

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO. 1

Owner: Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC Treatment and New Disinfection Facility Project

To: All Planholders

From: Santa Clarita Valley Water Agency

Bid Date: March 8, 2024, at 5:00 PM

Notice is hereby given to prospective bidders that the Contract Documents for the T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC Treatment and New Disinfection Facility Project, dated December 18, 2023, have been modified as hereinafter set forth. This Addendum No. 1 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 1 in the space below. This page AD 1-1 shall be attached to the Bid.

By: 
Orlando Moreno, P.E., Principal Engineer
Santa Clarita Valley Water Agency

Date: _____

ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 1 (pages AD 1-1 through AD 1-3).

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions remain the same.

ADDENDUM 1, ITEM 1.

CONTRACT DOCUMENTS, COVER SHEET

DELETE the following:

COVER SHEET, dated December 2023, in its entirety

And REPLACE with:

the attached COVER SHEET, Dated December 18, 2023

ADDENDUM 1, ITEM 2.

CONTRACT DCONTRACT DOCUMENTS, NOTICE INVITING BIDS

DELETE the following:

NOTICE INVITING BIDS, in its entirety

And REPLACE with:

the attached NOTICE INVITING BIDS, Addendum No. 1

ADDENDUM 1, ITEM 3.

CONTRACT DCONTRACT DOCUMENTS, INSTRUCTIONS TO BIDDERS

DELETE the following:

INSTRUCTION TO BIDDERS, in its entirety

And REPLACE with:

the attached INSTRUCTION TO BIDDERS, Addendum No. 1

ADDENDUM 1, ITEM 4.

CONTRACT DCONTRACT DOCUMENTS, BID FORM

DELETE the following:

BID FORM, in its entirety

And REPLACE with:

the attached BID FORM, Addendum No. 1

SANTA CLARITA VALLEY WATER AGENCY

26521 SUMMIT CIRCLE
SANTA CLARITA, CALIFORNIA 91350-2173
(661) 297-1600



CONTRACT DOCUMENTS

for

**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1
AND 2 WELLS VOC TREATMENT AND NEW
DISINFECTION FACILITY**

Project No. 2400420

December 18, 2023

NOTICE INVITING BIDS-ADDENDUM NO.1

Notice is hereby given that the Santa Clarita Valley Water Agency ("AGENCY") will receive electronic bids via PlanetBids only for the **T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY** Project, no later than 5:00 pm Pacific Time, on [March 8, 2024](#). The electronic bid management system will not accept late bids.

Bids will be received for performing the work as follows: **Construction of the T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY.** The project is located at 25401 Bouquet Canyon RD, Santa Clarita, CA 91350 Rio Vista Intake Pump Station and Wells T7 and U6. Please refer to the **T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY** drawings for location map. The project generally consists of site construction, building construction, pipeline installation, and equipment installation for groundwater treatment systems. The work includes, but is not limited to mobilization, demolition, and site excavation; well pump, discharge pipeline, and electrical modifications; replacement of a suspended flexible expansion joint and waterline piping on the Bouquet Canyon Road Bridge; water and drain pipelines installation; equipment installation for an ion exchange system and GAC system (pressure vessels, pipes, cartridge filters, etc.); chemical storage/feed system installation; building construction; retaining wall construction; electrical work; system start-up including owner furnished ion exchange resin, coordination and system flushing; and all associated work ("Work") as indicated in the Contract Documents.

The AGENCY shall award the contract for the Work to the lowest responsive and responsible bidder as determined from the Base Bid Price. The AGENCY anticipates the Base Bid Price to range between \$15,300,000 to \$15,900,000. This estimate is intended to serve merely as a guideline of the magnitude of work. Neither the Bidders nor the Contractor shall be entitled to claims because of any inaccuracy in the estimated construction cost range.

Bidders must register as a vendor at the following website in order to download the Contract Documents: AGENCY'S website: <https://yourscvwater.com/bid-opportunities/> and click on the PlanetBids tab, then register on PlanetBids.

