment.

Suzanne Tate and Stephanie Iacobacci addressed the Planning Commission.

Acting Chair Ponte closed the public comment.

Commissioner Bobbi Monnette moved to approve staff recommendation. The motion was seconded by Commissioner Autumn Anderson and on roll call carried by the following vote:

AYES: Daniel Hale, Bobbi Monnette, John Ponte, and Autumn Anderson

NOES: None

ABSENT: Lester Hardy

ABSTAIN: None

RECUSE: None

- 5.2 Request by William Pacific Enterprises LP for a one-year extension on the Use Permit approval received on December 18, 2018 to allow a wine bar with limited food and retail sales and accessory administrative office space located at 1299 Main Street, Suite A, in the CB: Central Business Zoning District.

CEQA Determination: The project is categorically exempt from the requirements of CEQA pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities.

Prepared By: Xinia Gamero, Planning Technician II

Recommendation:

Staff has no concerns over the proposed extension and recommends that the Planning Commission:

1. Determine that the project is exempt from the requirements of CEQA, pursuant to Section 15301, Class 1, which exempts the operation, leasing, or minor alteration of existing facilities; and
2. Accept the required findings and approve the first of two possible one-year use permit approval extensions for the proposed project located at 1299 Main Street, Suite A.

Planning Technician II, Xinia Gamero reported on the item.

No public comment was received.

Commissioner Daniel Hale moved to approve staff recommendation. The motion was seconded by Commissioner Autumn Anderson and on roll call carried by the following vote:

AYES: Daniel Hale, John Ponte, and Autumn Anderson

NOES: Bobbi Monnette

ABSENT: Lester Hardy

ABSTAIN: None

RECUSE: None

6. SCHEDULED MATTERS

7. DEPARTMENT REPORTS

Acting Planning and Building Director Aaron Hecock reported on the following:

- January 7, 2020 Planning Commission meeting cancelled.
- Planning and Building Director Maya DeRosa to start January 13, 2020.
- Joint City Council and Planning Commission meeting scheduled for January 21, 2020 regarding latest legislative update.

8. AGENDA FORCAST

9. ADJOURNMENT

Acting Chair Ponte adjourned the meeting at **7:04 PM.**

APPROVED:

ATTEST:

John Ponte, Acting Planning Commission
Chair

Aaron Hecock, Acting Planning and Building
Director



PLANNING COMMISSION REPORT

Planning Commission Meeting of January 21, 2020

FILE NUMBER: PL19-047

SUBJECT: The applicant is requesting demolition permit and design review approval to demolish an existing two-bedroom, one-bath residence in order to construct a new two-story, three-bedroom, three-bath residence with a total of 2,204 square feet at 1620 Spring Street in the Medium Density Residential District.

PREPARED BY: Chris Gustin, Contract Planner

REVIEWED BY: Aaron Hecock, Acting Planning & Building Director

APPROVED BY: Aaron Hecock, Acting Planning & Building Director

APPLICATION FILED: 10/14/19

ACCEPTED AS COMPLETE: 10/28/19

LOCATION OF PROPERTY: 1620 Spring Street

APN: 009-502-2800

GENERAL PLAN/ZONING: Medium Density Residential/MDR

APPLICANT: Lise Stubbs

PHONE: (916) 459-1813

BACKGROUND

The subject property is a residential lot of 0.159 acres (6,951sq. ft.) improved with an 825 sq. ft. single-story single family residence and a 300 sq. ft. detached garage. The existing residence was constructed in 1962 and is not on the St. Helena Historic Resource Inventory Master List.

PROJECT DESCRIPTION

The applicant is proposing to demolish the existing two-bedroom, one-bath residence and construct a new two-story, three-bedroom, three-bath residence with a total of 2,204 square feet. The existing 300 sq. ft. detached single-car garage will be retained.

The residence is proposed to be in the Craftsman-style. The first floor will contain 1,344 sq. ft. and the second floor 860 sq. ft. The building height is proposed to be 25 feet. Three bedrooms and three baths are proposed. Exterior finished will be a combination of vertical board and bat and horizontal siding. The roofs will be standing seam and composition. Side yard fencing will be steel posts with horizontal wood.

ANALYSIS

GENERAL PLAN:

The General Plan Land Use Map designates the site for Medium Density Residential uses. This land use designation allows single family detached and attached homes, secondary residential units, and other compatible uses including accessory structures. The Medium Density Residential land use designation serves as the predominant residential land use designation and is intended to perpetuate the existing development patterns of St. Helena's established neighborhoods.

The relevant General Plan policy applicable to the Design Review applications is:

"HR1.6 - For development or redevelopment on a site that contains any structures over 45 years old, require a records search of the California Historical Resources Information System at the Northwest Information Center (NWIC) to determine the presence of historic resources. As warranted by the results of the records search, the City shall require evaluation of structures over 45 years old to determine their historical significance. Studies shall be prepared according to the National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation."

Staff Analysis:

A record search was conducted by the California Historical Resources Information System, Northwest Information Center. This search concluded that there is no evidence of any cultural or archaeological resources or historic buildings on the site.

The proposed demolition of the existing structure is consistent with and meets the criteria set forth in the applicable General Plan policy outlined above.

ZONING

Consistent with the General Plan land use designation, 1620 Spring Street is in the MDR: Medium Density Residential District. The MDR Zoning District allows for residential construction insofar as it conforms to the development standards prescribed by Municipal Code Section 17.40.060.

	Standard	Existing	Proposed
Parcel Size:	7,000 sq. ft.	6,951 sq. ft.	6,951 sq. ft.
Setbacks:			

Front:			
Main Residence	20 feet	28'-11"	26'-1"
Garage	20 feet		64 ft/ +/-
Sides:			
Main Residence	10 feet	12' +/- & 25' +/-	11' & 34'
Garage	3 feet	4'-10" & 54'	4'-10" & 54'
Rear:			
Main Residence	20 feet	36'	35'
Garage	3 feet	14'-10"	14'-10"
Building Height:			
Main Residence	30 feet	UNK.	25'
Garage	15 feet	UNK.	No Change
Lot Coverage:	45%	12.94%	23%
Floor Area Ratio:	0.33951	0.1294	0.331*

* Section 17.40.070 Other uses, standards, and requirements, Subsection C, exempts one covered parking space of two hundred square feet in size from the Floor Area Ratio provisions.

The proposed single family residence complies with or exceeds all applicable RM District Development Standards.

DEMOLITION PERMIT

Zoning Code Section 17.164.050 G, Demolition, states in part: "...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.

The building to be demolished has been determined to have no architectural or historical significance therefore the subsequent provisions of this Section do not apply.

2. That the demolition does not eliminate elements that are required to maintain the essential character of the neighborhood;

The building to be demolished, a typical 1960's era ranch house, will not eliminate any elements that are required to maintain the essential character of the neighborhood.

3. That the design review of the proposed replacement structure is approved prior to or in conjunction with the demolition of a housing structure.

The project is subject to Design Review Approval and any demolition permit approval is contingent upon the Design Review Approval of the proposed new dwelling.

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 Planning Commission must find that the project takes reasonable account of the design criteria prescribed by Section 17.164.030 (detailed below) and exhibit 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. Consistency findings related to the Design Review Criteria are enumerated below.

Design Review Criteria.

1. Consistency and compatibility with applicable elements of the general plan.
The proposed project would be appropriate in the context of the greater neighborhood and would be consistent with the intent of applicable General Plan policies pertaining to historic preservation, design, compatibility, and continuity of defining features of the neighborhood.
2. Compatibility of design with the immediate environment of the site;
The immediate neighborhood consists of one-story and two-story homes, most dating to the early to mid- twentieth century. As proposed, the project would retain the character of the existing residences. There is no component of the project that would be incompatible with the immediate environment of the site or that of the greater neighborhood.
3. Relationship of the design to the site.
The proposed project maintains an appropriate relationship to the site.
4. Determination that the design is compatible in areas considered by the board as having a unified design or historical character;
The project is consistent and compatible with the surrounding properties and neighborhood.
5. Whether the design promotes harmonious transition in scale and character in areas between different designated land uses;
The proposed work would not alter the scale or transition between different land uses.
6. Compatibility with future construction both on and off the site;
The proposed remodeling of the historic residence will blend in with the existing and future construction in the immediate neighborhood.

7. Whether the architectural design of structures and their materials and colors are appropriate to the function of the project;
The proposed design and materials are of a quality and type that are appropriate for the residential nature of the project and would be consistent with the site and its surroundings.
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;
The proposed siting of the new residence will create an internal sense of order and provide a desirable environment for occupants, visitors, and will be consistent with 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;
The landscaping proposed is consistent with the residential character of the project and sufficient open space will be provided.
10. Whether access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
No changes to access are proposed as part of the project, and sidewalks exist along the frontage of Charter Oak Avenue for safe and convenient pedestrian and bicycle access. No changes are proposed to the width of the street that would impact vehicular access.
11. Whether natural features are appropriately preserved and integrated with the project;
The site is essentially flat and does not have any significant natural features.
12. 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;
The proposed siding, colors, and roofing materials are consistent with residential architecture and compatible with surrounding residential design employed throughout the City of St. Helena.
13. 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;
The project proposes an extensive landscaping plan that would be consistent with that seen throughout St. Helena.
14. 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 plant materials.

The proposed landscaping is consistent with the applicable low-water landscaping ordinances and will be irrigated by a drip system. The project will be conditioned to comply with all current applicable Title 24 building standards for energy efficiency and conservation and would achieve required energy metrics.

WATER USE ANALYSIS

The applicant has provided a water use analysis attached to this report demonstrating that the proposed projects meet the City's water neutrality requirement.

CEQA

The project is exempt from the requirements of CEQA pursuant to Section 15301 and 15303 which exempts the demolition and reconstruction of new single-family residences in a residential zone.

ISSUES

No issues have been identified as of the preparation of this report.

CORRESPONDENCE

No correspondence has been received as of the preparation of this report.

STAFF RECOMMENDATION

The Planning Department recommends that the Planning Commission adopt a resolution finding that:

1. The project is exempt from the requirements of CEQA pursuant to CEQA Section 15301 and 15303, and
2. Accepting the required findings and approving the requested Demolition Permit and Design Review for a new single family residence at 1620 Spring Street.

ATTACHMENTS

[1620 Spring Street PC Resolution](#)

[Written Statement](#)

[19-0773 summary letter](#)

[Elevations](#)

[Project Plans](#)

[Site Photos](#)

[Water Use Analysis Report](#)

CITY OF ST. HELENA PLANNING COMMISSION

RESOLUTION NO.

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ST. HELENA
GRANTING APPROVAL OF A DEMOLITION PERMIT AND DESIGN REVIEW
FOR LISE STUBBS LOCATED AT 1620 SPRING STREET**

PROPERTY OWNER: LISE STUBBS

APN: 009-313-031

Recitals

1. On October 14, 2019, Lise Stubbs submitted an application for Design Review and a Demolition Permit to demolish an existing 825 square foot single family residence with two bedrooms and one bath and construct a new 2,204 sq. ft. two-story single family residence with three bedrooms and three baths at 1620 Spring Street in the Medium Density Zoning District; and
2. A public notice was published in the Napa Valley Register and mailed to residents and occupants within 300 feet of the project site in compliance with state and local law;
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 January 21, 2020, and
4. Now, therefore let it be found that, the Planning Commission approves the Demolition Permit and Design Review and authorizes the modifications contained in said plans based on the findings below and subject to the conditions of approval enumerated herein.

Resolution

A. CEQA

The project is exempt from the requirements of CEQA pursuant to Section 15301(L)(1) and 15303(A) which exempts demolition of an existing single family residence and the construction of a new single family residence. 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.

B. DEMOLITION PERMIT

Zoning Code Section 17.164.050 "Applicability" (of Design Review) specifies that "...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:

*Design Review and Demolition Permit
1620 Spring Street*

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 of the existing single family residence constructed in 1962 does not eliminate elements that are required to maintain the essential character of the neighborhood;
3. That design review of the proposed replacement structure is approved prior to approval of the demolition of a housing structure.

C.DESIGN REVIEW

The Planning Commission has considered the Design Review design criteria identified in Municipal Code Section 17.164.030 to support the motion to approve the Design Review given that the project has been found to demonstrate:

1. *The proposed project would be appropriate in the context of the greater neighborhood and would be consistent with the intent of applicable General Plan policies pertaining to historic preservation (as noted, there are no historic preservation issues), design, compatibility, and continuity of defining features of the neighborhood.*
2. *The immediate neighborhood consists of modest, one-story and two-story homes, most dating to the early to mid-twentieth century. As proposed, the project would retain the character of the existing residences. There is no component of the project that would be incompatible with the immediate environment of the site or that of the greater neighborhood.*
3. *The proposed project maintains an appropriate relationship to the site.*
4. *The project is consistent and compatible with the surrounding properties and neighborhood.*
5. *The proposed work would not alter the scale or transition between different land uses.*
6. *The proposed home will blend in with the existing and future construction in the immediate neighborhood.*
7. *The proposed design and materials are of a quality and type that are appropriate for the residential nature of the project and would be consistent with the site and its surroundings.*
8. *The proposed siting of the new home will create an internal sense of order and provide a desirable environment for occupants, visitors, and will be consistent with the general community.*
9. *The landscaping proposed is consistent with the residential character of the project and sufficient open space will be provided.*

*Design Review and Demolition Permit
1620 Spring Street*

10. *No changes to access are proposed as part of the project, and sidewalks exist along the frontage of Pine Street for safe and convenient pedestrian and bicycle access. No changes are proposed to the width of the street that would impact vehicular access.*
11. *The site is essentially flat and does not have any significant natural features.*
12. *The proposed siding, colors, and roofing materials are consistent with residential architecture and compatible with surrounding residential design employed throughout the City of St. Helena.*
13. *The project proposes an extensive landscaping plan that would be consistent with that seen throughout St. Helena.*
14. *The proposed landscaping is consistent with the applicable low-water landscaping ordinances and will be irrigated by a drip system. The project will be conditioned to comply with all current applicable Title 24 building standards for energy efficiency and conservation and would achieve required energy metrics.*

Conditions of Approval

1. Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit.
2. The Demolition Permit and Design Review approval shall be vested within one (1) year from the date of the decision. A building permit for the project allowed under this approval shall have been obtained within one (1) year from the effective date of the Demolition permit and Design Review decision or these approvals shall expire; provided however that the approved Demolition 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.
3. This permit is valid for this design only. New permits must be applied for any change in use. These permits will expire if the use is discontinued pursuant to then existing ordinances and regulations.
4. The Demolition Permit and Design Review 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.
5. Any request for an extension of the Demolition Permit or Design Review 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.

*Design Review and Demolition Permit
1620 Spring Street*

7. Pursuant to City Council Resolution 2003-65, the owner and applicant are informed of the following:

In recognition of the need for additional affordable housing, and to mitigate the effects of this development on the supply and demand of affordable housing, the permittee shall be subject to a Housing Impact Fee, an inclusionary requirement, an in-lieu fee, and/or similar fair and appropriate mechanisms, to provide funds for or to develop additional affordable housing.

8. Compliance with all permit conditions shall be clearly identified on all plans submitted for building permit approval, shall occur in accordance with specific regulations but in all cases no later than prior to 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 will 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. Provided they are in general compliance with the approved Design Review, minor modifications found to be in substantial conformance with the approved design may be approved by the Planning Director.

11. This Design Review 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. Construction documents shall be in compliance with approved plans and exhibits. All conditions of approval shall be clearly identified and included on all plans submitted for building permit review and issuance.

14. Where the MR District adjoins agricultural districts, there exists a right-to-farm the adjoining property. There is a good faith expectation that no complaints will occur regarding legal, normal agricultural activities on the adjacent land. Such activities may include day or night disbursement of chemicals, and creation of dust, noise, or fumes.

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

Design Review and Demolition Permit
1620 Spring Street

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. Provide details of any and all proposed fencing, gates, and/or walls on all plans submitted for building permit review.

20. The applicant shall install an approved backflow device behind the existing water meter prior to Certificate of Occupancy. If a current approved backflow device exists, then please provide current test certifications. 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.

21. 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.

22. The applicant shall incorporate water conservation practices into the proposed project. 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.

23. 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).

24. Prior to Certificate of Occupancy the applicant shall conform to the requirements of City of St. Helena Standard Drawings, Water and Sewer Standards Section 6-2.10

*Design Review and Demolition Permit
1620 Spring Street*

which includes assessing the adequacy of the lateral, replacing if necessary and installing any needed cleanouts.

25.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.

26.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.

27.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.

28.Prior to Certificate of Occupancy the applicant shall conform to the requirements of City of St. Helena Standard Drawings, Water and Sewer Standards Section 7-1.12 and applicable Health Standards, which includes water laterals being a minimum of five (5) feet from sewer laterals.

29.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.

30.An encroachment permit shall be required for any work performed in the public right of way.

31. 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.

Fire Department Conditions of Approval

32.Plans submitted for building permit shall exhibit compliance with the current St. Helena Fire Code, as adopted and codified in St. Helena Municipal Code Chapter 15.36.

33.Installation of approved interior fire sprinkler system is required, unless waived by the Fire Chief.

34.One hour minimum fire resistant construction on all exterior walls within 10' of property boundary is required. Fire resistant construction of interior walls shall be determined by type of occupancy.

35.Any gates installed to control vehicular access to a property are required to be setback 30-feet from the property line and/or edge of pavement, whichever is greater.

No vehicle gates may be installed without Fire Department and Public Works Department review and explicit approval.

Building Department Conditions of Approval

36.A building permit is required for all onsite demolition, construction and/or change of occupancy.

37.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 2016 Title 24 codes.

38.When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.

39.The applicant shall provide a construction waste management plan with the building permit application.

40.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.

41.When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.

42.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.

43.Properties which are on septic systems and proposing substantial renovations may require approval from the Napa County Environmental Health Department. Applicants are encouraged to engage with the County early in the building permit review process to reduce the potential for delay.

44.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 demolition permit and design review application was duly and regularly approved by the Planning Commission of the City of St. Helena at

*Design Review and Demolition Permit
1620 Spring Street*

a regular meeting of said Planning Commission held on January 21, 2020 by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Lester Hardy
Chair, Planning Commission

Maya DeRosa, AICP
Planning and Building Director

Written Statement for Spring St Design Application

There are currently two structures located on 1620 Spring St. One of these structures is a 300 sq ft detached 2 car garage. The other of these structures is a one story, 825 sq ft house that consists of 2 bedrooms and 1 bathroom. We are proposing to demo the 825 sq ft house and to build a new house on the property. We intend on leaving the detached garage as is.

For the design of the new house, we decided on a craftsman style home. We chose this with the goal in mind of designing and building a similar house to the properties that surround it. The new house will be two floors and 25 feet high. The gross floor area of the first floor will be 1344 sq ft, this whole floor area will be habitable area. There will be 1 bedroom and 1 bath on the first floor. The second floor is a total of 860.4 sq ft all of which is also habitable space. This puts the total habitable space of the house at 2204.4 sq ft. The second floor will have 2 bedrooms and 2 bathrooms. The exterior finishes will be horizontal F.C Siding & F.C. Board & Batt, vinyl windows, and composition & standing seam metal roof. The interior finishes will be hardwood flooring, tiles, and wood doors. Access to the property will be via the existing driveway located on Spring St. The maximum building occupancy load is _____.

City of St Helena, City Hall
Received
OCT 11 2019
1480 Main St.
St Helena, CA 94574

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE

HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO

SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
<http://www.sonoma.edu/nwic>

November 19, 2019

NWIC File No.: 19-0773

Amy Hutson
NGC, Next Generation Capital
11211 Gold Country Blvd. #103
Gold River, CA 95670

Re: Record search results for the proposed 1620 Spring Street, St. Helena, CA 94574 at APN 009-313-031.

Dear Ms. Amy Hutson:

Per your request received by our office on November 4, 2019, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Napa County. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Review of this information indicates that there have been no cultural resource studies that cover the 1620 Spring Street project area. This project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed project area. The project area does appear to be located within the boundaries of the locally listed, St. Helena Survey District #3, the Spring Street, but does not appear to be a contributor (Napa Community Development Agency 1974).

At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Central Wappo language, part of the Yukian language family (Heizer 1953, Sawyer 1978:256-7). There are no Native American resources in or adjacent to the proposed project area referenced in the ethnographic literature.

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Napa County have been found in areas throughout Napa Valley, near intermittent and perennial watercourses, near the hill to valley interface, and near ecotones. The 1620 Spring Street project area is located in the St. Helena area west of Sulphur Creek, in close proximity to an unnamed creek. According to local soil studies, the project area appears to be in an area of Holocene alluvial fan deposits. Given the similarity of one or more of these environmental factors, there is a moderate potential for unrecorded Native American resources in the proposed 1620 Spring Street project area.

Review of historical literature and maps indicated historic-period activity within the 1620 Spring Street project area. The 1899 Sanborn Fire Insurance maps indicate a house, two sheds, and a mill tank within the project parcel (Sheet 13). By the 1910-1944 Sanborn maps, only one shed remained on the property (sheet 8). With this in mind, there is a high potential for unrecorded historic-period archaeological resources in the proposed 1620 Spring Street project area.

The 1960 St. Helena USGS 7.5-minute topographic quadrangle depicts an urban area, indicating the possibility of one or more buildings or structures within the 1620 Spring Street project area. These unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There is a moderate potential of identifying Native American archaeological resources and a high potential of identifying historic-period archaeological resources in the project area. Given the potential for archaeological resources in the proposed 1620 Spring Street project area, our usual recommendation would include archival research and a field examination. The proposed project area, however, has been highly developed and is presently covered with asphalt, buildings, or fill that obscures the visibility of original surface soils, which negates the feasibility of an adequate surface inspection.

Therefore, prior to demolition or other ground disturbance, we recommend a qualified archaeologist conduct further archival and field study to identify archaeological resources, including a good faith effort to identify archaeological deposits that may show no indications on the surface.

Field study may include, but is not limited to, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the

presence of buried archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

2) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

3) The proposed project area appears to contain buildings or structures that meet the minimum age requirement. In addition, the project area appears to be located within the boundaries of the locally listed, St. Helena Survey District #3, the Spring Street District, but does not appear to be a contributor (Napa Community Development Agency 1974). Therefore, prior to commencement of project activities, it is recommended that these resources be assessed by a professional familiar with the architecture and history of Napa County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

4) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

5) If archaeological resources are encountered **during construction**, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: http://ohp.parks.ca.gov/default.asp?page_id=1069

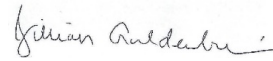
Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for

information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jillian Guldenbrein", written in dark ink.

Jillian Guldenbrein
Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Barrett, S.A.

1908 *The Ethno-Geography of the Pomo and Neighboring Indians*. University of California Publications in American Archaeology and Ethnology 6(1):1-322. University of California Press, Berkeley. (Reprint by Kraus Reprint Corp., New York, 1964).

Heizer, Robert F. (editor)

1953 *The Archaeology of the Napa Region*. University of California Publications Anthropological Records 12(6):225-358. University of California Press, Berkeley and Los Angeles. (Reprint by Kraus Reprint Co., Millwood, New York, 1976).

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair

1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe

1966 *Historic Spots in California*. Third Edition. Stanford University Press, Stanford, CA.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle

1990 *Historic Spots in California*. Fourth Edition. Stanford University Press, Stanford, CA.

Kroeber, A.L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976).

1932 *The Patwin and their Neighbors*. University of California Publications in American Archaeology and Ethnology 35(2):15-22. University of California Press, Berkeley. (Reprint by Kraus Reprint Corp., New York, 1965)

Milliken, Randall

1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Napa Community Redevelopment Agency

1974 *Historic Preservation in Napa County*

Sanborn Map Company

1886, 1890, 1899, 1910, 1910-1944 St. Helena, California.

Sawyer, Jesse O.

1978 Wappo. In *California*, edited by Robert F. Heizer, pp. 256-263. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

State of California Department of Parks and Recreation

1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Department of Parks and Recreation and Office of Historic Preservation

1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **

2012 *Historic Properties Directory*. Listing by City (through April 2012). State of California Office of Historic Preservation, Sacramento.

Williams, James C.

1997 *Energy and the Making of Modern California*. The University of Akron Press, Akron, OH.

Woodbridge, Sally B.

1988 *California Architecture: Historic American Buildings Survey*. Chronicle Books, San Francisco.

Works Progress Administration

1984 *The WPA Guide to California*. Reprint by Pantheon Books, New York. (Originally published as *California: A Guide to the Golden State in 1939* by Books, Inc., distributed by Hastings House Publishers, New York).

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.



NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

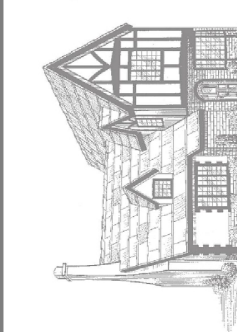
NEW HOUSE

9/17/2019

7

ENGINEER

LORI BURNE, SE
Burne Engineering Services, Inc.
5047 Robert J Mathews Pkwy #600
El Dorado Hills, CA 95762
(530) 672 - 1600



Ted Smith Design
Phone: 916.743.3621
P.O. Box 2212 Placerville, CA 95667
www.tedsmithdesign.com

NEW HOUSE
FOR
NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

APN: 009-313-031-000

ABBREVIATIONS

CONDITIONS

CONSULTANTS

DRAWING INDEX

AB	ANCHOR BOLT	LAM	LAMINATE
AC	AIR CONDITIONER		
ADJ	ADJUSTABLE	MAX	MAXIMUM
AL	ALUMINUM	MB	MACHINE BOLT
APPROX	APPROXIMATE	MECH	MECHANICAL
AWN	AWNING	MFR	MANUFACTURER
		MIN	MINIMUM
BLKG	BLOCKING	MISC	MISCELLANEOUS
BM	BEAM	MTL	METAL
CAB	CABINET	N	NEW
CARP	CARPET	NO	NUMBER
CEIL	CEILING	NOM	NOMINAL
CLR	CLEAR		
CONC	CONCRETE	OBS	OBSCUR
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER
COMP	COMPOSITION	OCC	OCCUPANCY
CSMT	CASEMENT		
		PT	PRESSURE TREATED
DB	DRAWER BASE	P4S	POLE & SHELF
DBL	DOUBLE		
DH	DOUBLE HUNG	REF	REFRIGERATOR
DN	DOWN	REQD	REQUIRED
DP	DUAL PANE		
DRY	DRYER	SC	SOLID CORE
DW	DISHWASHER	S/C	SELF CLOSING
		SH	SINGLE HUNG
E	EXISTING	SGD	SLIDING GLASS DOOR
EA	EACH	SP	SINGLE PANE
ELEC	ELECTRICAL	SQ	SQUARE
ELEV	ELEVATION	STD	STANDARD
EQ	EQUAL	SW	SHEARWALL
FAU	FORCED AIR UNIT	TEMP	TEMPERED
FIX	FIXED	T&G	TONGUE & GROOVE
FL	FLUORESCENT	TBD	TO BE DETERMINED
FP	FIREPLACE	TYP	TYPICAL
FTG	FOOTING		
FR	FRENCH	UON	UNLESS OTHERWISE NOTED
FURN	FURNACE		
		WASH	WASHER
GA	GAUGE	WD	WOOD
GALV	GALVANIZED	WH	WATER HEATER
GYP	GYP SUM	WH	WHOLE HOUSE FAN
		W/O	WITHOUT
HB	HOSE BIB	W/R	WATER RESISTANT
HD	HOLD DOWN		
HDR	HEADER	⌀	CENTER LINE
HR	HOOR	Ø	DIAMETER
HW	HARD WOOD FLOORING	#	POUNDS
INSUL	INSULATION		

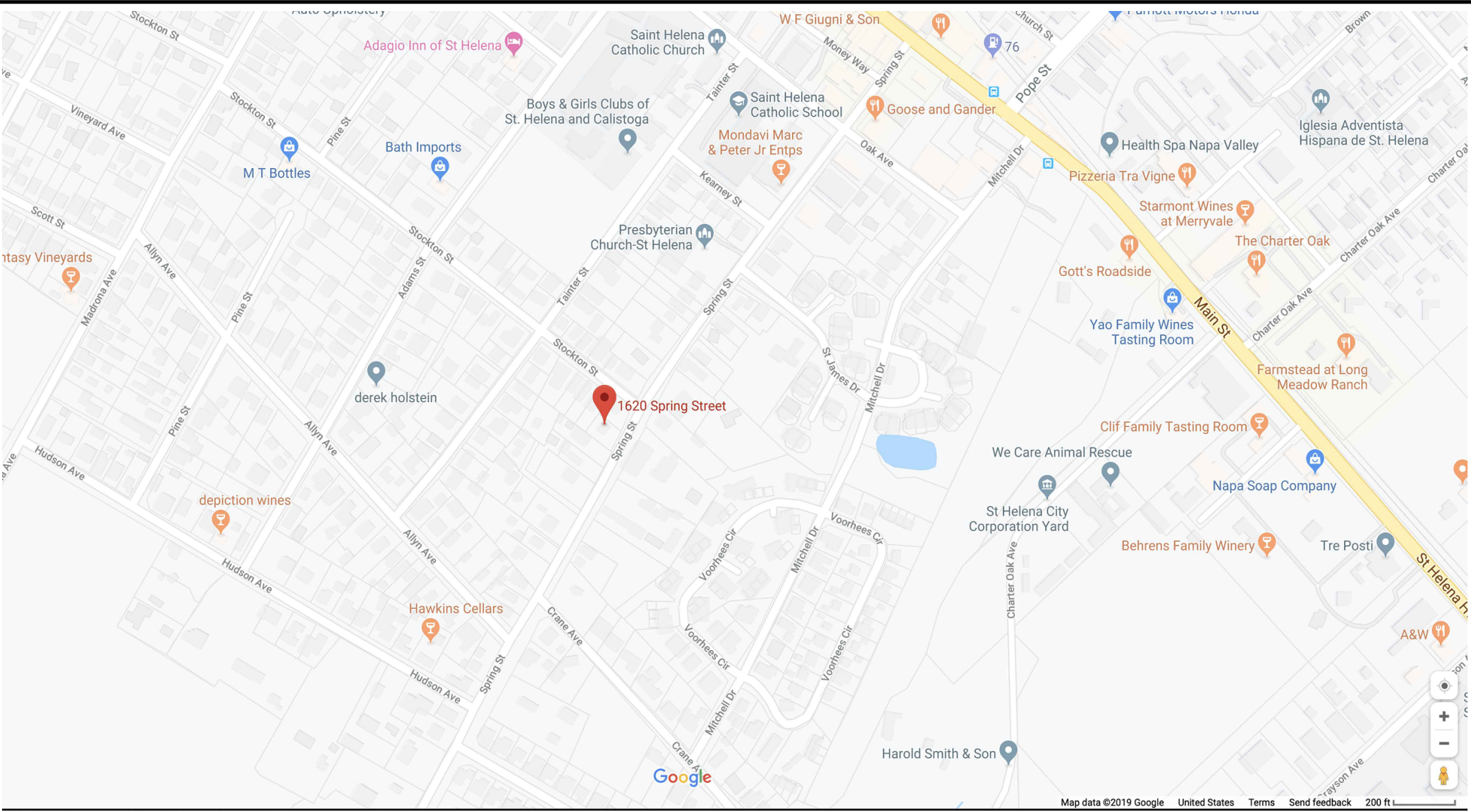
EXTERIOR

1. HORIZONTAL F.C. SIDING & F.C. BOARD & BATT
2. VINYL WINDOWS
3. COMP & STANDING SEAM METAL ROOF

INTERIOR

1. HW FLOORING, TILE
2. WOOD DOORS
3. PAINT GRADE TRIM
4. WRAP, JAM & CASE WINDOWS
5. 1/2" GYP BOARD
6. FINISH MATERIAL NOTES:
 - 6.1) ADHESIVES, SEALANTS, PRIMERS, CAULKING, ETC SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES (CALGREEN SECTION 4.504.2)
 - 6.2) PAINTS & COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 4.504.4.3 (SEE SHEET GN-3)
 - 6.3) CARPET SHALL MEET THE GREEN LABEL PLUS PROGRAM, CA DEPT OF PUBLIC HEALTH STANDARD PRACTICE FOR THE TESTING OF VOCs, OR SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD. (CALGREEN SECTION 4.504.3)
 - 6.4) WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 50% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL BE LOW-EMITTING MATERIALS. (CALGREEN 4.504.4)

VICINITY MAP



DESIGNER

TED SMITH
P.O. BOX 2212
PLACERVILLE, CA
916-743-3621

ENGINEER

LORI BURNE, SE
BURNE ENGINEERING SERVICES, INC.
3047 ROBERT J. MATTHEWS PKWY #600
EL DORADO HILLS, CA 95762
(916) 672-1600

PROJECT DATA

SQUARE FOOTAGE BREAK DOWN AND LOT COVERAGE

(E) HOUSE (REMOVE) 825 SQ FT
(E) ENCLOSED REAR PORCH (REMOVE) 124 SQ FT
(E) GARAGE 300 SQ FT

(N) HOUSE
- 1ST FLOOR 1,344 SQ FT
- 2ND FLOOR 860.4 SQ FT
- COVERED PORCH 192 SQ FT

TOTAL HABITABLE SPACE 2,204.4 SQ FT
LOT COVERAGE 26.4% (1,836 SQ FT)
F.A.R. 31.7%
LOT AREA 6,951 SQ FT

1. OCCUPANCY GROUP: R3
2. DIVISION: U-1
3. SEISMIC DESIGN CATEGORY D
4. EXPOSURE B, 110 mph GUST SPEED
5. CLIMATE ZONE 12

SCOPE OF WORK

1. NEW 2 STORY HOUSE

COVER INDEX, ABBREVIATIONS, NOTES,
SQUARE FOOTAGE ANALYSIS,
& VICINITY MAP

SN-1 STRUCTURAL NOTES

GN-1 ARCHITECTURAL NOTES

GN-2 CAL-GREEN SHEET

1 OF 1 TOPOGRAPHIC/ BOUNDARY SURVEY

L1. EXISTING LANDSCAPE PLAN

L2. PROPOSED LANDSCAPE PLAN

1. SITE PLAN

2. FLOOR PLAN

3. SHEAR WALL LAYOUT

4. FOUNDATION PLAN

5. ROOF FRAMING

6. ELEVATIONS

7. ELECTRICAL PLAN

8. SECTIONS

D1. DETAILS

T1. TITLE 24

T2. TITLE 24

CODE COMPLIANCE

ALL WORK AND MATERIALS TO BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES

1. 2016 CBC (Vol I and Vol II) (ICC)
2. 2016 CRC Residential (ICC)
3. 2016 CMC Mechanical (IAPMO)
4. 2016 CEC Electrical (NFPA)
5. 2016 CPC Plumbing (IAPMO)
6. 2016 CFC FIRE (ICC)
7. 2016 CA Energy Code (2016 Building Energy Efficiency Standards, Residential and Non Residential Manuals) (CA Energy Commission)
8. 2016 Cal Green (CA Green Building Standards Code)
9. 2016 CA Administrative Code (ICC)
10. 2016 CA Reference Standards Code (ICC)
11. NFPA 13D

DESIGNER
TED SMITH
P.O. BOX 2212
PLACERVILLE, CA
916-743-3621

ENGINEER
LORI BURNE, SE
Burne Engineering Services, Inc.
3047 Robert J. Matthews Pkwy #600
El Dorado Hills, CA 95762
(916) 672-1600

NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

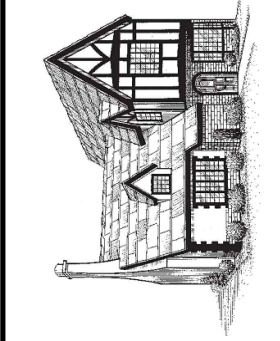
SHEET CONTENTS:
DRAWING INDEX
CONSULTANTS
PROJECT DATA
PROJECT MAP/
DIRECTIONS
SYMBOL LEGEND
CONDITIONS
ABBREVIATIONS
CODE COMPLIANCE

PROJECT:

DATE: 9/18/2019

DRAWING:

COVER



Ted Smith Design

Phone: 916.743.3621
P.O. Box 2212 Placerville, CA 95667
www.tedsmithdesign.com

ENGINEER

LORI BURNIE, SE
Burnie Engineering Services, Inc.
5047 Robert J Matthews Pkwy #600
El Dorado Hills, CA 95762
(530) 672 - 1600

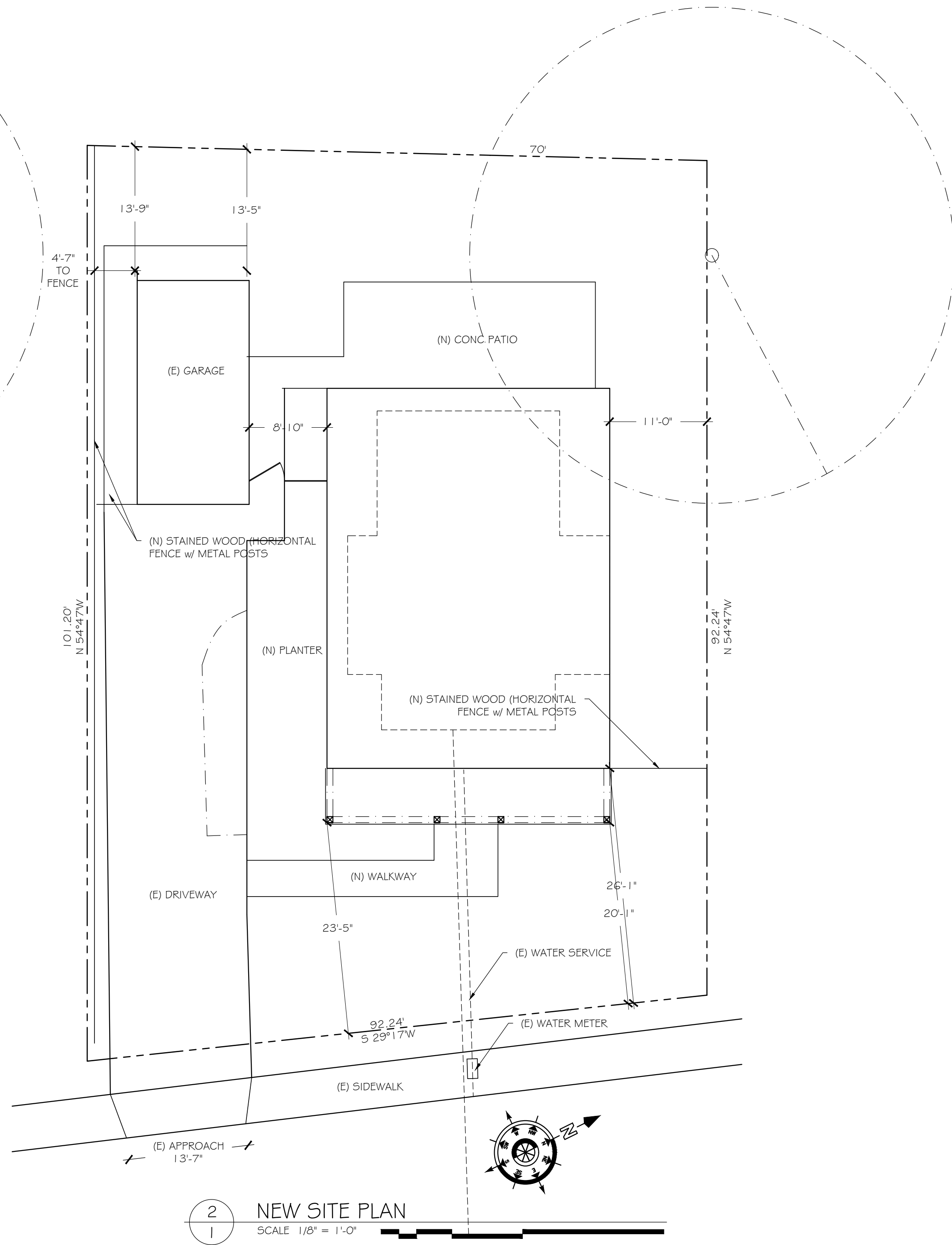
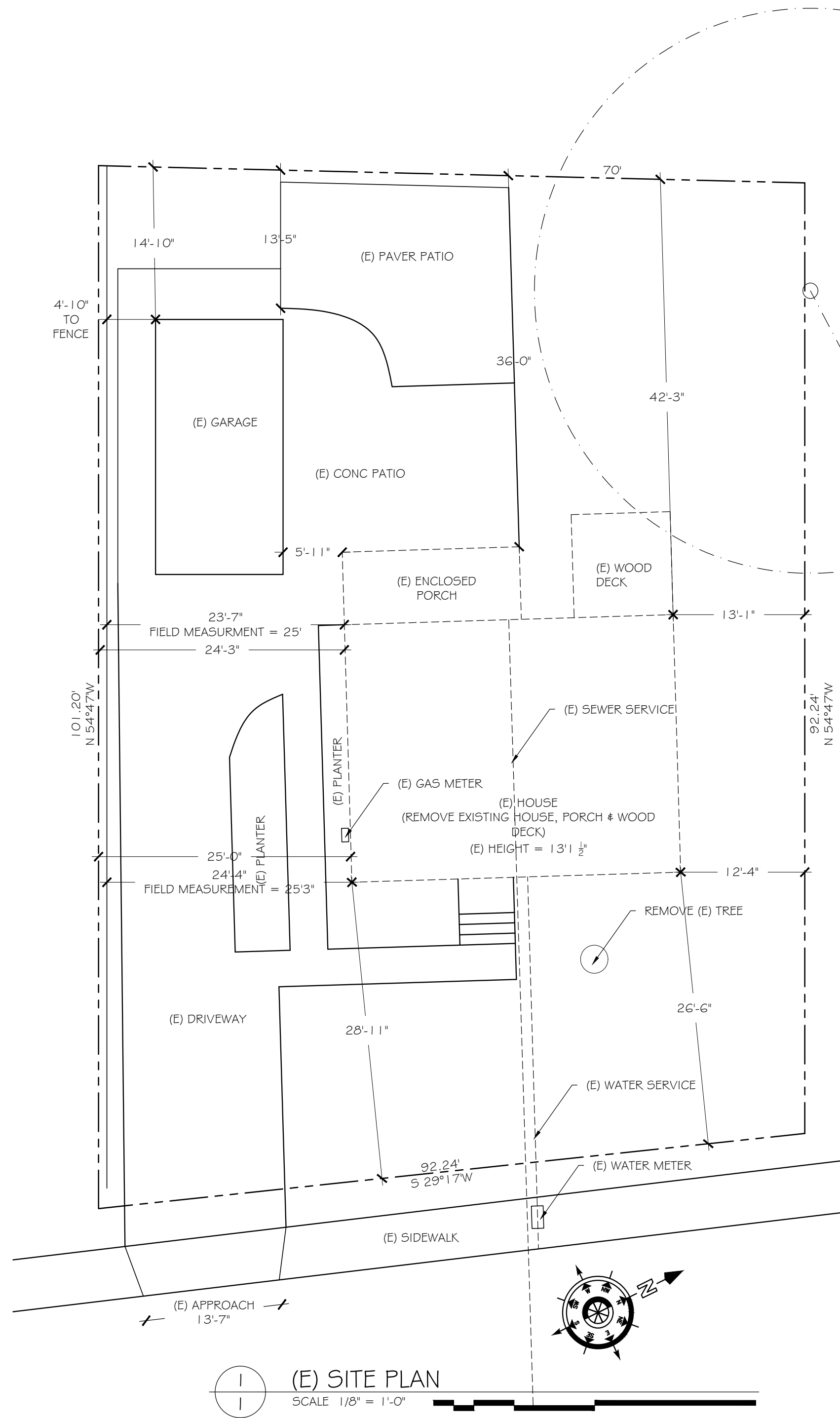
SITE PLAN

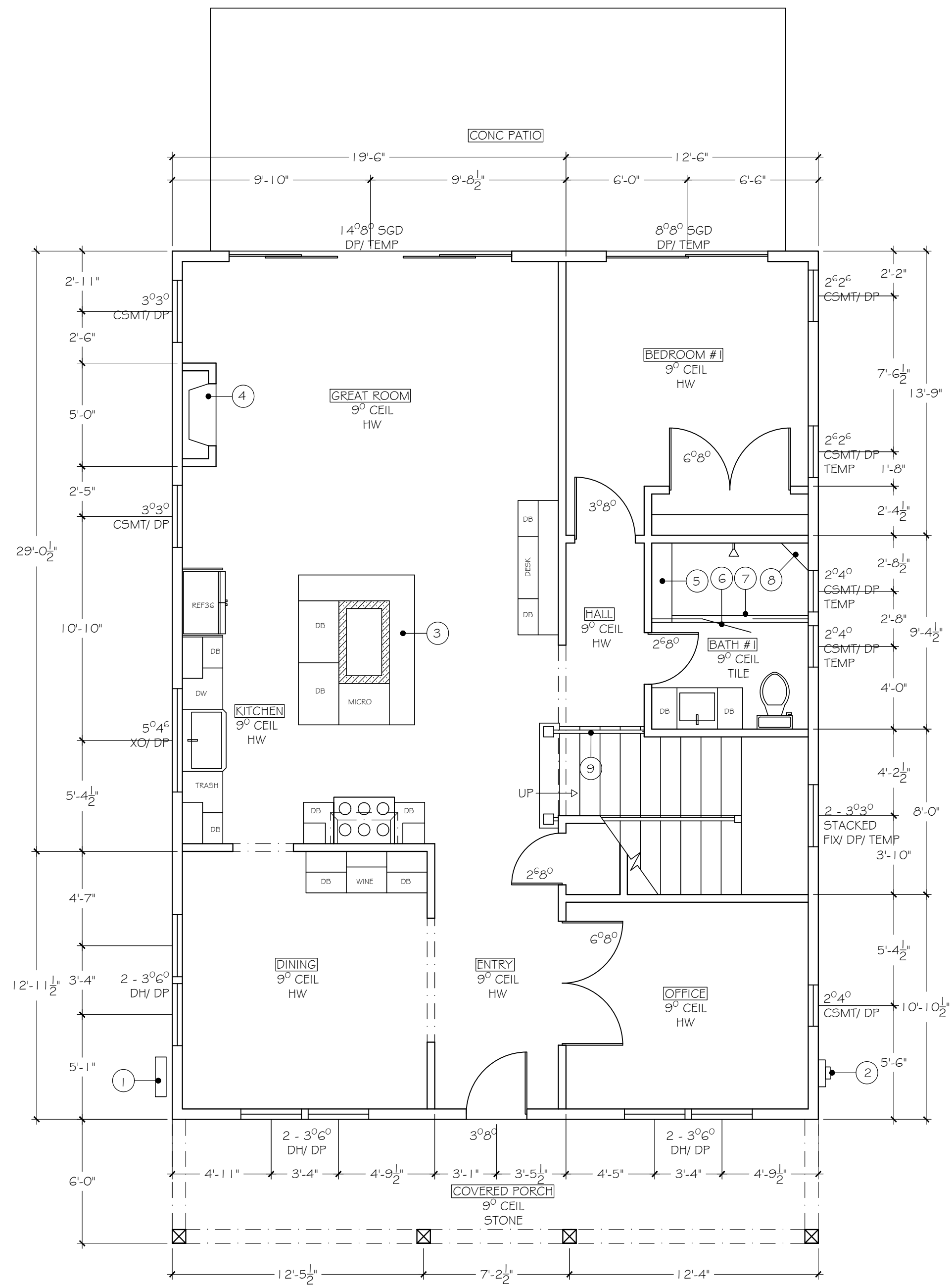
NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