Bids must be submitted on the AGENCY's Bid Forms. Bidders may obtain a copy of the Contract Documents from PlanetBids at no charge. To the extent required by section 20103.7 of the Public Contract Code, upon request from a contractor plan room service, the AGENCY shall provide an electronic copy of the Contract Documents at no charge to the contractor plan room. For questions regarding accessing the Contract Documents, please contact Elaine Blanford at (661) 964-3983 or email eblanford@scvwa.org.

It is the responsibility of each prospective bidder to download and print all Contract Documents for review and to verify the completeness of Contract Documents before submitting a bid. Any Addenda will be posted on PlanetBids. It is the responsibility of each prospective bidder to check PlanetBids on a daily basis through the close of bids for any applicable addenda or updates. The AGENCY does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Contract Documents. Information on PlanetBids may change without notice to prospective bidders. The Contract Documents shall supersede any information posted or transmitted by PlanetBids. All

NOTICE INVITING BIDS- ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY

PROJECT NO. 2400420

NIB-1

parties downloading Contract Documents will be listed under the solicitation's "Prospective Bidders" tab.

Discrepancies or omissions in, and/or questions about, the Contract Documents shall be submitted to the AGENCY, in writing, via PlanetBids and shall be received by the AGENCY no later than 5:00 pm Pacific Time on **February 16, 2024**. It is the Bidder's responsibility to confirm that the AGENCY has received the correspondence. The AGENCY will not be responsible for any oral explanations or instructions. As determined by the AGENCY, a written addendum may be issued. Bidder is responsible for receipt of addenda, which will be posted on PlanetBids. All bids shall be accompanied by a cashier's or certified check payable to the order of the AGENCY, or by a Bid Bond in favor of the AGENCY in an amount not less than ten percent (10%) of the Base Bid Price. The Bid Guarantee must be received prior to the specified date and time for bid opening. The Bid Guarantee shall be submitted in a sealed envelope with the Bidder's name, marked with the name of the project, the date and time to be opened, and addressed and delivered or mailed, postage prepaid, to: Elaine Blanford, Santa Clarita Valley Water Agency, 26515 Summit Circle, Santa Clarita, CA 91350. It is each Bidder's responsibility to ensure that his/her Bid Guarantee is received by the AGENCY prior to the time set for bid opening.

No Bidder may withdraw its bid for a period of ninety (90) days after the date of opening the bids, within which time an award may be made. The AGENCY reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bid or in the bidding. Bids are required for the entire Work, and the Work will be let under a single contract.

Each Bidder shall be a licensed contractor pursuant to sections 7000 et seq. of the Business and Professions Code in the following classification(s) throughout the duration of the Contract: Class A, General Engineering Contractor License.

Bidders should be aware that the AGENCY has established the following responsiveness criteria and shall be required to complete the related bid form demonstrating that they can meet the following criteria: The Contractor shall have completed at least two (2) similar projects between January 1, 2016 and December 1, 2023. The Contractor's Superintendent shall have satisfactorily completed at least one (1) similar project between January 1, 2016 and December 1, 2023.

Pursuant to Public Contract Code Section 3400 (c), the AGENCY has made findings designating certain materials, products, things, or services by specific brand or trade, that shall be provided by the Contractor under the Contract, and such findings and the materials, products, things, or services and their specific brand or trade names are set forth in the Special Conditions, SC-13 "Designated Materials, Products, Things or Services".

The project may be funded in whole or in part by the Water Infrastructure Financing and Innovations Act ("WIFIA") program and other funding programs from the United States Environmental Protection Agency ("EPA")The successful bidder will be required to comply with all terms and conditions imposed by WIFIA, including but not limited to the following: Build America, Buy America Act, American Iron and Steel, Disadvantaged Business Enterprises, and Davis-Bacon. Bidder shall refer to the Special Conditions for the requirements of WIFIA.