NEW HOUSE

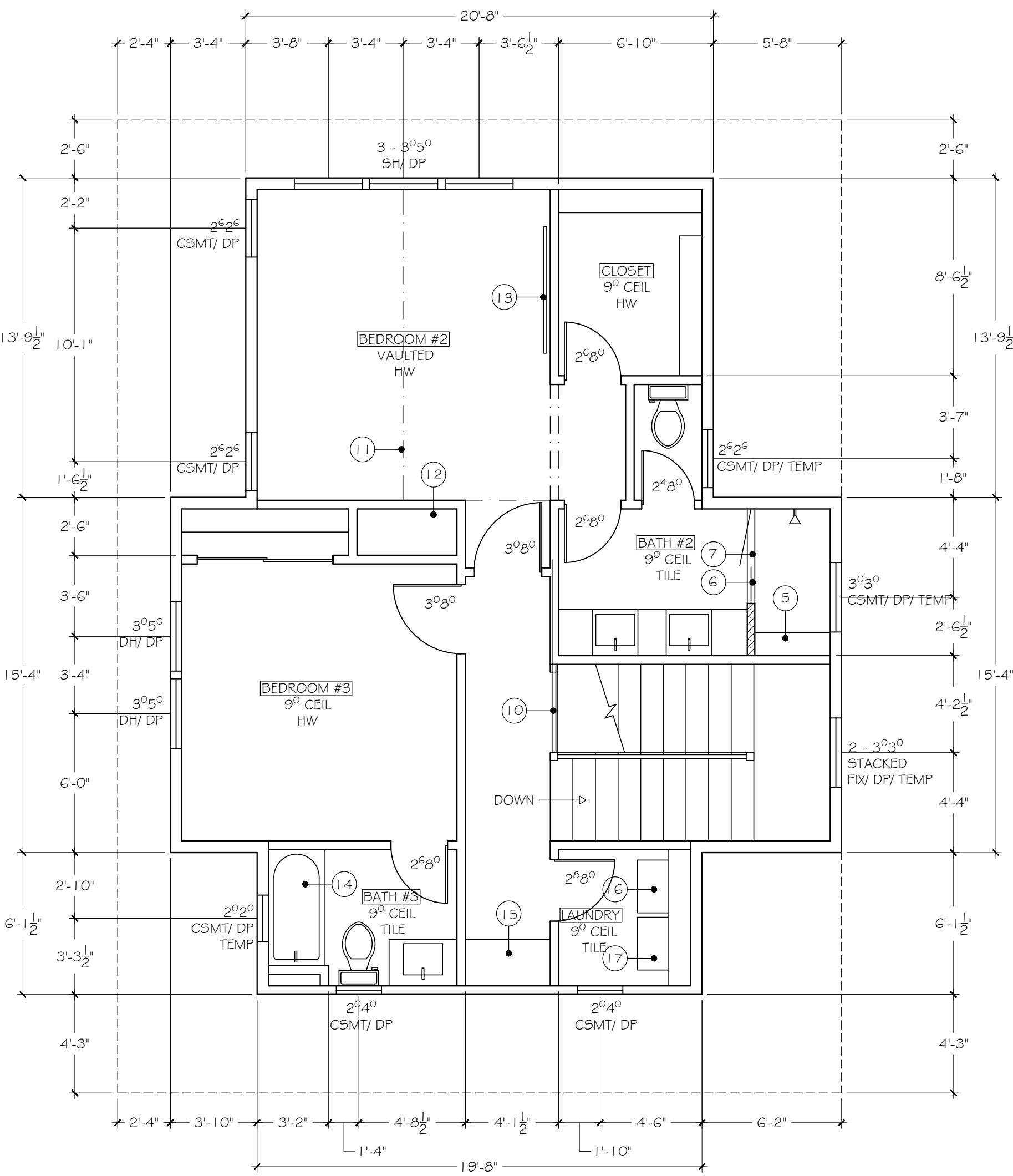
9/18/2019

—





1
3 FLOOR PLAN - 1ST FLOOR
SCALE 1/4" = 1'-0"



2
3 FLOOR PLAN - 2ND FLOOR
SCALE 1/4" = 1'-0"

FLOOR PLAN NOTES

1. 200A PANEL w/ U.G. FEED
2. GAS METER
3. 36" HIGH EATING BAR
4. 36" GAS FP
5. BENCH
6. HEAVY GLASS (TEMPERED)
7. TILE SHOWER w/ CURB
8. SHELVES
9. CONTINUOUS HANDRAIL 36" TO 38" ABOVE TREAD NOSING
10. 42" HIGH GUARD RAIL
11. CENTER LINE OF VAULT
12. HVAC CHASE
13. LED TV
14. C.I. TUB
15. TALL LINEN
16. WASH
17. DRY

LEGEND

- ALL WALLS ARE TO BE 2X4 DF#2 STUDS @ 16" OC
- EXISTING WALLS
- PARTIAL WALLS
- CUT-INS
- REMOVED WALLS
- 1 HR RATED WALL

Ted Smith Design
Phone: 916.743.3621
P.O. Box 2212 Placerville, CA 95667
www.tedsmithdesign.com

ENGINEER
LORI BURNIE, SE
Burnie Engineering Services, Inc.
5047 Robert J. Matthews Pkwy #600
El Dorado Hills, CA 95762
(916) 672-1600

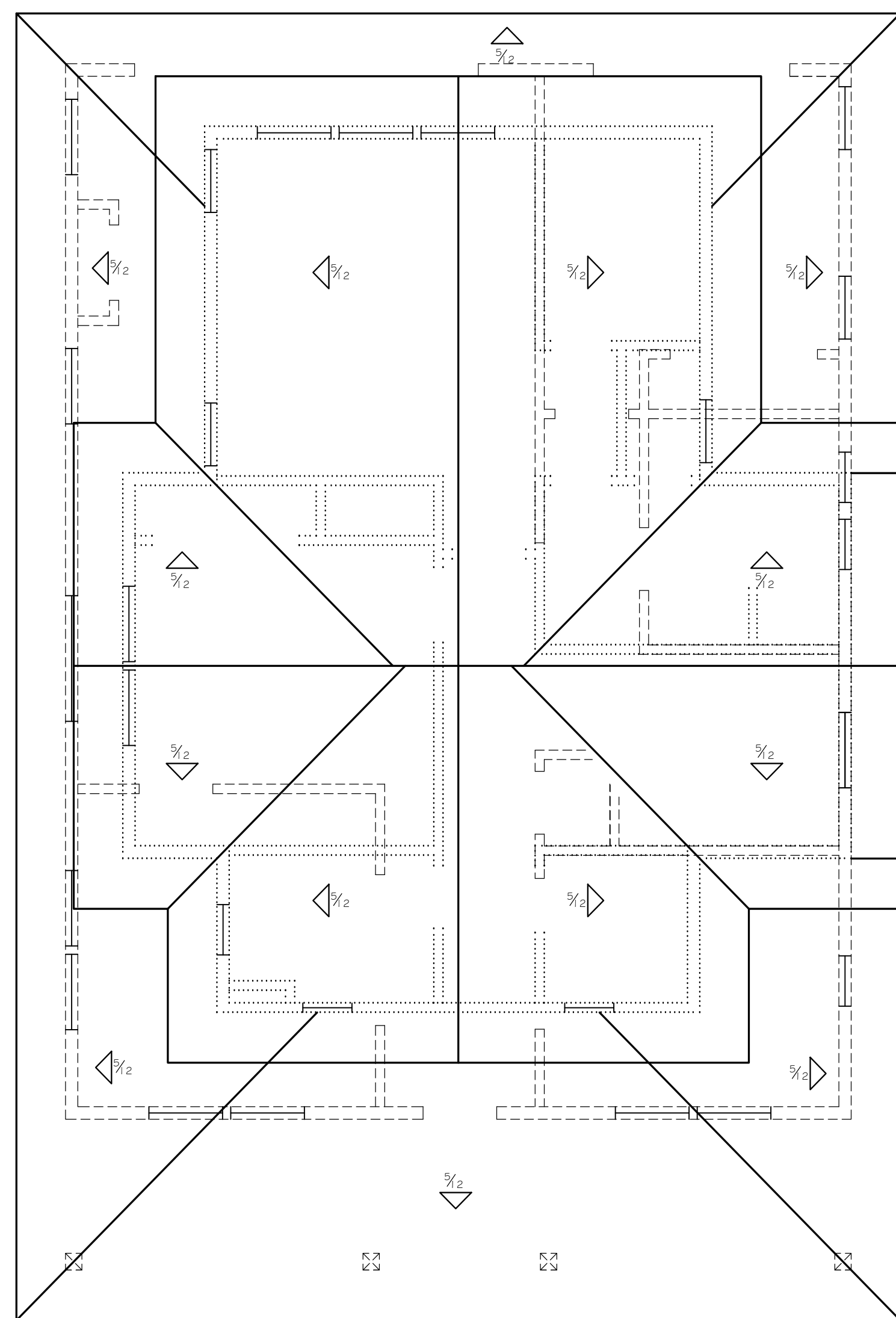
FLOOR PLAN

NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

NEW HOUSE

9/18/2019

3



1
6 ROOF LAYOUT
SCALE 1/4" = 1'-0"

LEGEND

CAL FRAME OVER

2ND FLOOR WALL

1ST FLOOR WALL

PURLIN & DBL 2x4

[illegible]

4x4 KICKERS

Ted Smith Design

Phone: 916.743.3621
P.O. Box 2212 Placerville, CA 95667

P.O. Box 2212 Placerville, CA 95667
www.tedsmithdesign.com

ENGINEER

LORI BURN, SE
Burne Engineering Services, Inc.
5047 Robert J Mathews Pkwy #600
El Dorado Hills, CA 95762
(530) 672 - 1600

ROOF PLAN

NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

NEW HOUSE

9/18/2019

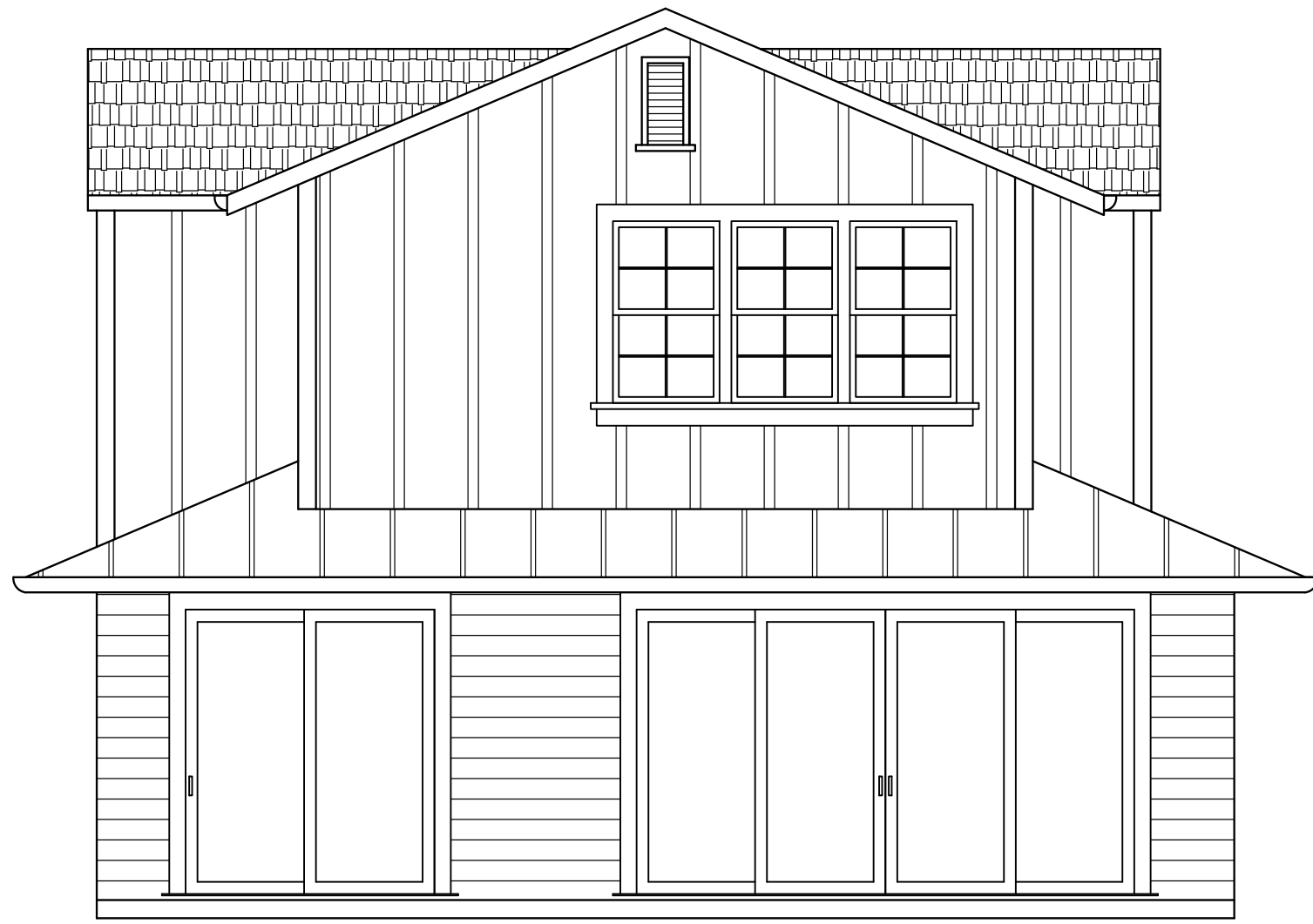
6



1
7 FRONT ELEVATION
SCALE 1/4" = 1'-0"



2
7 LEFT ELEVATION
SCALE 1/4" = 1'-0"



3
7 REAR ELEVATION
SCALE 1/4" = 1'-0"



4
7 RIGHT ELEVATION
SCALE 1/4" = 1'-0"



Ted Smith Design
Phone: 916.743.3621
P.O. Box 2212 Placerville, CA 95667
www.tedsmithdesign.com

ENGINEER
LORI BURNIE, SE
Burnie Engineering Services, Inc.
5007 E. Highway 99, Suite 100
El Dorado Hills, CA 95762
(530) 672-1600

ELEVATIONS

NEXT GENERATION CAPITAL
1620 SPRING ST
ST HELENA, CA

NEW HOUSE

9/18/2019

7



Agenda Item #5.1.







Agenda Item #5.1.









Agenda Item #5.1.













Agenda Item #5.1.









Agenda Item #5.1.







Ted Smith Design

TO: City of St. Helena, Planning Department
 FROM: Jon Fruechtl, Ted Smith Design
 DATE: 8 October 2019
 SUBJECT: Water Use Analysis for 1620 Spring St, St Helena, CA

City of St Helena, City Hall
 Received

OCT 11 2019

1480 Main St.
 St Helena, CA 94574

Project Description

1620 Spring St, St. Helena, CA.
 New three bedroom single family dwelling to replace existing two bedroom single family dwelling (existing dwelling to be demolished).

Baseline Water Use

Per Napa County Alternative Sewer Treatment System Standards, baseline water use is determined at 150 gallons per day per bedroom. Annual baseline water use for this project when completed will be:

BASELINE WATER USE		
# OF BEDROOMS	X150 = DAILY GALLONS	X365 = ANNUAL GALLONS
3	450	164250

Standards for Residential Demand

According to City of St. Helena Water Neutral Policy for Development, acceptable theoretical demand for residential flows /uses are:

Water Closet	3 flushes/day/occupant
Lavatory Faucet	0.25 min/3 times/day/occupant
Shower Head	8 min/shower/day/occupant
Kitchen Faucet	4 min/day/occupant
Clothes washer	0.37 load/day/occupant
Dishwasher	0.1 load/day/occupant

Cal Green Mandatory Measures – Water Use by Fixture

City of St. Helena Water Neutral Policy cites LEED, Energy Star, and City of San Francisco Water Conservation Guidelines as examples of acceptable sources for flow rate standards. 2013 Cal Green Mandatory Measures for new construction water use by fixture matches the most demanding of these as follows:

Water Closet	1.28 gal/flush
Lavatory Faucet	MAX 1.2gpm @ 60psi; MIN 0.8gpm @ 20psi
Shower Head	2.0gpm @ 80psi
Kitchen Faucet	1.8gpm @ 60psi

At least (1) Energy Star Rated appliance shall be installed that meets the following standards:

Dishwasher	4.25 gal/cycle
Clothes washer	6 gal/cu.ft. drum capacity

Theoretical Water Use – Existing Dwelling vs. Proposed New Dwelling

Theoretical water use is estimated based on [average flow rates of existing fixtures x typical flow duration per fixture type x number of daily uses]. An occupant multiplier [# bedrooms x 2] is then applied per City of St. Helena Water Neutral Policy to estimate gallons/day used.

THEORETICAL WATER USE - EXISTING RESIDENCE FIXTURES/ OCCUPANTS (2 BEDROOM RESIDENCE)						
	AVERAGE FLOW RATE	DURATION (MINUTES)	DAILY USES (PER OCCUPANT)	OCCUPANTS	TOTAL DAILY WATER USE (GALLONS)	TOTAL ANNUAL WATER USE (GALLONS)
WATER CLOSET	1.6 GPF	1	3	4	19.2	7008
LAVATORY FAUCET	1.5 GPM	0.25	3	4	4.5	1642.5
KITCHEN FAUCET	1.8 GPM	4	1	4	28.8	10512
SHOWER HEAD	2.0 GPM	8	1	4	64	23360
CLOTHES WASHER	27G/ 4.6 CF X 6G	1	0.37	4	39.96	14585.4
DISH WASHER	4.2 G/ CYCLE	1	0.1	4	1.68	613.2
TOTAL - EXISTING RESIDENCE					158.14	57721.1

THEORETICAL WATER USE - NEW RESIDENCE FIXTURES/ OCCUPANTS (3 BEDROOM RESIDENCE)						
	AVERAGE FLOW RATE	DURATION (MINUTES)	DAILY USES (PER OCCUPANT)	OCCUPANTS	TOTAL DAILY WATER USE (GALLONS)	TOTAL ANNUAL WATER USE (GALLONS)
WATER CLOSET	1.28 GPF	1	3	6	23.04	8409.6
LAVATORY FAUCET	1.2 GPM	0.25	3	6	5.4	1971
KITCHEN FAUCET	1.8 GPM	4	1	6	43.2	15768
SHOWER HEAD	2.0 GPM	8	1	6	96	35040
CLOTHES WASHER	27G/ 4.6 CF X 6G	1	0.37	6	59.94	21878.1
DISH WASHER	4.2 G/ CYCLE	1	0.1	6	2.52	919.8
TOTAL - NEW RESIDENCE					230.1	83986.5

Theoretical Water Use Analysis – Results

Water demand for the proposed new single family dwelling is well under City of St. Helena Water Neutral Policy for Development baseline. Installation of new Cal Green compliant water fixtures serve to increase water use by only 45.5% after replacing an existing two bedroom single family dwelling with a proposed three bedroom single family dwelling.

Baseline = 164,250 gallons per year
 Existing = 57721.1 gallons per year
 Proposed = 83986.5 gallons per year



PLANNING COMMISSION REPORT
Planning Commission Meeting of January 21, 2020

AGENDA SECTION: Scheduled Matters

FILE NUMBER: PL19-049

SUBJECT: The City of St. Helena Public Works Department requests Demolition Permit and Design Review approval in order to demolish and reconstruct the Crinella Pump Station facility at 1758 Crinella Drive in the Medium Density Residential district.

PREPARED BY: Aaron Hecock, Acting Planning & Building Director

REVIEWED BY: Aaron Hecock, Acting Planning & Building Director

APPROVED BY: Aaron Hecock, Acting Planning & Building Director

APPLICATION FILED: 10/29/19

ACCEPTED AS COMPLETE: 11/06/19

LOCATION OF PROPERTY: 1758 Crinella Drive

APN: 009-401-020

GENERAL PLAN/ZONING: MR: Medium Density Residential

APPLICANT: City of St. Helena Public Works Department

PHONE: (707) 968-2629

BACKGROUND

The Crinella Sewer Pump Station located on 1758 Crinella Drive, St. Helena at the far end of the Stephen C. McCullagh Park. The pump station itself was built in the 1970's at the same time as the Crinella subdivision. It has had some modifications over the years with the most recent upgrade taking place in March 2017, which was the upgrade from a 4-inch to a 6-inch force main. However, the building, electrical technology, and odor control are still in need of improvements. Many residents in the Crinella subdivision as well as park goers have complained of odors at the facility over the years. City staff

implemented a temporary fix in 2019 based on the recommendations provided by the City consultant, but it hasn't resolved all complaints.

The Crinella Pump Station project was identified in the 2017 Water and Wastewater Rate Study and later added to the 2017/2018 Five- Year Capital Improvement Program Budget for design to start in Fiscal Year 2018/2019. City staff circulated a request for proposals on January 3, 2018 and received four proposals. On April 10, 2018, City Council awarded a consulting contract to WRECO to complete the design documents for the project.

PROJECT DESCRIPTION

The project consists of removing the existing pump station structure and updating both the external structure as well as addressing internal operations and odor control. The following considerations were made as part of the design process of the pump station:

Pump Station Operational Recommendations:

1. Wet well to have 2 duplexing pumps
2. Pumps to have mix-flush valves
3. Each pump able to pump the entire generated sanitary flow with I/I allowance
4. Pumps run off motor control center with manual and SCADA-ready controls
5. Automatic Transfer Switch activates standby portable generator
6. Portable generator on pad flush with station finished floor
7. Pump station indicator lights facing the street for drive-by status review
8. SCADA-ready system status reporting
9. Land line autodialer for alarm conditions
10. Underground land line to pump station
11. Pumps to be on a rail system for ease of pick/install maintenance
12. Housing to have gantry (I-beam) with trolley and electric hoist for picking pumps
13. Hose and hose bibb for pump wash-down inside station
14. Washable interior station surfaces
15. Gasketed access hatch over wet well pump installation
16. Transducer level indicator with backup float alarms
17. Interior station lighting
18. Exterior station lighting for standby portable generator operation
19. Forced/passive cartridge-filtered ventilation structure and wet well
20. 8' rollup access door
21. Security fence to match neighbor 8' tall
22. Asymmetrical security fence gates

Other Pump Station Considerations:

1. Standard 3' swing door next to 8' rollup door
2. Keyed entry points or programmable keypads
3. Security camera/s with hard drive storage
4. Security camera/s linked to a land line telephone service WiFi (monthly cost)
5. Security camera/s linked to SCADA

6. Wet well lighting

Note the height of the structure, 15.5', is necessary to hoist the pumps out of the wet well inside the structure. In addition, the family of Steven C. McCullagh, which the park is dedicated to, were contacted to discuss the project design and the possibility for a new mural to be painted once the project is completed.

Following Planning Commission approval, the consultant will provide full final design plans, specifications, and cost estimates for construction that will be taken to City Council for approval and authorization to proceed with bid advertisement.

ANALYSIS

CEQA

The project is exempt from the requirements of CEQA pursuant to Section 15302, which exempts the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose.

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, limited agricultural uses and other compatible uses. Pursuant to St. Helena Municipal Code (SHMC) Section 17.40.040, design review is required for new structures or revisions to existing structures in the MR district. Furthermore, SHMC Section 17.164.050 requires that any new public facility, or modification thereof obtain design review approval and that demolition be considered at a public hearing.

Staff Analysis: The project as designed meets all the required development standards of the MR district.

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 access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles;
11. Whether natural features and vegetation are appropriately preserved and integrated with the project;
12. 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 structures and functions;
13. 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;
14. 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.

Staff Analysis: Staff believes that the proposed project is consistent with the required design review criteria listed above in that the project will replace an older less efficient structure with a new more modern structure.

DEMOLITION PERMIT

The existing pump station will be demolished in order to reconstruct a new one. SHMC Section 17.164.050(G), Demolition, states in part: "...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.

The building to be demolished has been determined to have no architectural or historical significance.

2. That the demolition does not eliminate elements that are required to maintain the essential character of the neighborhood;

The building to be demolished, an old pump station, will not eliminate any elements that are required to maintain the essential character of the neighborhood.

3. That the design review of the proposed replacement structure is approved prior to or in conjunction with the demolition of a housing structure.

No housing structure is being demolished.

ISSUES

Staff has not identified any outstanding issues related to this application that require additional discussion.

CORRESPONDENCE

No correspondence has been received by staff related to this application.

STAFF RECOMMENDATION

For the reasons stated above, staff recommends that the Planning Commission:

1. Determine that the project is exempt from the requirements of CEQA pursuant to Section 15302; and
2. Accept the required findings and approve a demolition permit and design review for the proposed reconstruction of the Crinella Pump Station facility on 1758 Crinella Drive in the MR: Medium Density Residential district.

ATTACHMENTS

[Resolution](#)

[APN Map](#)

[Plan Set 2019.12.19](#)

[Crinella Summary Letter 20180808](#)

[2018-06-26 18213 Crinella PS Evaluation](#)

**CITY OF ST. HELENA PLANNING COMMISSION
RESOLUTION NO.
GRANTING DEMOLITION PERMIT AND DESIGN REVIEW APPROVAL TO
APN #009-401-020 (File No. PL19-049)**

PROPERTY OWNER: The City of St. Helena

APN: 009-401-020

Recitals

1. The City of St. Helena Public Works Department requests adoption of a resolution approving a demolition permit and design review in order to construct an upgraded sanitary pump station at 1758 Crinella Drive in the Medium Density Residential (MR) district;
2. The Crinella Pump Station project was identified in the 2017 Water and Wastewater Rate Study and later added to the 2017/2018 Five- Year Capital Improvement Program Budget for design to start in Fiscal Year 2018/2019. City staff circulated a request for proposals on January 3, 2018 and received four proposals. On April 10, 2018, City Council awarded a consulting contract to WRECO to complete the design documents for the project;
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 January 21, 2020; and
4. Now, therefore let it be found that, the Planning Commission approves a demolition permit and design review thereby authorizing the modifications contained in said plans based on the findings below and subject to the conditions of approval enumerated herein.

Resolution

- A. In making the findings in this Resolution, the Planning Commission relied upon and hereby incorporates by reference all 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 hereby finds that the project is exempt from the requirements of CEQA pursuant to Section 15302, which exempts the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose.
- C. Zoning Code Section 17.164.050 "Applicability" (of Design Review) specifies that "...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:

*Crinella Pump Station
Conditions of Approval
January 21, 2020*

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 of the existing structure does not eliminate elements that are required to maintain the essential character of the neighborhood; and
 3. That no housing structure is being demolished as part of the project.
- D. In accordance with the design review criteria identified in SHMC Section 17.164.030, the Planning Commission finds that the project demonstrates the following:
1. *Consistency and compatibility with applicable elements of the general plan in that the project consists of constructing a new and improved pump station where the existing station currently exists;*
 2. *Compatibility of design with the immediate environment of the site in that the project has been designed to be compatible with the site and its surroundings;*
 3. *Relationship of the design to the site is found to be consistent in that the project was designed in consideration of the unique characteristics of the site;*
 4. *That the design is compatible in areas considered by the board as having a unified design or historical character in that the project is not an area of with a unified design character and has been designed to be compatible with the site and the surrounding area;*
 5. *That the design promotes harmonious transition in scale and character in areas between different designated land uses in that the project has been designed to be compatible with the surrounding residential neighborhood;*
 6. *Compatibility with future construction both on and off the site in that the project consists of reconstructing an existing pump station;*
 7. *That the architectural design of structures and their materials and colors are appropriate to the function of the project in that the project is a new and improved sanitary pump station;*
 8. *That 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 in that the project has been designed to be compatible with the site and its surroundings;*
 9. *That the amount and arrangement of open space and landscaping are appropriate to the design and the function of the structures in that the project consists of constructing a new and improved sanitary pump station where one currently exists;*
 10. *That access to the property and circulation systems are safe and convenient for pedestrians, cyclists and vehicles in that access to the site will remain via Crinella Drive;*

11. *That natural features and vegetation are appropriately preserved and integrated with the project in that the project consists of reconstructing an existing sanitary pump station;*
12. *That 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 structures and functions in that in that the facility will be constructed of modern building materials and will be compatible with surrounding development;*
13. *That 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 in that the project consists of reconstructing an existing sanitary pump station;*
14. *That 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 in that project related construction is required to meet all California Building Codes and City of St. Helena development standards.*

Planning Department Conditions of Approval

- E. The Planning Commission approves design review for the above-described project with the following conditions of approval. 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 project shall be in conformance with all city ordinances, rules, regulations and policies in effect at the time of issuance of a building permit.
 2. The design review 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 applied for 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.
 3. 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.
 4. 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.
 5. 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.

*Crinella Pump Station
Conditions of Approval
January 21, 2020*

6. Pursuant to City Council Resolution 2003-65, the owner and applicant are informed of the following:

In recognition of the need for additional affordable housing, and to mitigate the effects of this development on the supply and demand of affordable housing, the permittee shall be subject to a Housing Impact Fee, an inclusionary requirement, an in-lieu fee, and/or similar fair and appropriate mechanisms, to provide funds for or to develop additional affordable housing.
7. Compliance with all permit conditions shall occur in accordance with specific regulations but in all cases no later than prior to 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.
8. 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.
9. Provided they are in general compliance with this approval, minor modifications may be approved by the Planning Director.
10. 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.
11. 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.
12. Construction shall be in compliance with plans submitted and reviewed by the Planning Commission on September 3, 2019, except as modified herein.
13. During construction, the project site shall be adequately fenced and secured to prevent trespassing.
14. Exterior lighting shall be directed or shielded to prevent glare onto public roadways or adjacent properties.
15. 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

*Crinella Pump Station
Conditions of Approval
January 21, 2020*

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

16. 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.
17. 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.
18. 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.
19. Prepare and implement a Stormwater Control Plan as required by the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual, dated July 14, 2014.
20. Erosion and sediment control plans shall conform to the latest State and City codes at a minimum.
21. Site plan shall show location of any trees within the project area. If any tree located within the public right away needs to be removed, the applicant must submit a tree removal permit application to the Public Works Department. The Tree Removal Permit Application is subject to review, public noticing, and approval by the City Arborist and Public Works Director.
22. Provide details of any and all proposed fencing and/or walls on all plans submitted for building permit review.
23. If the proposed/new landscaping involves an area greater than 500 square feet or rehabilitation of more than 2,500 square feet, the proposed landscaping shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO). WELO compliance shall be demonstrated for each parcel as part of each individual building permit submittal. The applicant shall submit the MWELO application at the

*Crinella Pump Station
Conditions of Approval
January 21, 2020*

time of the building permit submittal. The application is located here:
http://www.cityofsthelena.org/sites/default/files/fileattachments/public_works/page/2491/mwelo_ldp_cc.pdf

24. The applicant shall install an approved backflow device behind the 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.
25. 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.
26. No construction may commence until adequate access to fire water supply is available to building sites as approved by the Fire Chief.
27. 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.
28. 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.
29. Provide details of any and all proposed fencing, gates, and/or walls on all plans submitted for building permit review.
30. 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.
31. The applicant shall conform to the requirements of City of St. Helena Standard Drawings, Water and Sewer Standards Section 7-1.12, and applicable Health Standards which includes water laterals being a minimum of five (5) feet from sewer laterals, prior to Certificate of Occupancy.
32. 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.
33. 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.

Building Department Conditions of Approval

34. A building permit is required for all onsite demolition, construction and/or change of occupancy.
35. 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 2016 Title 24 codes.
36. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
37. The applicant shall provide a construction waste management plan with the building permit application.
38. 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.
39. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
40. 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.
41. Properties which are on septic systems and proposing substantial renovations may require approval from the Napa County Environmental Health Department. Applicants are encouraged to engage with the County early in the building permit review process to reduce the potential for delay.

Fire Department Conditions of Approval

42. Plans submitted for building permit shall exhibit compliance with the current St. Helena Fire Code, as adopted and codified in St. Helena Municipal Code Chapter 15.36.
43. Fire sprinklers and fire hydrants shall be installed as required by Fire Code and the Fire Department.

I HEREBY CERTIFY that the foregoing demolition permit and design review applications were duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on January 21, 2020 by the following roll call vote:

AYES:

NOES:

ABSENT:

*Crinella Pump Station
Conditions of Approval
January 21, 2020*

ABSTAIN:

APPROVED:

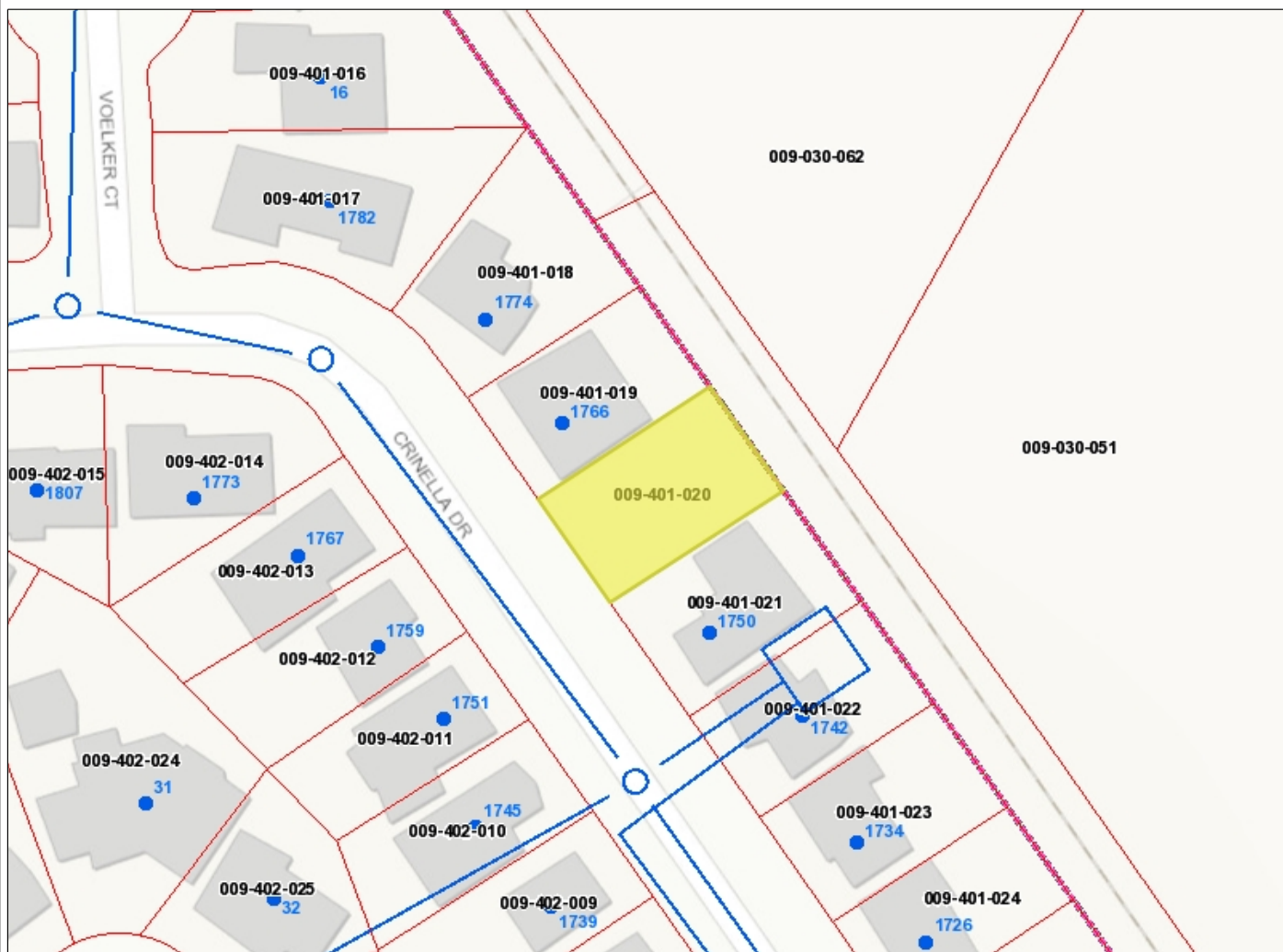
ATTEST:

Lester Hardy
Chair, Planning Commission

Maya DeRosa, AICP
Planning and Building Director



City of St. Helena Crinella Pump Station



Legend

- Sanitary Sewer
- Downtown Parking
- Parcels St. Helena
- Urban Limit Boundary
- Addresses
- Parcels
- County Boundary

188.1 0 94.04 188.1 Feet

Disclaimer: This map was prepared for informational purposes only.
No liability is assumed for the accuracy of the data delineated hereon.

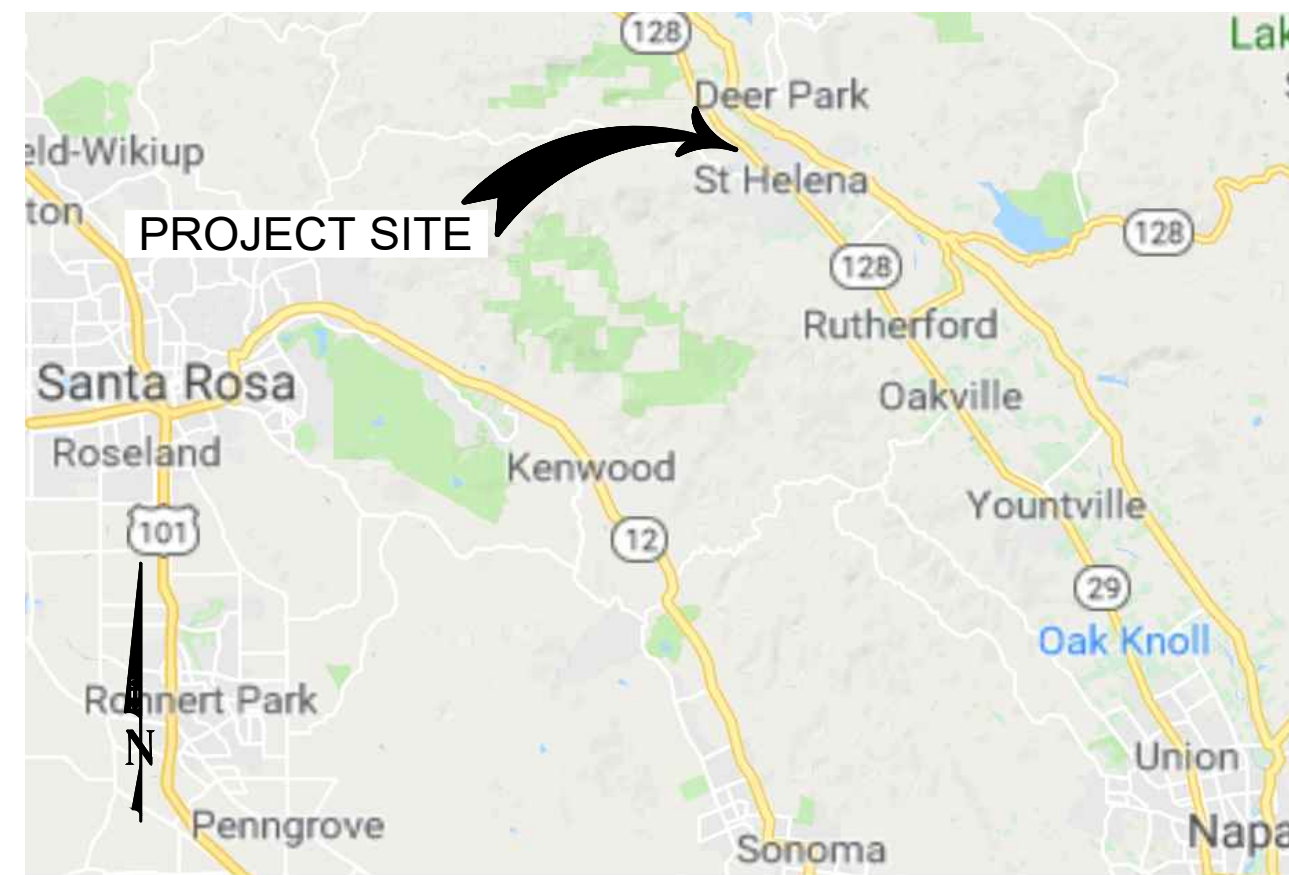
This map was printed on 11/8/2019

Notes

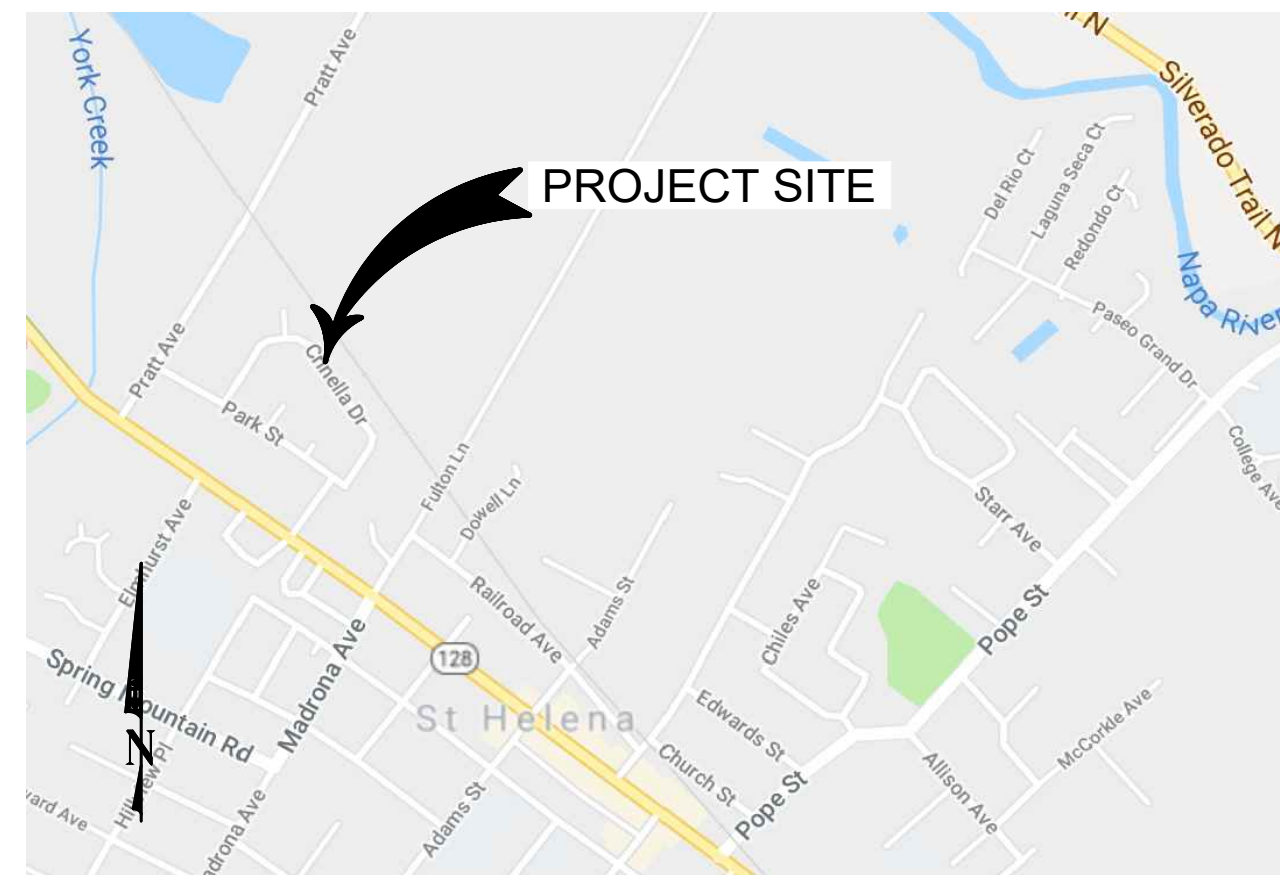
CITY OF ST. HELENA
CRINELLA PUMP STATION
UPGRADE PROJECT
NAPA COUNTY, CALIFORNIA

CONTACTS

- | | |
|------------------------|--|
| 1. CIVIL ENGINEER | WRECO
1000 BROADWAY, SUITE 475
OAKLAND CA 94607
TEL: 669.204.7082
CONTACT: ERIC BILAND, P.E. |
| 1. STRUCTURAL ENGINEER | ZFA STURCTURAL ENGINEERS
1303 JEFFERSON ST. SUITE 400A
NAPA CA 94559
TEL: 707.492.3452
CONTACT: AARON LUCAS, PE |
| 1. ARCHITECT | VALLEY ARCHITECTS
1560 RAILROAD AVE.
ST. HELENA, CA 94574
TEL: 707-963-1466
CONTACT: THOMAS FAHERTY AIA |
| 2. CITY ENGINEER | CITY OF ST. HELENA PUBLIC WORKS
1572 RAILROAD AVENUE
ST. HELENA, CA 94574
TEL: (707) 968-2629
CONTACT: ERICA AHMANN SMITHIES, P.E. |



VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

SHEET LIST TABLE

NAME	NO.	TITLE
G-1	01	TITLE SHEET
G-2	02	PROJECT LAYOUT
G-3	03	GENERAL NOTES
G-4	04	CONSTRUCTION BMPS PLAN
G-5	05	TEMPORARY BYPASS PLAN
C-1	06	SURVEY AND CONTROL POINTS
C-2	07	DEMOLITION PLAN
C-3	08	GRADING PLAN
C-4	09	GENERATOR PAD DRAINAGE
M-1	10	MECHANICAL PLAN
M-2	11	FORCE MAIN BIPASS PLAN
M-3	12	MECHANICAL DETAILS 1
M-4	13	MECHANICAL DETAILS 2
M-5	14	MECHANICAL DETAILS 3
M-6	15	MECHANICAL DETAILS 4
E-1	16	ELECTRICAL PLAN
E-2	17	LIGHTING PLAN
E-3	18	ELECTRICAL DETAILS 1
E-4	19	ELECTRICAL SCHEMATIC
S-1	20	GENERAL NOTES AND SPECIFICATIONS
S-2	21	TYPICAL DETAILS
S-3	22	FOUNDATION AND ROOF FRAMING PLANS
S-4	23	FOUNDATION AND FRAMING DETAILS
A-1	24	SITE PLAN
A-2	25	FLOOR PLAN
A-3	26	EXTERIOR ELEVATIONS AND SECTIONS
A-4	27	DETAILS

ABBREVIATIONS

ABS	ACRYLONITRILE-BUTADIENE- STYRENE	HB	HB VALVE
AC	ACRES	ICV	IDLE CONTROL VALVE
APN	ASSESSOR'S PARCEL NUMBER	INV	INVERT
ATS	AUTO TRANSFER SWITCH	JP	JOINT POLE
AT&T	AMERICAN TELEPHONE AND TELGRAPH COMPANY	LF	LINEAL FEET
		MH	MANHOLE
BEG	BEGINNING	M	METER
BFE	BASE FLOOD ELEVATION	MIL	MILLIMETER
BMP	BEST MANAGEMENT PRACTICES	MIN	MINIMUM
		NAD83	NORTH AMERICAN 1983 DATUM
BOW	BACK OF WALK	NO.	NUMBER
CL, 	CENTER LINE	NTS	NOT TO SCALE
COMM	COMMUNICATION	(P)	PROPOSED
CP	CONTROL POINT	PG&E	PACIFIC GAS AND ELECTRIC COMPANY
CY	CUBIC YARD	PM	PILOT OPERATED MAIN VALVE
DEC	?	PVC	POLYVINYL CHLORIDE
DIA	DIAMETER	R	RADIUS
DWW	DRAIN, WASTE, AND VENT	R/W	RIGHT OF WAY
EG	EXISTING GROUND	SD	STORM DRAIN
ELEV	ELEVATION	S	SLOPE
ESMT	EASEMENT	SS	SANITARY SEWER
(E), EX	EXISTING	STA	STATION
(F)	FUTURE	TOC	TOP OF CURB
FF	FINISHED FLOOR	TOS	TOP OF SLAB
FL	FLOW LINE	(TYP)	TYPICAL
FG	FINISHED GRADE	WM	WATER METER
FS	FINISHED SURFACE	WV	WATER VALVE
FM	FORCE MAIN		
GPST	FORCE MAIN		



SITE MAP
NOT TO SCALE

SUBMITTED BY:

DATE _____

ACCEPTANCE OF PLANS

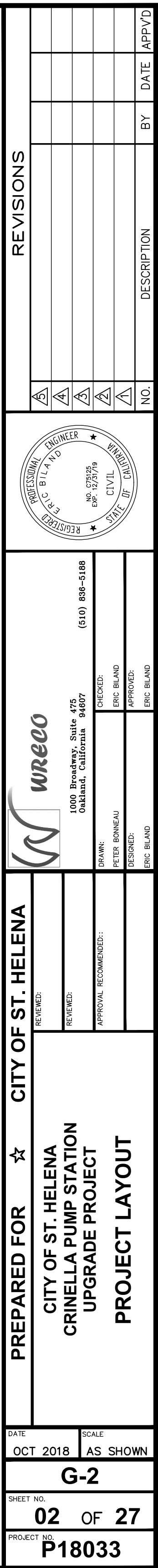
THE CITY OF ST. HELENA HEREBY ACCEPTS THESE PLANS FOR CONSTRUCTION, AS BEING IN GENERAL COMPLIANCE WITH PLANS PREPARATION REQUIREMENTS OF THIS GOVERNMENT. RESPONSIBILITY FOR THE COMPLETENESS AND ACCURACY OF THE PLANS AND RELATED DESIGN RESIDES WITH THE ENGINEER AND ENGINEERING FIRM OF RECORD.

ERICA AHMANN SMITHIES, P.E.
DIRECTOR OF PUBLIC WORKS
CITY OF ST. HELENA

DATE _____

65% DESIGN- NOT FOR CONSTRUCTION

PREPARED FOR ☆ CITY OF ST. HELENA CITY OF ST. HELENA CRINELLA PUMP STATION UPGRADE PROJECT TITLE SHEET		REVISIONS	
DATE	OCT 2018	SCALE	NO SCALE
G-1			
SHEET NO.		OF	
01		27	
PROJECT NO.			
P18033			



G:\Projects\Y2018\1818033 Crinella Pump Station Upgrade\Drawg\Sheets\03 GENERAL NOTES.dwg 10-02-19 03:53:41 PM Peter_Bonneau

PROJECT GENERAL NOTES

1.

THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY FROM THE NOTICE TO PROCEED UNTIL THE PROJECT IS ACCEPTED AND APPROVED BY THE CITY. CONTRACTOR RESPONSIBILITY FOR JOB SITE CONDITIONS SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
2.

THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF JOB SITE. SIGN SHALL BE A MINIMUM OF 4'x4' AND ALSO INCLUDE THE PROJECT NAME, CONTRACTOR RESPONSIBLE CONTACT PERSON, AND CITY CONTACT.
3.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL OF THE WORK PERFORMED BY HIS SUBCONTRACTORS WITHOUT EXCEPTION.
4.

THE CONTRACTOR SHALL IDENTIFY A RESPONSIBLE CONTACT PERSON, WHO IS AN EMPLOYEE OF THE CONTRACTOR, AND A 24-HOUR TELEPHONE NUMBER TO CALL TO RESOLVE PROBLEMS WITH SAFETY, NOISE, DUST OR OTHER CONSTRUCTION RELATED ISSUES.
5.

THE CONTRACTOR SHALL BE REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE RIGHTS-OF-WAY AND EASEMENTS OBTAINED FOR THIS PROJECT UNLESS OTHERWISE SHOWN. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, VEHICLES AND EQUIPMENT, LIMITS OF DEMOLITION, AND ANY STOCKPILED NEW MATERIAL.
6.

THE CONTRACTOR SHALL PROVIDE PROTECTIVE DEVICES INCLUDING BARRICADES, FENCING, WARNING SIGNS, LIGHTS, FLAGGERS OR OTHER ITEMS NECESSARY TO ENSURE PUBLIC SAFETY WITHIN THE PROJECT AREA. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
7.

EXISTING UTILITIES ARE LOCATED IN THE PROJECT AREA. UTILITIES DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE TEMPORARILY REPAIRED AND THEN REPLACED IN ACCORDANCE WITH THE UTILITY'S OR THE CITY'S REQUIREMENTS AT THE CONTRACTOR'S OWN EXPENSE.
8.

CONTRACTOR SHALL EXERCISE DUE CAUTION DURING CONSTRUCTION TO PROTECT ANY EXISTING LANDSCAPING, FIXTURES, EQUIPMENT, CONCRETE SIDEWALK, CONCRETE DRIVEWAY, CONCRETE CURB AND GUTTER, AND AC PAVING TO REMAIN. ANY DAMAGE RESULTING FROM CONTRACTOR OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE CITY.
9.

CONTRACTOR SHALL PRESERVE ALL SURVEY MARKERS AND MONUMENTATION PER THE CITY ENGINEERING DEPARTMENT. PRIOR TO STARTING ANY WORK, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF ANY EXISTING FEDERAL, STATE, CITY, AND PRIVATE LAND SURVEY CONTROL POINTS OR MONUMENTS THAT MAY BE DISTURBED BY THE WORK FOR THIS PROJECT. ANY SURVEY MONUMENTS WHICH WILL BE DISTURBED OR REMOVED MUST BE TIED OUT BY A CURRENTLY LICENCED CALIFORNIA LAND SURVEYOR AND CORNER RECORDS ARE TO BE PREPARED AND FILED WITH THE CITY IN COMPLIANCE WITH THE LAND SURVEYOR ACT, SECTION 8771.
10.

CONSTRUCTION ACTIVITY IS ALLOWED AS PER THE CONSTRUCTION PERMITS AND THE APPROVED CONTRACT DOCUMENTS.
11.

DUST SHALL BE CONTROLLED AND ADJOINING STREET AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF PROJECT DIRT, MUD, MATERIALS AND DEBRIS, TO THE SATISFACTION OF THE CITY.
12.

THE CONTRACTOR SHALL COMPLY WITH THE GENERAL CONSTRUCTION PERMIT. WATER SHALL NOT BE DISCHARGED FROM THE CONSTRUCTION SITE TO THE STORM DRAINAGE SYSTEM UNLESS THE CONTRACTOR OBTAINS APPROVAL FROM THE CITY.
13.

THIS PROJECT INVOLVES WORK IN PUBLIC AREAS AND NEAR PRIVATE PROPERTY. THE CONTRACTOR SHALL SPECIFICALLY INSTRUCT ALL HIS/HER WORKERS TO EXERCISE GOOD PUBLIC RELATIONS DURING THE WORK, INCLUDING BEING COURTEOUS, AVOIDING THE USE OF PROFANE LANGUAGE, AND MINIMIZING IMPACTS TO EXISTING IMPROVEMENTS.
14.

CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ANY PRIVATE RESIDENCE THROUGHOUT THE PROJECT AREA THAT MAY BE IMPACTED BY THE CONSTRUCTION WORK AS DETERMINED BY THE CITY. NOTICE SHALL INCLUDE THE CONTACT NAME AND CELL PHONE NUMBER OF THE SUPERVISOR WHO IS RESPONSIBLE FOR CONSTRUCTION ACTIVITIES. THE NOTICE SHALL ALSO INCLUDE DATES AND TIMES DURING WHICH CONSTRUCTION ACTIVITIES WILL BE CONDUCTED, THE MITIGATION MEASURES THAT WILL BE TAKEN BY THE CONTRACTOR, WRITTEN NOTICES SHALL BE APPROVED BY THE CITY PRIOR TO DISTRIBUTION. CONTRACTOR SHALL PROVIDE PROOF OF RESIDENT NOTIFICATION TO THE ENGINEER.
15.

AT A MINIMUM, CONTRACTOR SHALL SWEEP AND CLEAN THE CONSTRUCTION SITE DAILY BEFORE THE END OF EACH WORKING DAY.
16.

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES IN PLACE. DURING ANY SAWCUTTING OR REMOVAL ACTIVITIES, PROTECT RESIDENTIAL WATER METERS AND SEWER CLEANOUT BOXES AND RIMS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING UTILITY THAT IS DAMAGED DURING THE COURSE OF THE WORK AND SHALL REPAIR OR REPLACE THE DAMAGED UTILITY TO THE SATISFACTION OF THE UTILITY OWNER AND THE CITY ENGINEER.
17.

ALL MATERIALS AND WORKMANSHIP SHALL FULLY CONFORM TO THE LATEST SPECIFICATIONS, DETAILS, STANDARDS AND ORDINANCES OF THE CITY. TRAFFIC CONTROL SHALL BE PER CITY-APPROVED TRAFFIC CONTOL PLAN AND IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
18.

TRAFFIC CONTROL PLANS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE CITY PRIOR TO THE START OF ANY WORK IMPACTING THE PUBLIC RIGHT-OF-WAY. TRAFFIC CONTROL PLANS MUST BE PREPARED AND STAMPED BY PERSON TRAINED/CERTIFIED TO PREPARE TRAFFIC CONTROL PLANS (IN ACCORDANCE WITH THE LATEST CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
19.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE AND/OR UNCOVER AND EXPOSE EXISTING UTILITIES AT CROSSING LOCATIONS. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND SERVICE LATERALS FROM DAMAGE DUE TO CONTRACTOR'S OPERATIONS, ANY AND ALL UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE CITY ENGINEER.
20.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITH THE APPROPRIATE AGENCIES.
21.

THE EXISTING UTILITIES CROSSING THE NEW PROPOSED WORK ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THAT THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSINGS (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND VERIFY THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSINGS (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN.
22.

ALL EXISTING UTILITY VAULTS AND/OR PULL BOXES WITHIN THE PROJECT SITE THAT ARE LOOSE AND/OR BROKEN SHALL BE RE-SECURED AND/OR REPLACED TO THE CITY'S SATISFACTION. ALL EXISTING AND NEW UTILITY STRUCTURES TO BE ADJUSTED TO FINISH GRADE.
23.

PROVIDE ACCESS AT ALL TIMES TO ALL PROPERTIES, EXCEPT AS APPROVED BY THE ENGINEER. 48 HOURS WRITTEN NOTICE MUST BE GIVEN TO THE AFFECTED PROPERTY OWNER(S) WHEN ACCESS IS AFFECTED. TRENCHES SHALL BE BACKFILLED AND PAVED (TEMPORARY CUTBACK ASPHALT) PRIOR TO LEAVING THE JOB SITE EACH WORKDAY.
24.

NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. TRENCH SHORING PLAN AND TRENCH PLATES/PLATING PLAN SHALL BE DESIGNED AND STAMPED BY AN ENGINEER.

25.

GRADE BREAKS ON CURBS AND SIDEWALKS TO BE ROUNDED OFF (WHILE CONCRETE FINISHING WORK IS IN PROGRESS) IN FORM WORK AND FINISHED SURFACING.
26.

CONTRACTOR SHALL REPLACE EXISTING TRAFFIC STRIPING/LEGENDS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS TO THE CITY'S SATISFACTION. ALL PAVEMENT MARKINGS ARE TO BE THERMOPLASTIC MATERIAL.
27.

CONTRACTOR IS REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
28.

CONTRACTOR SHALL BE FAMILIAR WITH THE STATE OF CALIFORNIA BEST MANAGEMENT PRACTICES HANDBOOK FOR APPLICABLE CONTROL MEASURES AND EMPLOY ITS PROVISIONS THROUGHOUT ALL CONSTRUCTION.
29.

THE PUBLIC RIGHT-OF-WAY/STREET MUST BE KEPT CLEAR AND FREE OF DEBRIS.
30.

ALL UNDERGROUND SERVICE ALERT (USA) MARKINGS ON CONCRETE AND ASPHALTIC PAVEMENT OR OTHER STRUCTURES SHALL BE REMOVED WHEN THEY ARE NO LONGER REQUIRED. ACCEPTABLE MEANS OF REMOVAL INCLUDE SAND BLASTING OR HIGH PRESSURE WATER BLASTING.
31.

SAWCUTTING OF EXISTING ASPHALT CONCRETE SHALL BE CUT THROUGH THE FULL DEPTH OF EXISTING ASPHALT CONCRETE TO A NEAT, STRAIGHT LINE. PAVEMENT EDGES DAMAGED DURING CONSTRUCTION SHALL BE RE-CUT TO NEAT LINES PRIOR TO PAVING. PAINT BINDER (TACK COAT) SHALL BE APPLIED TO ALL VERTICAL SURFACES IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS DATED MAY, 2006.
32.

THE CONTRACTOR SHALL ENSURE THAT THE EXISTING WATER PRESSURE SHALL BE MAINTAINED AT ALL TIMES.
33.

ALL CITY REQUIREMENTS FOR DISINFECTION AND BACTERIOLOGICAL TESTING SHALL BE ADHERED TO BY THE CONTRACTOR.

TREE PROTECTION NOTES

1.

ARBORIST: NO TREE PRUNING, EXCAVATION IN THE VICINITY OF TREE ROOTS, REMOVAL OR ROOT-CUTTING SHALL OCCUR WITHOUT DIRECTION BY THE CITY'S ARBORIST.
2.

TRENCHING: ALL TRENCHING WITHIN THE DRIP LINE OF EXISTING TREES SHALL BE BY HAND WITH CARE TAKEN NOT TO DAMAGE ROOTS OVER 2" DIAMETER.
3.

ADVANCE MARKING: THE CITY ARBORIST SHALL MARK LIMITS OF AREA WITHIN DRIP LINES IN ADVANCE PRIOR TO EXCAVATING.
4.

PRUNING: TREES SHALL BE PRUNED ONLY AS RECOMMENDED BY THE CITY'S ARBORIST.
5.

CONSTRUCTION OPERATIONS: NO CONSTRUCTION OPERATIONS SHALL BE CARRIED ON WITHIN THE DRIP LINE AREA OF ANY TREE DESIGNATED TO BE SAVED EXCEPT AS AUTHORIZED BY THE CITY ARBORIST.
6.

STORAGE: THE AREA UNDER THE DRIP LINE OF A TREE SHALL BE KEPT CLEAN. NO CONSTRUCTION MATERIALS NOR CHEMICAL SOLVENTS SHALL BE STORED OR DUMPED UNDER A TREE.
7.

TREE DAMAGE: ANY DAMAGE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR BY AN APPROVED TREE SURGEON UNDER THE DIRECTION OF THE CITY AT NO COST TO THE CITY.

RECORD DRAWINGS

1.

CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF MARKED-UP RECORD DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER. RECORD DRAWINGS SHALL BE FULL-SIZE "TO SCALE" COPIES OF ORIGINAL CONTRACT DRAWINGS, SHOP DRAWINGS, AND ANY OTHER DRAWINGS PERTAINING DIRECTLY TO THE PROJECT. CONTRACTOR SHALL INCLUDE A LICENSED SURVEY OF FINAL LOCATIONS OF STRUCTURES, SURFACE FEATURES, AND LIMITS OF ANY NEW PAVING.
2.

INITIAL SUBMITTAL: SUBMIT TWO (2) COPIES (TWO COMPLETE SETS) OF CORRECTED CONTRACT DRAWINGS AND SHOP DRAWINGS. THE ENGINEER WILL INITIAL AND DATE EACH DRAWING SHEET AND MARK WHETHER GENERAL SCOPE OF CHANGES, ADDITIONAL INFORMATION RECORDED, AND QUALITY OF DRAFTING ARE ACCEPTABLE. THE ENGINEER SHALL RETURN ONE INITIAL SUBMITTAL SET TO THE CONTRACTOR FOR REVISIONS AND/OR ADDITIONS.
3.

THE CONTRACTOR SHALL ORGANIZE REVISED RECORD DRAWINGS INTO A BOUND SET CONSISTING OF ALL DRAWINGS SHEETS, INCLUDING NON-ANNOTATED SHEETS, SHOP DRAWING SHEETS AND READY SET FOR FINAL SUBMITTAL.
4.

FINAL SUBMITTAL: FINAL SUBMITTAL SHALL BE IN AN ELECTRONIC FORMAT AND SUBMITTED ON A COMPACT DISC (CD) OR DIGITAL VIDEO DISC (DVD). THE CONTRACTOR SHALL HAVE THE FINAL APPROVED RECORD DRAWINGS SCANNED AND SAVED IN AN ADOBE ACROBAT (.PDF) FORMAT. THE CONTRACTOR SHALL ALSO SUBMIT ONE HARD COPY OF THE CORRECTED RECORD DRAWING SET.
5.

CONTRACTOR SHALL KEEP UP-TO-DATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT LOCATION, SIZES, MATERIALS AND EQUIPMENT.

SUBMITTAL NOTES

1.

THE CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS FOR ALL ITEMS AND MATERIALS USED IN THE WORK FOR REVIEW AND APPROVAL BY THE ENGINEER. ANY PROPOSED SUBSTITUTIONS SHALL BE NOTED IN A COVER SHEET IDENTIFYING THE SUPPLIER, MANUFACTURER, PERTINENT DRAWING SHEET AND DETAIL NUMBERS.
2.

THE CONTRACTOR SHALL VERIFY COMPATIBILITY WITH FIELD CONDITIONS AND DIMENSIONS, PRODUCT SELECTIONS AND DESIGNATIONS, QUANTITIES, AND CONFORMANCE AS PART OF THE SUBMITTAL PROCESS.
3.

CONTRACTOR SHALL INDICATE PERTINENT PORTIONS AND IDENTIFY CONFLICTS BETWEEN MANUFACTURER'S INSTRUCTIONS AND CONTRACT DOCUMENTS.
4.

TRANSMITTAL: WHERE POSSIBLE, TRANSMIT INITIAL SUBMITTALS ELECTRONICALLY. A MINIMUM OF FIVE (5) PAPER COPY SUBMITTALS SHALL BE SUBMITTED FOR REVIEW.

APPROVAL/COORDINATION NOTES

1.

CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 AT LEAST 48 HOURS PRIOR TO STARTING WORK.
2.

NOTIFY CITY ENGINEER A MINIMUM OF 24 HOURS IN ADVANCE OF STARTING WORK.
3.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY TO PERFORM THE WORK SHOWN IN THESE PLANS FROM THE APPROPRIATE AGENCIES, PRIOR TO PERFORMING ANY WORK.
4.

THE CONTRACTOR SHALL COMPLY WITH LOCAL SOUND CONTROL AND NOISE LEVEL RULES, REGULATIONS AND ORDINANCES WHICH APPLY TO ANY WORK PERFORMED UNDER THE CONTRACT. EACH INTERNAL COMBUSTION ENGINE USED ON THE PROJECT SHALL BE EQUIPPED WITH A MUFFLER RECOMMENDED BY THE MANUFACTURER. NO INTERNAL COMBUSTION ENGINE SHALL BE OPERATED ON THE PROJECT WITHOUT SAID MUFFLER. NOISE LEVELS SHALL BE KEPT TO A MAXIMUM OF 90 DECIBELS FOR PROLONGED PERIODS. NOISE IN EXCESS OF 90 DECIBELS SHALL BE LIMITED TO NO MORE THAN 15 MINUTES PER WORK HOUR. CONTRACTOR SHALL AT ALL TIMES MAINTAIN NOISE LEVELS TO THE SATISFACTION OF THE CITY'S REPRESENTATIVE.
5.

ALL WORK SHALL CONFORM TO THE CITY'S APPROVED STANDARD DETAILS (CURRENT EDITION) AND THE 2006 CALTRANS STANDARD SPECIFICATIONS, AND THE SPECIAL PROVISIONS FOR THIS PROJECT.
6.

COORDINATE ALL WORK INVOLVING UTILITIES WITH THE APPROPRIATE UTILITY OWNER.
7.

PROVIDE TEMPORARY SIGNS, CONES, BARRICADES AND ADVANCE WARNING SIGNS PER CALTRANS STANDARD SPECIFICATIONS SUITABLE TO THE ROADWAY TYPE AND TRAFFIC VOLUME.
8.

UTILITIES INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH WITH THE APPROPRIATE AGENCIES AND CALL U.S.A. A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
9.

CONTRACTOR SHALL EXPOSE ALL POTENTIAL UTILITY CONFLICT CROSSINGS AS WELL AS CONNECTION POINTS TO EXISTING UTILITIES AND COORDINATE WITH THE ENGINEER TO LOCATE AND VERIFY DEPTHS. ENGINEER SHALL THEN MAKE ANY REVISIONS TO THE DESIGN PRIOR TO CONSTRUCTION.
10.

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL AND MUST HAVE IT APPROVED BY THE CITY ENGINEER PRIOR TO STARTING ANY WORK IN THE PUBLIC STREETS.
11.

NO OPEN EXCAVATION SHALL BE LEFT UNSUPERVISED AT ANY TIME.
12.

PRUNING OF TREE ROOTS AND BRANCHES SHALL BE APPROVED IN ADVANCE BY THE CITY.
13.

CONTRACTOR SHALL USE MATERIALS AS SPECIFIED ON PLANS AND/OR SPECIAL PROVISIONS. SHOULD THE CONTRACTOR REQUEST ANY SUBSTITUTION OF MATERIALS FROM THAN THOSE SPECIFIED, THE CONTRACTOR SHALL SUBMIT MATERIAL MANUFACTURER INFORMATION TO THE ENGINEER FOR REVIEW A MINIMUM OF 5 DAYS PRIOR TO INSTALLATION. THE ENGINEER'S DETERMINATION ON THE USE OF THE SUBSTITUTION SHALL BE FINAL AND THE CONTRACTOR SHALL THEN PROCEED IN ACCORDANCE WITH THE ENGINEER'S DECISION.

LAYOUT NOTES

1.

CONTRACTOR SHALL REFERENCE ALL FIELD LAYOUT TO CONTROL POINTS PER SURVEY SHEET.
2.

SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO, IS INSUFFICIENTLY OR INCORRECTLY DETAILED OR EXPLAINED ON THESE PLANS, CONTRACTOR SHALL CONTACT THE ENGINEER FOR FURTHER EXPLANATIONS AS MAY BE NECESSARY TO SUFFICIENTLY UNDERSTAND THE INTENT OF THESE DESIGN PLANS.
3.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, UPON DISCOVERY OF ANY POTENTIAL FIELD CONFLICTS.
4.

ALL CURB RETURN RADII AND CURB DATA, IF SHOWN, ARE BY REFERENCE TO TOP FACE OF CURB UNLESS OTHERWISE NOTED.
5.

CONTRACTOR SHALL USE A CALIFORNIA LICENSED LAND SURVEYOR FOR ANY RECORD DRAWING WORK.

SURFACE RESTORATION NOTES

1.

ALL PAVEMENT CUTS SHALL BE SAWCUT, SMOOTH AND VERTICAL. THE PAVEMENT AREA BEING REMOVED SHALL BE RECTANGULAR, UNLESS SHOWN OTHERWISE ON PLANS.
2.

CONTRACTOR SHALL RESTORE ALL EXISTING PRIVATE AND PUBLIC IMPROVEMENTS TO THEIR EXISTING CONDITION OR BETTER AT NO COST TO THE CITY. THIS INCLUDES, BUT IS NOT LIMITED TO ALL EXISTING JURISDICTIONAL CHANNEL SLOPES, SIGNS, ROADWAY MARKERS, STRIPING, LANDSCAPING, IRRIGATION, DRIVEWAYS, AC PAVING, CONCRETE WORK AND UTILITIES UNLESS NOTED OR DIRECTED OTHERWISE BY THE ENGINEER.
3.

RIMS OF EXISTING UTILITY BOXES AND OTHER RELATED APPURTENANCES THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE ADJUSTED TO FINISH GRADES TO PROVIDE FOR SMOOTH PATH OF TRAVEL. ANY DAMAGE RESULTING TO EXISTING UTILITY FACILITIES FROM CONTRACTOR OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE APPROPRIATE AGENCY AT NO ADDITIONAL COST TO THE CITY OR UTILITY OWNER. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR ADJUSTMENT OF RIM AND BOX GRADES.
4.

CONTRACTOR SHALL PROVIDE SMOOTH CONFORMS TO EXISTING AC PAVEMENT. ANY CONFORMS DEEMED INADEQUATE AT THE SOLE DISCRETION OF THE ENGINEER SHALL BE RECONFIGURED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CITY.
5.

ALL STANDARD STREET MONUMENTS, LOT CORNER PIPES, AND OTHER PERMANENT MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED AND A RECORD OF SURVEY OR CORNER RECORD PER SECTION 8771 OF THE PROFESSIONAL LAND SURVEYOR'S ACT FILED BEFORE ACCEPTANCE OF THE IMPROVEMENTS BY THE CITY. COPIES OF ANY RECORD OF SURVEY OR CORNER RECORDS SHALL BE SUBMITTED TO THE CITY.

PROJECT RECORD SURVEY

1.

CONTRACTOR SHALL HAVE ANY RECORD DRAWING SURVEY WORK PERFORMED BY A CURRENTLY LICENSED CALIFORNIA SURVEYOR.
2.

ALL RECORD DRAWING SURVEY WORK SHALL BE REFERENCED TO BENCHMARK AND DATUM TO THE SATISFACTION OF THE CITY ENGINEER AND BE STAMPED AND SIGNED BY A LICENSED CALIFORNIA SURVEYOR.

REVISIONS		BY		DATE	
CRINELLA PUMP STATION UPGRADE PROJECT GENERAL NOTES					
DATE		SCALE			
OCT 2018		AS SHOWN			
SHEET NO.					
03 OF 27					
PROJECT NO.					
P18033					

PREPARED FOR

CITY OF ST. HELENA

☆

CRINELLA PUMP STATION
UPGRADE PROJECT

GENERAL NOTES

REVIEWED:

REVIEWED:

APPROVAL RECOMMENDED:

DRAWN:

PETER BONEAU

CHECKED:

ERIC BLAND

APPROVED:

ERIC BLAND

DESIGNED:

ERIC BLAND

ERIC BLAND

ENGINEER

NO. 00795

STATE OF CALIFORNIA

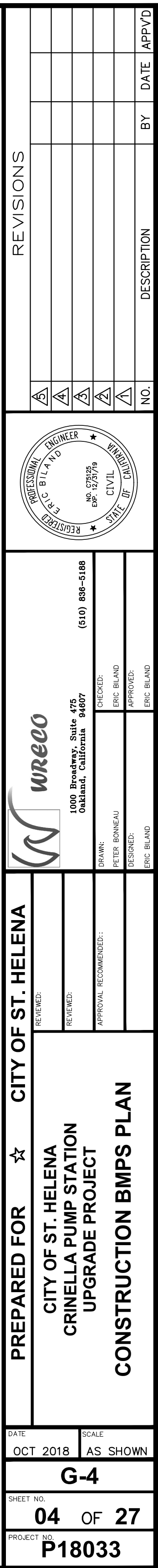
REGISTERED

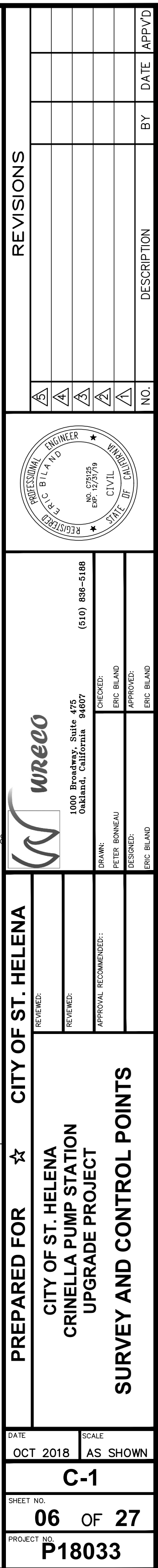
1000 Broadway, Suite 475
Oakland, California

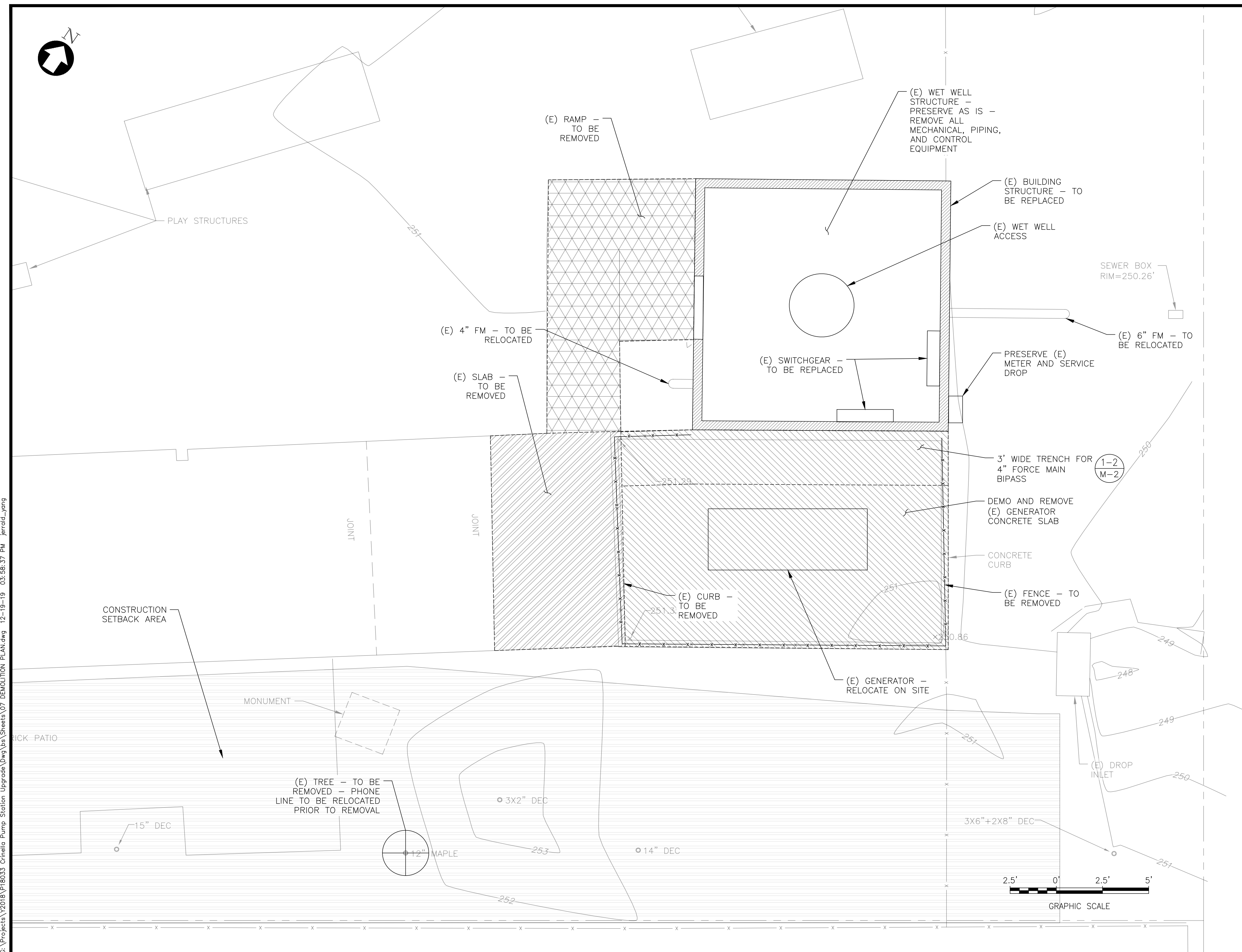
(510) 886-5188

wreco

Agenda Item #5.2.

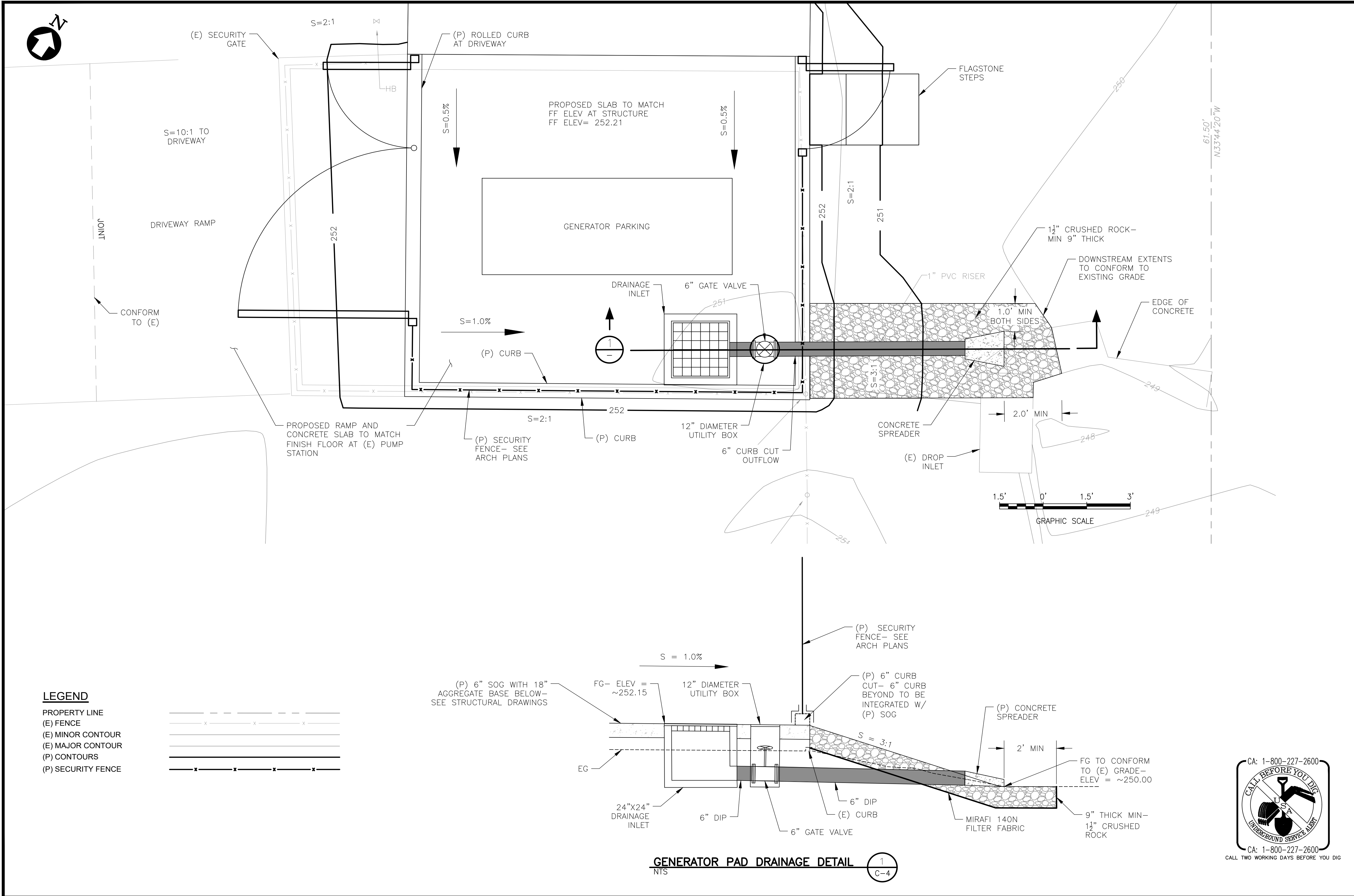




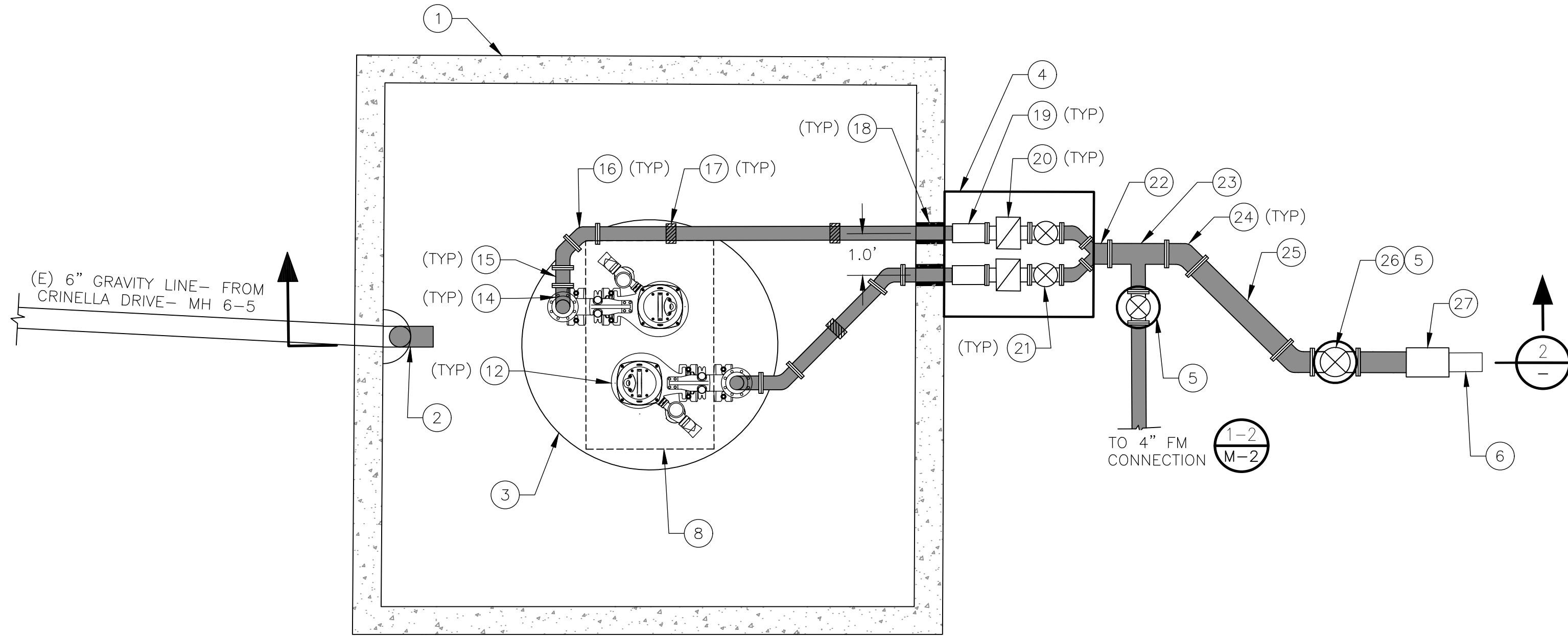
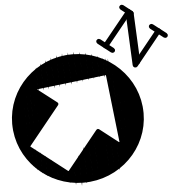


DATE		OCT 2018		SCALE		AS SHOWN	
SHEET NO.		07		OF		27	
PROJECT NO.		P18033					
PREPARED FOR		☆		CITY OF ST. HELENA			
CITY OF ST. HELENA		CRINELLA PUMP STATION					
UPGRADE PROJECT		DEMOLITION PLAN					
REVIEWED:		APPROVAL RECOMMENDED:					
DRAWN:		CHECKED:					
DESIGNED:		APPROVED:					
ERIC BLAND		ERIC BLAND					
PETER BONNEAU		ERIC BLAND					
1000 Broadway, Suite 475		1000 Broadway, Suite 475					
Oakland, California 94607		Oakland, California 94607					
(510) 535-5188		(510) 535-5188					
REGISTERED PROFESSIONAL ENGINEER		REGISTERED PROFESSIONAL ENGINEER					
NO. 57392		NO. 57392					
EXP. 12/31/19		EXP. 12/31/19					
CIVIL		CIVIL					
STATE OF CALIF.		STATE OF CALIF.					
BY		DATE		APPROV		DATE	

G:\Projects\Y2018\18033 Crinella Pump Station Upgrade\Drawings\Sheets\09 GENERATOR PAD DRAINAGE.dwg 10-02-19 03:54:40 PM Peter_Bonneau

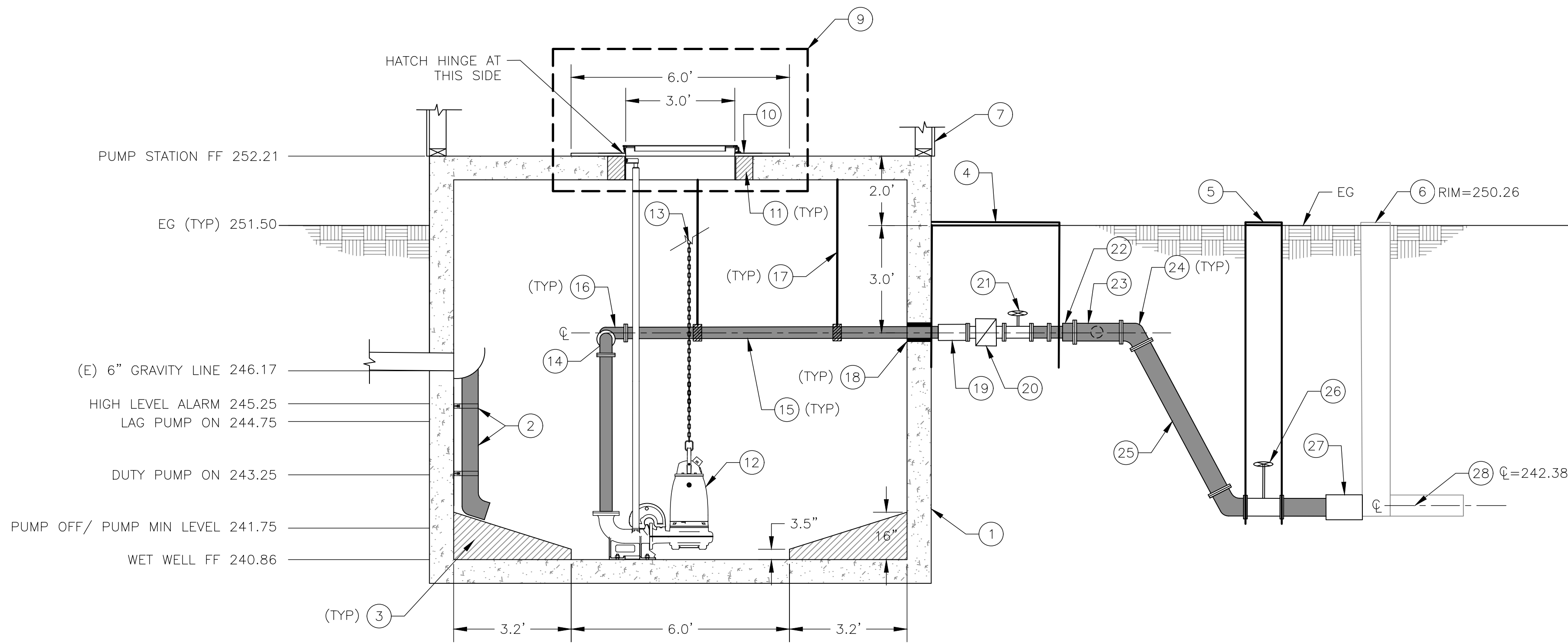
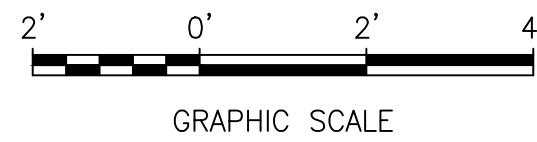


G:\Projects\Y2018\18033 Crinella Pump Station Upgrade\Drawings\10 MECHANICAL PLAN.dwg 10-02-19 03:54:56 PM Peter_Bonneau



WET WELL PLAN
NTS

1
M-1



WET WELL SECTION
NTS

2
M-1

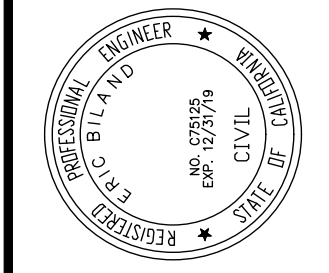
MATERIAL LIST

- ① (E) 13'X13'X8" THICK CONCRETE WET WELL
- ② RELINER DROP BOWL WITH RELINER 316 BRACKET
- ③ WET WELL FILLET- 5000 PSI NON-SHRINK GROUT FILLET WITH FIBERMESH ENDURO 600 REINFORCING
- ④ 3'X3.5'X4' DEEP UTILITY BOX
- ⑤ 12" DIAMETER UTILITY BOX
- ⑥ (E) SEWER BOX
- ⑦ BUILDING STRUCTURE
- ⑧ 3'X5'- ACCESS HATCH OPENING
- ⑨ ACCESS HATCH ASSEMBLY
- ⑩ 6'X8'X1" TRENCH PLATE WITH 3'X5' OPENING
- ⑪ 5000 PSI NON-SHRINK GROUT
- ⑫ FLYGT PUMP CP/ NP-3153 WITH MIX FLUSH VALVE
- ⑬ PUMP CHAIN
- ⑭ 90° 4" DIP
- ⑮ 4" DIP
- ⑯ 45° 4" DIP
- ⑰ PIPE HANGER
- ⑱ LINK SEAL
- ⑲ 4" FCA
- ⑳ 4" BALL CHECK VALVE
- ㉑ 4" GATE VALVE
- ㉒ 6X4X4 WYE DIP
- ㉓ 6X6X4 TEE DIP
- ㉔ 45° 6" DIP - TO SLOPE TO ELEVATION OF EXISTING SEWER BOX
- ㉕ 6" DIP
- ㉖ 6" GATE VALVE
- ㉗ RESTRAINED COUPLING
- ㉘ (E) 6" FORCE MAIN



REVISIONS

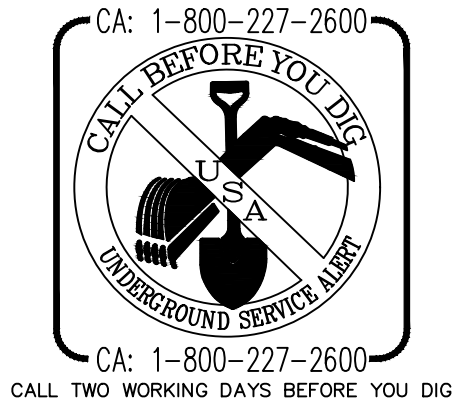
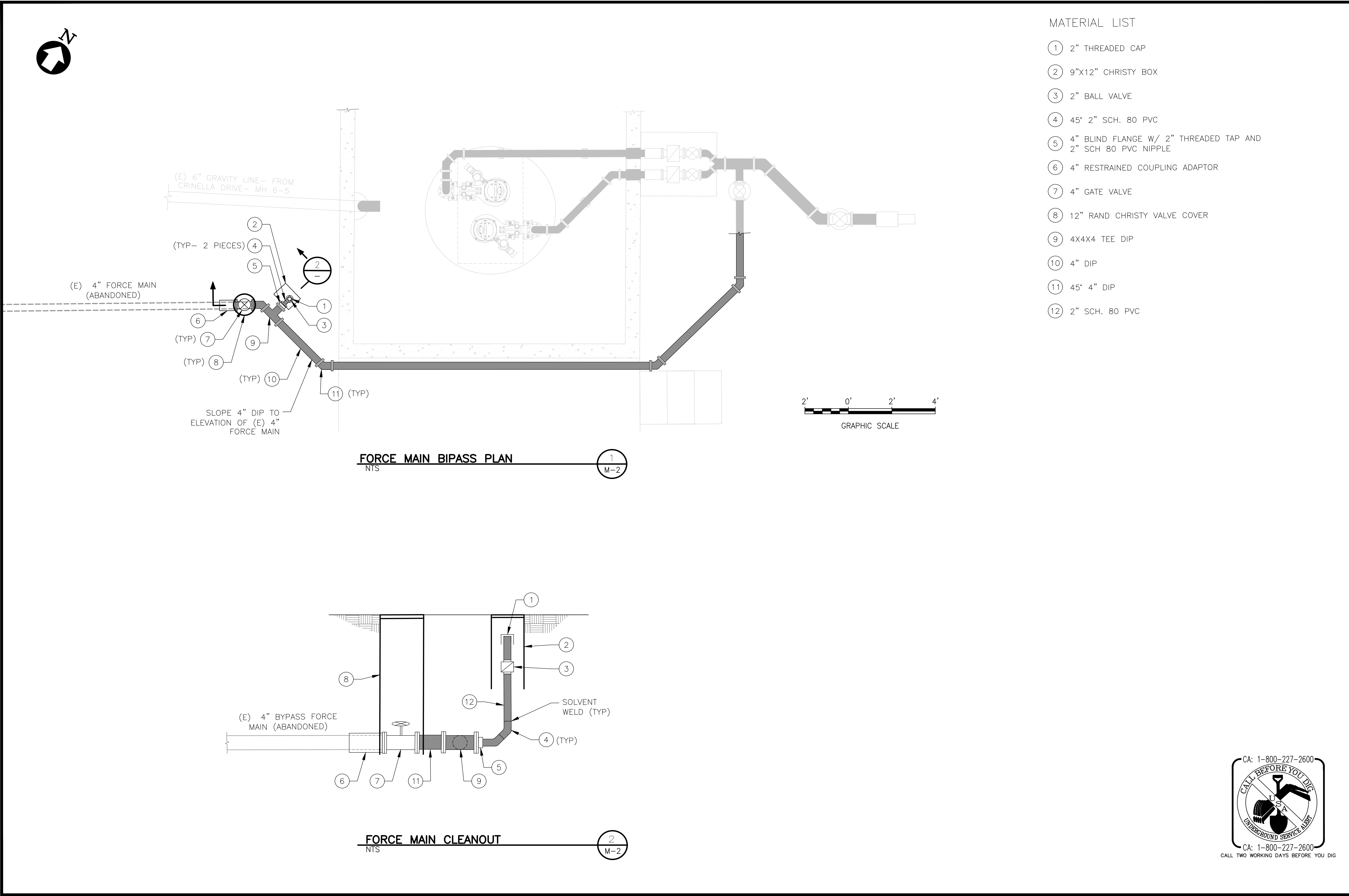
NO.	DESCRIPTION	BY	DATE	APP'D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				