NOTICE INVITING BIDS- ADDENDUM NO. 1

Failure to comply with terms and conditions imposed by the funding source may result in the bid being deemed non-responsive.

This Project will be funded in whole or in part with Proposition 1, Round 2 Integrated Regional Water Management (IRWM) program funding from the State of California Natural Resources Agency, Department of Water Resources. The successful bidder will be required to comply with all terms and conditions imposed by the sources of funding. Bidder shall refer to the Contract Documents and special conditions for the requirements of the funding source. Failure to comply with terms and conditions imposed by the funding source may result in the bid being deemed non-responsive. The Project will be funded in whole or in part with the United States Environmental Protection Agency (EPA) Emerging Contaminants (EC) Grant Program and the Drinking Water State Revolving Fund (DWSRF) Grant Program to be administered by the State Water Resources Control Board (SWRCB). The successful bidder will be required to comply with all terms and conditions imposed by the sources of funding. Bidder shall refer to the Contract Documents and special conditions for the requirements of the funding source. Failure to comply with terms and conditions imposed by the funding source may result in the bid being deemed non-responsive.

Pursuant to the Section 1770, et seq. of California Labor Code, the Contractor and all subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations and comply with all applicable Labor Code provisions, which include, but are not limited to the employment of apprentices, the hours of labor and the debarment of contractors and subcontractors. The schedule of said rates is hereby incorporated and made a part thereof the same as though fully set forth herein. The wage determinations made by the Director of Industrial Relations are posted at www.dir.ca.gov/dlsr. The Contractor shall post a copy of said document at the job site. The Contractor and any subcontractor under them shall pay not less than the therein-specified prevailing rate of per diem wages to all workers employed in the execution of the Contract.

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a Contract, the Bidder and its subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the project.

In accordance with the WIFIA federal requirements, the work must also comply with the minimum rates for wages for laborers and mechanics as determined by the Secretary of Labor in accordance with the provisions of Davis-Bacon. The federal minimum wage rates for this Project are predetermined by the United States Secretary of Labor. These rates are available directly from the Department of Labor at <http://www.wdol.gov>. The Davis-Bacon Wage Listings are attached. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the contractor and its subcontractors shall pay not less than the higher wage rate.

NOTICE INVITING BIDS- ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY

PROJECT NO. 2400420

NIB-3

The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. In bidding on this project, it shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this Contract and applicable law in its bid.

The successful Bidder will be required to furnish the AGENCY with Payment and Performance Bonds equal to 100% of the Contract Price.

Pursuant to the Public Contract Code Section 22300, the successful bidder may substitute securities for funds withheld by AGENCY to ensure the Bidder's performance under the Contract.

There will be a mandatory online pre-bid conference for Bidders to attend on January 17, 2023, 9:00 am, Pacific Time. A second online pre-bid conference will be offered to potential bidders on February 12, 2024, 10:00 am. Bidders are required to attend only one of the two meetings. The online meeting web link is on PlanetBids. The project will be discussed, and there will be a virtual tour of the project site as part of the meeting. Prospective Bidders shall attend the mandatory pre-bid conference, and attendance is a condition precedent to submit a bid. Attendance at the pre-bid conference by subcontractor is not required.

The project site will be available for bidders, subcontractors, etc. to visit on January 18, 2024, between 1:00 pm and 3:00 pm, Pacific Time and February 12, 2024, between 1:00 pm and 3:00 pm. There will be no guided tour at the site. Site visitors are required to bring and wear proper construction safety personal protection equipment (i.e. hard hat, safety shoes, etc.) and check-in with the Agency's Project Manager and stay within the areas designated. Also, due to Covid-19, it is required that visitors bring and wear a mask and maintain social distancing at the site.

Any person, unless already bound by a current contract with the AGENCY, prior to entering AGENCY property, including the project site must complete, sign and submit AGENCY's Release of Liability Form. AGENCY's Release of Liability Form is included in Appendix of the Contract Documents. The AGENCY will not allow any visitor/prospective Bidder access to AGENCY property without the Release of Liability Form being fully executed and submitted.

Dated: 1/29/2024

DocuSigned by:
Matthew G. Stone
1C50DE94EC6B485...

Matthew G. Stone, General Manager
Santa Clarita Valley Water Agency

INSTRUCTIONS TO BIDDERS-ADDENDUM NO.1

IB-01 WORK TO BE DONE

Refer to the Notice Inviting Bids and the Technical Specifications.

IB-02 SECURING DOCUMENTS

Refer to the Notice Inviting Bids.

IB-03 DOCUMENT CHARGE

Refer to the Notice Inviting Bids.

IB-04 COMMENCEMENT AND PROGRESS OF THE WORK TO COMPLETION

The successful Bidder, properly bonded and insured, after receiving notice that the Contract has been executed on behalf of the AGENCY, will become the CONTRACTOR and shall commence work within fifteen (15) days after the date established by the AGENCY in its Notice(s) to Proceed and shall diligently prosecute all portions of the Work to completion as defined in the Contract Documents. The facilities and associated Work shall be completed, tested and ready for service by the completion date defined in the Contract Documents.

In the event that all of the Work items are not completed within the specified projection duration, the AGENCY reserves the right to enforce the provisions for liquidated damages contained in the Contract. Provisions for liquidated damages are defined in the General Conditions and Special Conditions.

Pursuant to Public Contract Code section 7102, in the event that the AGENCY causes an unreasonable delay, the Bidder's recovery for such delay shall be limited to an amount of reverse liquidated damages contained in the Contract. Provisions for reverse liquidated damages are defined in the General Conditions and Special Conditions. By submitting its Bid, the Bidder certifies that it has reviewed the amount of reverse liquidated damages and determined that, based on its Bid, the amount represents a fair and reasonable estimate of the amount of daily damages that Bidder would incur as a result of an unreasonable delay.

IB-05 SUBMITTING BID

Bidders must submit their bids via electronic transmission pursuant to Public Contract Code Sections 1600 and 1601. The acceptable method(s) of electronic transmission is via PlanetBids. AGENCY shall not accept bids otherwise transmitted. No oral, telephonic, or facsimile bids will be considered.

It is the sole responsibility of each bidder to see that its Bid is properly submitted to PlanetBids in the proper form and prior to the stated closing time. THE ELECTRONIC BID MANAGEMENT SYSTEM WILL NOT ACCEPT LATE BIDS. The AGENCY will only consider bids that have transmitted successfully and have been issued a confirmation number with a time stamp from PlanetBids indicating that the Bid was submitted successfully.

Bidders experiencing any technical difficulties with the bid submission process may contact the PlanetBids system support at 818-992-1771. If you continue to have difficulty, call the AGENCY's Engineering Department at 661-259-2737. Neither the AGENCY, nor the AGENCY's bid management system, make any guarantee as to the timely availability of assistance, or assurance that any given problem will be resolved by the bid submission date and/or time. The AGENCY will have no responsibility for bids that do not arrive in a timely manner, no matter what the reason.

THE BID GUARANTEE MUST BE RECEIVED PRIOR TO THE SPECIFIED DATE AND TIME FOR BID OPENING.

The Bid Guarantee shall be submitted in a sealed envelope with the Bidder's name, marked with the name of the project, the date and time to be opened, and addressed and delivered or mailed, postage prepaid, to:

Elaine Blanford
Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, CA 91350

It is each Bidder's responsibility to ensure that his/her Bid Guarantee is received by the AGENCY prior to the time set for bid opening.