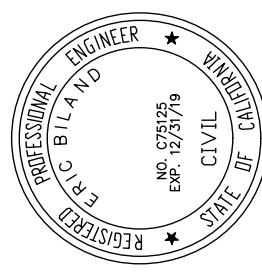
PREPARED FOR	CITY OF ST. HELENA
DESIGNED	PETER BONNEAU
CHECKED	ERIC BLAND
APPROVED	ERIC BLAND
DATE	OCT 2018
SCALE	AS SHOWN

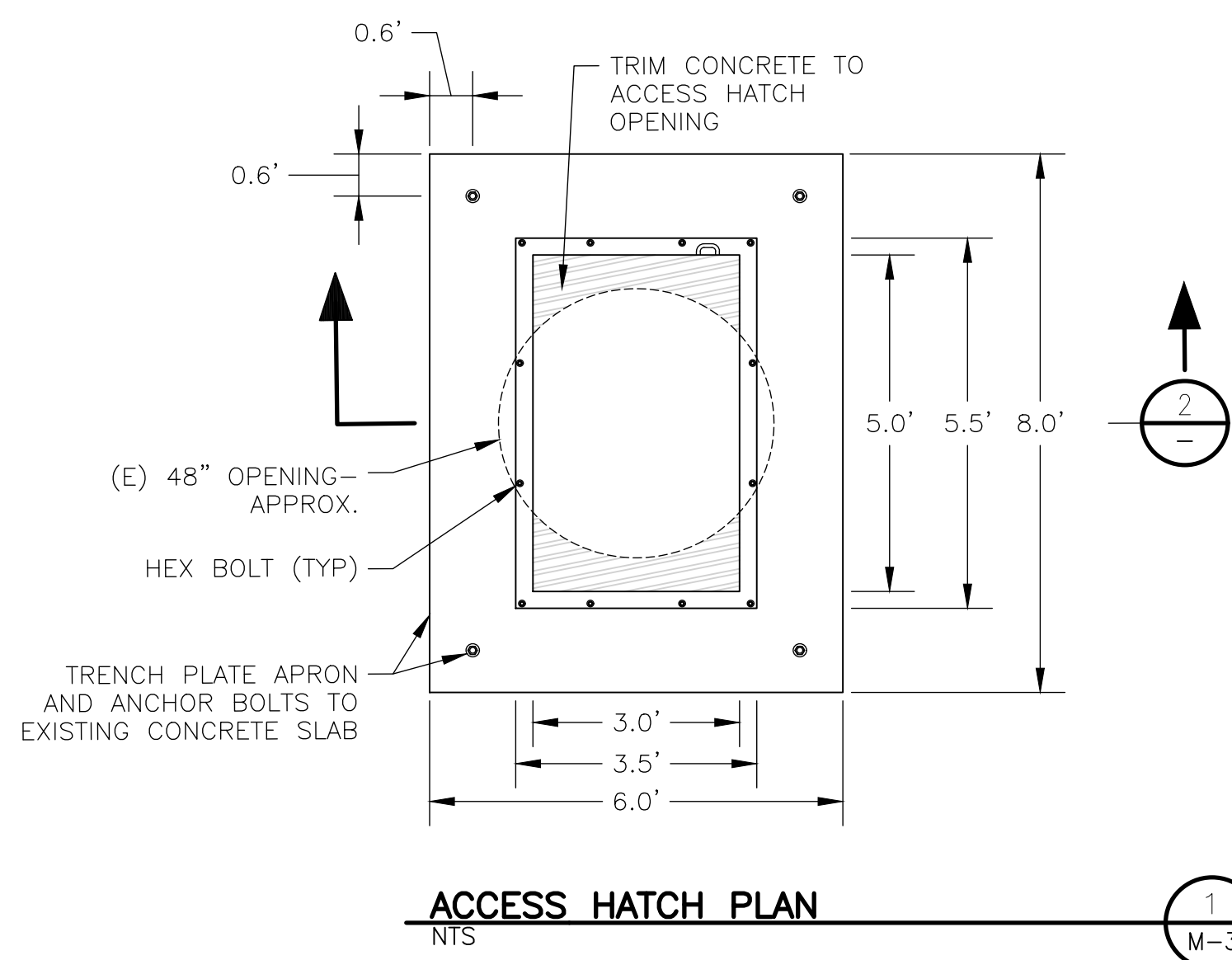
PROJECT NO.	P18033
SHEET NO.	10 OF 27
PROJECT NAME	CRINELLA PUMP STATION UPGRADE PROJECT
MECHANICAL PLAN	

G:\Projects\Y2018\Crinella Pump Station Upgrade\Drawings\Sheets\11 FORCE MAIN BIPASS PLAN.dwg 10-02-19 03:55:05 PM Peter Borneau

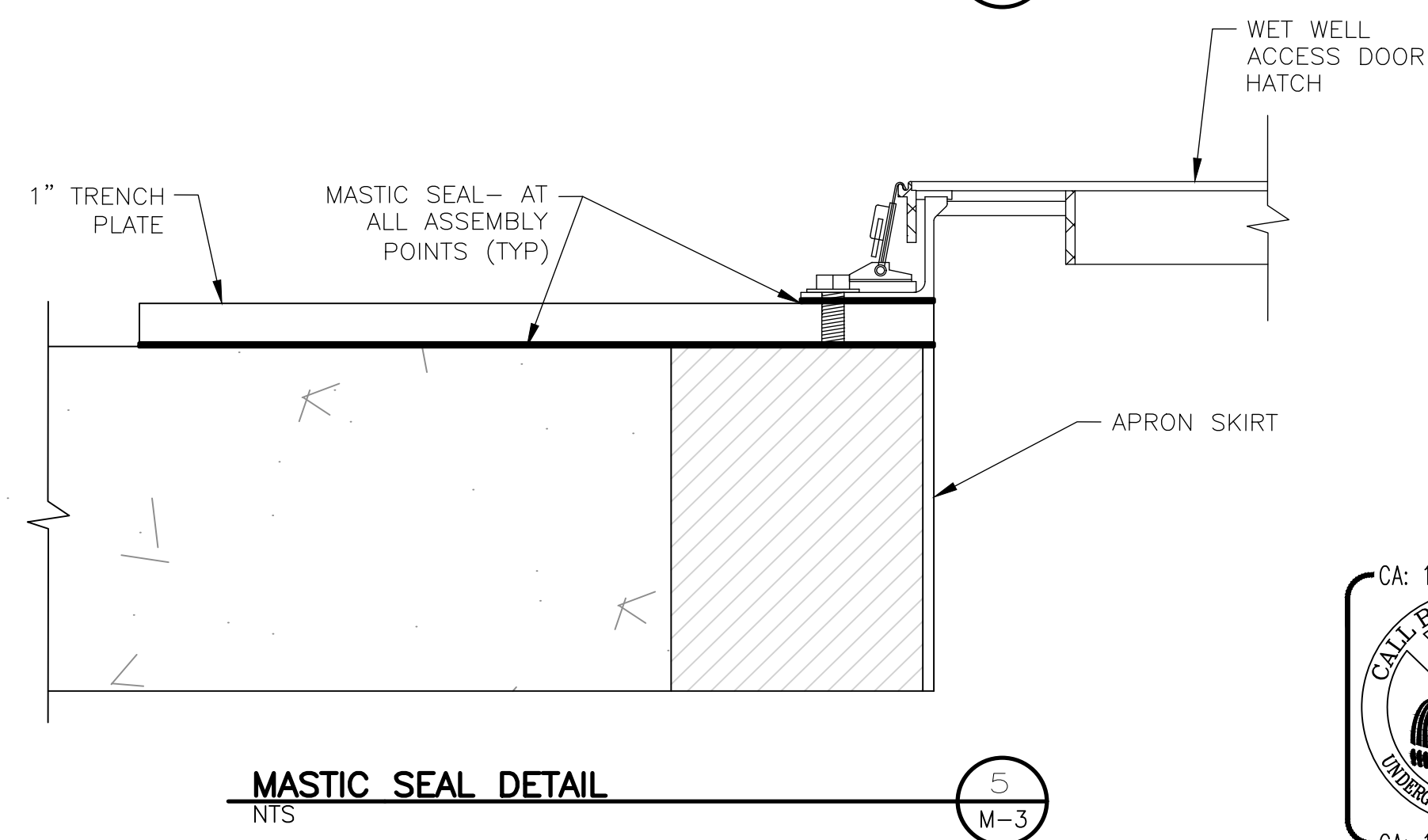
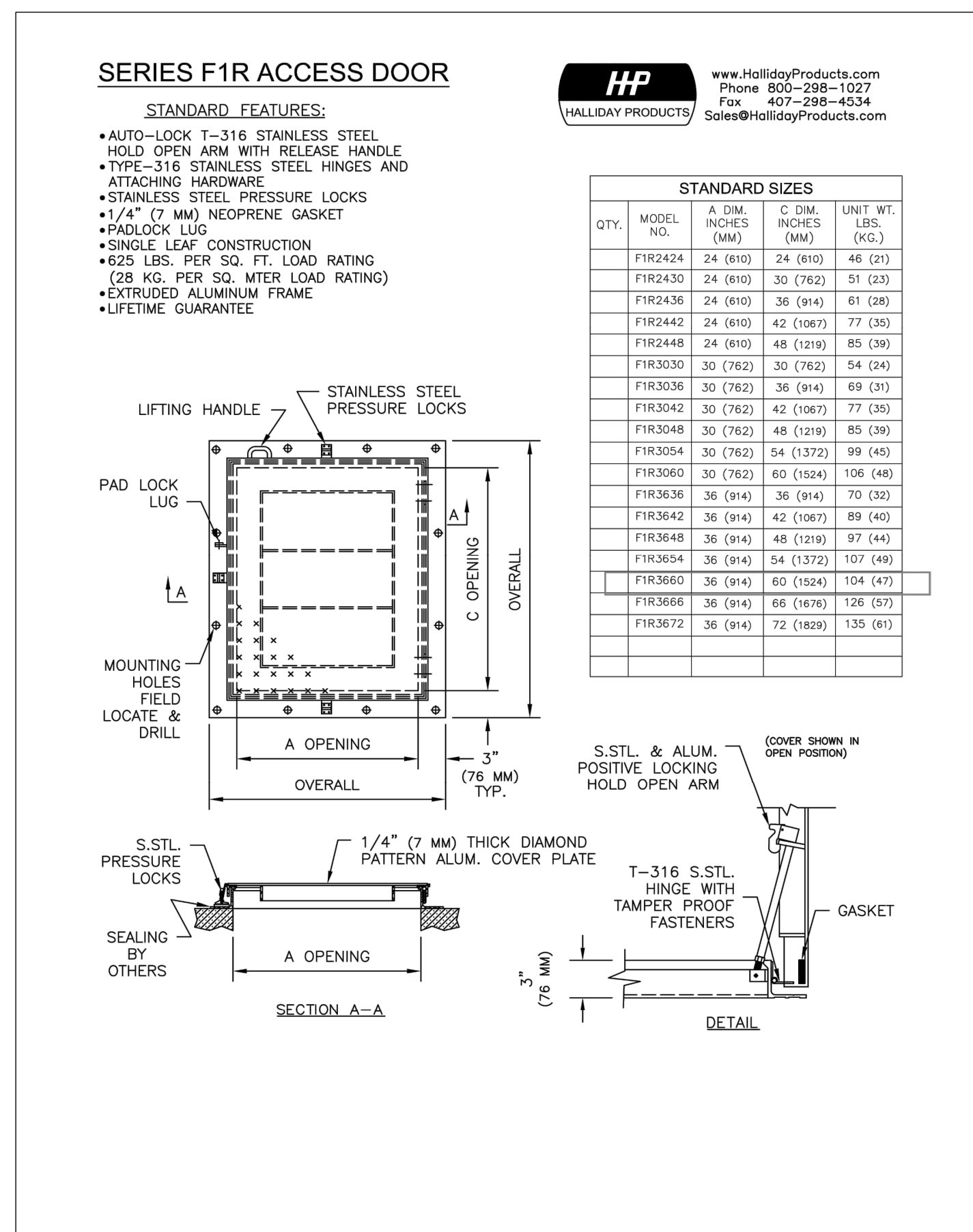
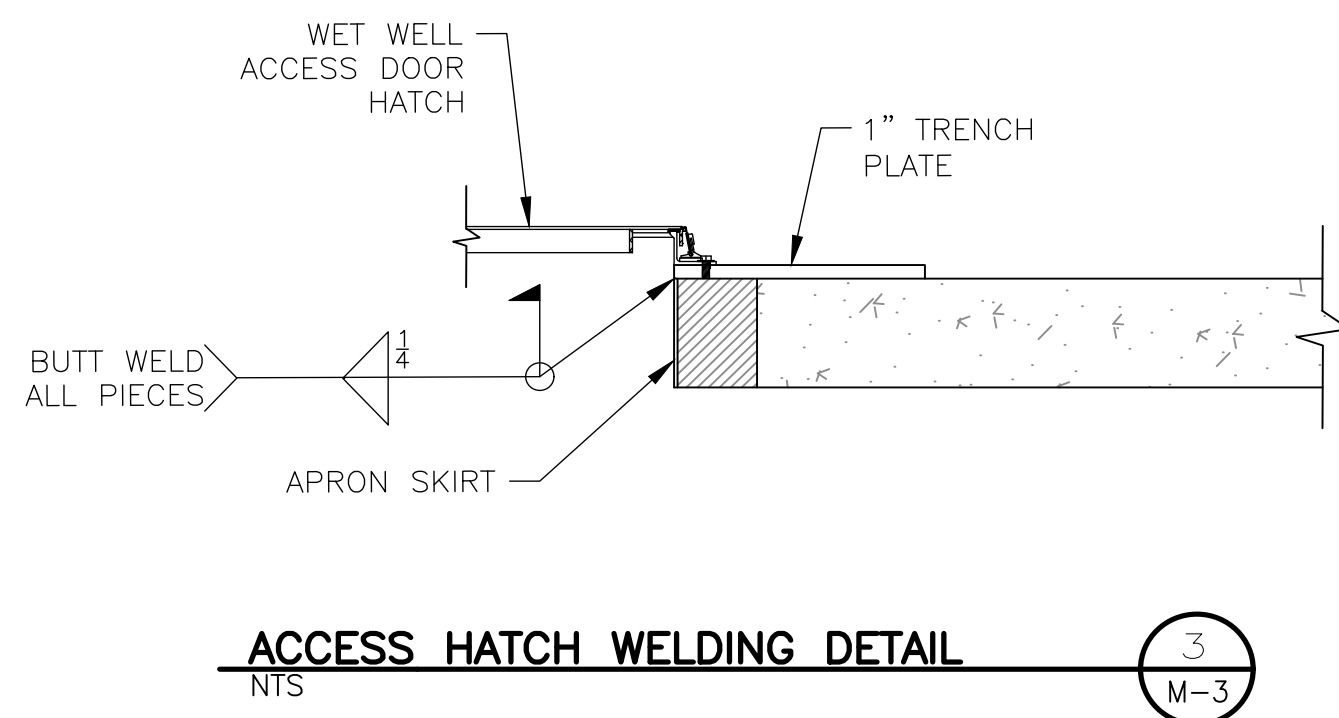
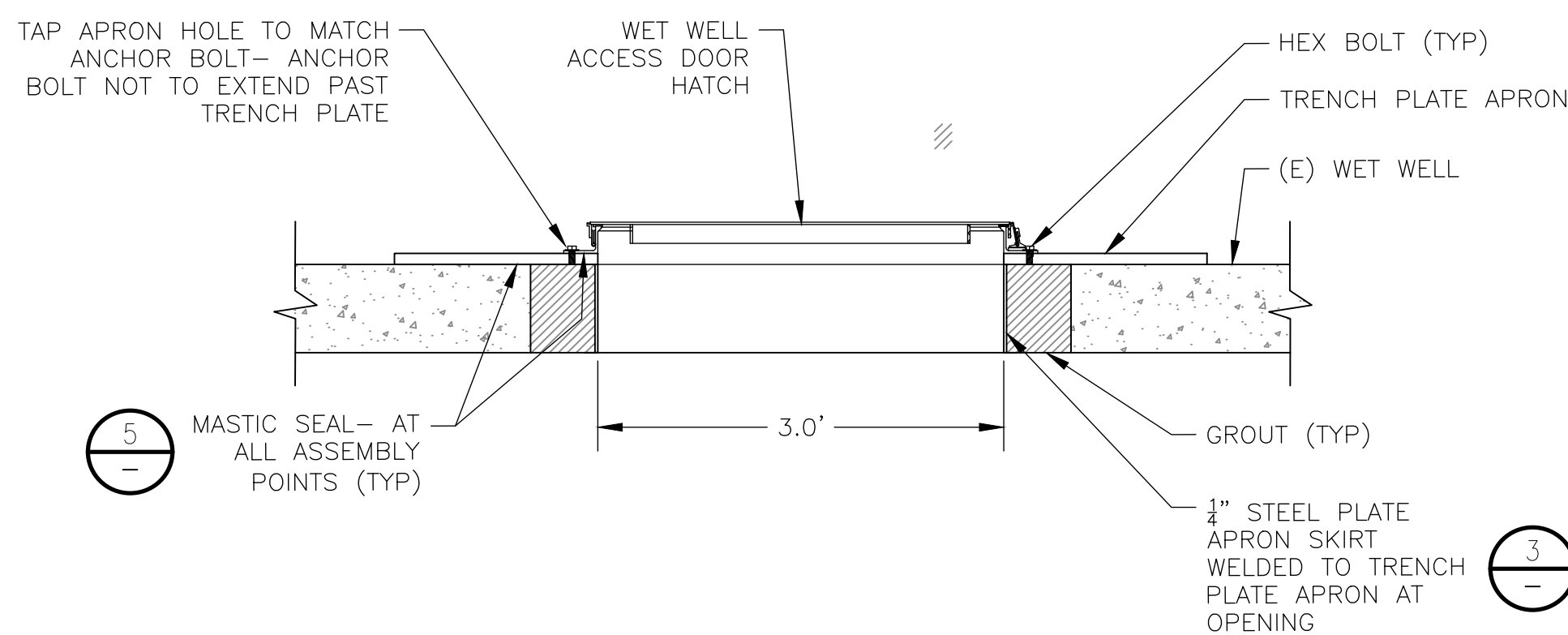


REVISIONS		NO.	DESCRIPTION	BY	DATE	APP'D

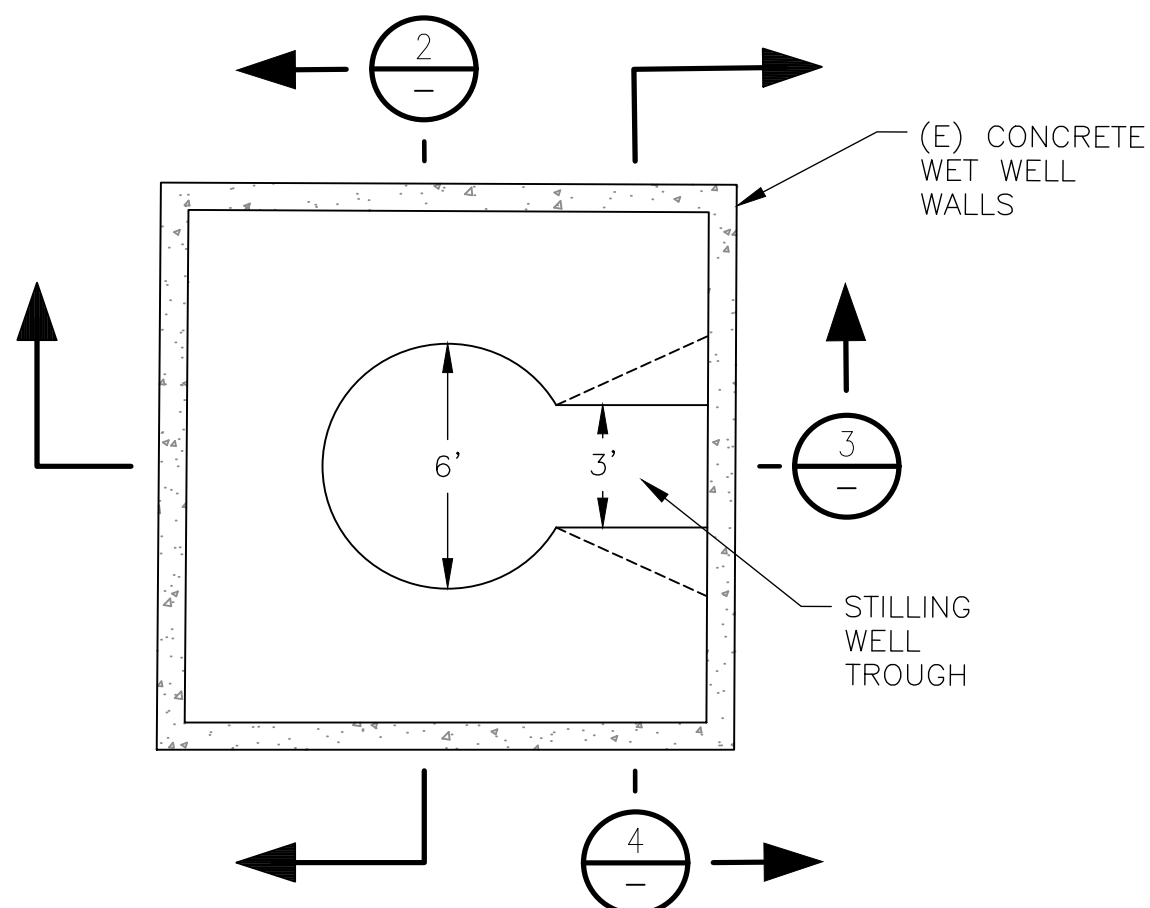
	
PREPARED FOR ☆ CITY OF ST. HELENA	REVIEWED:
CITY OF ST. HELENA	REVIEWED:
CRINELLA PUMP STATION	APPROVAL RECOMMENDED:
UPGRADE PROJECT	
FORCE MAIN BIPASS PLAN	
DATE: OCT 2018	SCALE: AS SHOWN
SHEET NO. M-2	
PROJECT NO. P18033	



- NOTES:
1. TRENCH PLATE APRON- 6' WIDE X 8' LONG
X 1" STEEL PLATE THICK- COAT FINISHED
WITH DURA-PALTE 6100 HIGH PERFORMANCE
EPOXY OR APPROVED EQUAL
 2. MASTIC SEAL TO BE PECORA AVB SILICONE
SEALANT OR APPROVED EQUAL
 3. HEX BOLT TO BE 316SS 1/2"-13X1"
 4. TRENCH PLATE APRON ANCHOR BOLTS- HILTI
HSL-GR EXPANSION ANCHOR M16
 5. WEL WELL ACCESS HATCH- HALLIDAY
FIR3660 SERIES FIR ACCESS DOOR HATCH
GROUT TO BE NON SHRINK 5000 PSI
 - 6.
 7. APRON SKIRT- 3/4" PLATE
 8. OVERLAP SKIRT PLATES AT CORNER
 9. CONTINUOUS FILLET WELD AT 1/4" PLATE
CORNER JOINTS

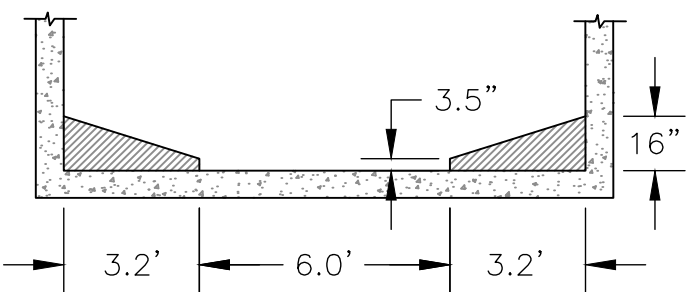
[illegible]

G:\Projects\Y2018\18033 Crinella Pump Station Upgrade\Drawings\13 MECHANICAL DETAILS 2.dwg 10-02-19 03:55:21 PM Peter Borneau



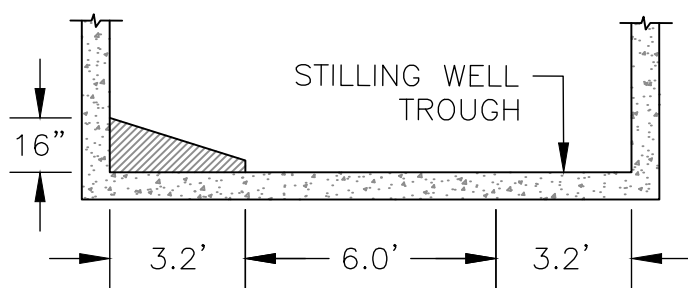
WET WELL FILLET PLAN
NTS

1
M-4



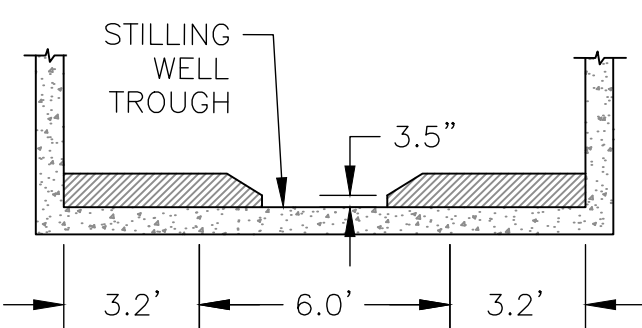
WET WELL FILLET SECTION 1
NTS

2
M-4



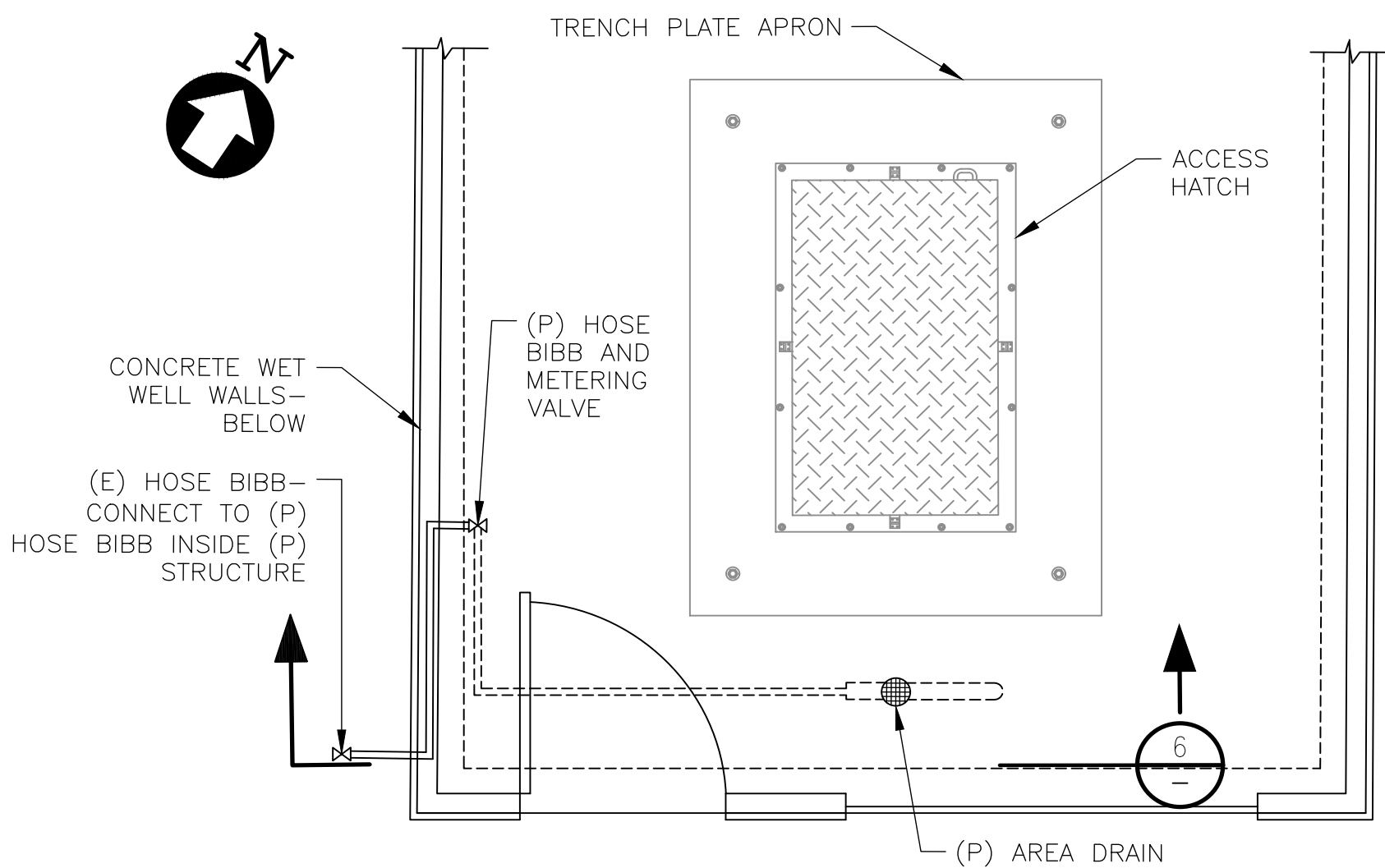
WET WELL FILLET SECTION 2
NTS

3
M-4



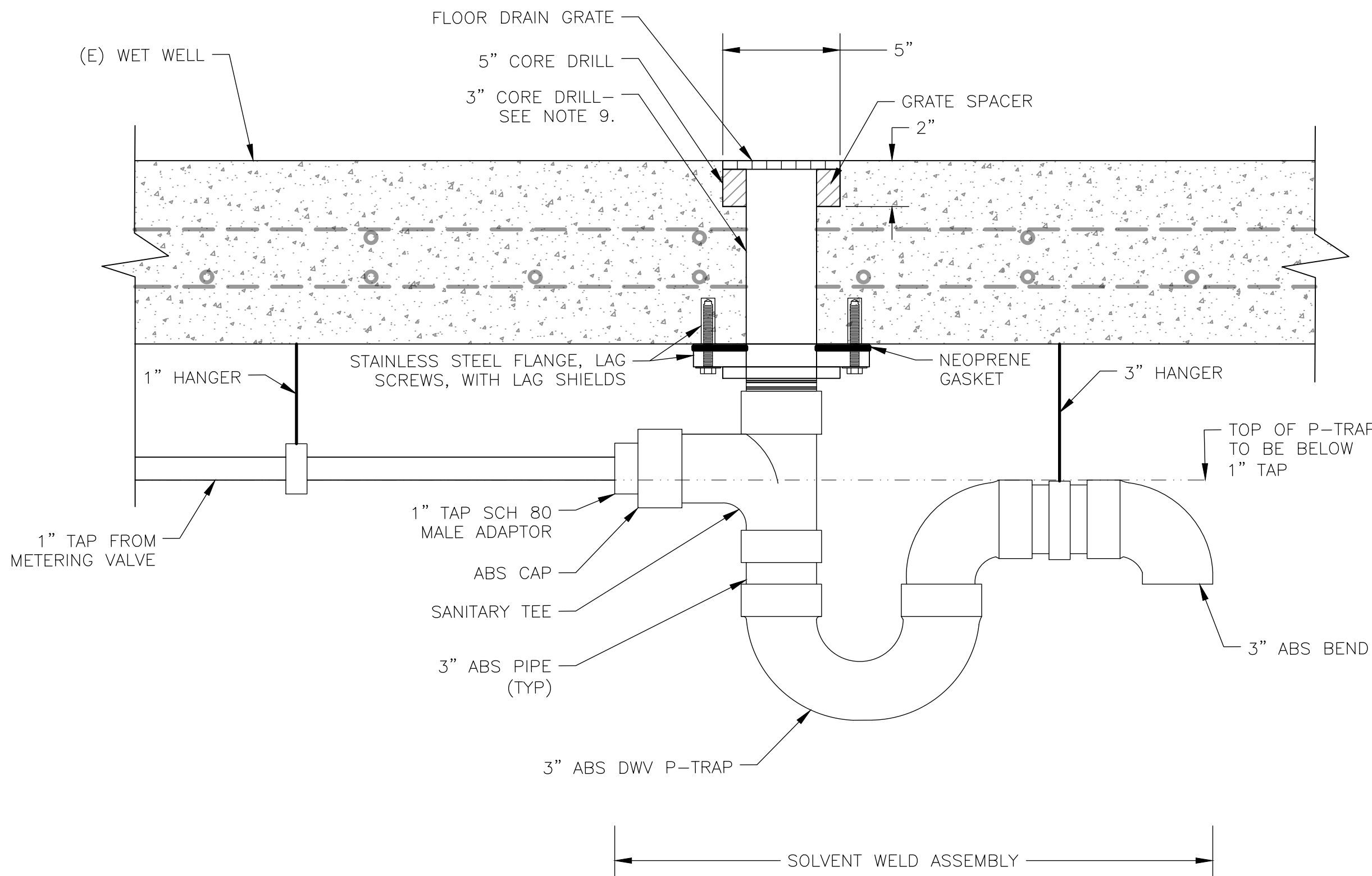
WET WELL FILLET SECTION 3
NTS

4
M-4



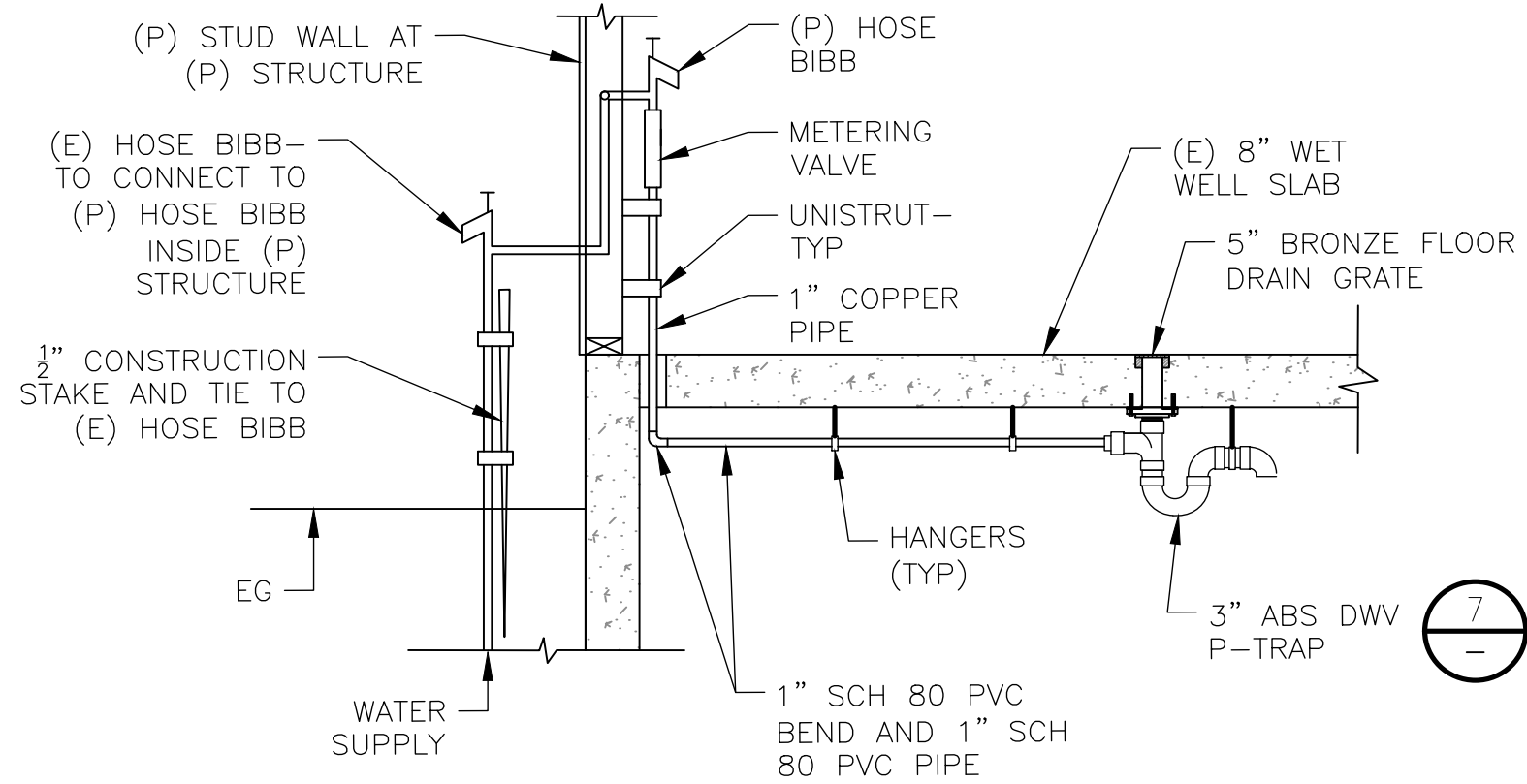
AREA DRAIN PLAN
NTS

5
M-4



AREA DRAIN DETAIL
NTS

7
M-4



HOSE BIB AND AIR GAP DETAIL
NTS

6
M-4

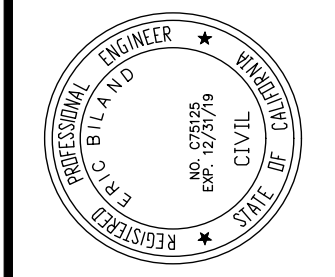
AREA DRAIN NOTES:

1. FLANGE- 3" THREADED 150# STAINLESS STEEL RAISED FLANGE W/ 1/2" X 3" LAG SCREWS AND LAG SHIELDS- 2" PENETRATION- (E) REINFORCING STEEL TO REMAIN IN TACT
2. (E) WETWELL SLAB REINFORCING STEEL: #4 @ 7" EW AT BOT MAT AND #4 @ 14" EW AT TOP MAT
3. FLOOR DRAIN GRATE- JAY R. SMITH MFG. CO BRONZE FLOOR DRAIN GRATE, 4- 1/8" DIAMETER
4. GASKET- FNW 1/2" 150# 316 STAINLESS STEEL NEOPRENE FULL FACE FLANGE PACKAGE
5. LAG SCREW- 1/2" X 3" STAINLESS STEEL LAG SCREWS WITH 1/2" STAINLESS STEEL LAG SHIELD ANCHOR
6. SANITARY TEE- HUB ABS SANITARY TEE
7. CAP- CHARLOTTE PIPE AND FOUNDRY 2" SOCKET ABS DWV AND STRAIGHT ABS CAP
8. P-TRAP- 3" ABS DWV P-TRAP
9. 3" CORE DRILL- USE GPR TO LOCATE (E) REINFORCING STEEL AND LEAVE STEEL IN TACT
10. CORE DRILL FOR LINK SEAL PENETRATION OF 1" COPPER PIPE THROUGH (E) WET WELL SLAB. 2" GROUT CAP OVER LINK SEAL TO BE FLUSH WITH WET WELL FLOOR



REVISIONS

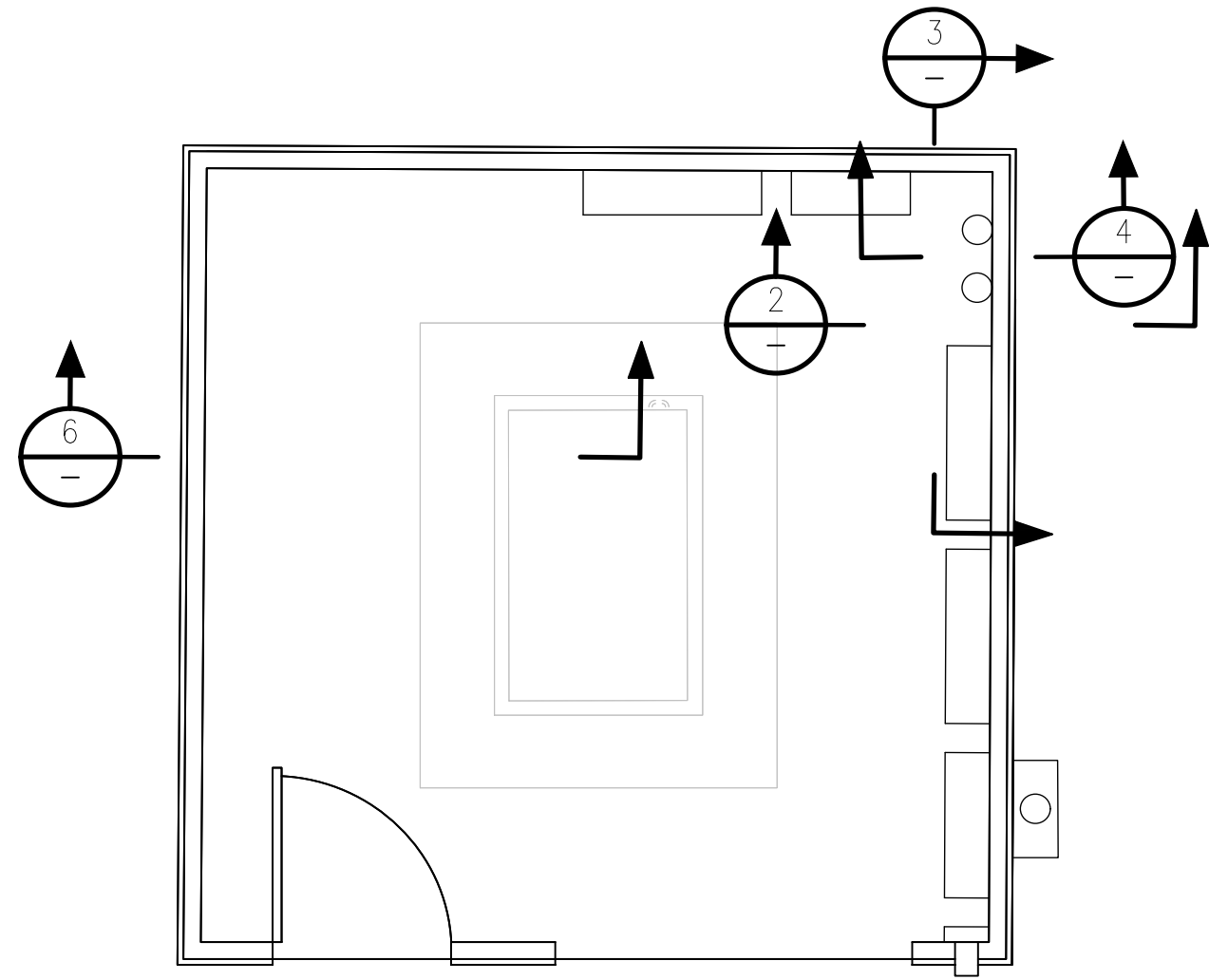
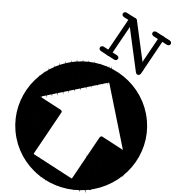
NO.	DESCRIPTION	BY	DATE	APP'D



PREPARED FOR	CITY OF ST. HELENA
DESIGNED	ERIC BLAND
CHECKED	ERIC BLAND
APPROVED	ERIC BLAND
DRAWN	PETER BORNEAU
SCALE	AS SHOWN
DATE	OCT 2018
SHEET NO.	13 OF 27
PROJECT NO.	P18033

MECHANICAL DETAILS 2

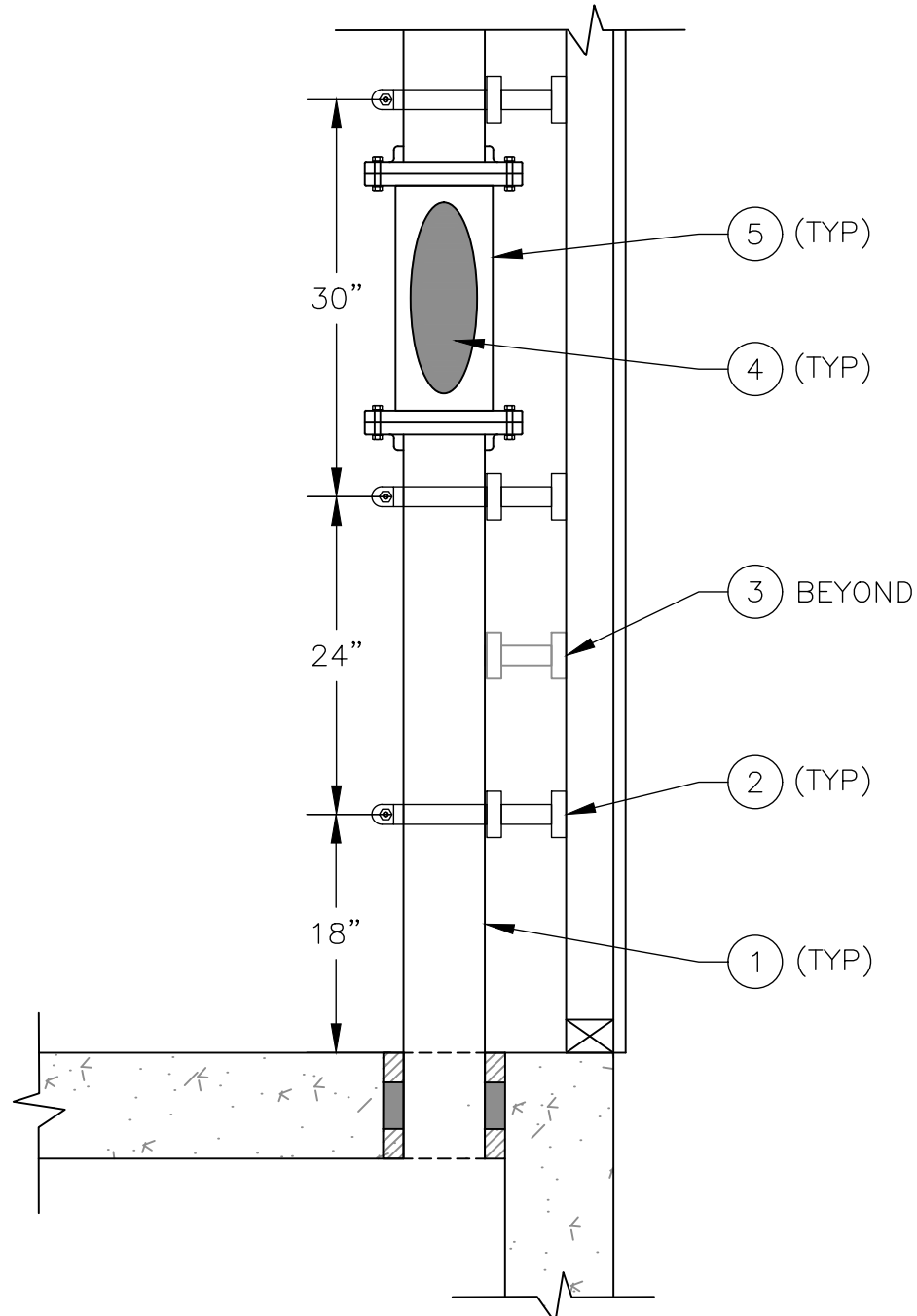
PREPARED FOR	CITY OF ST. HELENA
DESIGNED	ERIC BLAND
CHECKED	ERIC BLAND
APPROVED	ERIC BLAND
DRAWN	PETER BORNEAU
SCALE	AS SHOWN
DATE	OCT 2018
SHEET NO.	13 OF 27
PROJECT NO.	P18033



ODOR CONTROL PLAN

NTS

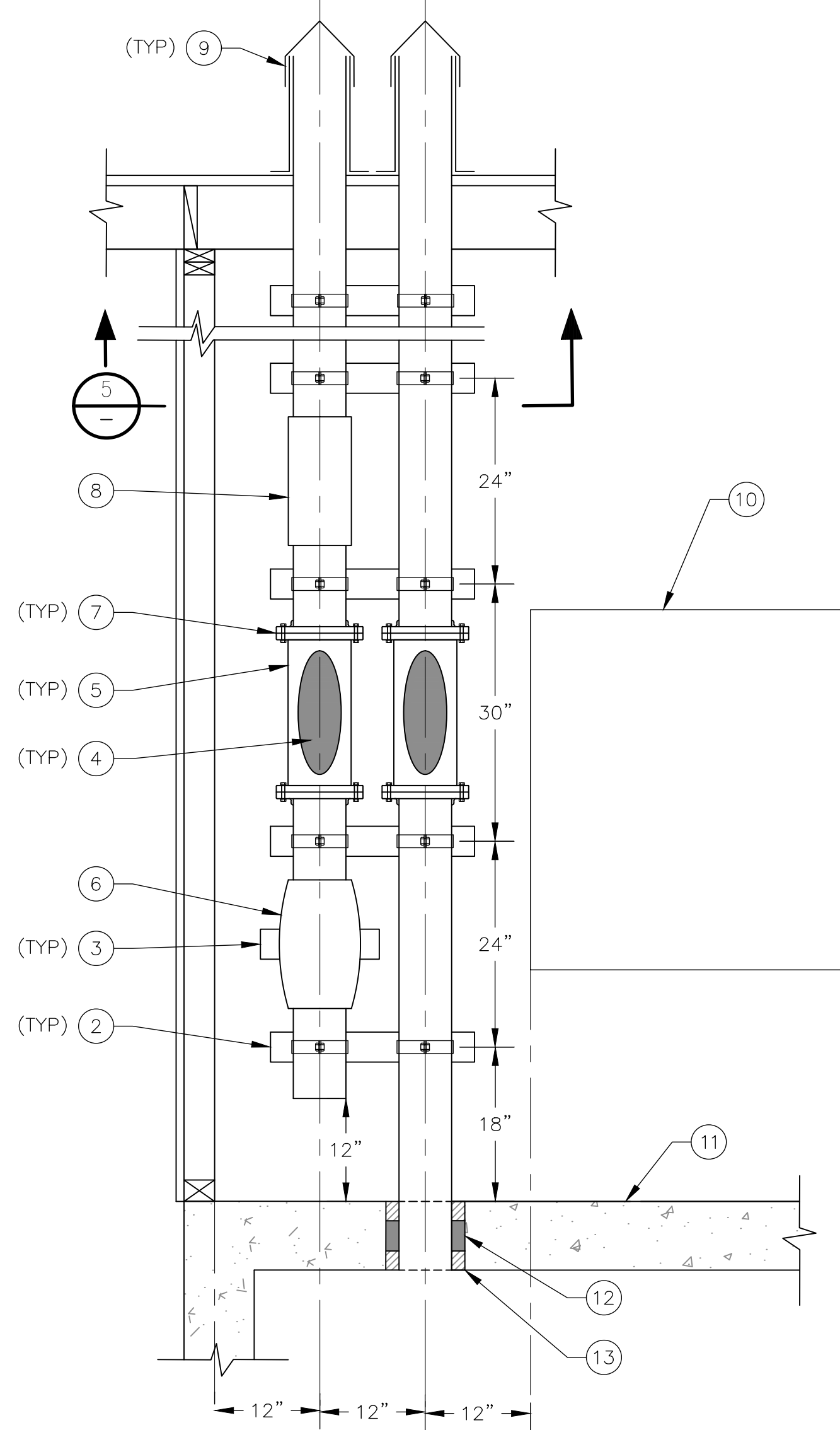
1
M-5



VENT STACK SLAB PENETRATION

NTS

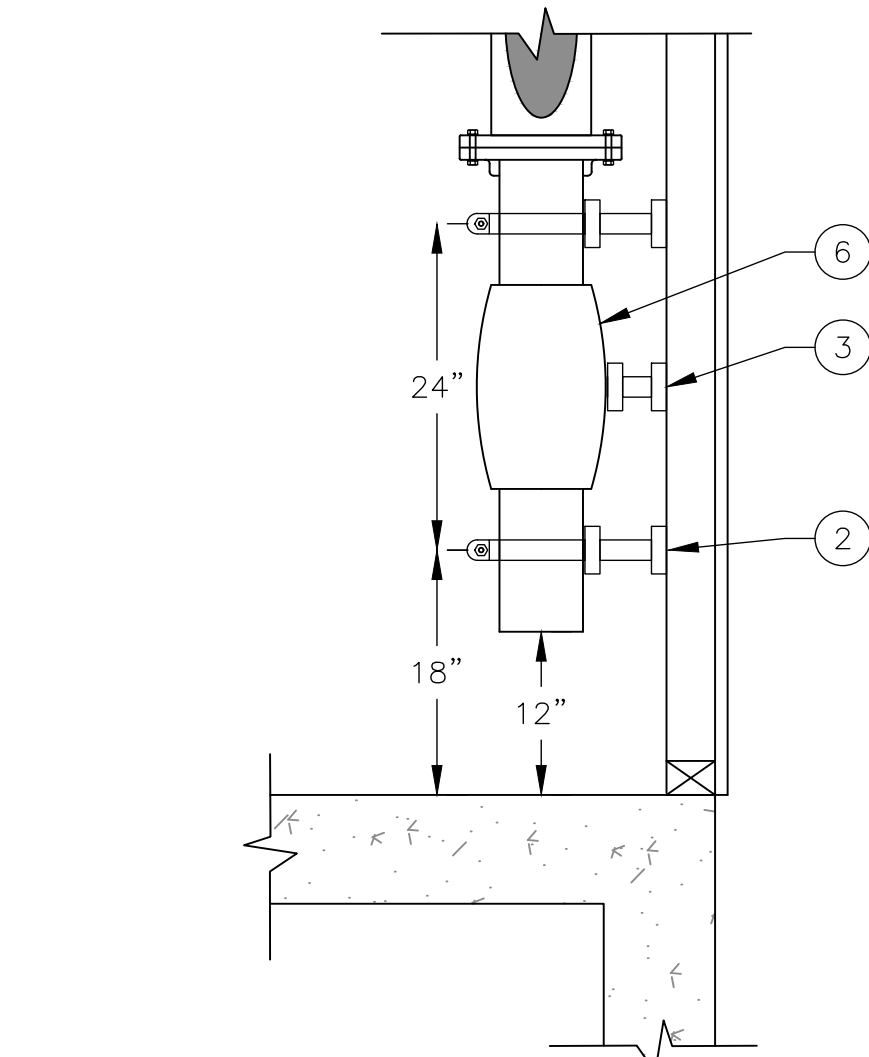
2
M-5



VENT STACKS SECTION

NTS

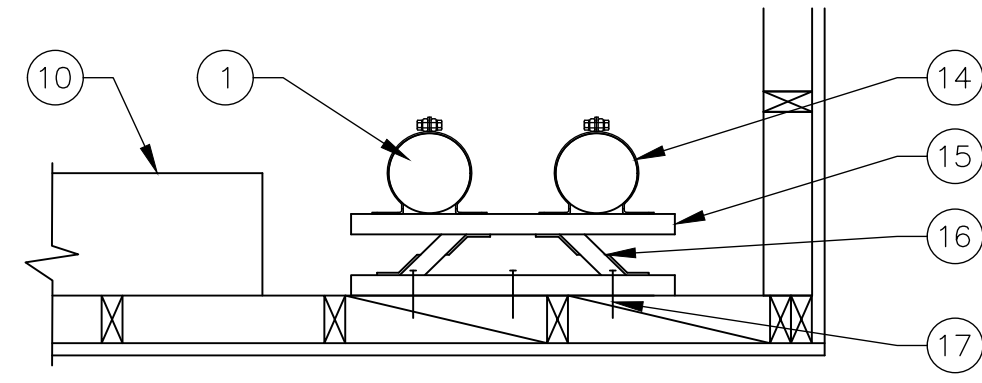
3
M-5



BLOWER BRACING

NTS

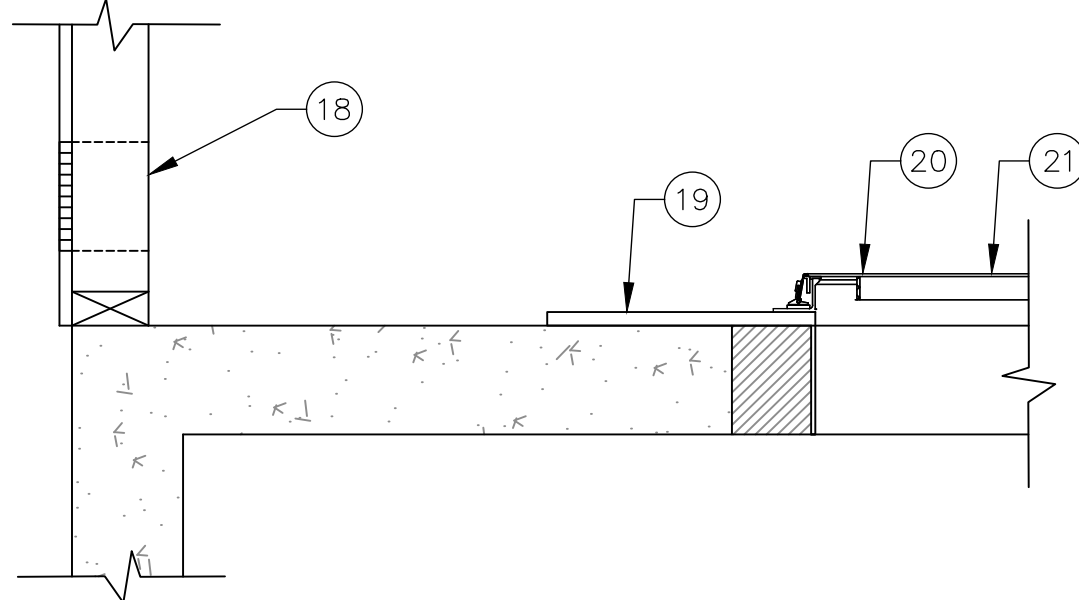
4
M-5



BRACING DETAIL- PLAN VIEW

NTS

5
M-5



WALL VENT DETAIL

NTS

6
M-5

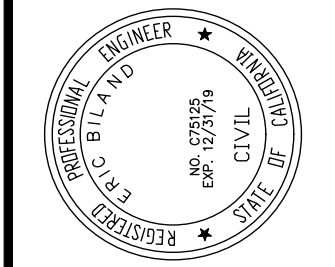
MATERIAL LIST

- ① 6" SCH 80 PVC
- ② UNISTRUT BRACE ASSEMBLY
- ③ UNISTRUT BRACE AT BLOWER MOUNT
- ④ ACTIVATED CHARCOAL
- ⑤ REX-BAC-T UNIT
- ⑥ INLINE BLOWER
- ⑦ 6" FLANGE W/ NITRILE GASKET
- ⑧ FLAP CHECK
- ⑨ CHIMNEY, BRACING, AND VENT FLASHING- SEE ARCHITECTURAL DRAWINGS
- ⑩ TERMINAL BLOCK PANEL
- ⑪ 8" THICK CONCRETE WET WELL
- ⑫ LINKSEAL
- ⑬ GROUT
- ⑭ PIPE CLAMP
- ⑮ UNISTRUT TRAPEZE
- ⑯ UNISTRUT BRACE
- ⑰ UNISTRUT ANCHOR TO BLOCKING
- ⑱ VENT
- ⑲ 6'X8'X1" TRENCH PLATE WITH 3'X5' OPENING
- ⑳ GASKET
- ㉑ ACCESS HATCH ASSEMBLY



REVISIONS

NO.	DESCRIPTION	BY	DATE	APPVD



wreco 1000 Broadway, Suite 475 Oakland, California 94607 (510) 884-5188	CHECKED: ERIC BLAND	APPROVED: ERIC BLAND
	DRAWN: PETER BORNEAU	DESIGNED: ERIC BLAND

PREPARED FOR



CITY OF ST. HELENA

CITY OF ST. HELENA
CRINELLA PUMP STATION
UPGRADE PROJECT
MECHANICAL DETAILS 3

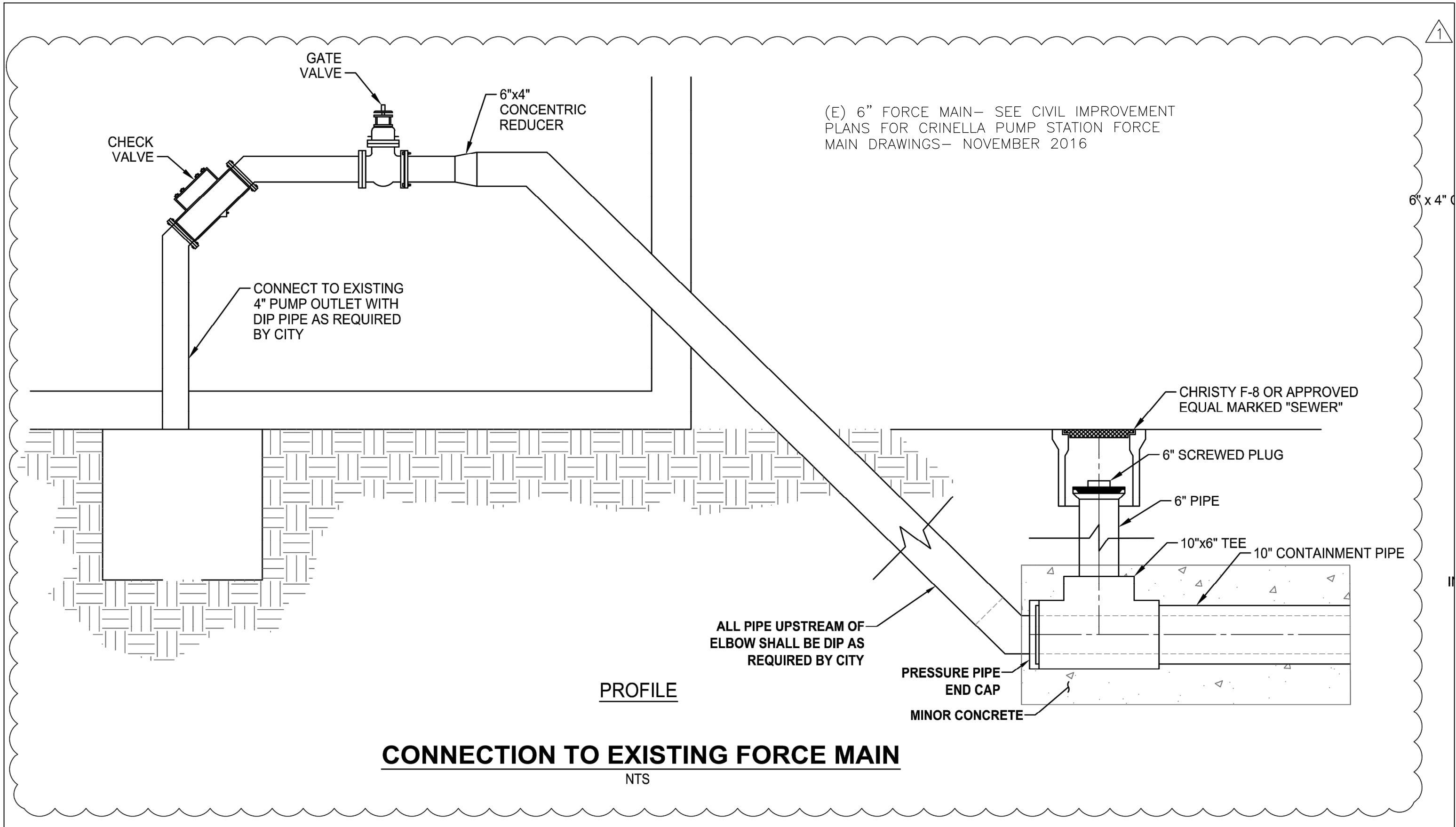
DATE	SCALE
OCT 2018	AS SHOWN

SHEET NO. **M-5**

14 OF 27

PROJECT NO. **P18033**

G:\Projects\Y2018\Crinella Pump Station Upgrade\Drawings\Sheet\15 MECHANICAL DETAILS 4.dwg 10-02-19 03:55:50 PM Peter_Bonneau

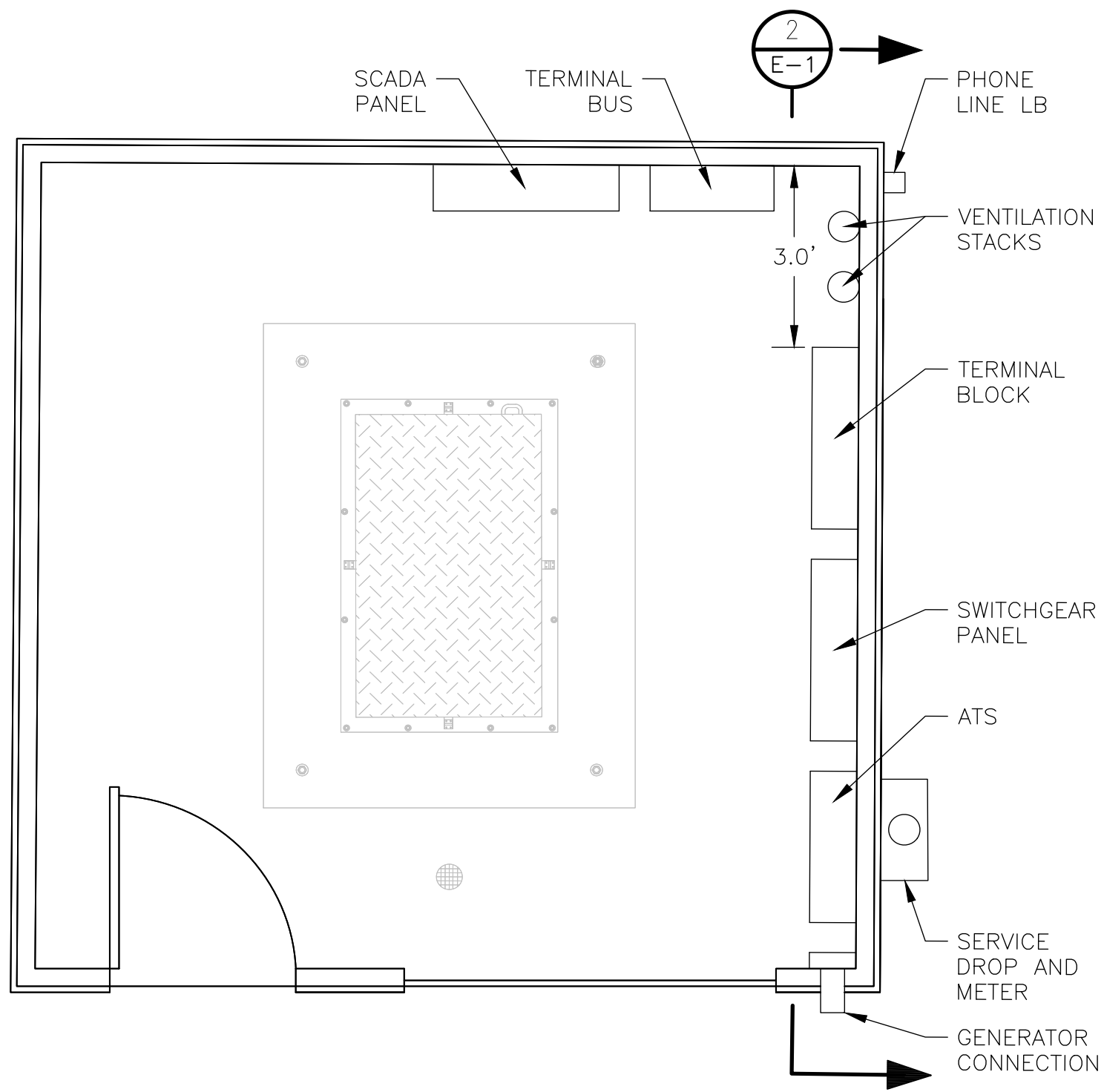
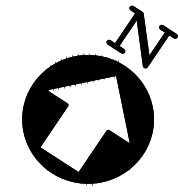


(E) 6" FORCE MAIN DETAIL
NTS

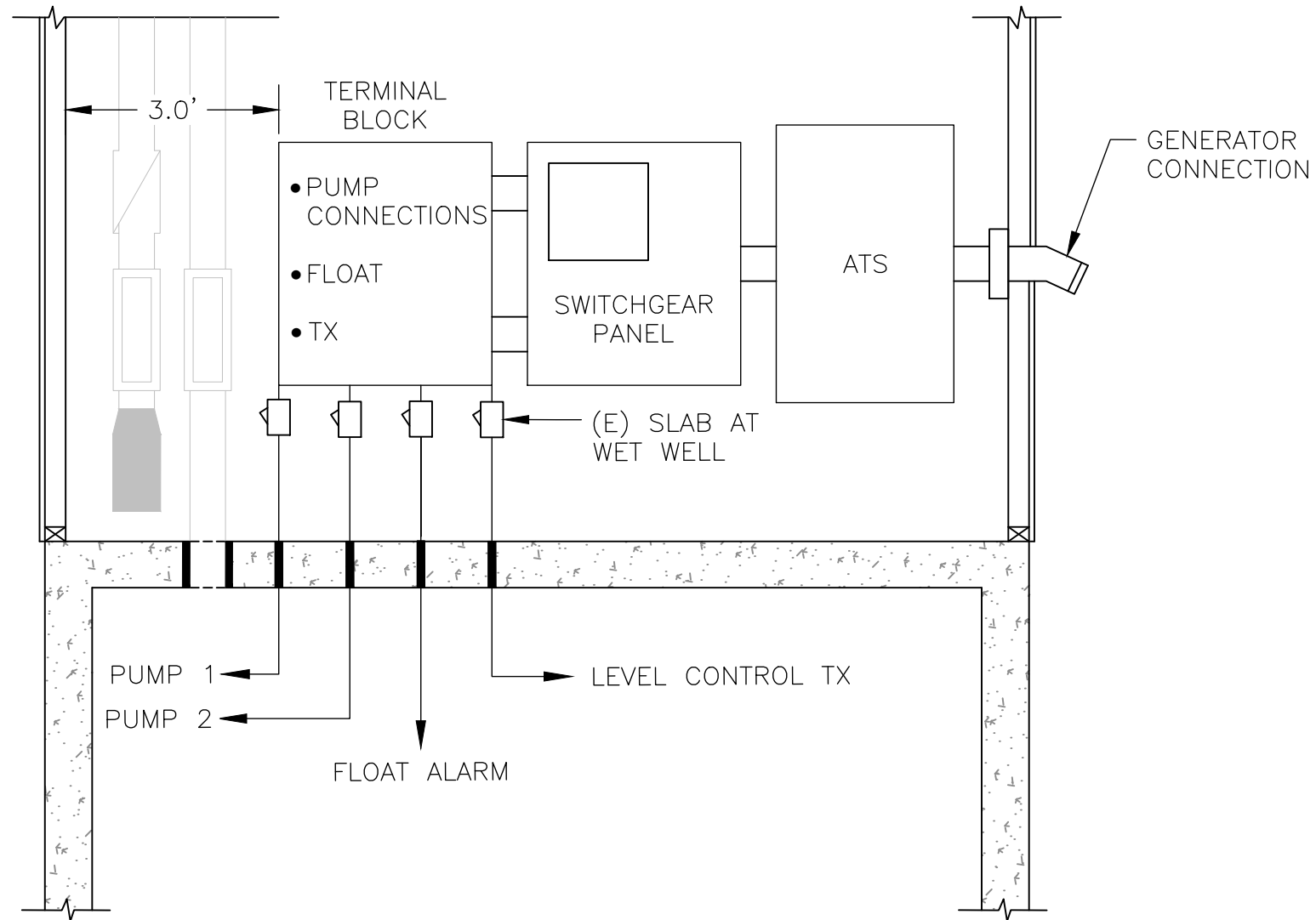
1
M-6



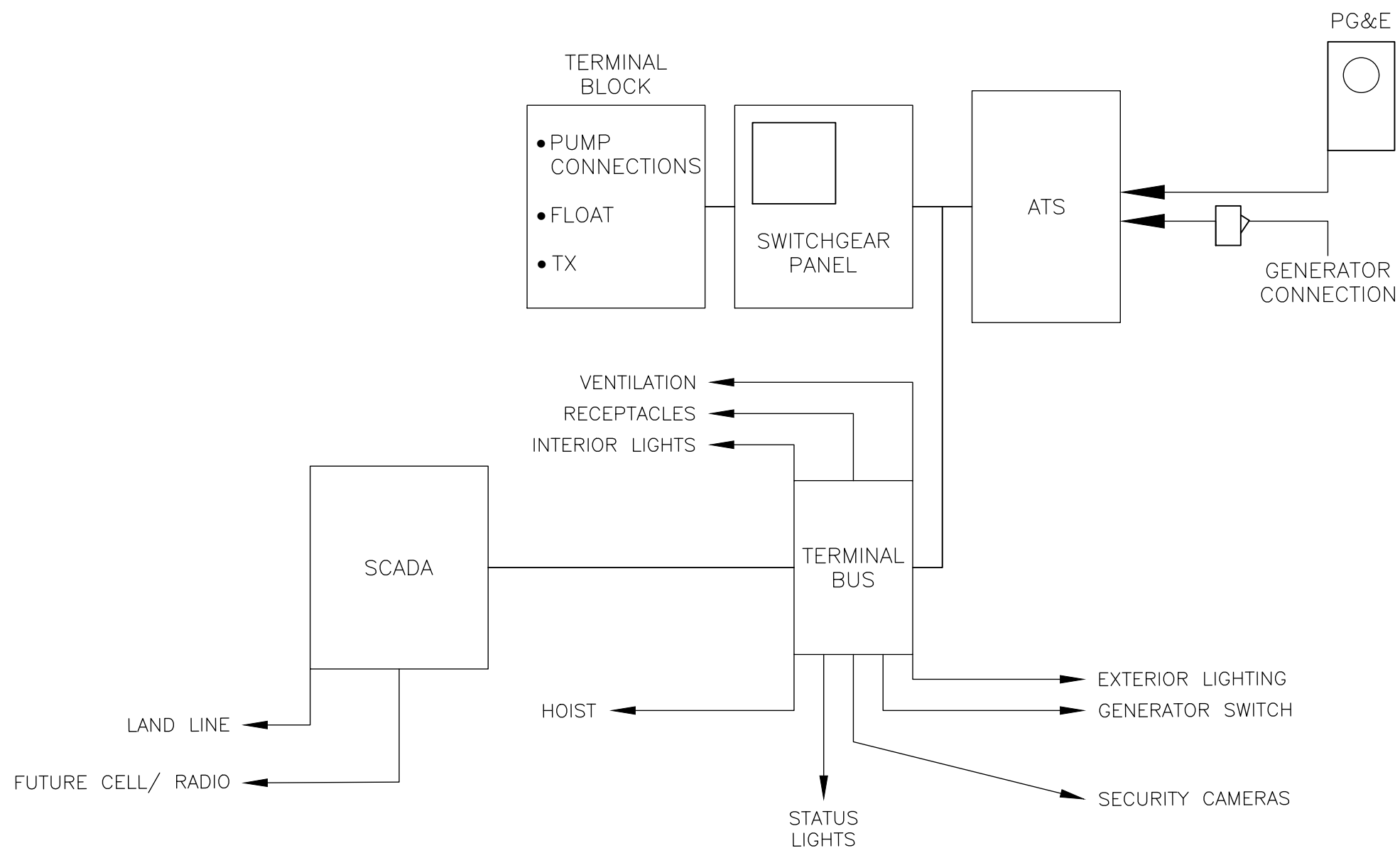
DATE		OCT 2018		SCALE		AS SHOWN	
SHEET NO.				M-6			
PROJECT NO.				15 OF 27			
PROJECT NO.				P18033			
PREPARED FOR		☆ CITY OF ST. HELENA		REVISIONS			
CITY OF ST. HELENA		CRINELLA PUMP STATION		NO.			
UPGRADE PROJECT		MECHANICAL DETAILS 4		DESCRIPTION			
REVIEWED:		REVIEWED:		BY		DATE	
APPROVAL RECOMMENDED:		APPROVED:		NO.		APPROVD	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND		NO.		DATE	
DRAWN:		CHECKED:		NO.		DATE	
PETER BONEAU		ERIC BLAND		NO.		DATE	
DESIGNED:		APPROVED:		NO.		DATE	
ERIC BLAND		ERIC BLAND					



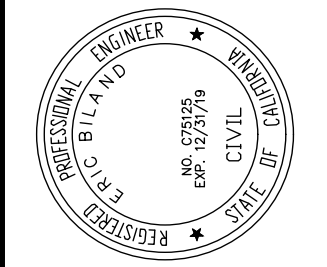
SWITCHGEAR LAYOUT PLAN
NTS



SWITCHGEAR LAYOUT SECTION
NTS



ELECTRICAL SCHEMATIC
NTS



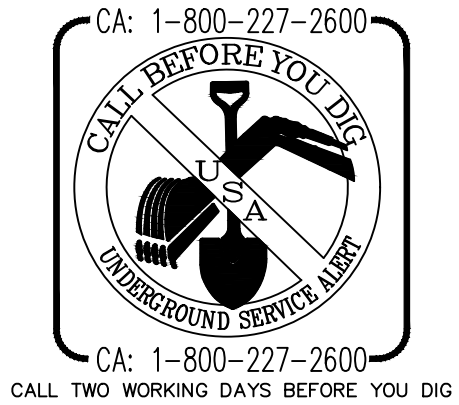
wreco
1000 Broadway, Suite 475
Oakland, California 94607
(510) 888-5188

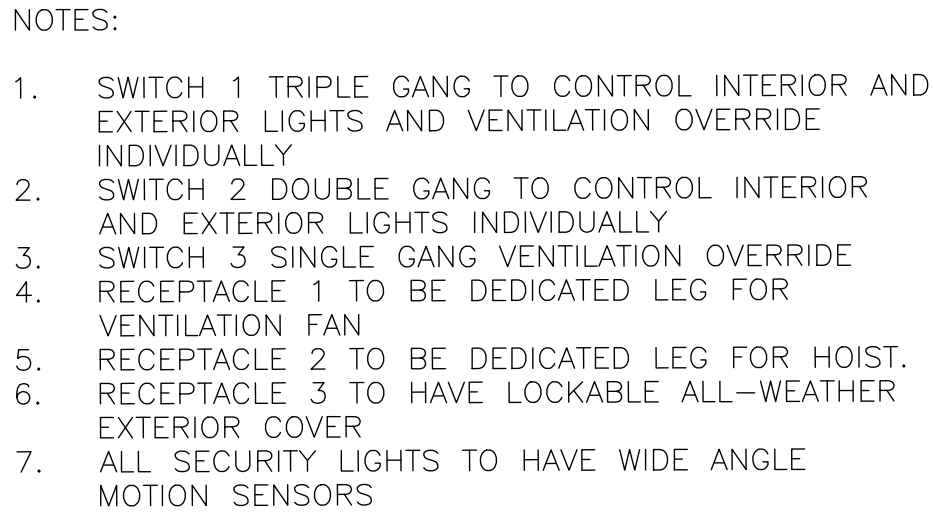
DRAWN: PETER BORNEAU
DESIGNED: ERIC BLAND
CHECKED: ERIC BLAND
APPROVED: ERIC BLAND

PREPARED FOR: CITY OF ST. HELENA
CITY OF ST. HELENA
CRINELLA PUMP STATION
UPGRADE PROJECT
ELECTRICAL PLAN

DATE	SCALE
OCT 2018	AS SHOWN
SHEET NO.	E-1
16	OF 27
PROJECT NO.	P18033

NO.	DESCRIPTION	BY	DATE	APPVD

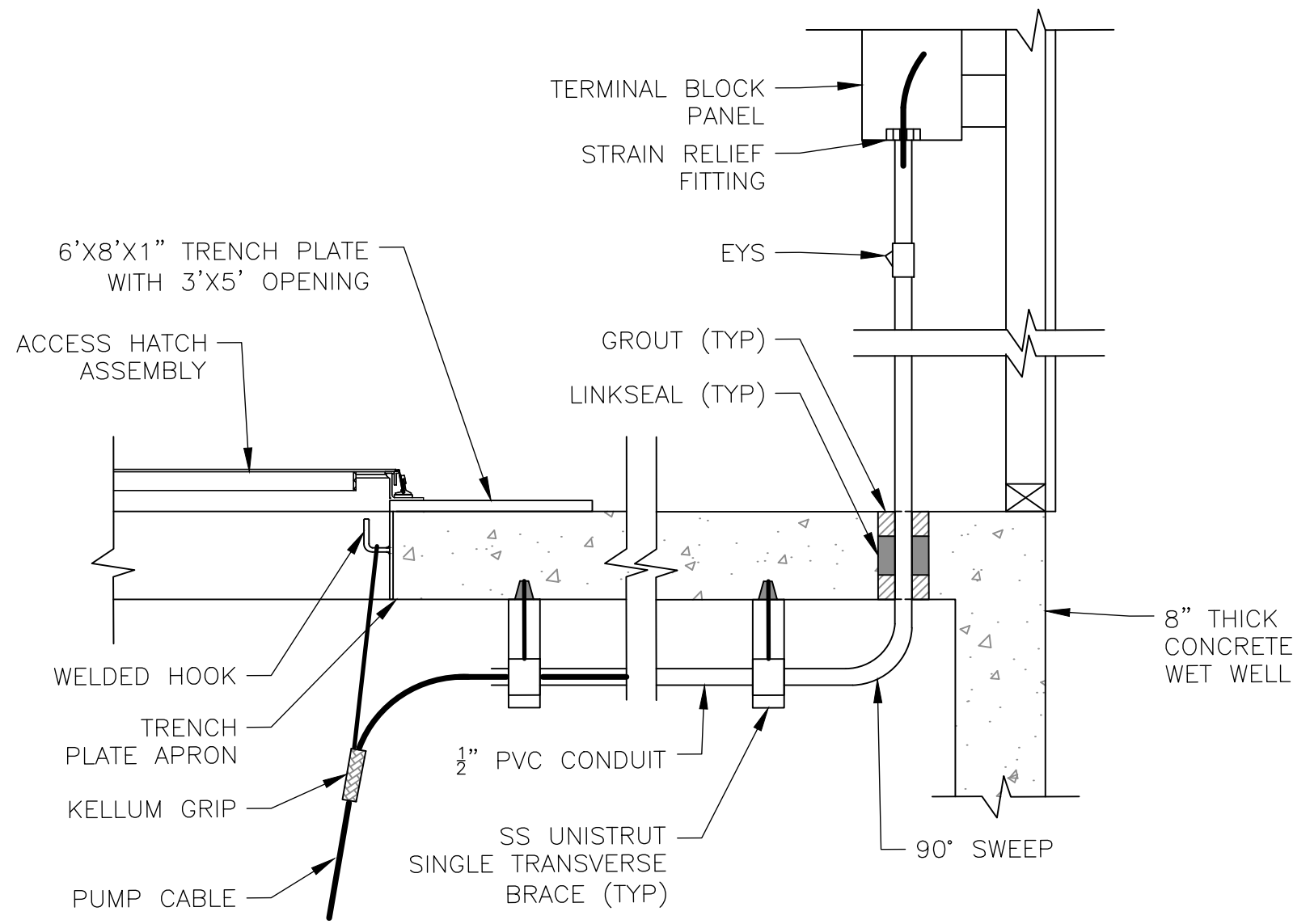




 SWITCH
 RECEPTACLE
 CEILING LIGHT
 STATUS LIGHT
 SECURITY LIGHT



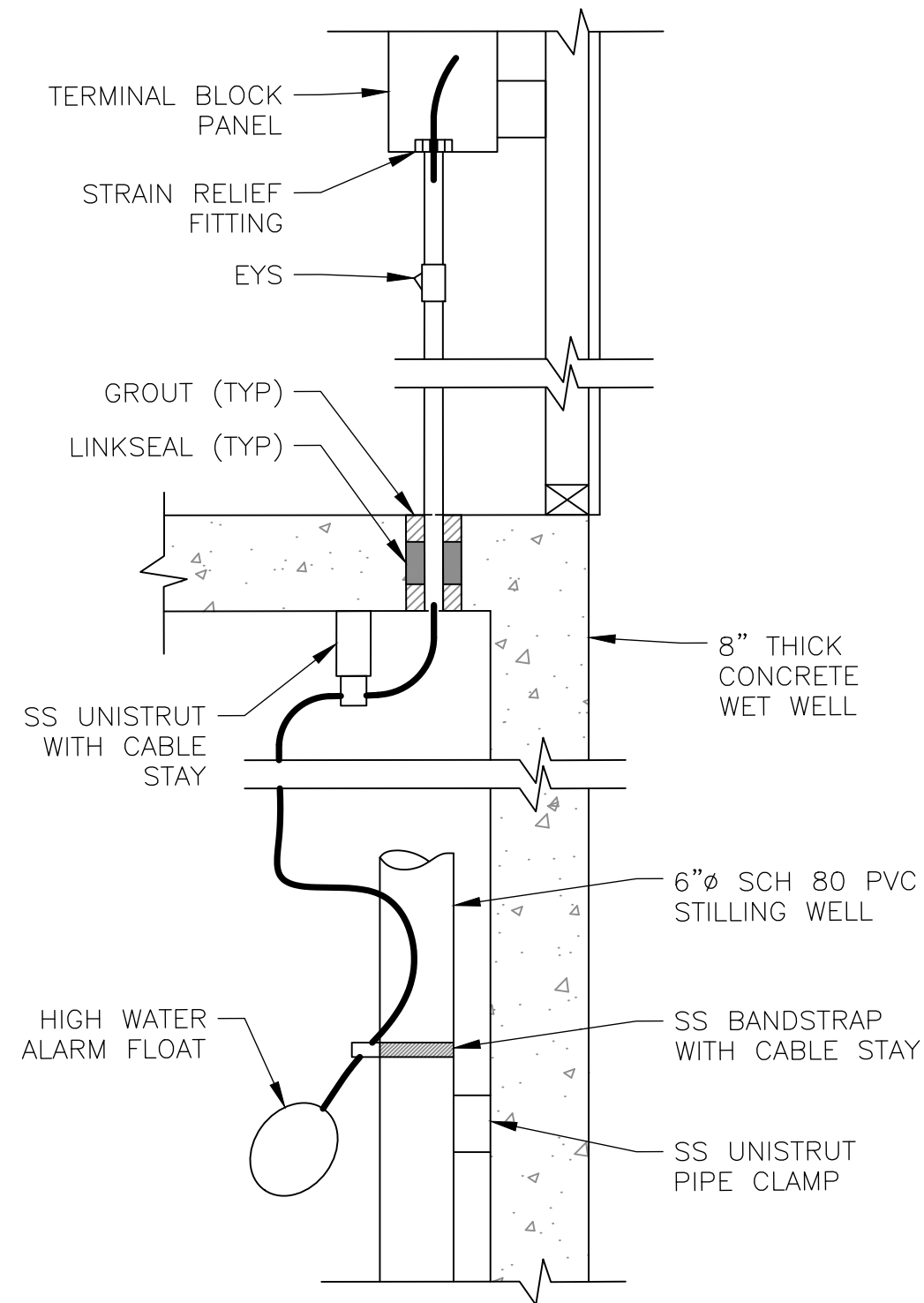
Agenda Item #5.2.



PUMP CABLE CONDUIT

NTS

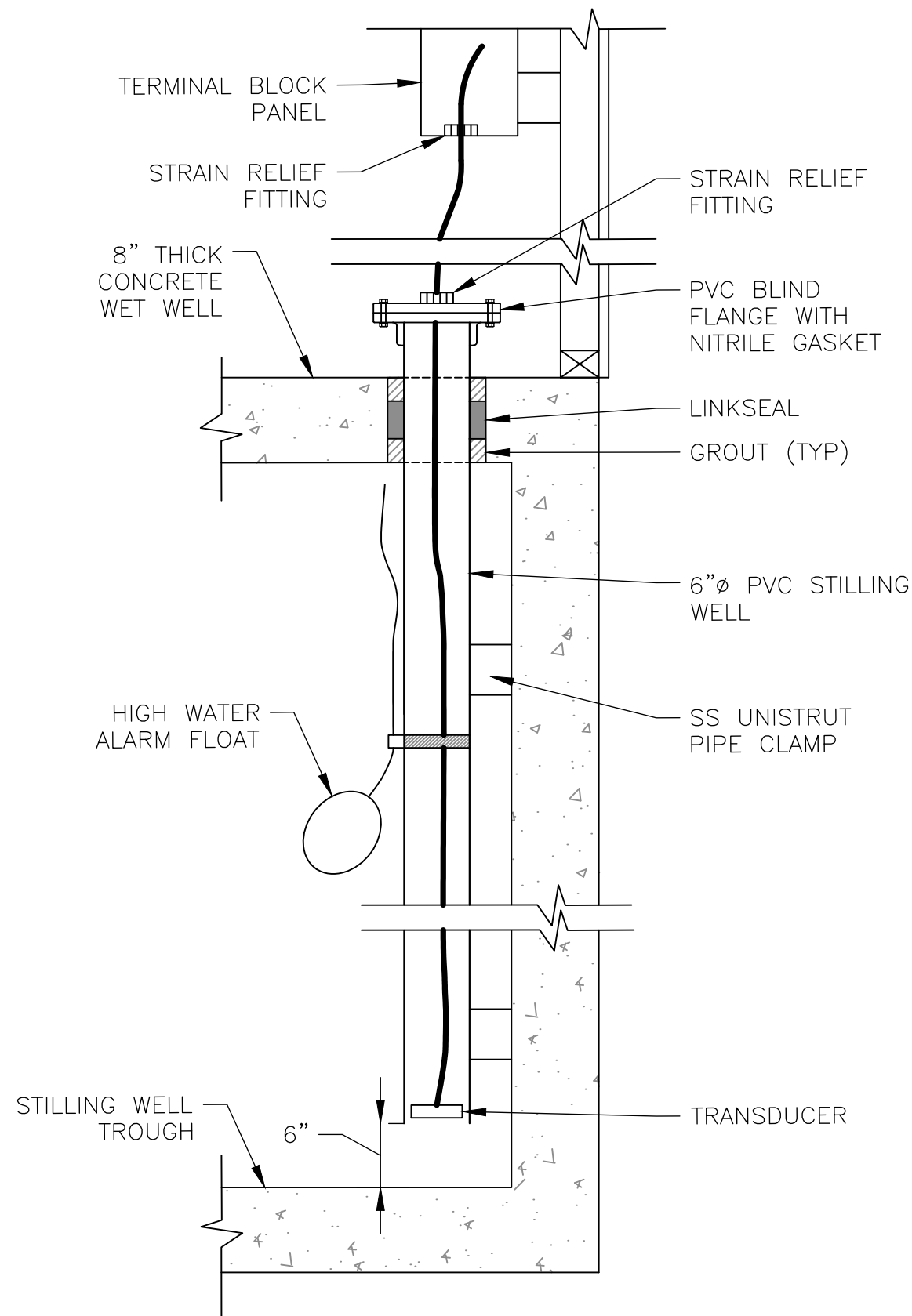
1
E-3



HIGH WATER ALARM FLOAT

NTS

2
E-3



TRANSDUCER LAYOUT

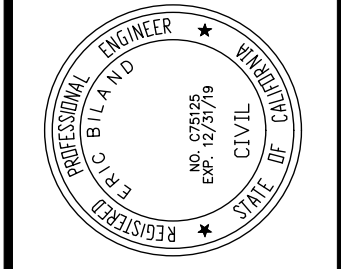
NTS

3
E-3



REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED
1				
2				
3				
4				
5				



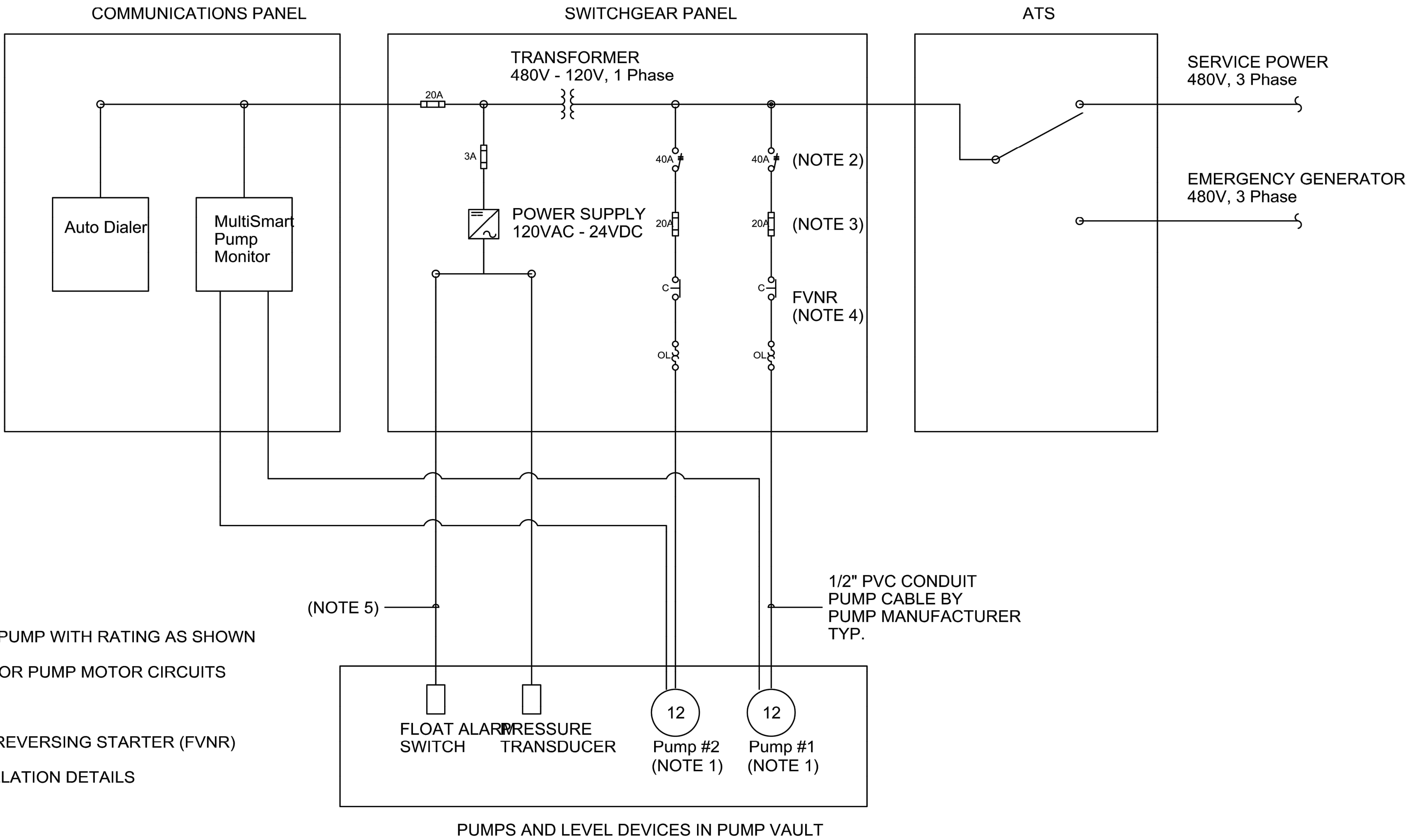
1000 Broadway, Suite 475 Oakland, California 94607	(510) 888-5188
DRAWN: PETER BONNEAU	CHECKED: ERIC BLAUD
DESIGNED: ERIC BLAUD	APPROVED: ERIC BLAUD

PREPARED FOR CITY OF ST. HELENA

CITY OF ST. HELENA
CRINELLA PUMP STATION
UPGRADE PROJECT
ELECTRICAL DETAILS 1

DATE OCT 2018	SCALE AS SHOWN
SHEET NO. 18	OF 27
PROJECT NO. P18033	

- SHEET NOTES:
- 1) PROVIDE 460 V, THREE PHASE SUMP PUMP WITH RATING AS SHOWN
 - 2) PROVIDE LOCKABLE DISCONNECTS FOR PUMP MOTOR CIRCUITS
 - 3) PRIMARY PUMP FUSING
 - 4) PROVIDE 460 V, FULL VOLTAGE NON-REVERSING STARTER (FVNR)
 - 5) SEE DRAWING E-1 FOR CABLE INSTALLATION DETAILS



NOT FOR CONSTRUCTION

DATE		OCT 2018		SCALE		AS SHOWN	
SHEET NO.		19		OF		27	
PROJECT NO.		P18033					
PREPARED FOR		☆ CITY OF ST. HELENA					
		CITY OF ST. HELENA					
		CRINELLA PUMP STATION					
		UPGRADE PROJECT					
		ELECTRICAL SCHEMATIC					
REVIEWED:				DRAWN:		PETER BORNEAU	
REVIEWED:				DESIGNED:		ERIC BLAND	
APPROVAL RECOMMENDED:				CHECKED:		ERIC BLAND	
				APPROVED:		ERIC BLAND	

DESIGN CRITERIA

DESIGN CRITERIA: 126 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CBC)

FLOOR LIVE LOAD: 125 PSF (AT WET WELL SLAB)

ROOF LIVE LOAD: 20 PSF

FUTURE SOLAR: 3 PSF

RISK CATEGORY: II

WIND DATA: II ULTIMATE WIND SPEED (3 SEC GUST) IN MPH: 110

WIND EXPOSURE: C

INTERNAL WIND PRESSURE COEFFICIENT (C_{pi}) = ±0.18

COMPONENTS AND CLADDING DESIGN PRESSURES FOR SYSTEM DESIGNED BY OTHERS SHALL COMPLY WITH THE "ASCE 7" DESIGN STANDARD

SEISMIC IMPORTANCE FACTOR, I: 1.0

MAPPED SPECTRAL RESPONSE ACCELERATIONS: S_s = 1.50; S₁ = 0.60

SITE CLASS: D

SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 1.00; S₁ = 0.60

SEISMIC DESIGN CATEGORY: D

SEISMIC FORCE RESISTING SYSTEM(S): WOOD FRAMED SHEAR WALLS

RESPONSE MODIFICATION FACTOR(S): R = 0.5

DESIGN BASE SHEAR: 0.15k (ASD)

SEISMIC RESPONSE COEFFICIENT(S): C_s = 0.156 (ASD)

F WOOD FRAMING NOTES

STRUCTURAL SPECIFICATIONS

WOOD CONSTRUCTION (CARPENTRY)

1. EACH PIECE OF LUMBER SHALL BEAR THE STAMP OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) SHOWING GRADE MARK OR APPROVED EQUAL. BEAMS AND POSTS TO BE FREE OF HEART CENTER (FOHC). OTHER MATERIALS SHALL BE AS SHOWN BELOW:

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE MAXIMUM MOISTURE CONTENT OF WOOD AT THE TIME OF INSTALLATION SHALL BE NOT MORE THAN 19%.
3. NAILS TO BE OF COMMON WIRE AND OF FULL-ROUND HEADS WHERE NAILING IS SPECIFIED ON THE DRAWINGS. MACHINE-DRIVEN NAILS MEETING SIZE REQUIREMENTS ARE ACCEPTABLE. NAILS MUST NOT BE OVER-DRIVEN. PRE-DRILL NAIL HOLES WHERE WOOD TENDS TO SPLIT. NAILS AS SPECIFIED ON PLANS AND INCLUDING IN PTDF MATERIAL CONTAINING AMMONIA IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. NAILS USED IN EXTERIOR APPLICATIONS OR IN INTERIOR PTDF SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153.