Alternatively, Bid Bonds may be signed by digital signature (public key cryptography) and submitted electronically with their Bid. A digital signature shall be in accordance with Government Code section 16.5 and have the following attributes: (1) It is unique to the person using it; (2) It is capable of verification; (3) It is under the sole control of the person using it; (4) It is linked to data in such a manner that if the data are changed, the digital signature is invalidated; and (5) It conforms to the regulations adopted by the Secretary of State including, but not limited to, the acceptable technology requirements set forth under Title 2, Division 7, Chapter 10, Section 22003 of the California Code of Regulations. The Certification Authority issuing the certification for the digital signature transaction must appear on the "Approved List of Certification Authorities" authorized by the California Secretary of State. The current Approved List of Certification Authorities can be found at the following address:

<https://www.sos.ca.gov/administration/regulations/current-regulations/technology/digital-signatures/approved-certification-authorities/>. By submitting a Bid Bond with digital signatures, both the Bidder and surety consent and agree to the use of electronic signatures with the District when providing a Bid Bond. If the Bid Bond is submitted electronically with digital signatures, the Bidder and surety agree that the Bid Bond is authorized and enforceable despite being submitted and signed electronically and both waive any challenge to the form and/or validity of the Bid Bond.

IB-06 FORM AND CONTENT OF BID

Bids shall only be prepared using copies of the Bid Forms which are included in the Contract Documents and available on the electronic bid management system. The use of substitute bid forms will not be permitted. Bids shall be executed by an authorized signatory as described in these Instructions to Bidders. Deviations in the bid form may result in the bid being deemed non-responsive.

Bids shall be filed as noted above and shall include the following completed documents:

- Bid Form
- Non-Collusion Declaration
- Designation of Equipment or Material Manufacturers
- Designation of Subcontractors
- Subcontractors Designation Form
- Subcontractors Workers Classifications Form
- Information Required of Bidders
- Iran Contracting Act Certification
- Executive Order N-6-22 Certification
- Public Works Contractor Registration Certification
- Bidder Workers Classifications Form
- Bid Bond or other security
- Certificate for Workers' Compensation Insurance
- Acknowledgment of Addenda and Clarifications, if any
- American Iron and Steel Certification
- Build America, Buy America Certification
- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity
- Anti-Lobbying Certification
- DBE Good Faith Efforts Verification
- [DBE Subcontractor Performance Form](#)
- [DBE Subcontractor Utilization Form](#)
- Debarment and Suspension Certification

To receive consideration, Bids shall be made in accordance with the following instructions:

- A. Bids shall be made upon the form provided in the Contract Documents, with all items filled out, the signatures of all persons required to sign, acknowledged addenda on which bid is based, and shall be in writing. If Mobilization is included as Bid Item, the Mobilization Price shall not exceed five percent (5%) of the Total Bid Price.

The Bidder must enter pricing in the electronic bid form for any and all line items or a lump sum bid amount, as required. The pricing provided in the electronic bid form will be the only valid bid pricing for determination of low bid.

- B. Bids shall contain only the quotations for which the form is prepared. Alternative Bids will not be considered unless called for. No oral, telegraphic, or telephonic Bids or modifications will be considered.

- C. Each Bidder shall submit with his/her bid, on the form provided, the name and address of each subcontractor performing over one-half of one percent (0.5%) of the total value of the project, and the portion of the Work which each subcontractor will do, together with the listing of equipment suppliers. If the Bidder fails to name the subcontractors in his/her Bid, he/she shall be deemed to have agreed to perform such portion of the Work himself/herself and shall not be permitted to subcontract said portion of the Work without previous written permission of the AGENCY. If the Bidder fails to designate a manufacturer of the equipment as called for, it will be considered that the Bidder has selected the first named manufacturer listed in the specified equipment section.

Any Subcontractor, Supplier, or other individual or entity so listed and against which the AGENCY makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to the AGENCY, subject to revocation of such acceptance after the Effective Date of the Agreement as provided in the General Conditions.

The bidder must enter subcontractor information in the electronic bid form.

- D. Bids shall be accompanied by a Bid guarantee instrument in the form of (1) an unconditional cashier's check or check certified by a responsible bank of an amount not less than ten percent (10%) of the aggregate of the Bid, payable to the order of the Santa Clarita Valley Water Agency, or by (2) a Bid bond for the said amount which shall be on the mandatory form included in the Bid Documents and so payable written by a surety company acceptable to the AGENCY and which is admitted to transact surety business in the State of California, as defined in Code of Civil Procedure Section 995.120. Personal sureties and unregistered surety companies are unacceptable. Said check or bond shall be a guarantee that the Bidder, if awarded the Work, will: (1) execute and deliver to the AGENCY the Contract-Agreement in these specifications within fifteen (15) days after award, and (2) furnish bonds on the specification-required mandatory forms for both performance and payment within fifteen (15) days after award, and (3) furnish specification-required insurance, including documentation thereof, within fifteen (15) days after award. In case of refusal or failure to timely enter into said Contract, timely furnish the required bonds, or timely furnish the required insurance documents, the Bid guarantee amount shall, in full, be the property of the AGENCY. Said amount is hereby agreed upon as liquidated damages to the said AGENCY. Upon the AGENCY's execution of the Contract and the receipt on behalf of the AGENCY of the accompanying bonds and insurance documents, including the policy endorsements referenced in paragraph GC-10 of the General Conditions, all Bids guarantees will be returned to each Bidder. Award of the Contract, if award be made, will be made within ninety (90) days after the opening of the bids.
- E. Each Bidder shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professions Code, State of California, and shall be skilled and regularly engaged in the general class or type of work called for under this Contract.

It is the intention of the AGENCY to award the Contract only to a Bidder who is able to furnish satisfactory evidence that they have the requisite experience and ability and that they have sufficient capital, facilities, and plant to enable them to prosecute

the Work successfully and promptly, and to complete it within the time set forth in the Contract.

In determining the degree of responsibility to be credited to a Bidder, the AGENCY will weigh any evidence indicating the Bidder, or personnel guaranteed to be employed in responsible charge of the Work, has satisfactorily performed other contracts of like nature and magnitude.

- F. All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract. If a Bidder is a joint venture or partnership, it may be asked to submit an authenticated Power of Attorney executed by each joint venturer or partner appointing and designating one of the joint venturers or partners as a management sponsor to execute the Bid on behalf of Bidder. Only that joint venturer or partner shall execute the Bid. The Power of Attorney shall also: (1) authorize that particular joint venturer or partner to act for and bind Bidder in all matters relating to the Bid; and (2) provide that each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of Bidder assumed under the Bid and under any Contract arising therefrom. The Bid shall be executed by the designated joint venturer or partner on behalf of the joint venture or partnership in its legal name.

IB-07 EXAMINATION OF SITE, DRAWINGS, ETC.

Each Bidder shall visit the site of the proposed Work and fully acquaint himself/herself with local conditions, construction and labor so that the Bidder may fully understand the facilities, difficulties, and restrictions relating to the execution of the Work under the Contract.

Bidders shall thoroughly examine and be familiar with the Contract Documents. The failure of any Bidder to receive or examine any form, instrument, addendum, or other document, or to visit the site and acquaint himself/herself with conditions there existing shall in no way relieve the Bidder from any obligation with respect to the Bidder's Bid or to the Contract. The Drawings for the Work show conditions as they are supposed or believed by the Engineer to exist; but it is neither intended nor to be inferred that the conditions as shown thereon constitute a representation by the Engineer, the AGENCY, or its officers, that such conditions are actually existent, nor shall the AGENCY, the Engineer, or any of their officers or representatives be liable for any loss sustained by the Contractor as a result of any inference or extrapolation drawn by the Bidder between conditions as shown on the Drawings and the actual conditions revealed during the progress of the Work, or otherwise.

The Bidder's attention is directed to the possible existence of obstructions and improvements which may be within the limits of the Work or adjacent thereto, which may or may not be shown on the Drawings.