WIRE NAIL	MINIMUM SHANK DIAMETER	MINIMUM NAIL LENGTH UNO	TYPICAL NAIL APPLICATION UNO
16d COMMON	0.162"	3 1/2"	FRAMING
16d SINKER	0.148"	3 1/4"	FRAMING
10d COMMON	0.148"	3"	FRAMING
10d COMMON	0.148"	PER 10/S-2	SHEATHING
8d COMMON	0.131"	PER 10/S-2	SHEATHING

WIRE NAIL	MINIMUM SHANK DIAMETER	MINIMUM NAIL LENGTH UNO	TYPICAL NAIL APPLICATION, UNO
16d COMMON	0.162"	3 1/2"	FRAMING
16d SINKER	0.148"	3 1/4"	FRAMING
10d COMMON	0.148"	2"	FRAMING
16d COMMON	0.148"	PER 10/5-2	SHEATHING
8d COMMON	0.131"	PER 10/5-2	SHEATHING

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE METAL FRAMING CLIPS, HANGERS, ETC. ARE BY SIMPSON STRONG-TIE. NAILING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WITH A NAIL PROVIDED FOR EACH PUNCHED HOLE UNO. CONNECTORS AS SPECIFIED ON PLANS AND THOSE IN CONFORMANCE WITH TRUPUR TYPICAL DETAIL C-17A IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. ALL OTHER CONNECTORS USED IN EXTERIOR APPLICATIONS OR INTERIOR PUT IN SHALL BE HD (MINIMUM 2 oz/oz SQ FT) OR ZMAX (MINIMUM 1.85 oz/oz SQ FT PER ASTM A653). IN APPLICATIONS WHERE NON-AMALGAMATED TRUPUR WOOD IS DRY WHEN INSTALLED AND WILL REMAIN DRY IN-SERVICE A COATING THICKNESS OF 0.9 oz/oz SQ FT MAY BE USED.

5. WOOD SCREWS SHALL CONFORM TO ANSI/ASME B18.6.1. PROVIDE PILOT HOLE 70% OF DIAMETER OF SCREW SHANK WHERE FASTENING HARDWOOD TIMBER SPECIES OR WHERE WOOD TENDS TO SPLIT. MINIMUM PENETRATION IS (10) DIAMETERS, UNO.

6. BOLTS SHALL BE UNFINISHED MACHINE BOLTS PER ASTM A307. NUTS SHALL BE PER ASTM A563 AND OF STANDARD SIZE UNLESS NOTED OTHERWISE. LENGTH OF BOLTS SHALL BE SUCH THAT THE BOLT PROJECTION IS NOT LESS THAN $\frac{1}{4}$ " NOR MORE THAN $\frac{1}{2}$ " PER JOINT. WASHERS SHALL BE STANDARD CUT WASHERS OF THE SAME SIZE THAN BOLT SIZES (UNO). PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT HEADS WOULD BEAR ON WOOD. USE MALLEABLE IRON WASHERS WHERE EXPOSED TO VIEW OR NOTED. NUTS SHALL BE TIGHTENED WHEN PLACED IN CONTACT WITH WOOD. WHEN TIGHTENING, BOLTS AS SPECIFIED ON PLANS AND THOSE IN CONTACT WITH PTDF MATERIAL CONTAINING AMMONIA IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. ALL OTHER BOLTS USED IN EXTERIOR APPLICATIONS SHALL BE HOT-DIP GALVANIZED PER ASTM A153.

7. WOOD AGAINST CMU OR CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR (PTDF) PER AWPA STANDARD U1. "USE CATEGORY" UC2 AT INTERIOR. "USE CATEGORY" UC3B AT EXTERIOR (NO GROUND CONTACT). CUT FACES SHALL BE BRUSH TREATED WITH EQUIVALENT PRESERVATIVE PRIOR TO INSTALLATION.

SHEET INDEX	
S-1	GENERAL NOTES AND SPECIFICATIONS
S-2	TYPICAL DETAILS
S-3	FOUNDATION AND ROOF FRAMING PLANS
S-4	FOUNDATION AND FRAMING DETAILS

PLYWOOD/ORIENTED STRAND BOARD (OSB) SHEATHING

1. STRUCTURAL SHEATHING SHALL CONFORM TO PRODUCT STANDARD PS-1 OR PS-2. ALL PANELS SHALL HAVE AN EXTERIOR EXPOSURE RATING AND BEAR THE TRADEMARK OF THE ENGINEERED WOOD ASSOCIATION (APA) OR OTHER QUALIFIED AGENCY. SHEATHING SHEETS SHALL BE SPLICED ALONG CENTERLINE OF JOINTING MEMBER WITH NAILING SPACED NOT LESS THAN 1/4" FROM EDGE OF SHEETS. MACHINELY DRIVEN NAILING AND NAILS TO BE APPROVED BY THE ENGINEER PRIOR TO USE. SHEATHING NAILS OF COMMON WIRE WITH FULL ROUND HEADS ARE REQUIRED.

2. OSB WITH EQUIVALENT THICKNESS AND SPAN RATING MAY BE USED IN LIEU OF PLYWOOD CALLED OUT. ALL OSB SHALL CONFORM TO PS-2.

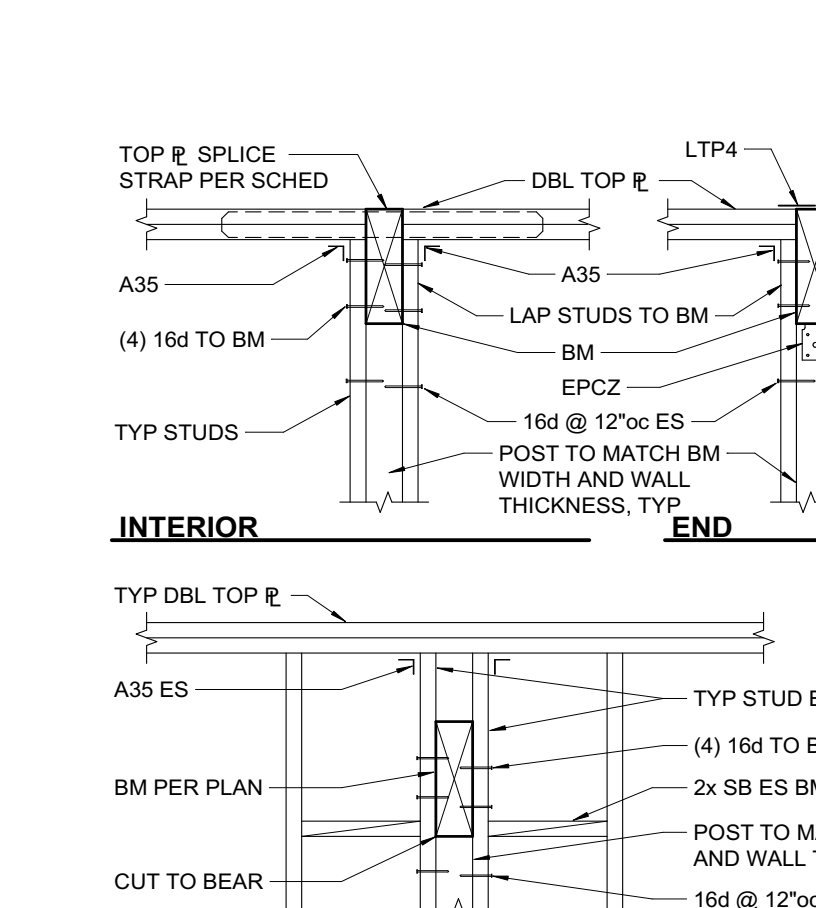
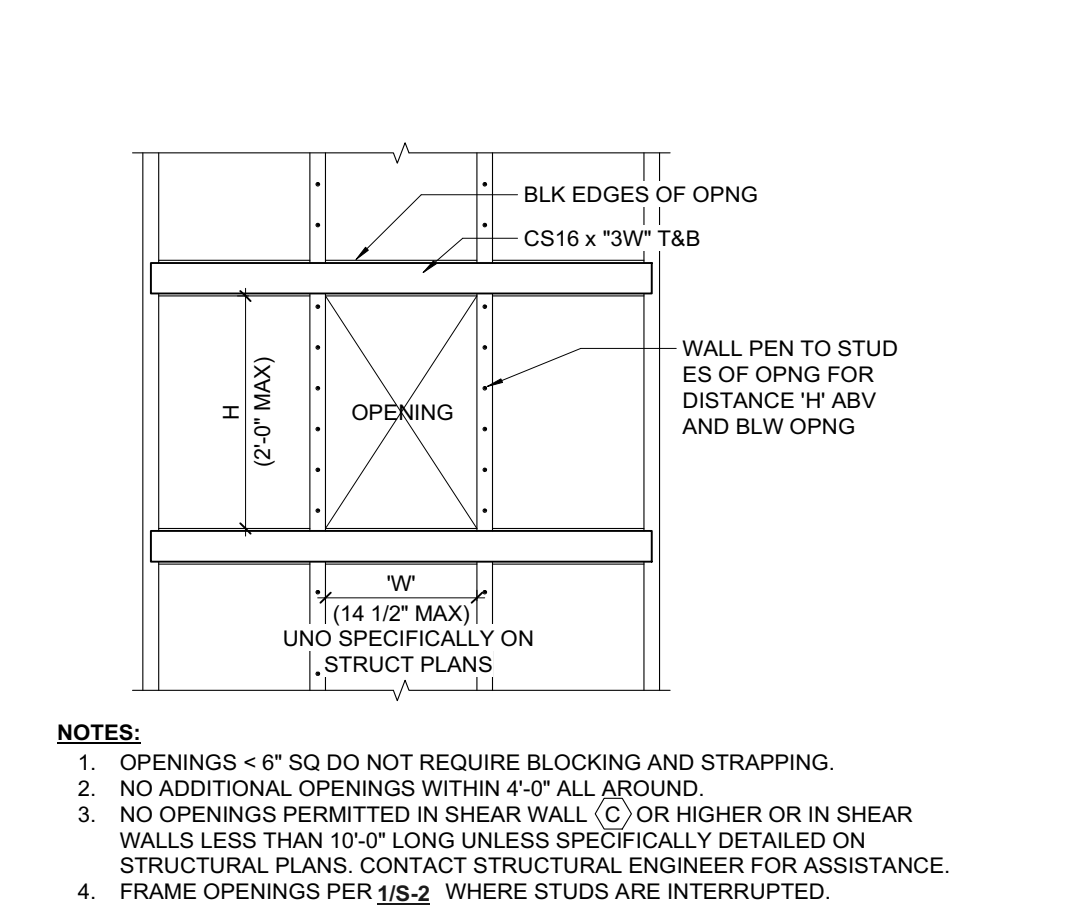
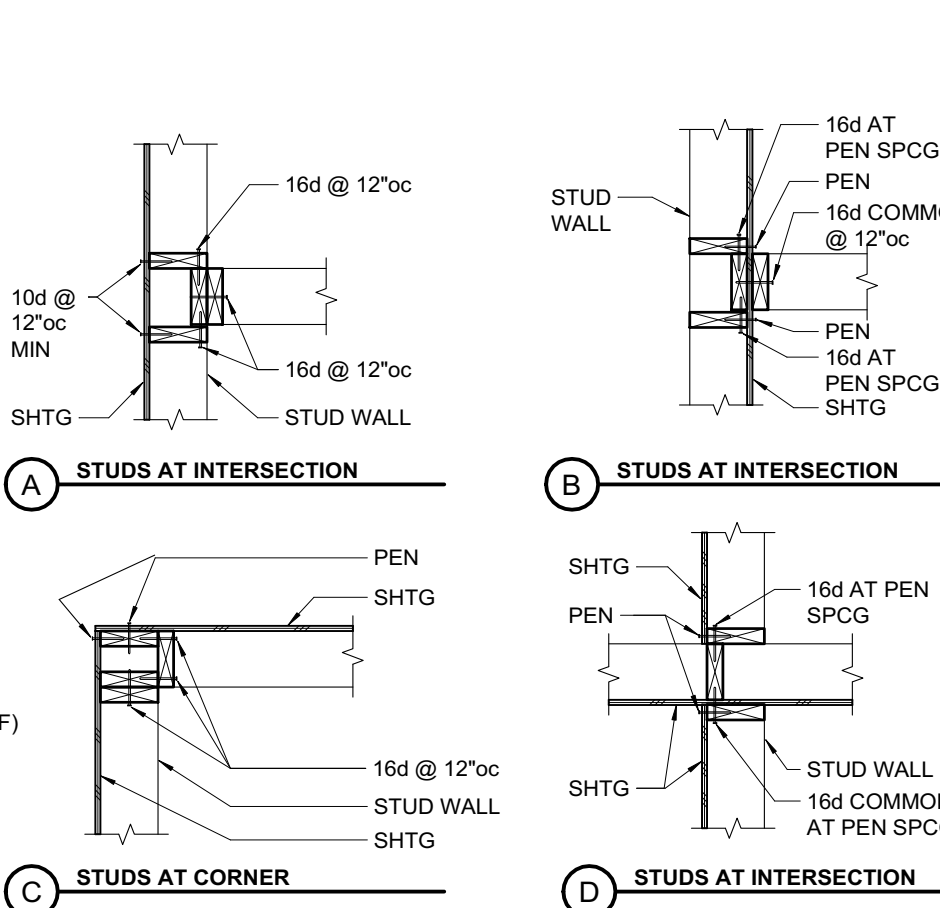
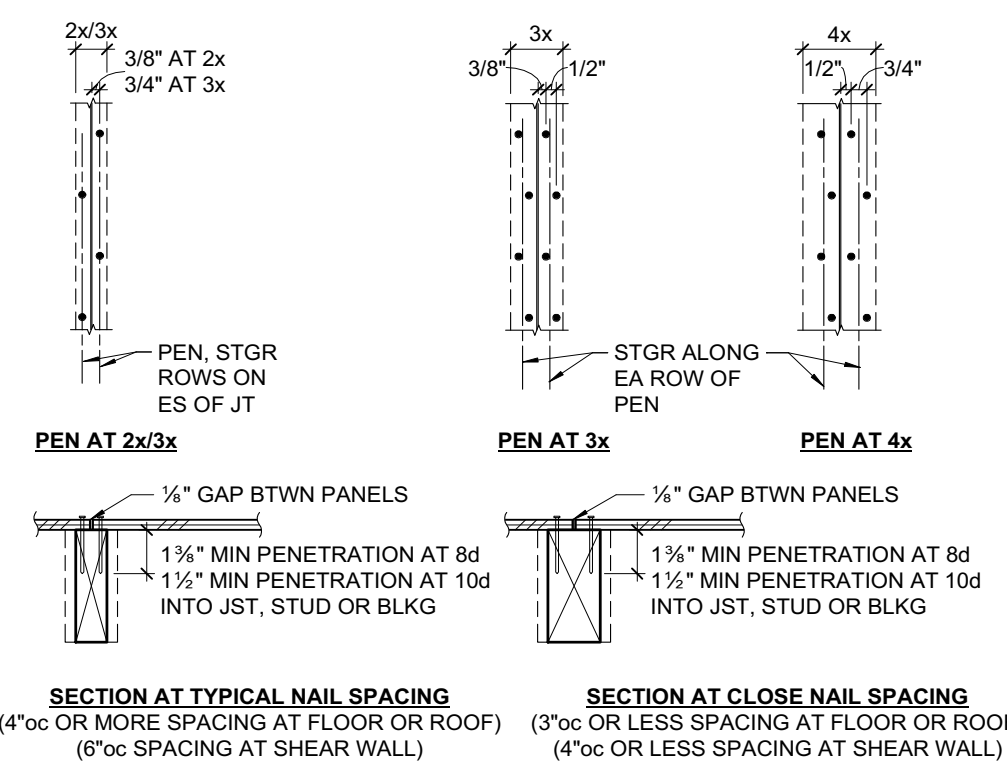
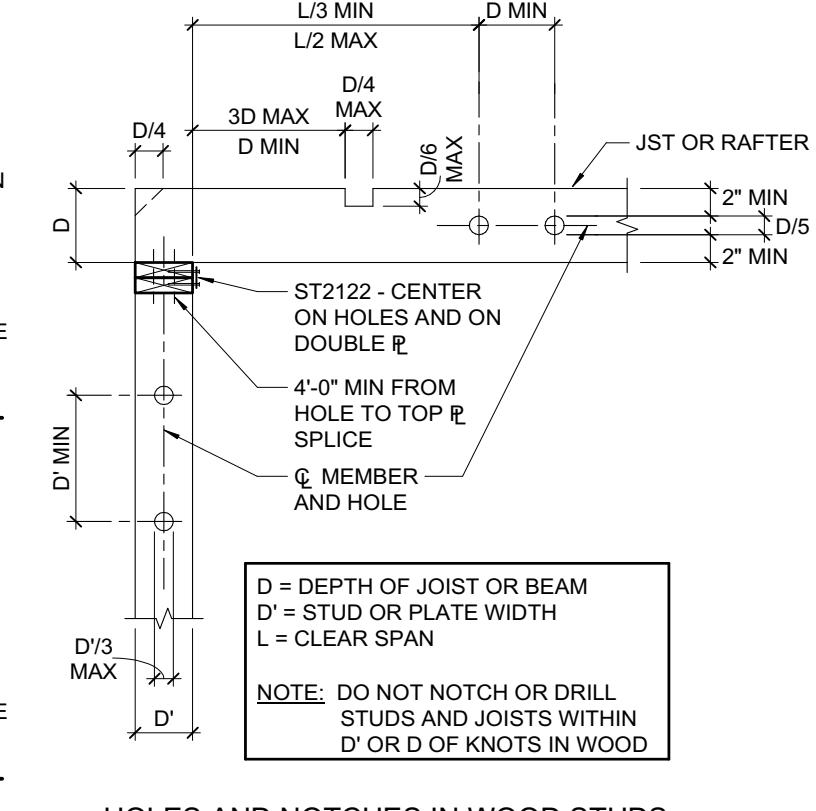
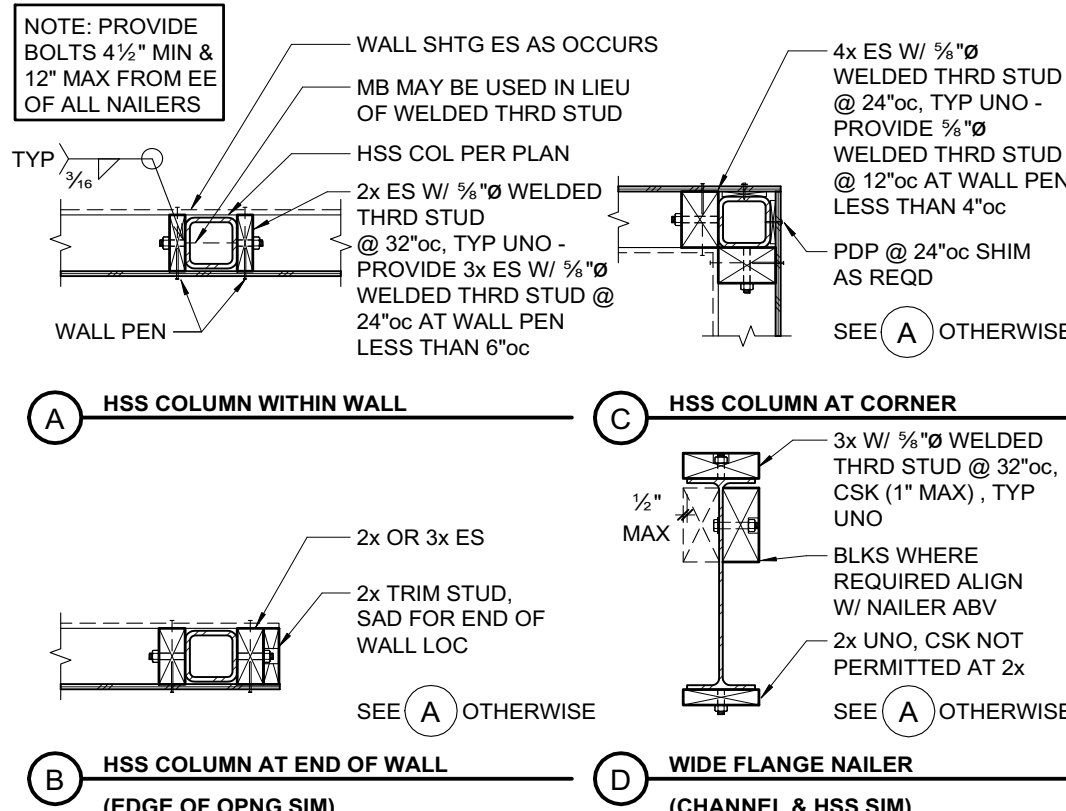
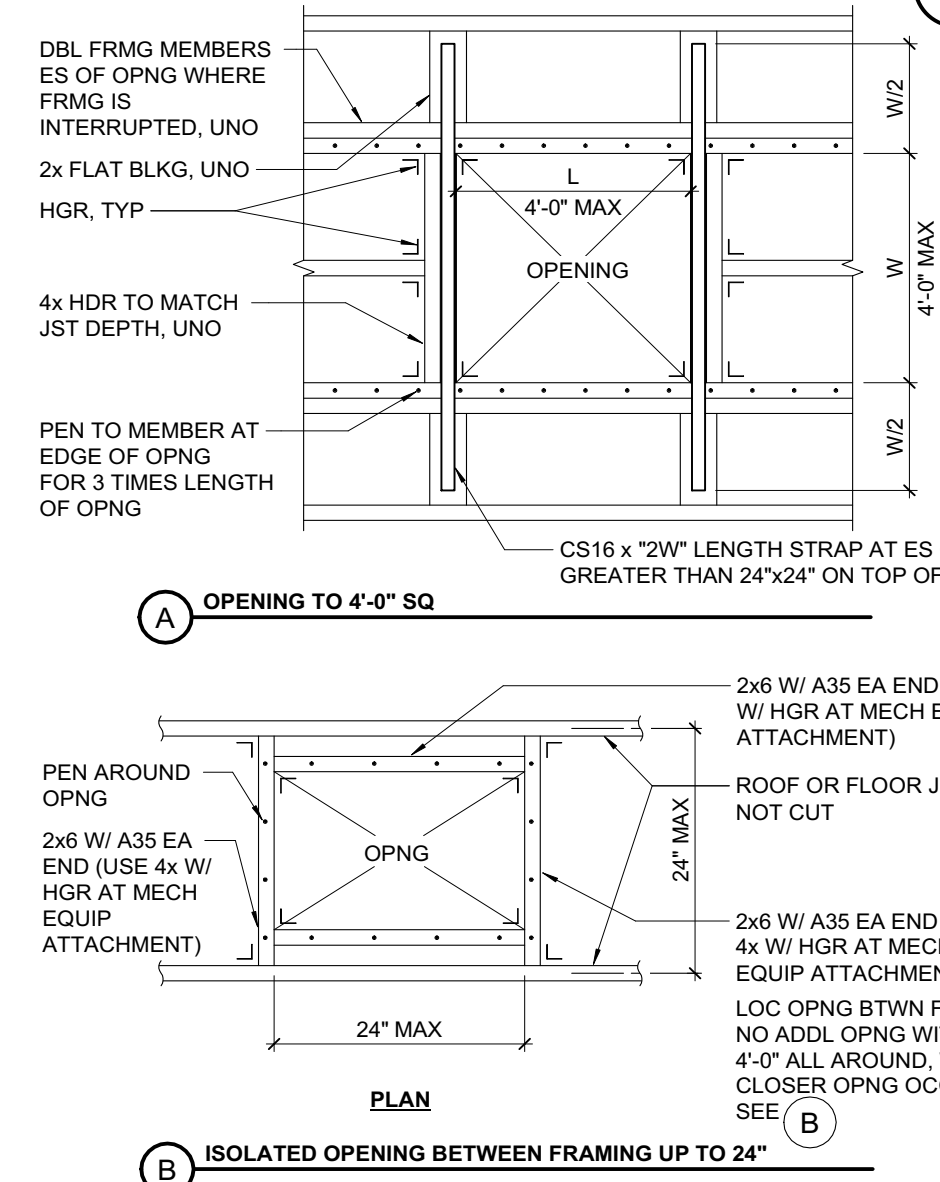
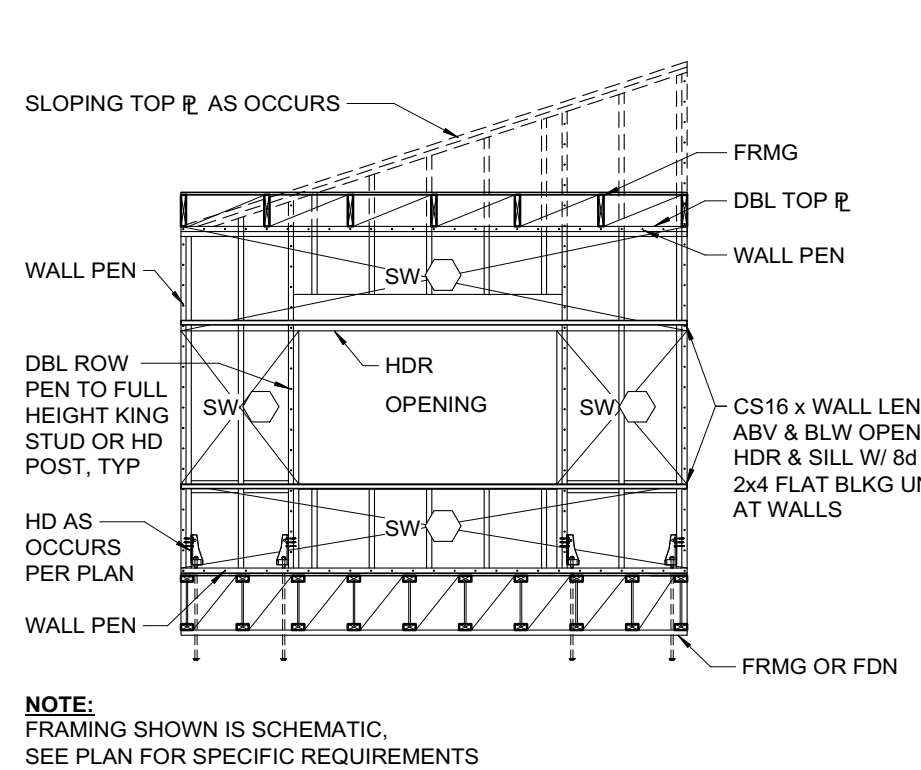
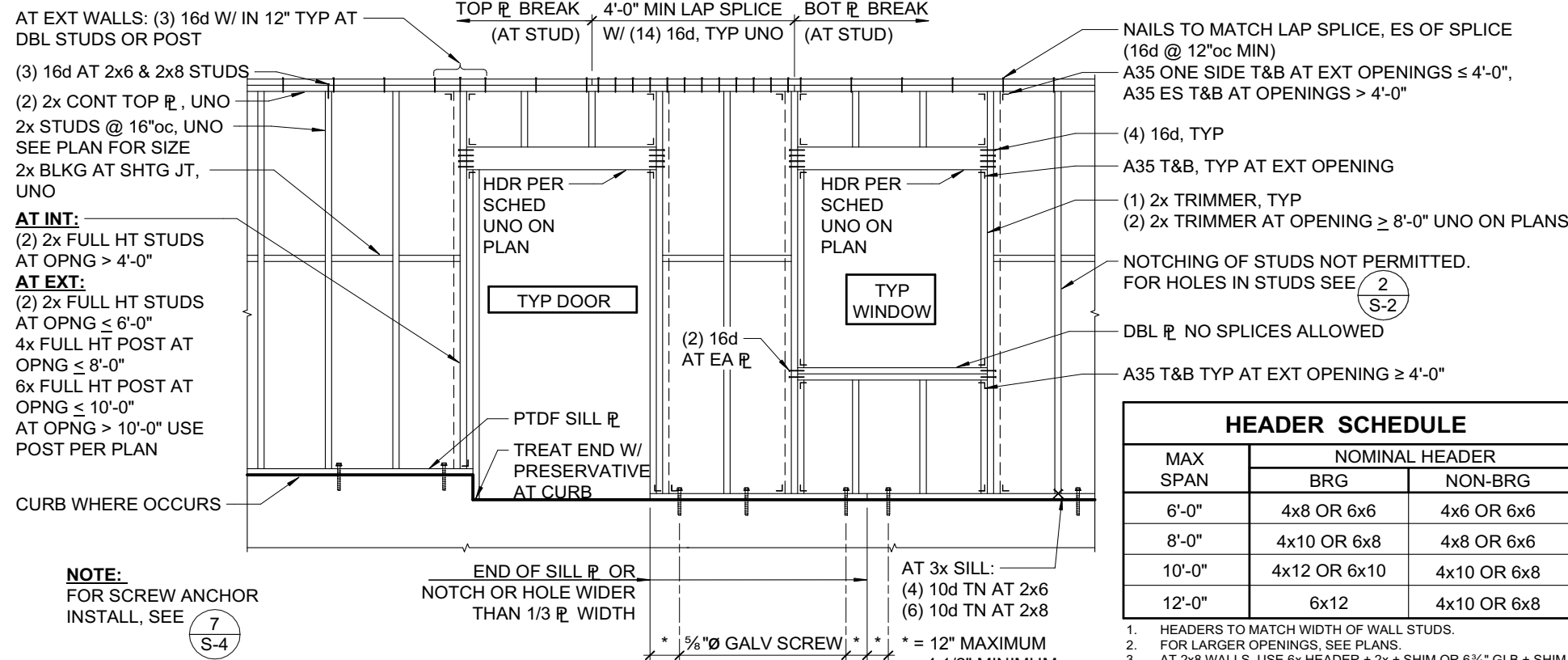
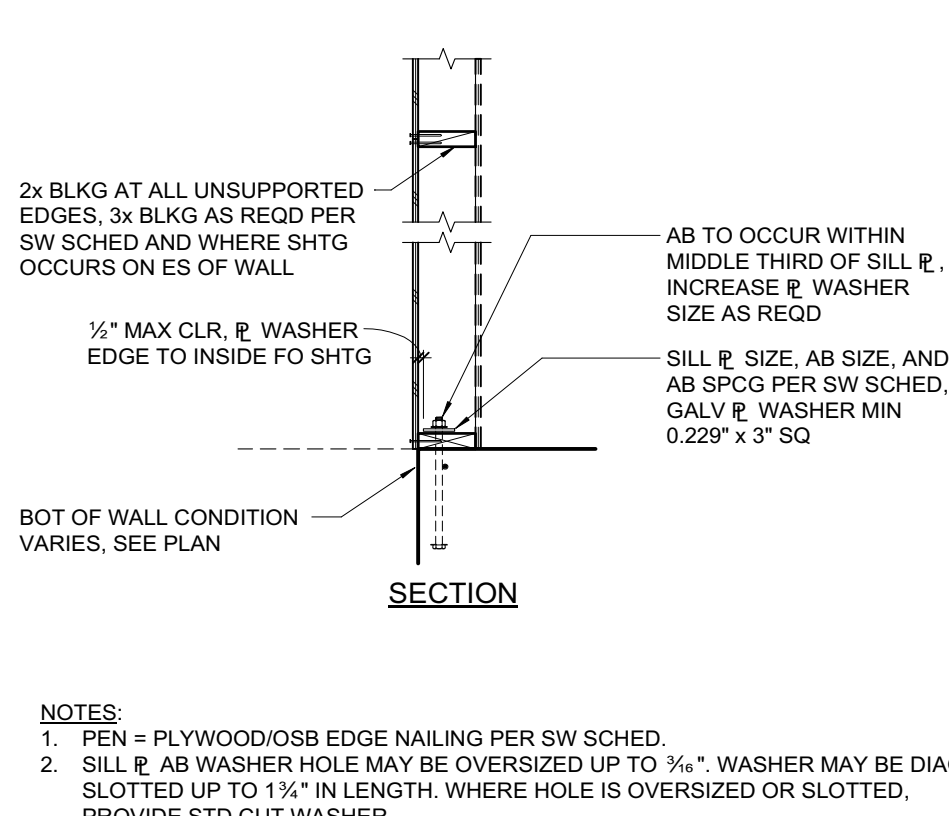
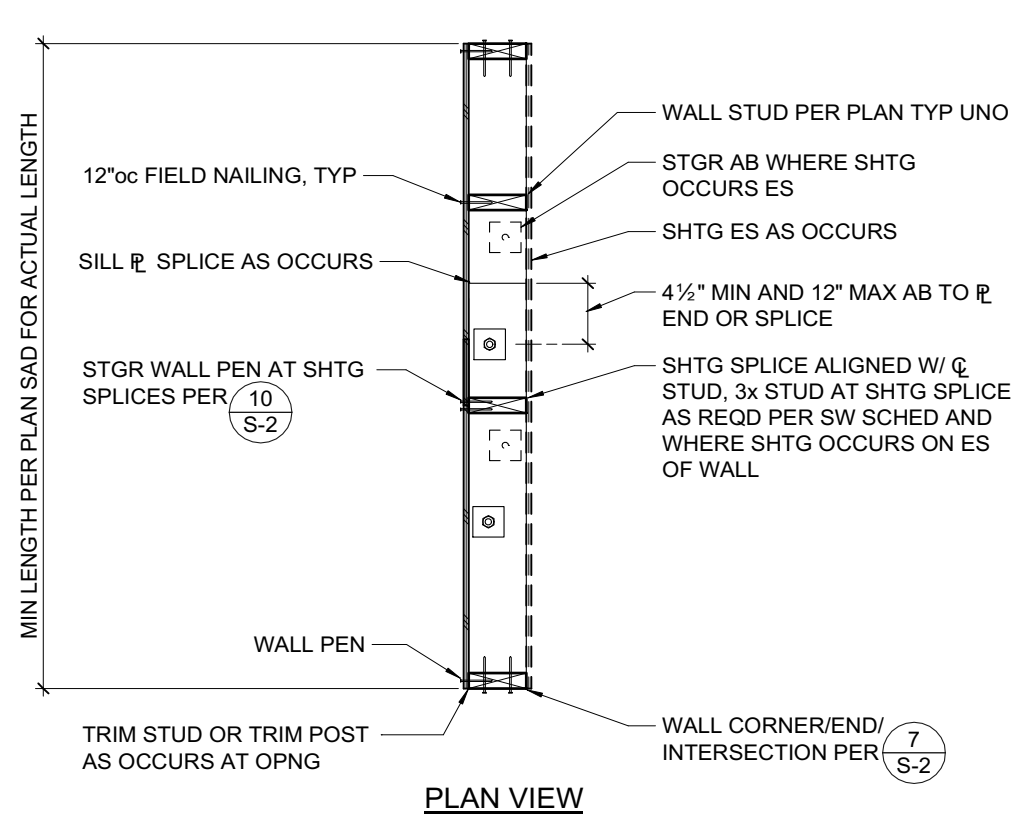
GENERAL NOTES

1. REFER TO SHEET **9-2** FOR STANDARD DETAILS OF CONSTRUCTION. REFER TO THE PROJECT SPECIFICATION REQUIREMENTS FOR MATERIALS AND METHODS.
2. BUILDING DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS (SAD) FOR ALL ACTUAL BUILDING DIMENSIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER SO CLARIFICATION CAN BE MADE PRIOR TO COMMENCING WORK.
3. STRUCTURAL DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK.
4. DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR SIDEWALK SLABS AND DIMENSIONS.
6. COORDINATION OF MECHANICAL, ELECTRICAL, PLUMBING, AND SITE UTILITY SYSTEMS WITH THE STRUCTURAL SYSTEM IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. USE DETAILS **2/5-2**, **6/5-2** AND **5/5-2**. AT CONDITIONS WHERE THESE DETAILS DO NOT APPEAR TO APPLY, NOTIFY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. AT CONDITIONS WHERE FIELD MODIFICATION OF MECHANICAL, ELECTRICAL, PLUMBING, OR SITE UTILITIES AFFECT STRUCTURAL SYSTEMS, NOTIFY STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
7. SPECIAL INSPECTIONS ARE REQUIRED PER **D/5-1** AND THE TESTING AND INSPECTION FORM.
8. STRUCTURAL OBSERVATION PER CBC SECTION 1704.6 IS NOT REQUIRED.
9. NOTIFY ZFA FOR GENERAL REVIEW OF:

FOUNDATION & (E) CONSTRUCTION NOTE

1. EXISTING WET WELL TO BE RE-USED TO SUPPORT NEW WOOD FRAMED CONSTRUCTION.
2. ORIGINAL CONSTRUCTION DRAWINGS WERE NOT AVAILABLE FOR REVIEW AT THE TIME THESE DOCUMENTS WERE PREPARED. EXISTING BUILDING CONDITIONS SHOWN ARE ASSUMED BASED ON INFORMATION PROVIDED BY OTHERS AND ASSUMPTIONS BASED ON PROBABLE CONSTRUCTION METHODS. ACTUAL FIELD CONDITIONS MAY VARY. FOR CONC WET WELL INFO, SEE REPORT #1805225 BY CEL CONSULTING DATED JUNE 4TH, 2018.
3. ALL WORK NOT INDICATED AS EXISTING (E) SHALL BE ASSUMED TO BE NEW (N).
4. ANY REMOVAL, CUTTING, DRILLING, ETC OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE. SMALL TOOLS SHALL BE USED IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE STRUCTURE. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL ELEMENTS NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT/ENGINEER SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF THE MEMBERS.
5. DO NOT OVER CUT EXISTING WORK, CONCRETE, MASONRY OR OTHER WORK TO REMAIN. CUTS SHALL BE MADE NEATLY TO A CORNER, THEN ALTERNATE MEANS SHALL BE USED TO REMOVE REMAINING MATERIAL. CONTRACTOR IS RESPONSIBLE FOR REPAIR/REPLACEMENT OF OVER CUT MATERIAL AS DIRECTED BY THE ARCHITECT AND/OR ENGINEER.
6. EXISTING DAMAGED STRUCTURAL MEMBERS WHICH ARE UNCOVERED SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND REPAIR.
7. EXISTING CONCRETE SURFACE ABUTTING NEW CONCRETE SHALL BE ROUGHENED TO 1/4" AMPLITUDE AND THOROUGHLY CLEANED OF DUST, LOOSE AGGREGATE, LAITANCE, ETC.
8. REMODELING REQUIRES ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS WHICH MAY NOT BE VERIFIABLE WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE STRUCTURE. THIS ANALYSIS DOES NOT MAKE ANY GUARANTEE TO THE ADEQUACY OF THE STRUCTURAL DESIGN OF THE EXISTING BUILDING BUT SPECIFICALLY ADDRESSED IN THE STRUCTURAL ANALYSIS. REPAIRS SHALL BE MADE TO THE EXISTING STRUCTURE TO MAINTAIN PERFORMANCE OF EXISTING PORTIONS OF THE STRUCTURE NOT SPECIFICALLY ADDRESSED IN THE CONSTRUCTION DOCUMENTS.

THIS DOCUMENT AND THE IDEAS INCORPORATED HEREIN ARE THE PROPERTY OF THE ENGINEER AND ARE NOT TO BE LOANED, REPRODUCED, COPIED, OR IN ANY MANNER USED FOR ANY OTHER WRITTEN AUTHORIZATION OF THE ENGINEER.		ZFA STRUCTURAL ENGINEERS 1303 jefferson street napa ca 94559 707.492.3452 zfa.com copyright © 2018	
PREPARED FOR		CITY OF ST. HELENA	
CITY OF ST. HELENA		REVISIONS	
CRINELLA PUMP STATION		1	
UPGRADE PROJECT		2	
GENERAL NOTES AND		3	
SPECIFICATIONS		4	
DATE		OCT 2018	
SCALE		S-1	
SHEET NO.		20 OF 27	
PROJECT NO.		P18033	
wreco		REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER P. JONES No. 85246 STATE OF CALIFORNIA	
1000 Broadway, Suite 425 Oakland, California 94612		(C10) RUC-510R	
ENGINEER		CHECKED:	
ABL / CL		APPROVED:	
PROJECT MANAGER:		NO	
C.J.		DATE	
		APPROVAL	



ZFA STRUCTURAL ENGINEERS
1303 Jefferson Street | Suite 400a
napa ca 94559
zfa job no. P18033

THIS DOCUMENT AND THE DESIGN INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF ZFA STRUCTURAL ENGINEERS. NO PART OF THIS DOCUMENT OR THE DESIGN INFORMATION CONTAINED HEREIN MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF ZFA STRUCTURAL ENGINEERS.

REVISIONS		DESCRIPTION	BY	DATE	APPROVED



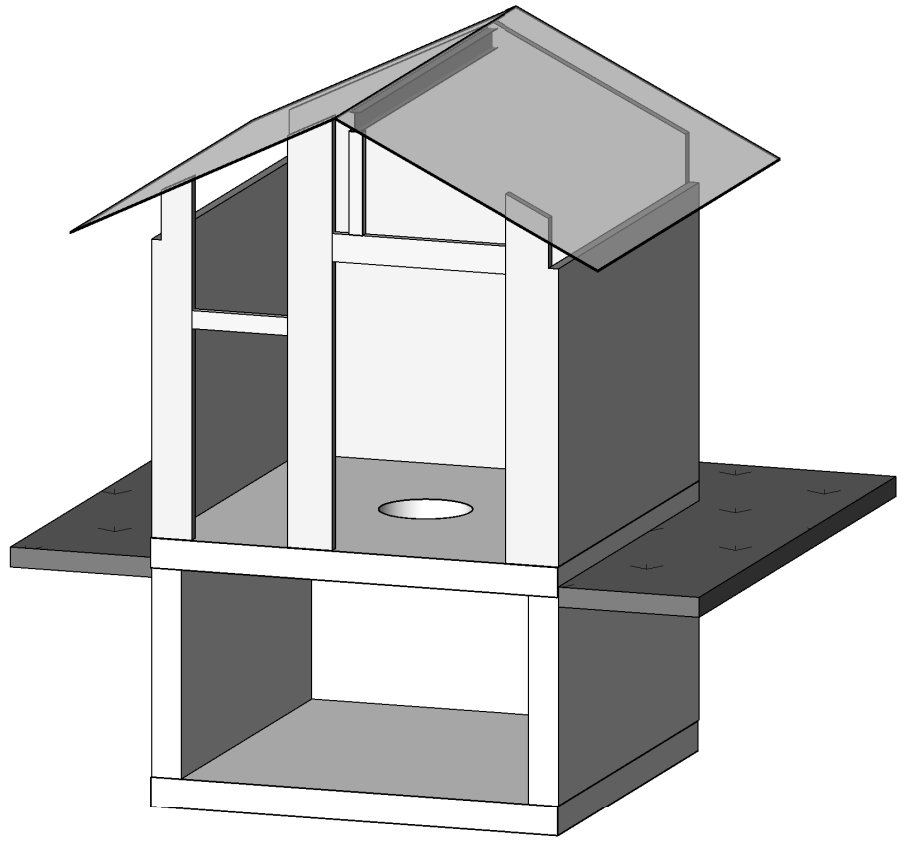
wreco 1000 Broadway, Suite 475 Oakland, California 94612 (415) 881-5100	
ENGINEER: ABL / CL	CHECKED:
PROJECT MANAGER: CL	APPROVED:

PREPARED FOR CITY OF ST. HELENA CRINELLA PUMP STATION UPGRADE PROJECT TYPICAL DETAILS
REVIEWED:
APPROVAL

DATE OCT 2018	SCALE
SHEET NO. S-2	
PROJECT NO. P18033	

PRELIMINARY - NOT FOR CONSTRUCTION

9/21/2018 1:20:13 PM C:\revit\locall18213 CRINELLA_S18C_ZFA_ABL.rvt



3D SCHEMATIC

FOUNDATION AND FRAMING PLAN NOTES:

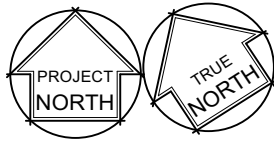
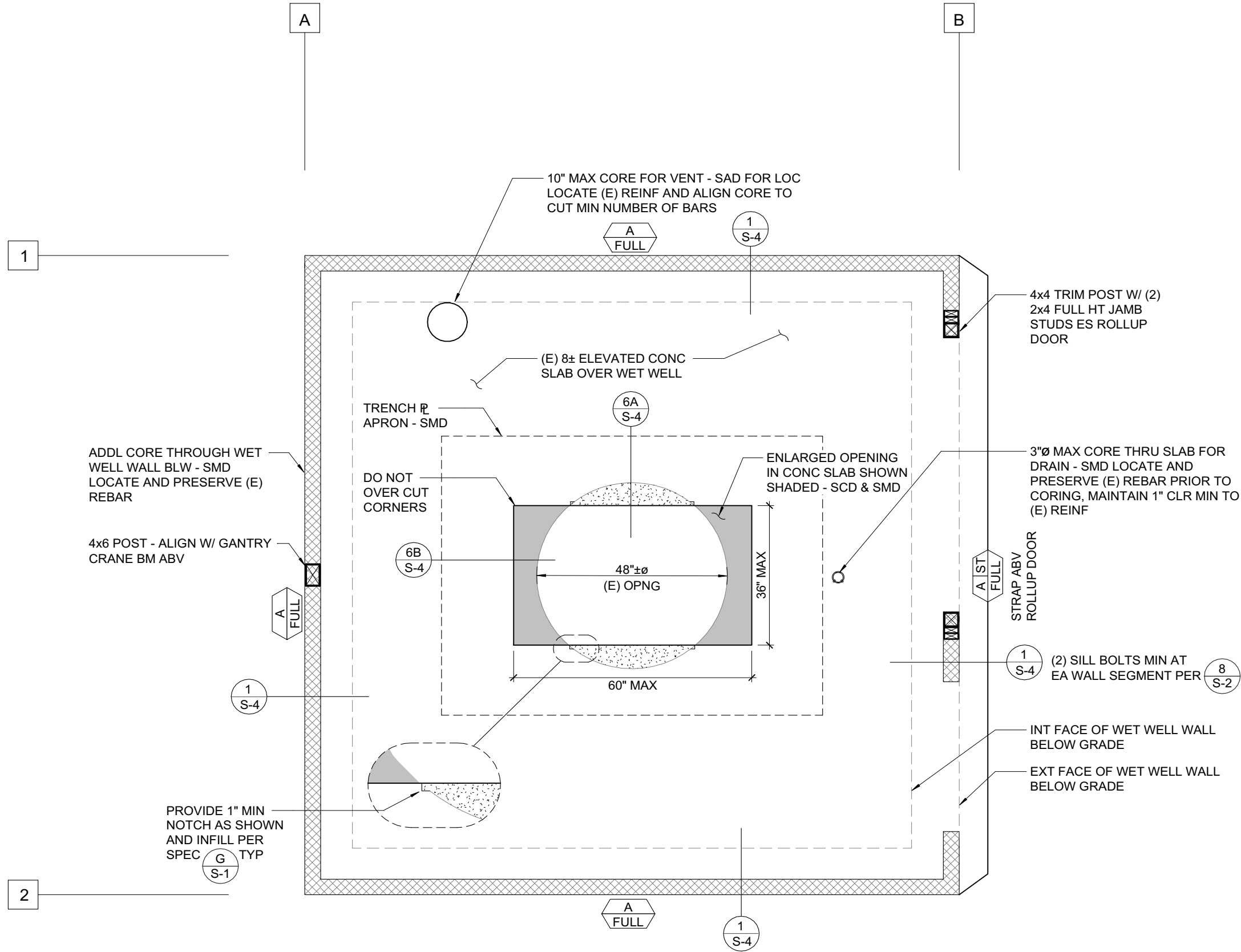
1. REFER TO SHEETS S-1 AND S-2 FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.
2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
3. COORDINATE TOP OF FRAMING AND LEDGER HEIGHTS AS REQUIRED TO PROVIDE ROOF SLOPES AS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS (INCLUDING WALLS ADJACENT TO SEISMIC GAPS) SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE. UNO.
5. MECHANICAL, ELECTRICAL AND PLUMBING PENETRATIONS THROUGH WALLS, ROOFS OR FLOORS SHALL BE PER REFERENCES BELOW UNLESS SHOWN AND DETAILED OTHERWISE ON THE STRUCTURAL PLANS. NOTIFY ARCHITECT/ENGINEER PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.

PENETRATIONS THROUGH SHEAR WALLS SHALL BE PER S-S-2 .
PENETRATIONS THROUGH EXISTING CONCRETE ARE AS SHOWN ON PLAN. COORDINATE WITH ARCH, CIVIL, AND MECHANICAL DRAWINGS.

PLAN LEGEND		
SYMBOL	REFERENCE DETAIL	DESCRIPTION
	1/S-2	INDICATES STRUCTURAL WALL.
	8/S-2 F/S-1	INDICATES SHEAR WALL TYPE AND MINIMUM WALL LENGTH. SYMBOL LOCATION INDICATES SHEATHED FACE OF WALL UNLESS NOTED OTHERWISE.
	9/S-2	INDICATES STRAPPED SHEAR WALL WITH TYPE AND OVERALL WALL LENGTH. SEE ARCHITECTURAL DRAWINGS FOR OPENINGS.
	E/S-1	INDICATES WOOD POST.
		INDICATES FOUNDATION.
		INDICATES STEP IN ELEVATION, SEE ARCHITECTURAL DRAWINGS.
	8/S-2	INDICATES SHEAR WALL TYPE, MINIMUM NUMBER OF SILL BOLTS (IN ADDITION TO HOLDDOWN BOLTS) AND MINIMUM WALL LENGTH.
	88	INDICATES GRIDLINE AT FACE OF STUD.
		INDICATES EXISTING WET WELL WALL BELOW GRADE.
	G/S-1	INDICATES EXISTING OPENING TO BE INFILLED PER SPECIFICATIONS. INSTALL PRODUCT PER MANUFACTURER RECOMMENDATIONS.

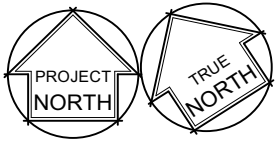
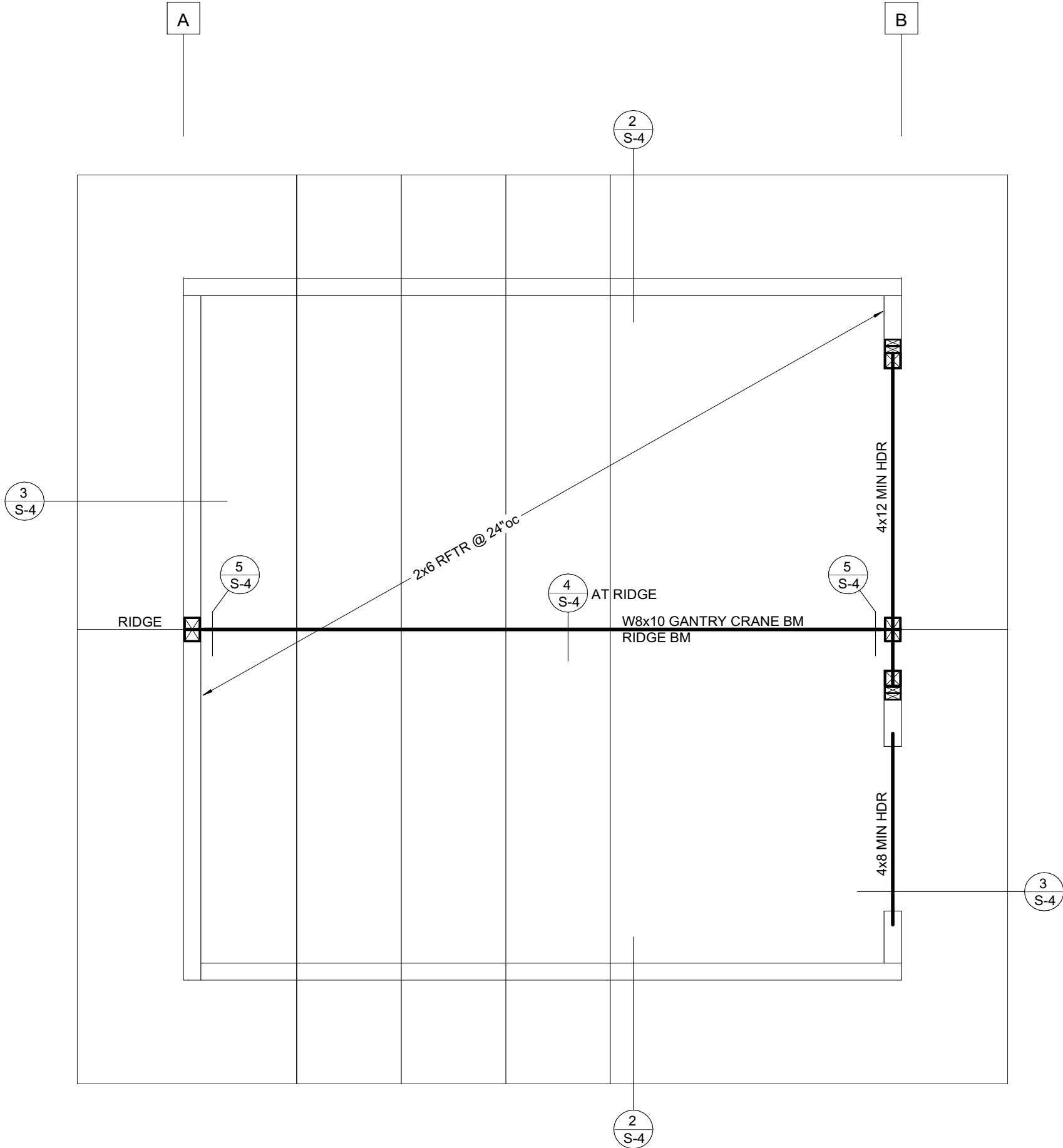
GANTRY CRANE NOTES:
REFER TO CIVIL DRAWINGS FOR GANTRY CRANE MODEL AND ATTACHMENT TO GANTRY CRANE BEAM. MAX LOADING SHALL BE 1000 POUNDS. NOTIFY ENGINEER OF ANY DISCREPANCIES.

SHEAR WALL SCHEDULE					
SW	APA RATED SHEATHING	NAILING (PEN)	ANCHORAGE		REMARKS
			%B BOLT FDN		
			2x SILL	3x SILL	
(A)	1 ⁵ / ₃₂ " (32/16) EXP 1	8d @ 6"oc	48"oc	48"oc	
(B)	1 ⁵ / ₃₂ " (32/16) EXP 1	8d @ 4"oc	32"oc	32"oc	



FRAMING PLAN

1/2" = 1'-0"



ROOF FRAMING PLAN

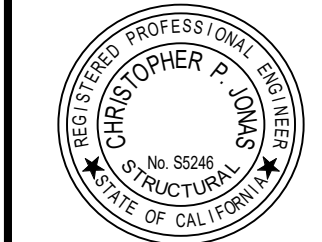
1/2" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

ZFA STRUCTURAL ENGINEERS
1303 Jefferson street | suite 400a
napa ca 94559
zfa job no. P18033

THIS DOCUMENT AND THE DESIGN INFORMATION HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF THE ENGINEER. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER.

wreco
1000 Broadway, Suite 475
Oakland, California 94607



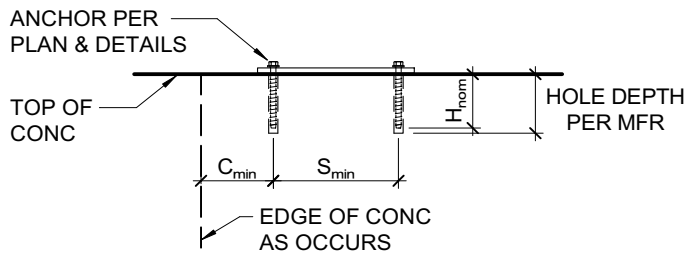
ENGINEER	PROJECT MANAGER
ABL / CL	CJ
CHECKED:	APPROVED:
(S.D.) DATE: 5/1/18	

REVIEWED:	REVIEWED:	APPROVAL	RECOMMENDED:
CITY OF ST. HELENA	CITY OF ST. HELENA	CITY OF ST. HELENA	CITY OF ST. HELENA
CRINELLA PUMP STATION	CRINELLA PUMP STATION	CRINELLA PUMP STATION	CRINELLA PUMP STATION
UPGRADE PROJECT	UPGRADE PROJECT	UPGRADE PROJECT	UPGRADE PROJECT
FOUNDATION AND ROOF FRAMING	FOUNDATION AND ROOF FRAMING	FOUNDATION AND ROOF FRAMING	FOUNDATION AND ROOF FRAMING
PLANS	PLANS	PLANS	PLANS

DATE	SCALE
OCT 2018	S-3
SHEET NO.	OF
22	27
PROJECT NO.	
P18033	

REVISIONS	DESCRIPTION	BY	DATE	APPROVED

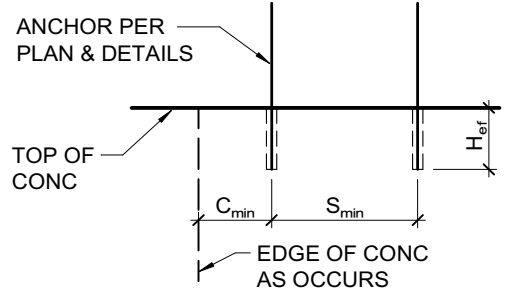
SCREW ANCHOR IN 2500 PSI MIN CONCRETE							
ANCHOR TYPE	ANCHOR AND PILOT HOLE DIA	MINIMUM EMBEDMENT H _{em}	MINIMUM EDGE DIST C _{min}	MINIMUM SPCG S _{min}	MINIMUM CONCRETE DEPTH H _{min}	INSTALL TORQUE (FT-LB)	MAX INSTALL TORQUE (FT-LB)
SIMPSON TITEN HD (ICC-ESR 2713)	3/8"	2 1/2"	1 3/4"	3"	4"	10	50
	1/2"	3 1/4"	1 3/4"	3"	5"	10	65
	5/8"	4"	1 3/4"	3"	6"	10	100
HILTI KH-EZ (ICC-ESR 3027)	3/8"	2 1/2"	1 1/2"	3"	4"	20	40
	1/2"	3"	1 3/4"	3"	4 3/4"	10	45
	5/8"	3 1/4"	1 3/4"	4"	5"	10	85
	3/4"	4"	1 3/4"	4"	6"	20	115



- NOTES:**
1. INSTALL SCREW ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 OF THE CBC AND THE REQUIREMENTS OF THE ICC REPORTS. INSTALLED ANCHORS SHALL BRING CONNECTED PLIES INTO FIRM CONTACT, MEETING THE INSTALL TORQUE BUT NOT EXCEEDING THE MAXIMUM INSTALL TORQUE.
 2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
 3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
 4. THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND TIGHTENING TORQUE.

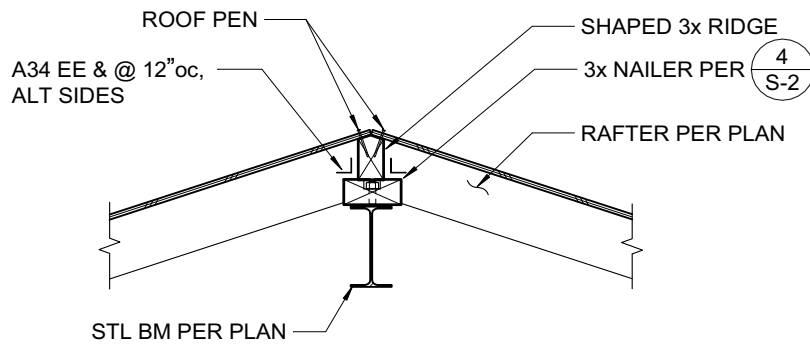
7 SCREW ANCHOR IN CONCRETE
3/4" = 1'-0"

ADHESIVE ANCHOR IN 2500 PSI MIN CONCRETE							
ADHESIVE TYPE	ANCHOR		PILOT HOLE H _{pl}	MIN EMBED UNO H _u	MIN EDGE DISTANCE C _{min}	MIN SPCG S _{min}	MIN CONC DEPTH H _{min}
	THRD ROD	REBAR					
SIMPSON SET-XP (ICC-ESR 2508)	3/8"	#3	3"	3"	1 1/4"	3"	5"
	1/2"	#4	3/4"	4"	1 3/4"	3"	6 1/2"
	3/8"	#5	3/4"	5"	1 3/4"	3"	8 1/4"
	3/4"	#6	7/4"	6"	1 3/4"	3"	9 3/4"
	7/8"	#7	1"	7"	1 3/4"	3"	11 1/2"
	1"	#8	1 1/4"	8"	1 3/4"	3"	13"
	1 1/4"	#10	1 3/4"	10"	2 1/4"	6"	16 1/4"
HILTI HIT-HY 200R (ICC-ESR 3187)	3/8"	N/A	7/8"	3"	1 3/4"	1 1/2"	4 1/4"
	N/A	#3	1/2"	3"	1 3/4"	1 1/2"	4 1/4"
	1/2"	N/A	3/4"	4"	1 3/4"	2 1/2"	5 1/4"
	N/A	#4	3/4"	4"	1 3/4"	2 1/2"	5 1/4"
	3/4"	#5	3/4"	5"	1 3/4"	3 1/4"	6 1/4"
	3/4"	#6	7/4"	6"	1 3/4"	3 3/4"	7 3/4"
	7/8"	#7	1"	7"	1 3/4"	4 3/4"	9"
	1"	#8	1 1/4"	8"	1 3/4"	5"	10 1/4"
	N/A	#9	1 3/4"	9"	1 3/4"	5 3/4"	11 1/2"
	1 1/4"	N/A	1 3/4"	10"	1 3/4"	6 1/4"	12 3/4"
	N/A	#10	1 3/4"	10"	1 3/4"	6 1/4"	13"

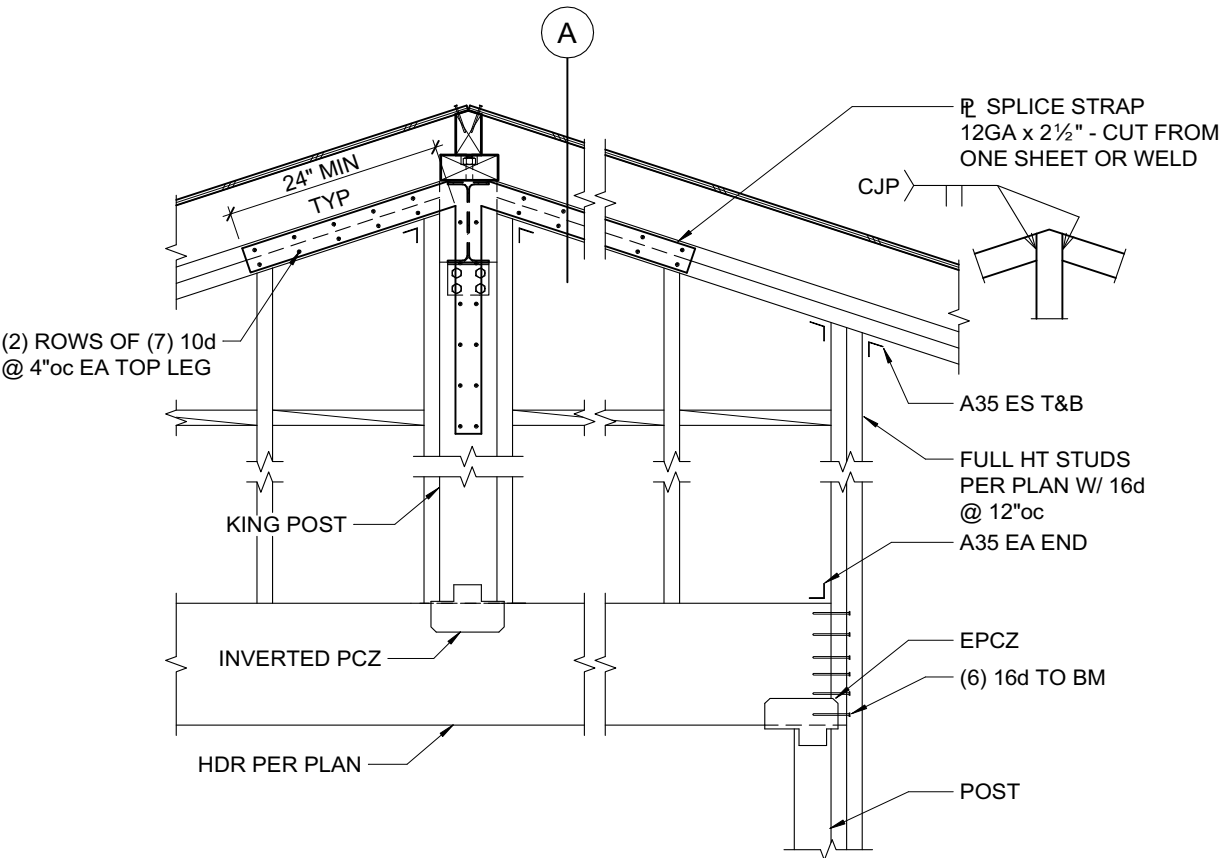
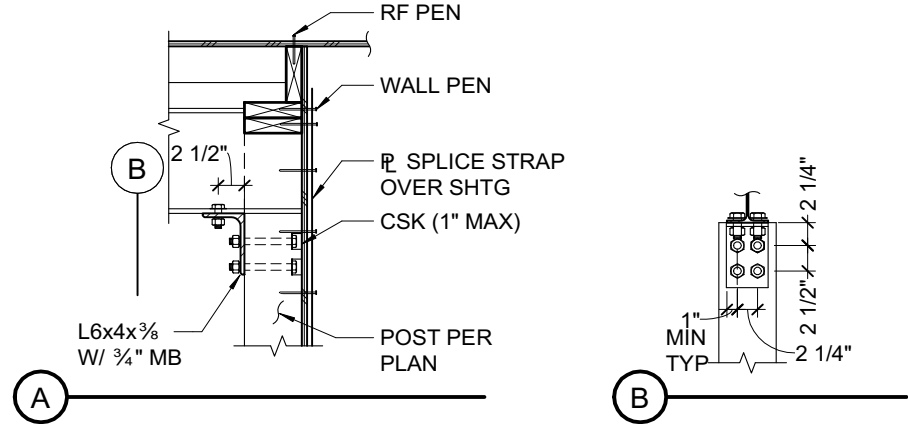


- NOTES:**
1. INSTALL ADHESIVE ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT.
 2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING, AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
 3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN DRILLING HOLES IN EXISTING CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
 4. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 AND THE REQUIREMENTS OF THE ICC REPORTS. THE SPECIAL INSPECTOR MUST BE ON THE JOB SITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND ADHESIVE INJECTION.

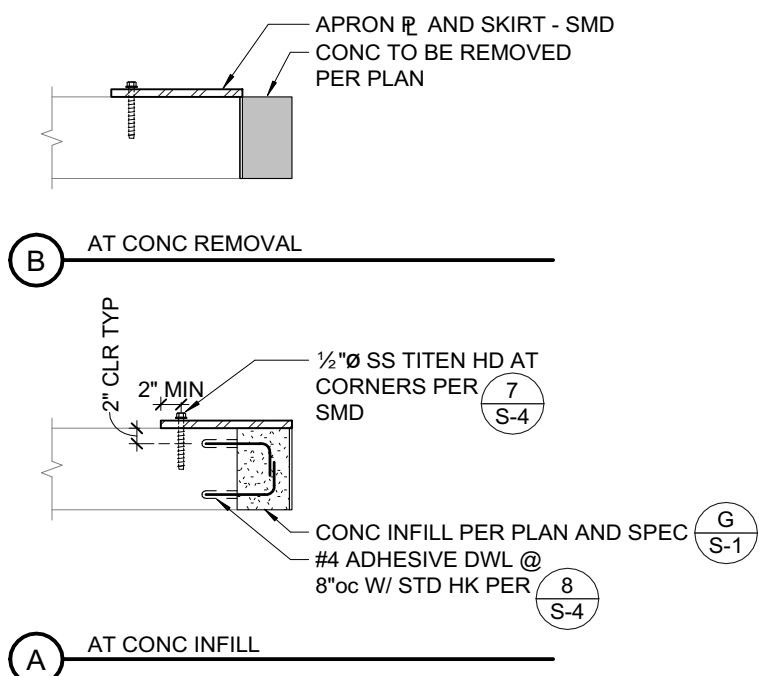
8 ADHESIVE ANCHOR IN CONCRETE
3/4" = 1'-0"



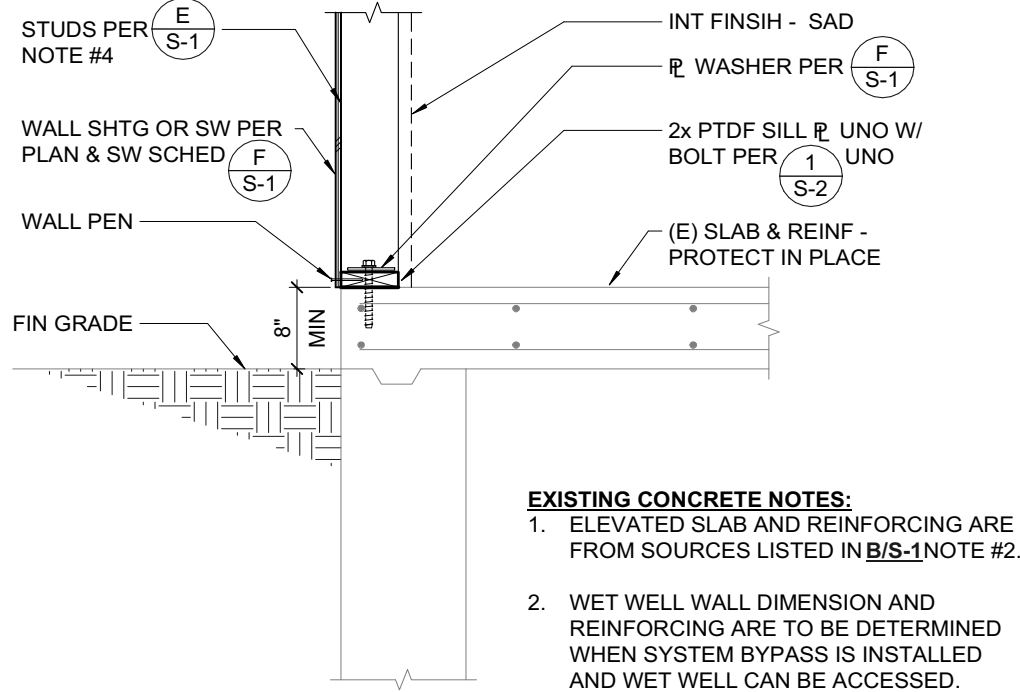
4 FRAMING AT RIDGE BEAM
3/4" = 1'-0"



5 BEAM AT WALL OPENING
3/4" = 1'-0"

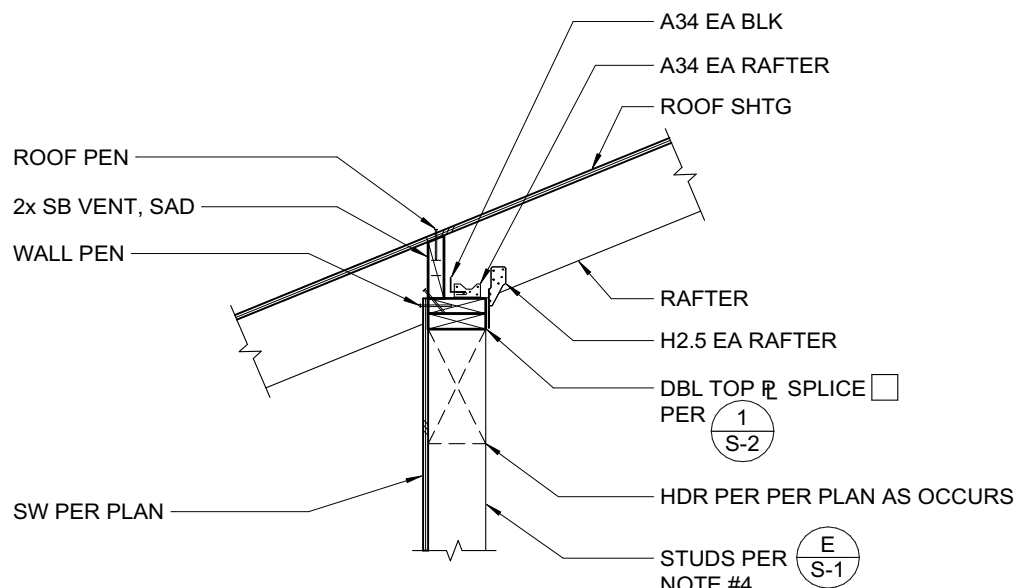


6 ENLARGED OPENING IN ELEVATED SLAB
3/4" = 1'-0"

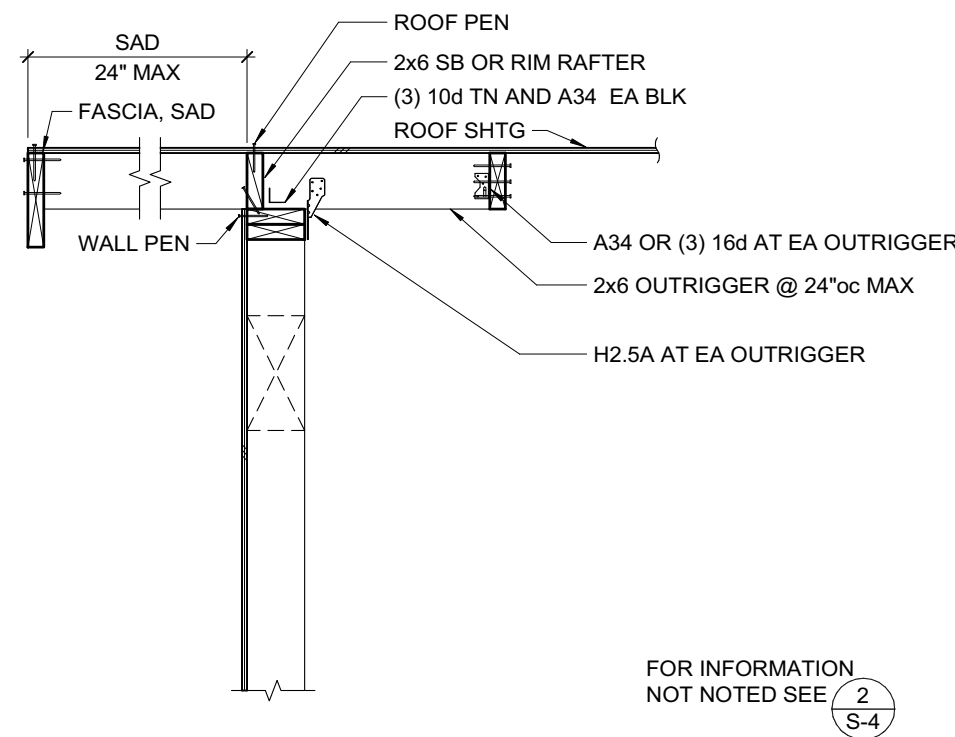


- EXISTING CONCRETE NOTES:**
1. ELEVATED SLAB AND REINFORCING ARE FROM SOURCES LISTED IN B/S-1 NOTE #2.
 2. WET WELL WALL DIMENSION AND REINFORCING ARE TO BE DETERMINED WHEN SYSTEM BYPASS IS INSTALLED AND WET WELL CAN BE ACCESSED.

1 NEW FRAMING AT ELEVATED SLAB
3/4" = 1'-0"



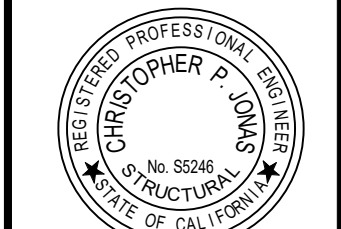
2 TYPICAL EXTERIOR WALL
3/4" = 1'-0"



3 TRUSS PARALLEL AT EXTERIOR WALL
3/4" = 1'-0"

ZFA STRUCTURAL ENGINEERS
1303 Jefferson street | suite 400a
napa ca 94559
zfa job no. P18033

THIS DOCUMENT AND THE DESIGN INFORMATION HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF ZFA STRUCTURAL ENGINEERS. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER.



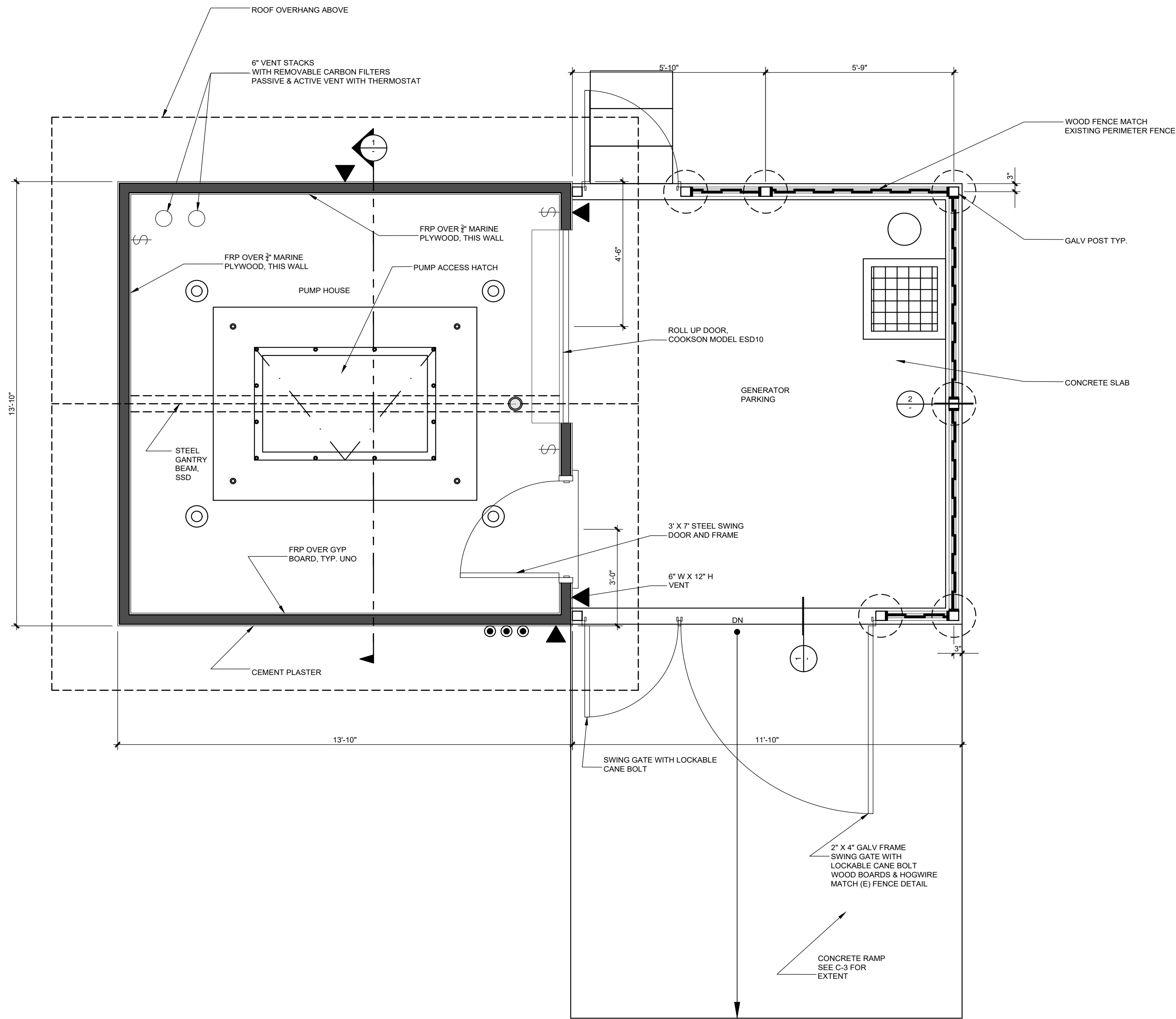
wreco
1000 Broadway, Suite 425
Oakland, California 94607

PREPARED FOR CITY OF ST. HELENA
CITY OF ST. HELENA
CRINELLA PUMP STATION
UPGRADE PROJECT
FOUNDATION AND FRAMING DETAILS

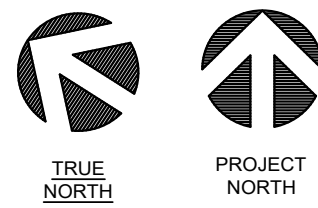
DATE: OCT 2018
SCALE: S-4
SHEET NO. 23 OF 27
PROJECT NO. P18033

REVISIONS		DESCRIPTION	BY	DATE	APPROV
NO.	DATE				

PRELIMINARY - NOT FOR CONSTRUCTION



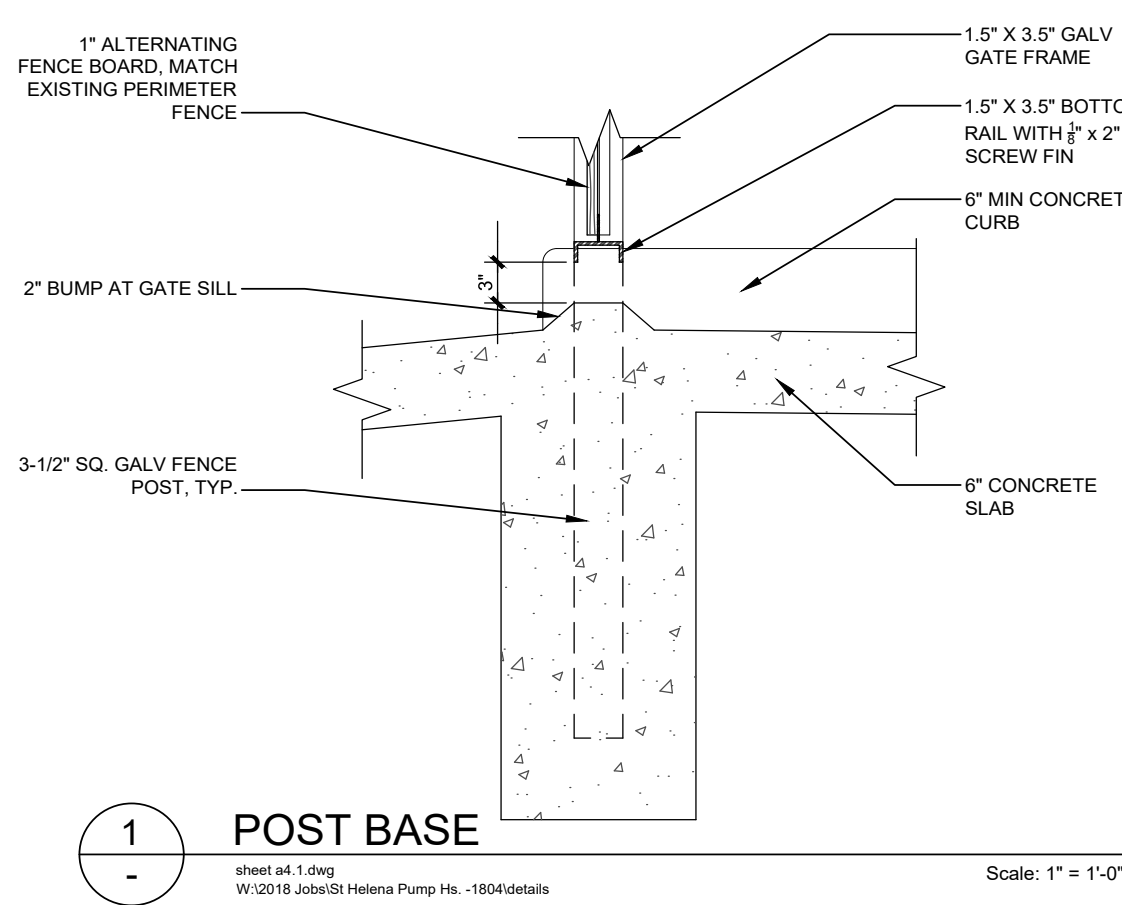
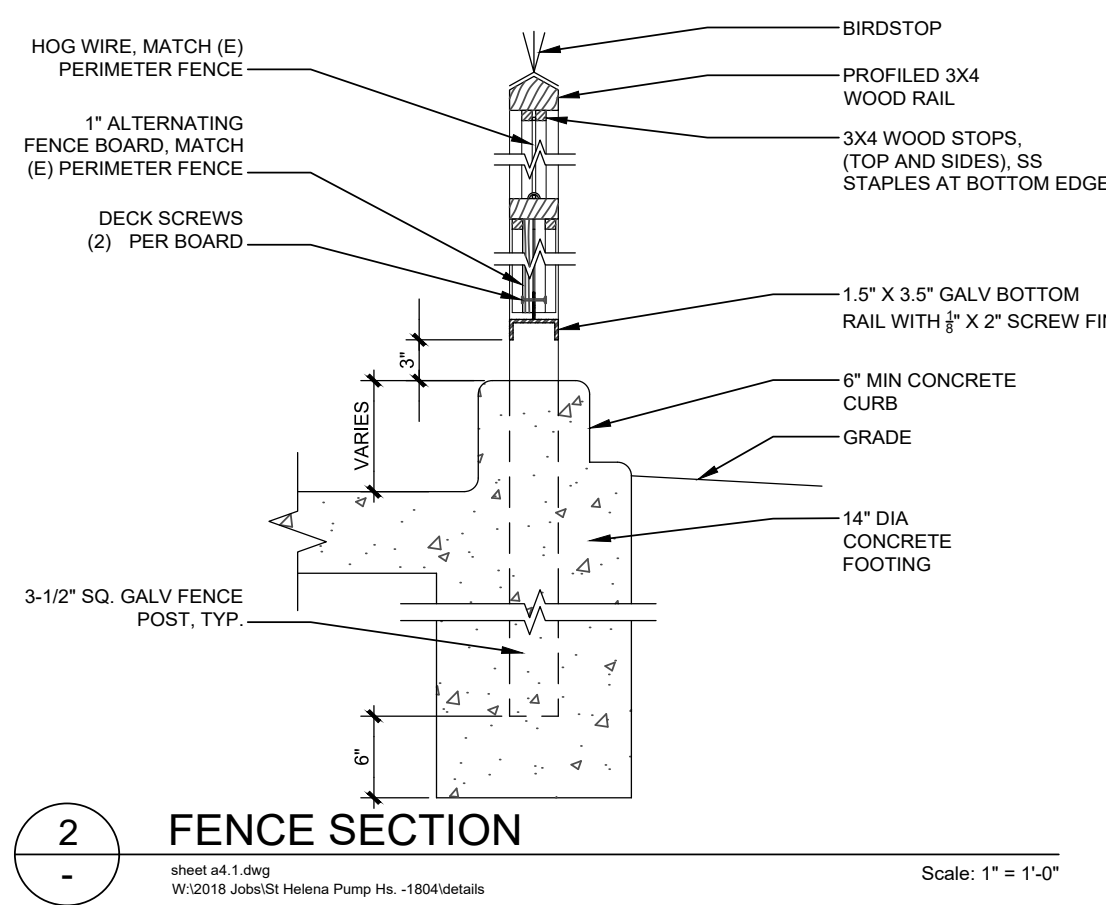
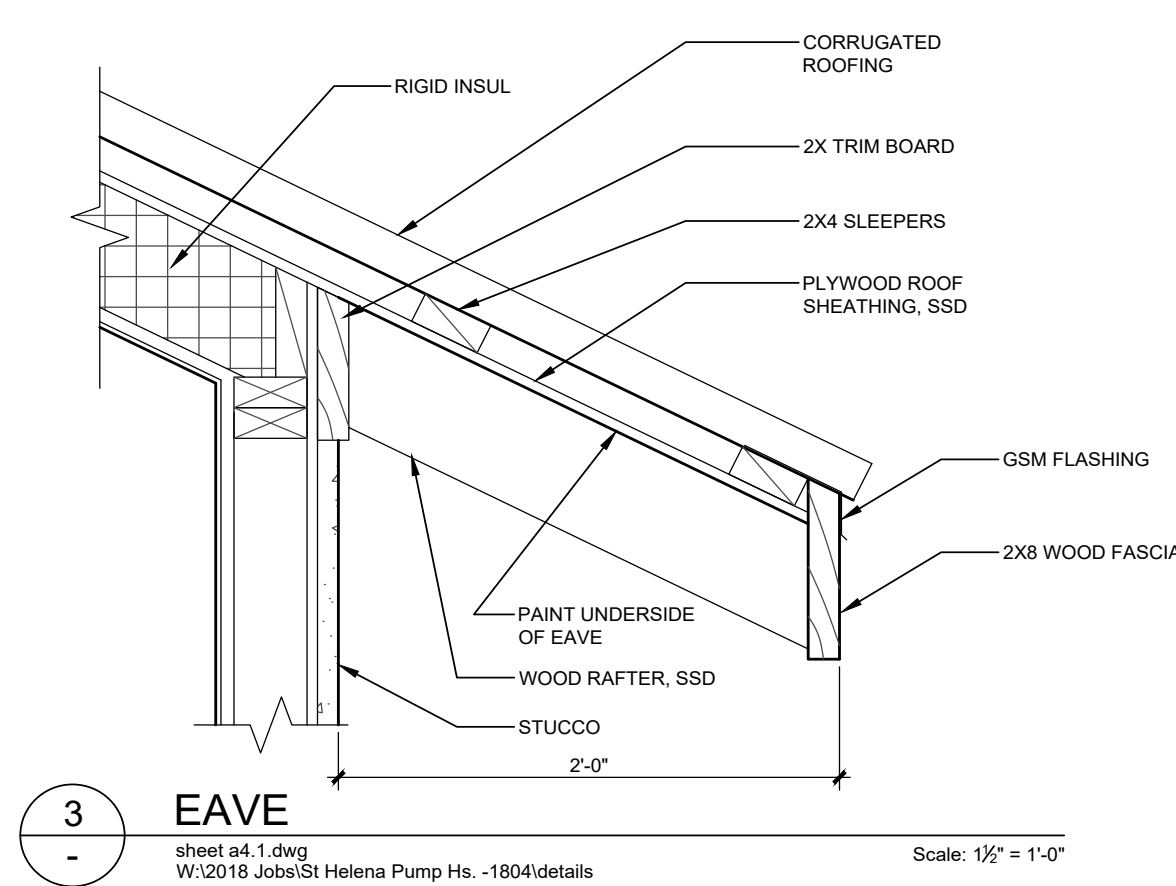
PLAN
Scale: 1/2" = 1'-0"



THIS DOCUMENT AND THE IDEAS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF ARCHITECT AND IS NOT TO BE USED, IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ARCHITECT.

NOT FOR CONSTRUCTION

DATE		SCALE	
OCT 2018		NO SCALE	
A-2			
SHEET NO.		OF	
25		27	
PROJECT			
P18033			
PREPARED FOR		CITY OF ST. HELENA	
CITY OF ST. HELENA		CRINELLA PUMP STATION	
UPGRADE PROJECT		FLOOR PLAN	
REVISED:		REVISED:	
APPROVAL RECOMMENDED:		APPROVAL RECOMMENDED:	
DESIGNED:		DESIGNED:	
DC		DC	
CHECKED:		CHECKED:	
TF		TF	
DRAWN:		DRAWN:	
DC		DC	
VALLEY ARCHITECTS LLP		1560 RAILROAD AVENUE	
ST. HELENA, CA 94574		TEL 707 863 1468	
WWW.VALLEYARCHITECTS.COM		FAX 707 863 9927	
REVISED:		REVISED:	
NO.		NO.	
DESCRIPTION		BY	
DATE		REVISED	



THIS DOCUMENT AND THE IDEAS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF ARCHITECT AND IS NOT TO BE USED, IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ARCHITECT.

NOT FOR CONSTRUCTION

DATE		SCALE	
OCT 2018		NO SCALE	
SHEET NO. A-4			
27 OF 27			
PROJECT NO. P18033			
PREPARED FOR		CITY OF ST. HELENA	
CITY OF ST. HELENA		CRINELLA PUMP STATION	
UPGRADE PROJECT		DETAILS	
REVIEWED:		VALLEY ARCHITECTS LLP	
REVIEWED:		1560 RAILROAD AVENUE	
APPROVAL RECOMMENDED:		ST. HELENA, CA 94574	
DRAWN:		TEL 707 863 1468	
DESIGNED:		FAX 707 863 9927	
DC		WWW.VALLEYARCHITECTS.COM	
DC		CREATED:	
DC		TF	
DC		TF	
DC		DATE	
DC		REVISED	



100 Century Center Court, Suite 108
 San Jose, CA 95112
 Phone: 669.204.7080
 www.wreco.com

August 8, 2018

Erica Ahmann Smithies, PE
 Public Works Director/City Engineer
 City of St. Helena
 1572 Railroad Avenue
 St. Helena, CA 94574

Re: Crinella Pump Station – Current Capacity and Odor Issues

Dear Ms. Smithies,

WRECO is currently under contract with the City of Saint Helena as part of an effort to design an upgrade to the existing Crinella sanitary sewer pump station located at 1758 Crinella Drive, at the far end of the Stephen C. McCullagh Park. WRECO is in the process of assessing the existing pump station structural, electrical, and operational status as a means of establishing the preferred conditions for the upgrade effort.

As part of the assessment work, WRECO has already performed and/or analyzed the following significant parameters associated with the Crinella pump station upgrade:

- Conducted Civil, Structural, and Electrical inspections of the Crinella station
- Completed a site survey of the parcel structures
- Performed GPR and core testing of the wet well structure
- Evaluated over eight years of pump station run time records
- Reviewed the recent pump station modifications associated with a new 6-inch force main
- Interviewed Public Works staff regarding customary operations and maintenance

WRECO understands that the current condition of the Crinella pump station is sub-optimal – hence the need for an upgrade. With all of the review that WRECO has currently undertaken, we are in a unique position to offer commentary on both the existing capacity of the pump station and the recurring odor issues that are present at the park and its immediate vicinity.

The capacity of a sanitary sewer pump station is usually assessed as part of a study and report that includes flow monitoring of the sewershed over a period of at least 6 to 8 months, timed and measured discharge of the pumped force main flows, a dynamic analysis of the wet well sizing, estimated impacts on the upstream and downstream flow regimes, and an evaluation of the station switchgear and backup system performance under various conditions. Barring such a thorough study and report, a close approximation of the capacity of an existing pump station can be inferred by assessing run time logs, the normal operating and maintenance conditions related by staff, the physical pump station configuration, and correlating customary sewage generation rates to the recorded pump information. WRECO presents commentary on the latter methodology with respect to the Crinella pump station in this summary letter.



| Civil Engineering | Environmental Compliance | Geotechnical Engineering | Water Resources | 1



100 Century Center Court, Suite 108
San Jose, CA 95112
Phone: 669.204.7080
www.wreco.com

Crinella Pump Station Capacity

Many of the parcels located within the Crinella sewershed are currently using individual septic systems even though municipal sanitary sewer lines run adjacent to the parcels or are within a feasible distance of a gravity connection. Figure 1 highlights a variety of parcels (red, yellow, and blue) at varying stages of service associated with the municipal sanitary sewer system. The red parcel has been allowed an emergency connection based on the failure of its septic system. The parcels in yellow are pending approval to connect to the municipal sanitary sewer system. The blue parcels are likely candidates for connection to the municipal sanitary sewer lines based on the probability of their septic system failures in the foreseeable future. Figure 2 depicts part of the Crinella sewershed gravity lines in the vicinity of the red, yellow, and blue parcels relative to the location of the Crinella pump station.

With an average residential sanitary sewer connection generating a flow of between 180-400 gallons per day (gpd), the 20 residential connections represented by the colored parcels could result in an additional load of 8,000 gpd. In practice, the additional actual load would likely be half that amount – especially with current water conservation practices. All of the additional flow would be added to the existing flows pumped by the Crinella station.

The Crinella pump station is configured to operate as a duplexing system, where the two duty pumps alternate the lead and lag positions with each activation cycle. The pumps are located in a wet well that receives the flows generated by the sewershed and stores the volume until the On/Off controls call for a pump activation. Based on a review of the run time logs over a period of six years, the Crinella pumps run for about 3 hours a day during what is categorized as Dry Weather Flow (DWF). DWF is customarily taken to coincide with the non-rainy season here in California: the middle of April through the middle of October. As such, the DWF can be used as a baseline to determine the generation rate of a sewershed without the influence of Inflow & Infiltration (I/I). I/I is a measurable amount of flow in the sewer lines that is generated by a variety of non-sewage sources: leaky joints or pipes in the sewer lines, fluctuations in the phreatic line (groundwater table), cross-connections, etc. Since I/I is greatest during the peak storm events of the rainy season (middle of October through the middle of April), it is manifest as an increase over the baseline DWF and classified as Wet Weather Flow (WWF).

The additional flows into the sanitary sewer system caused by WWF are indirectly identified by the increase in run time of the Crinella station pumps. Figure 3 shows a graphical representation of the run time data, with the DWF of May through October averaging 80-90 hours per month and WWF during storm events raising operating times to 400-600 hours per month. This means that during WWF the Crinella station pumps can register 10 to 20 hours of operation per day – much more than the 3 hours per day average during DWF. Since it is likely that only one pump is active at a time during DWF and it is possible that both pumps operate concurrently during WWF, there is not a 1:1 correlation between the DWF and the WWF hours in relation to the ultimate capacity of the Crinella pump station. A duplexing pump station has much more capacity to convey flows downstream through an appropriately sized force main and a decreased total dynamic head (TDH) associated with a surge of inflow into the wet well.

The fact that there is no evidence or recorded incidents of sanitary sewer overflows at the Crinella pump station suggests that even though WWFs peaked at 6 to 7 times the average DWF rate, the pump station has the capacity to convey the documented peak inflows. The typical existing 3-hour daily duty of the





100 Century Center Court, Suite 108
 San Jose, CA 95112
 Phone: 669.204.7080
 www.wreco.com

Crinella pumps based on the average DWF rate would be increased by about 18 to 19 minutes of additional run time per day should an increase of 8,000 gpd be generated by the 20 parcels identified in Figure 1. This marginal increase of about 10% of DWF is minimal compared to the impact of a 6- to 7-fold increase caused by I/I. Thus, the Crinella sewershed could easily double the DWF (i.e. double the population of the sewershed) and still be well within the normal operating parameters for a typical sanitary sewer pump station.

Crinella Pump Station Odor Issues

Several factors contribute to the nuisance odor issues currently associated with the Crinella pump station. Raw sewage odors are usually the result of several off-gassing compounds: Sulfur Dioxide, Methane, Ethyl and Methyl Mercaptan, Dimethyl Sulfide, and chiefly Hydrogen Sulfide (rotten egg smell). These compounds are naturally occurring in raw sewage and combine to give sewage a characteristically offensive odor. The principal contributing factors in the case of the Crinella pump station are as follows:

- **Open Wet Well Ventilation**
 Due to the current configuration of the submersible pumps, it is necessary for the pump discharge piping and the control wiring to rise from the wet well through an access hole and out through the wall of the pump station structure to the existing 6-inch force main. A loosely fitted access hole cover serves to keep personnel from accidentally falling into the wet well, but allows odors generated by the raw sewage in the wet well to permeate the surrounding area. See Figure 4.
- **Wet Well Shape**
 The wet well is a 13-foot square approximately 11 feet deep. With the submersible pumps located in the center of the wet well, very little circulation and flushing of the raw sewage occurs in the corners. This increases the off-gassing from anaerobic decomposition and contributes to the generation of the aforementioned compounds, with high levels of Hydrogen Sulfide produced as a by-product.
- **Pump Run Times**
 A large wet well relative to the amount of sewage generation means that the depth of sewage needed to call for an On/Off cycle incorporates more volume per vertical foot of storage. This increases the residence time of the sewage volume between pump activations, allowing more decomposition to take place and a higher rate of off-gassing.

There are several steps that can be currently implemented to help mitigate the existing odor issues. Actions involving elements outside of the wet well are likely to be much easier for staff to execute, since activities near or in the hazardous environment of the pump station wet well may be impractical or economically infeasible given the timeframe for the Crinella upgrade.

The following actions should be considered for a reduction in the odors associated with the existing pump station:





100 Century Center Court, Suite 108
 San Jose, CA 95112
 Phone: 669.204.7080
 www.wreco.com

1. Wet Well Cover

The loosely fitted access cover can be supplemented by incorporating a suitable plastic liner to seal the off-gassing from the wet well. A temporary passive carbon filter vent can be combined with the liner to keep dangerous levels of gases from accumulating in the sealed wet well and provide “breathability” for the pump operating cycles.

2. Wet Well Dead Volume

All pumped wet wells have a point at which the pumps can no longer draw the liquids into the volute. The minimum volume below this point is the dead volume. The duty pump Off float should be set to draw down the wet well to the lowest level possible prior to triggering the end of a pump cycle so that only the minimal level of sewage is retained.

3. Run Time Cycle

The minimum run time cycle for the Crinella pump station should account for a complete turnover in the 6-inch force main volume. This allows for a full flushing action of the force main and minimizes the potential for clogging of the discharge line. The float control calling for a duty pump cycle to activate – the pump On condition – should be set to activate as soon as the force main volume is reached. By activating the minimum run time cycle as often as possible, the sewage is given the least amount of residency in the wet well.

4. Chemical Dosing Controls

Dosing a wet well with Sodium Hypochlorite or Potassium Permanganate are two of the most economical and wide-spread strategies for reducing odors associated with raw sewage. These systems usually require a barrel of solution to be replenished periodically and a programmed pump system to administer the dosing. Although more economical than other methods of odor control, chemical dosing requires training personnel, hazardous materials handling and storage protocols, or subscribing to a third-party vendor service.

If actions 1-4 are implemented, it is likely that there will be a reduction in the noxious odors at the Crinella pump station by about 70% to 80% from the levels currently experienced in its vicinity.

In closing, please note that the Crinella pump station PS&E design work by WRECO is on schedule to be delivered to the City by November of this year – well ahead of the original schedule. If the financing for the construction upgrade is secured in a timely fashion, site activities could begin as early as May, 2019.

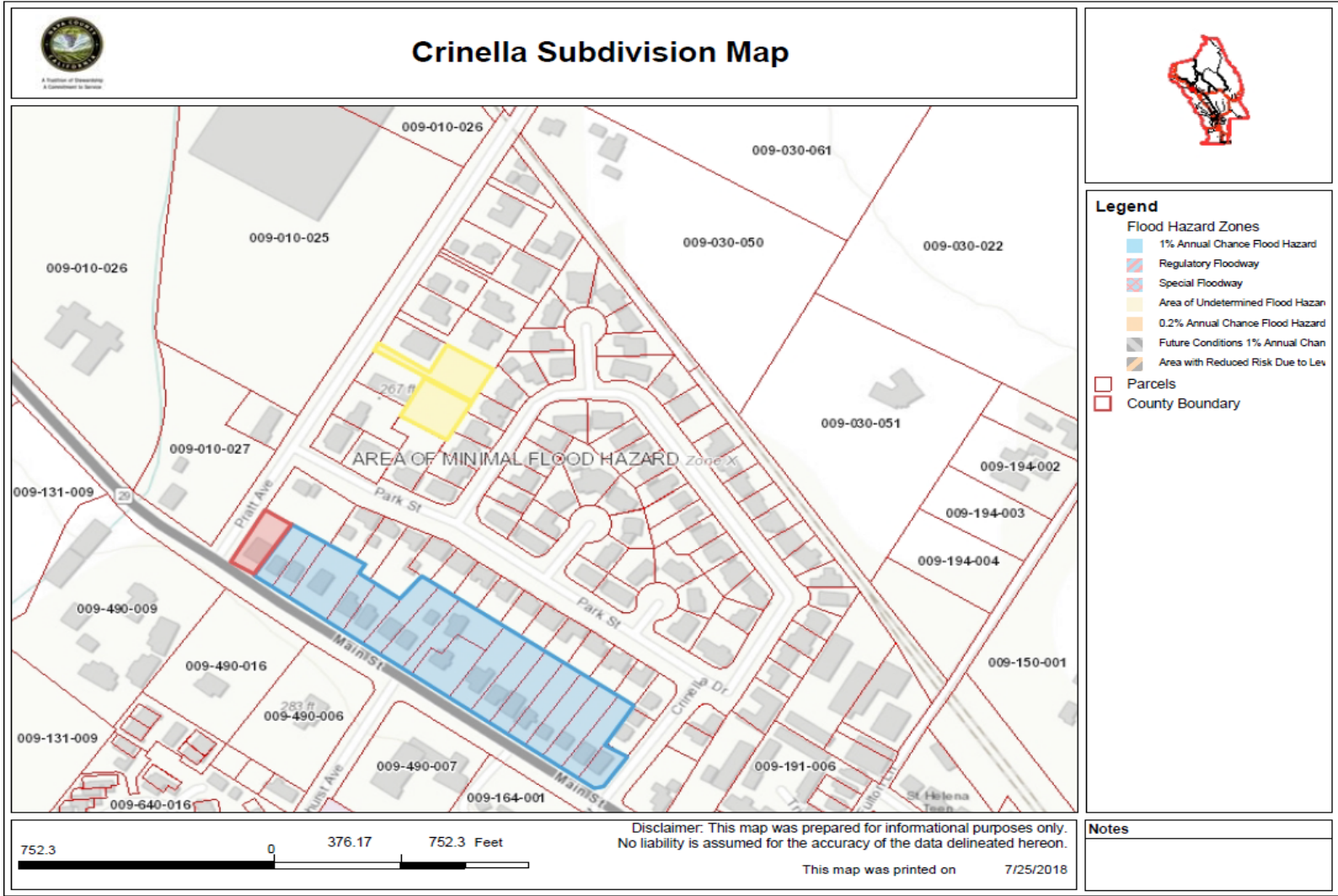
Regards,

WRECO

Eric Biland, P.E.
 Senior Engineer
 C75125



Figure 1: CRINELLA SUBDIVISION MAP



8/8/2018

Figure 2: CRINELLA PUMP STATION SEWERSHED



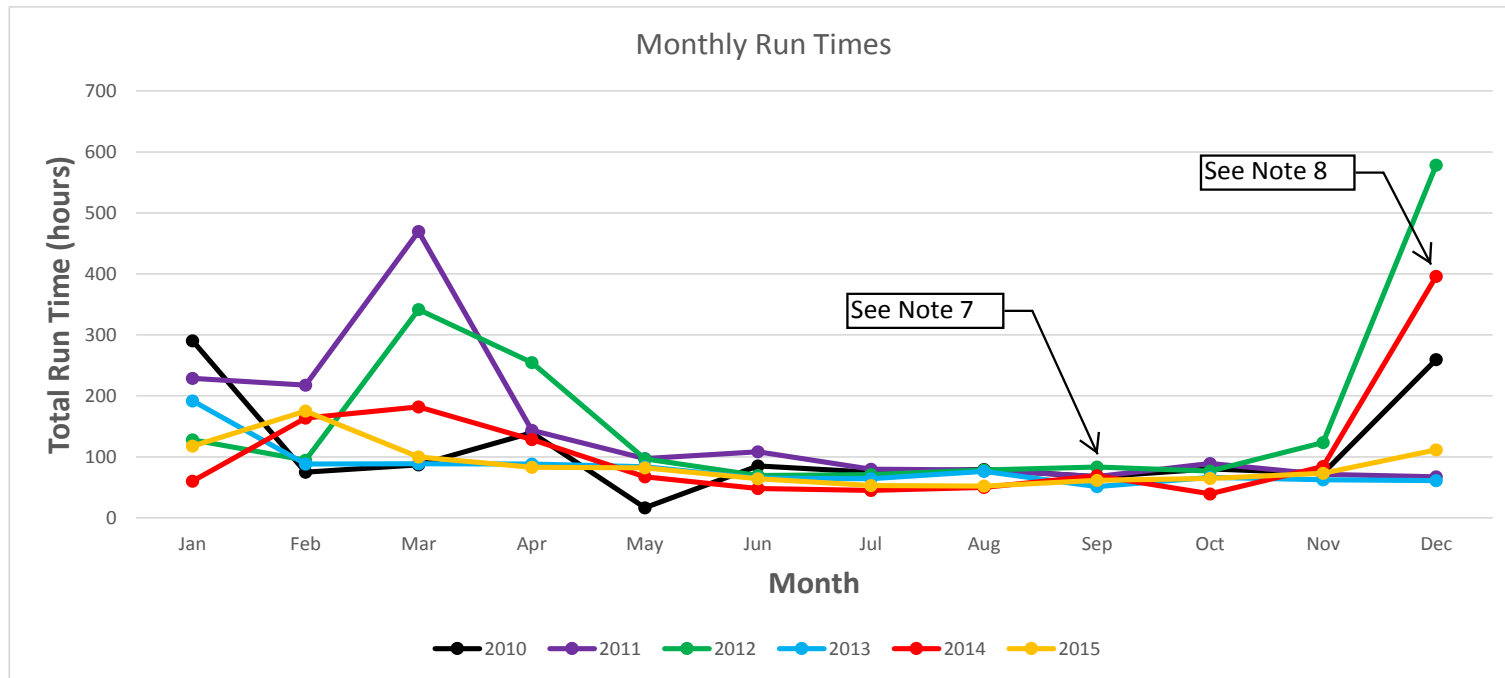
Notes:

1. Partial sanitary sewer gravity system in Crinella pump station sewershed.
2. 6" force main (6" F.M.) to Railroad Avenue is the active discharge line.
3. 4" force main (4" F.M.) to manhole 6-4 is not currently in use.



8/8/2018

Figure 3: CRINELLA PUMP STATION RUN TIMES



Notes:

1. Crinella Pump Station located at 1758 Crinella Drive in Saint Helena, CA.
2. Pump station is configured as a duplexing operation (two pumps alternate lead and lag positions).
3. Monthly run times indicate total hours logged for combined pump operations.
4. Pump operation periodically logged in record binder by Public Works Staff.
5. Years plotted represent most recent, complete, annual records available.
6. Total run time data for April, 2010 is missing. Point plotted is averaged from run time of 2011 to 2015 data.
7. Dry weather months correlate with baseline sewage pumping of 80 - 90 hours per month.
8. Wet weather peaks correlate with I/I loading from high rainfall activity.
9. No sanitary sewer overflows were recorded during the 2010 - 2015 operations.



8/8/2018

Figure 4: CRINELLA WET WELL



Wet Well Discharge Piping



Wet Well Access Hole

To: Eric Biland
 Company Name: **WRECO**
 From: Aaron Lucas, PE; Chris Jonas, SE
 Date: June 26, 2018
 Regarding: Crinella Pump Station Structural Evaluation Memorandum
 Project: 18213

ZFA has completed the structural evaluation for the pump station located at 1758 Crinella Drive in Saint Helena, CA. The pump station consists of a reinforced concrete wet well below ground and a pump house constructed on top of and supported by the wet well. Access to view and evaluate the wet well is not possible until a future bypass is in place, therefore this memo is limited in scope to a full evaluation of the roof slab of the wet well and the pump house building. During construction, a bypass will be installed to allow further investigation and evaluation of the wet well. This evaluation was completed with the intent to provide recommendations for the repair or replacement of the existing wet well and pump house building and consisted of the following:

1. Performing site visits for visual observation of the existing site conditions, pump house, and wet well (observed from above only). Site visit photos are included in Appendix A.
2. Development and oversight of testing procedures for the elevated concrete slab utilizing American Concrete Institute (ACI) and American Society for Testing and Materials (ASTM) standards listed herein. The testing plan is included as Appendix B.
3. Review of testing results presented in Report #180522R by CEL Consulting, dated June 19, 2018. This report is included in Appendix C.
4. Structural memorandum and recommendations.

Existing Conditions and Observations

- The pump house at the Crinella pump station is a light-frame wood building approximately 13'-9" square and can be seen in Photos 1 and 2 in Appendix A. The building is approximately 8'-0" high at the top plates and 11'-0" high at the ridge. The walls are constructed with 2x4 studs and ½" sheathing. The roof is constructed with conventional wood field-built trusses. There is currently one door at the South side of the building and various small penetrations in exterior walls for pipes and other utility connections.
- The wet well is a below-grade reinforced concrete tank approximately 12'-6" square at the inside dimensions. The well roof slab (floor of the pump house) consists of an 8" thick elevated reinforced concrete slab supported by the wet well walls. The elevated slab has an existing 48"± diameter opening at its center as seen in Photo 3. The floor and walls of the well are constructed of concrete with thickness assumed to be at least the same as the elevated slab. This assumption is based on typical buried tank construction methods and details.

Structural Testing Plan and Results

Construction documents for the existing structures are not available. The pump house building is exposed at the interior, therefore, information related to its construction is easily observed. The testing plan developed was focused on the elevated roof slab of the wet well. With the goal being to determine if it is structurally adequate to support current code loading and to collect information to aid in the design of an enlarged access opening. The testing plan consisted of the following:

- Ground Penetrating Radar (GPR) testing of the elevated slab to locate existing reinforcing steel to ensure it is not damaged during concrete coring and to verify reinforcing spacing to be used for the elevated two-way slab analysis. Reinforcing steel was exposed in one location to verify bar size.
- Concrete core samples extracted and tested for compressive strength using procedures included in ASTM C39 "Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens" and ASTM C42 "Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete." A total of (2) core samples were taken from the elevated slab. Core samples were extracted at 6" depth to avoid full penetration of the elevated slab.

Test results are presented in the report by CEL Consulting, which is provided in Appendix B. In summary, relevant test results are as follows:

- GPR testing confirmed reinforcing in the elevated slab to be at approximately 8" spacing each way at the bottom of the slab and approximately 16" spacing each way at the top. At the perimeter of the slab, there were reinforcing bars extending approximately 36" into the elevated slab and spaced at approximately 8" apart. It is assumed, based on typical construction methods, that these are dowels from the concrete walls extending into the slab.
- The minimum concrete compressive strength (f'_c) for structural concrete allowed by the 2016 California Building Code (CBC) is 3,000 psi. Concrete compressive strength can be taken as the average compressive strength of the two cores, which is 3,075 psi. These values meet the criteria given in the CBC above.

Recommendations

1. The existing building roof framing is deteriorating and appears to lack the capacity for current code-prescribed loading. As the design team mentioned a gantry crane and additional access doors will be included for maintenance purposes, we recommend a new wood-framed building with a steel support beam to act as a roof ridge and support for the gantry crane. The beam will be supported at the exterior walls of the building directly above the wet well walls, so no additional loading is added to the elevated slab. Incorporating these updates into a new building may be more cost effective than retrofitting the aging structure to accommodate the modifications.
2. The existing wet well elevated slab appears to have sufficient strength and reinforcing to support an enlarged opening of 3'x5' maximum as shown by analysis. The existing opening is to be enlarged in accordance with future construction documents by ZFA.

Closing

This structural evaluation is based on that which was plainly visible at time of site review and testing data provided in Appendix C. The items discussed in this report are subject to revision or conformation should more information become available. We understand you may have questions regarding this evaluation and are available for comment and explanations. Please contact us with any questions you may have.

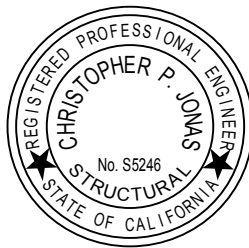
Sincerely,
ZFA STRUCTURAL ENGINEERS



Aaron Lucas, PE
Designer



Chris Jonas, SE
Principal



June 26, 2018

APPENDIX A: PHOTOS



Photo 1: Crinella Pump House Building



Photo 2: Pump House Building Rear



Photo 3: Existing Wet Well Opening

APPENDIX B: CONCRETE TESTING PLAN

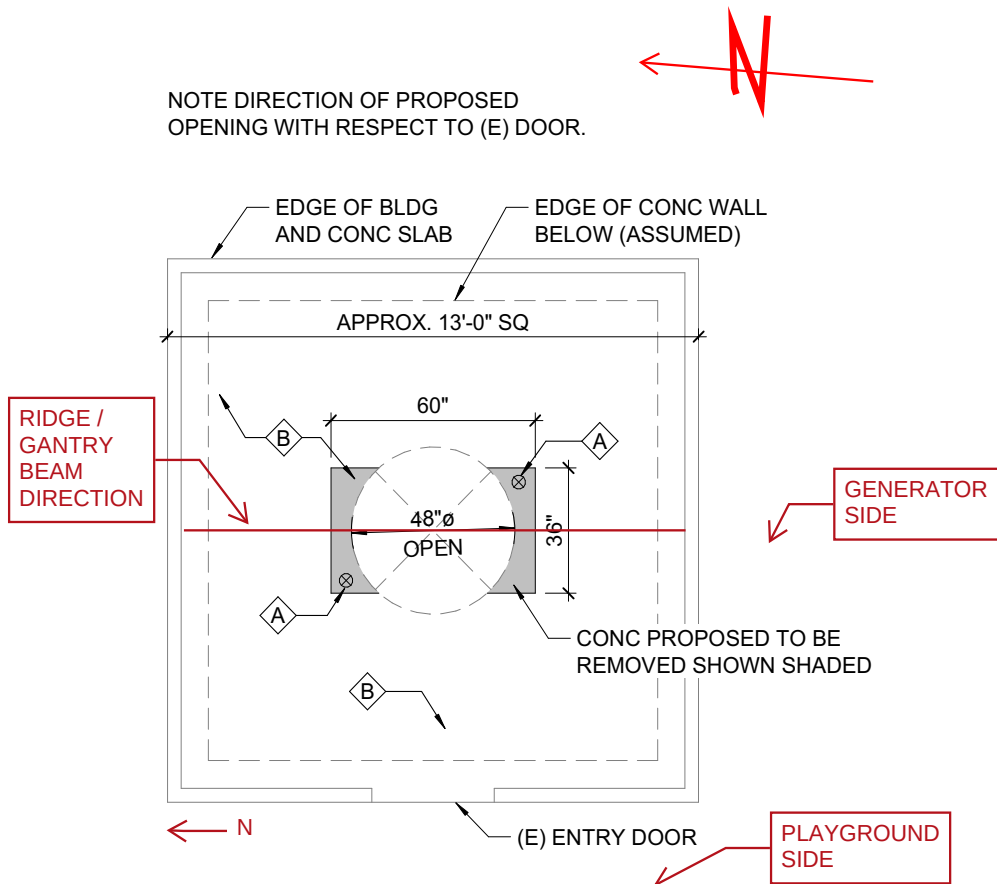
C:\REV_LOCAL\18213_Crinella PS Testing_S17C_ZFA_ABL.rvt 5/15/2018 17:06:09

KEYNOTES

- A

 ELEVATED SLAB CORE APPROXIMATE LOCATION PER NOTES, (2) TOTAL.
- B

 GPR TESTING TO VERIFY REINFORCING STEEL SIZE, LOCATION, AND SPACING, (3) TOTAL.



ELEVATED SLAB TESTING PLAN

1/4" = 1'-0"

PROJECT OVERVIEW

- DESTRUCTIVE AND NON-DESTRUCTIVE TESTING SHALL BE COMPLETED PER PLANS IN AN ATTEMPT TO ASSESS STRENGTH AND ACCEPTABILITY OF ELEVATED CONCRETE SLAB FOR THE SEWAGE PUMP STATION WET WELL.
- PLANS ON THESE DRAWINGS ARE APPROXIMATE AND BASED ON FIELD OBSERVATIONS.
- ACCESS TO ELEVATED SLAB IS PROVIDED FROM ABOVE ONLY AT THIS TIME.
- ZFA IS TO OBSERVE MATERIAL EXTRACTION PROCEDURES AND LOCATIONS. TESTING AGENCY IS TO NOTIFY ZFA TWO WORKING DAYS PRIOR TO PERFORMING WORK.
- TESTING AGENCY IS TO SUBMIT A DRAFT REPORT OF FINDINGS FOR ZFA REVIEW PRIOR TO FINALIZING THE REPORT. REPORT SHALL IDENTIFY THE FOLLOWING AT A MINIMUM:
 - A. LOCATION MAP OF EXTRACTED TEST SAMPLES
 - B. PHYSICAL DESCRIPTION OF SAMPLES, INCLUDING VISUAL INSPECTION
 - C. SUMMARY OF TESTS PERFORMED
 - D. TEST RESULTS FOR EACH SAMPLE
 - E. PHOTOS DOCUMENTING EXTRACTION AND TESTING PROCEDURES
 - F. NOTES REGARDING THE PRESENCE OF ANY DEGRADATION SUCH AS CORROSION OR DETERIORATION OF BOND BETWEEN CONCRETE AND REINFORCEMENT

EXISTING MATERIALS TESTING AND VERIFICATION

- MATERIAL SAMPLES SHALL BE EXTRACTED FOR TESTING OR ASSESSED AS REQUIRED PER PLANS AND DETAILS.
- PACHOMETER TESTING OR ANOTHER REBAR LOCATION METHOD PRECEDE ANY CONCRETE CORE DRILLING TO AVOID DAMAGING ANY EXISTING REINFORCING.
- AT LOCATIONS SPECIFIED ON PLAN, GROUND PENETRATING RADAR (GPR) TESTING SHALL IDENTIFY A MINIMUM OF (3) BARS IN EACH DIRECTION TO ESTABLISH A PATTERN OF REINFORCING.
- REMOVAL OF CORE SAMPLES SHALL USE PROCEDURES INCLUDED IN ASTM C42. MINIMUM CORE SIZE TO BE TESTED IS 4" IN DIAMETER.
- CONCRETE CORE HOLES SHALL BE FILLED WITH CONCRETE OR GROUT WITH NON-SHRINKAGE PROPERTIES AND MINIMUM COMPRESSIVE STRENGTH (f_c) OF 5,000 PSI.
- COMPRESSIVE STRENGTH OF CONCRETE CORES SHALL BE TESTED USING PROCEDURES INCLUDED IN ASTM C39.

SHEET INDEX

TP-1 GENERAL NOTES AND TESTING PLAN

THIS DOCUMENT AND THE IDEAS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF THE ENGINEER AND IS NOT TO BE USED, IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER.

Revision Schedule

#	Revision Description	Date

ZFA STRUCTURAL ENGINEERS
1303 jefferson street | suite 400a zfa.com
napa ca 94559 707.492.3452
zfa job no. 18213 copyright © 2018

PROJECT

CRINELLA PUMP STATION ASSESSMENT

1758 CRINELLA DR
ST. HELENA, CA 94574

SHEET DESCRIPTION

GENERAL NOTES AND TESTING PLAN

ENGR:	ABL	DATE:	MAY 15, 2018
PM:	CJ		

SHEET

TP-1

APPENDIX C: CONCRETE TESTING REPORT



CEL CONSULTING, INC
Product Evaluations - Metallurgy
Structural Investigations - Forensics

STRUCTURAL INVESTIGATION

CRINELLA PUMP STATION
1758 Crinella Dr, St. Helena, CA 94574

Performed for
ZFA Structural Engineers
Napa, California

by: CEL Consulting

Anil Nethinsinghe, P.E.
Structural Investigation Manager

June 19th, 2018

Report Number 180522R



CEL Project No. 5053576-R

Attachments: Coring Inspection Report
Compression Test Report
Ground Penetrating Radar Scanning Report

1. INTRODUCTION

The purpose of this testing program is to provide the as-is condition of a concrete slab.

2. SCOPE OF TESTING

The scope of the testing program was to provide the following requested information for ZFA:

1. Sampling and testing of (2) concrete cores for compressive strength and unit weight testing per ASTM C42 and ASTM C39. The unit weight of samples were calculated by dividing the saturated-surface-dry weight by the measured volume.
2. Scanning of a concrete slab at (1) location using a ground penetrating radar to determine reinforcing steel layout and orientation.
3. Exposing reinforcing steel to determine bar size.

3. TEST RESULTS

See attached reports for results of testing.



Coring Inspection Report

Project Name: Crinella Pump Station
 CEL Project #: 50-53576-R
 Location: 1758 Crinella Dr, St. Helena, CA 94574 Report #: 180522R
 Date: 5/22/2018 Day: Tuesday IR#: _____

- ☒ Reported to Aaron Lucas with ZFA.
- ☒ Material being cored includes: a concrete slab.
- ☒ Cored a total of 1 locations.
- ☒ Core locations include: Two samples from (1) location.

- ☒ Technicians reviewed core locations with Aaron Lucas prior to leaving the jobsite.
- ☒ Samples were returned to the lab for the following tests: Compression Test
- ☒ See attached for compression test report, map of core locations, and pictures of cores for additional information.
- ☐ Additional Comments: _____

Signature: Alex Cuevas Date: 5/22/2018

Print Name: Alex Cuevas, Jose Jacobo

534 23rd Ave. • Oakland, CA 94606-3507 • Tel. 510 436-7626 • FAX 510 434-7719
 www.CELConsulting.com



Coring Inspection Photograph Supplemental

Project Name: **Crinella Pump Station**

CEL Project #: **50-53576-R**

Location: **1758 Crinella Dr, St. Helena, CA 94574**

Date: **5/22/2018**

Day: **Tuesday**

Report #: **180522R**

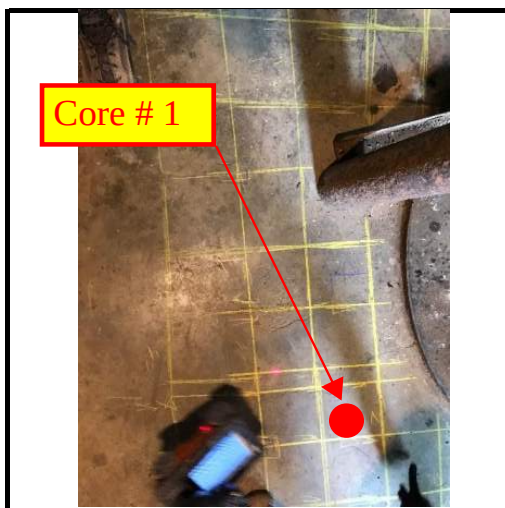
IR #:



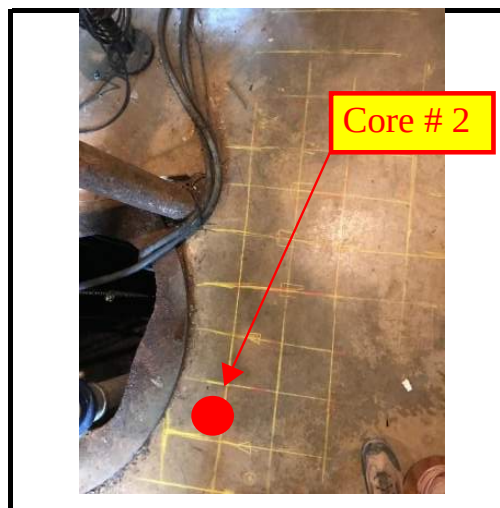
Left Hand View Pump



Right Hand View of Pump



Core Location # 1 (Left Side)



Core Location # 2 (Right Side)

Signature: *Alex Cuevas*

Date: **5/22/2018**

Print Name: **Alex Cuevas, Jose Jacobo**

534 23rd Ave. • Oakland, CA 94606-3507 • Tel. 510 436-7626 • FAX 510 434-7719

www.CELConsulting.com

Page 4 of 9



CEL CONSULTING, INC
Metallurgy • Forensics • Plan Review
Product Evaluations • Structural Investigations

Coring Inspection Photograph Supplemental

Project Name: **Crinella Pump Station**

CEL Project #: **50-53576-R**

Location: **1758 Crinella Dr, St. Helena, CA 94574**

Report #: **180522R**

Date: **5/22/2018**

Day: **Tuesday**

IR #: _____

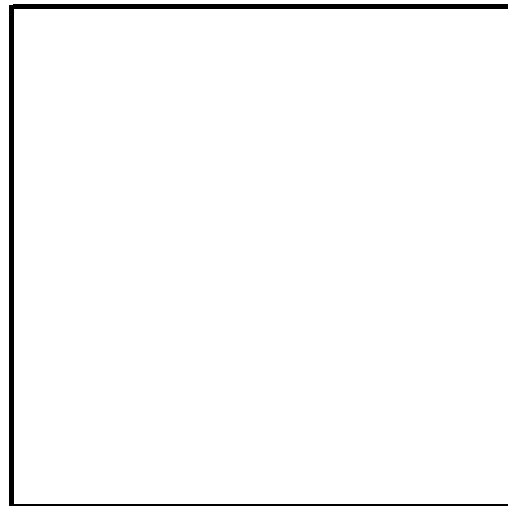
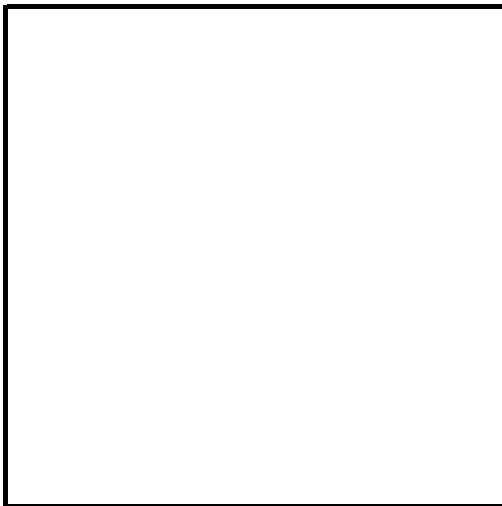
Cores
filled in
with high
strength
grout



Core # 1



Core # 2



Signature: *Alex Cuevas*

Date: **5/22/2018**

Print Name: **Alex Cuevas, Jose Jacobo**

534 23rd Ave. • Oakland, CA 94606-3507 • Tel. 510 436-7626 • FAX 510 434-7719
www.CELConsulting.com

Page 5 of 9



CEL CONSULTING, INC
Metallurgy • Forensics • Plan Review
Product Evaluations • Structural Investigations

Compression Test Report

Project Name: Crinella Pump Station

CEL #: 50-53576-R

Report #: 180522R-COMP

Sampled By: Jose Jacobo, Alex Cuevas

Tested By: James Bayliss

Mix #: N/A

Design Strength: N/A

Nom. Agg Size: N/A

Placement Date: N/A

Sample Date: 5/22/2018

Date Prepared: 5/22/2018

Time Prepared: 12:00 PM

Date Tested: 5/30/2018

Time Tested: 12:00 PM

Test Age: 28+ Days

Table #1 - Compression Test Data (ASTM C42)

Sample #	Core ID	Core Orientation	Average Length (in)	Average Diameter (in)	Calculated Density (lb/ft ³)	Average Length After Cap (in)	Correction Factor	Break Type	Corrected Compressive Strength (psi)
1	Core #1	Vertical (Down)	5.80	3.01	136.5	5.80	0.99	2	2,980
2	Core #2	Vertical (Down)	6.15	3.01	137.2	6.15	1.00	1	3,170
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

¹Testing in accordance with ASTM C42, ASTM C39 and ACI 318.

²ACI 318 requires the average strength of three cores to be at least 85% of the specified strength and no single core strength less than 75% of the specified strength.

³Date and time prepared indicates when samples were last in contact with moisture after being wet sawed and sealed in plastic.

Break Types: Type 1 Type 2 Type 3 Type 4 Type 5 Type 6





Ground Penetrating Radar Scanning Report

Project Name: Crinella Pump Station

CEL Project #: 50-53576-R

Location: 1758 Crinella Dr, St. Helena, CA 94574

Report #: 180522R

Date: 5/22/2018

Day: Tuesday

IR #: _____

- ☒ Reported to Aaron Lucas with ZFA.
- ☒ As requested, 1 locations were scanned by our technician.
- ☒ Locations scanned include: **(1) concrete slab.**

- ☐ _____ was marked in place using _____.
- ☐ _____ was marked in place using _____.
- ☐ _____ was marked in place using _____.
- ☒ Our technician reviewed the scanning with Aaron Lucas prior to leaving the jobsite.
- ☒ See attached pages for photographs of scan locations.
- ☐ Additional Comments:

Reinforcing steel layout was determined by GPR scan. Bar size could not be confirmed due limitations of the GPR device. Reinforcing steel size was determined by exposing the bars with a hammer drill.

Signature: Jose Jacobo
 Print Name: Jose Jacobo

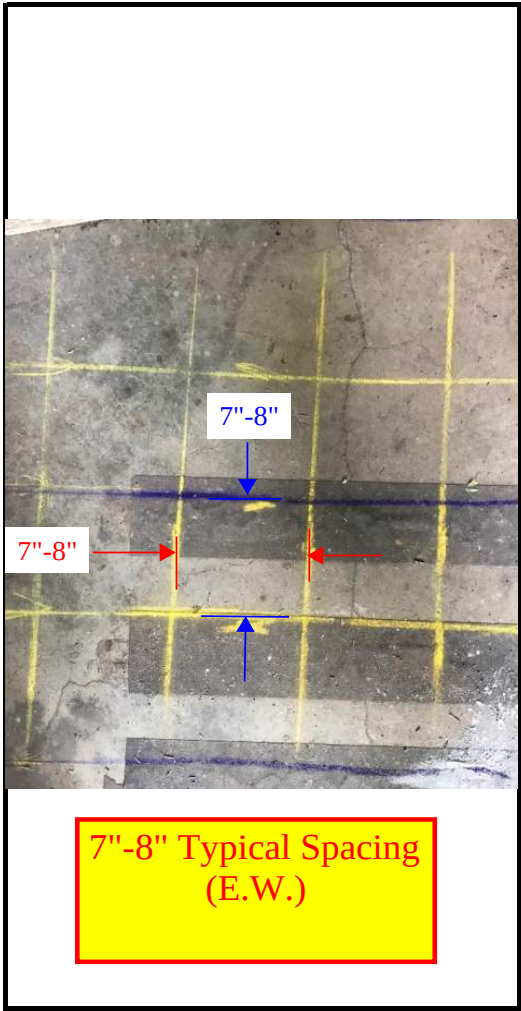
Date: 5/22/2018



CEL CONSULTING, INC
Metallurgy • Forensics • Plan Review
Product Evaluations • Structural Investigations

Ground Penetrating Radar Scanning Photography Supplemental

Project Name: **Crinella Pump Station**
CEL Project #: **50-53576-R**
Location: **1758 Crinella Dr, St. Helena, CA 94574** Report #: **180522R**
Date: **5/22/2018** Day: **Tuesday** IR #: _____



Rebar Spacing



Rebar Depth

Signature: *Jose Jacobo*

Date: **5/22/2018**

Print Name: **Jose Jacobo**

534 23rd Ave. • Oakland, CA 94606-3507 • Tel. 510 436-7626 • FAX 510 434-7719
www.CELConsulting.com



CEL CONSULTING, INC
Metallurgy • Forensics • Plan Review
Product Evaluations • Structural Investigations

Ground Penetrating Radar Scanning Photography Supplemental

Project Name: **Crinella Pump Station**

CEL Project #: **50-53576-R**

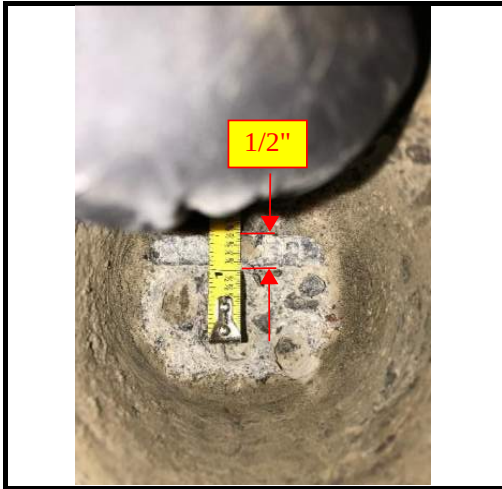
Location: **1758 Crinella Dr, St. Helena, CA 94574**

Report #: **180522R**

Date: **5/22/2018**

Day: **Tuesday**

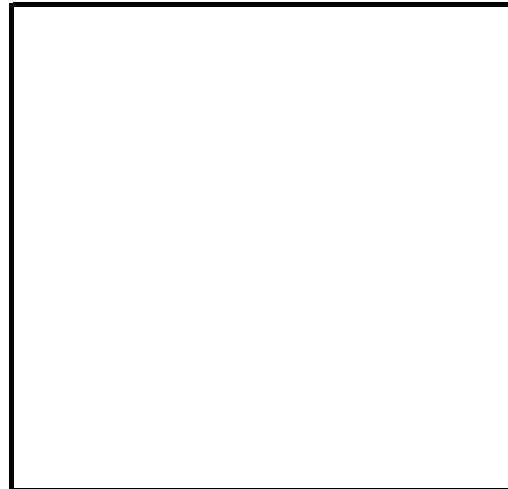
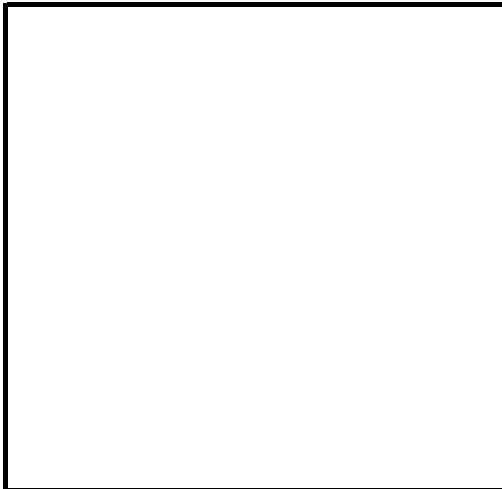
IR #:



1/2" (#4) Reinforcing Steel



4 Reinforcing Steel (Each Way)



Signature: *Jose Jacoba*

Date: 5/22/2018