The Bidder is responsible for fully acquainting itself with the conditions of the site, as well those relating to the construction and labor of the Work, to fully understand the facilities, difficulties and restrictions which may impact the cost or efforts required to complete the

INSTRUCTIONS TO BIDDERS-ADDENDUM NO.1

Work. The Bidder shall investigate to his/her satisfaction as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the Contract Documents. It is mutually agreed that submission of a Bid shall be considered conclusive evidence that the Bidder has made such examination and has accepted the project site as a safe workplace to perform the Bidder's work.

The Bidder is required to complete, sign, and submit AGENCY's Release of Liability Form prior to entering on AGENCY property. The form is included on the AGENCY'S website. The AGENCY will not allow any visitor/bidder access to AGENCY property without the Release of Liability Form being fully executed and submitted.

IB-08 LOCATION OF THE WORK

Refer to the Notice Inviting Bids.

IB-09 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm, or corporation shall be allowed to make, file, or be interested in more than one Bid for the same work, unless alternative Bids are invited. A person, firm, or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not thereby disqualified from submitting a Bid, or quoting prices to other Bidders.

Reasonable grounds for believing that any Bidder is interested in more than one Bid for the Work will cause the rejection of all Bids in which said Bidder is interested. If there is reason to believe that collusion exists among the Bidders, none of the participants in such collusion will be considered.

IB-10 INTERPRETATION OF CONTRACT DOCUMENTS/RESTRICTION

Discrepancies or omissions in, and/or questions about, the Contract Documents shall be submitted to the Agency in writing as indicated in the Notice Inviting Bids.

The Bidder, by submission of his/her bid, confirms he/she has familiarized himself/herself with the Contract Documents and has found them fit and sufficient for the purpose of preparing his/her bid.

IB-11 ADDENDA

Any addenda or clarifications supplementing the Contract Documents and issued prior to the time set for the opening of Bids, and/or forming a part of the documents furnished to the Bidder for the preparation of his/her Bid, shall be covered in the Bid and shall be a part of the Contract Documents. Addenda will be uploaded to PlanetBids. Please note that bidders are responsible for receipt of all addenda. To this end, each Bidder should visit PlanetBids to verify that it has received all Addenda issued, if any, prior to the Bid opening. Bidder shall sign and return acknowledgments form of all addenda (if any) with the submitted Bid. Failure to sign and include acknowledgment of all addenda within the Bid could render the Bid as nonresponsive and the AGENCY may act to bar award of the Contract to any bidder that did not sign and return acknowledgments of all addenda.

IB-12 ALTERNATE BIDS

If alternate bid item(s) are called for in the Contract Documents, the lowest bid will be determined on basis of the base bid only unless otherwise specified in the Notice Inviting Bids. The time required for completion of the alternative bid item(s) has been factored into the Contract Time and no additional time will be allowed for performing any of the alternative bid item(s). The AGENCY may elect to include one or more of the alternate bid items, or to otherwise remove certain Work from the scope of work. Accordingly, each Bidder must ensure that each bid item contains a proportionate share of profit, overhead and other costs or expenses which will be incurred by the Bidder.

IB-13 DESIGNATION OF SUBCONTRACTORS

Pursuant to the State law, the Bidder must designate the name, location of place of business, California contractor license number, and public works contractor registration number of each subcontractor who will perform labor or render services to the Bidder in or about the construction of work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Bidder, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent ($\frac{1}{2}$ %) of the Bidder's Total Bid Price or, in case of bids or offers for construction of streets and highways, including bridges, in excess of one-half of one percent ($\frac{1}{2}$ %) of the Bidder's Total Bid Price or ten thousand dollars (\$10,000), whichever is greater. The Bidder shall provide information of the subcontractor name, location of place of business, California contractor license number, public works contractor registration number, and a portion of work each subcontractor will perform on the Designation of Subcontractors form provided within the Bid Documents. Bidders may submit any other information regarding subcontractors the contractor is required to list under this subdivision, other than the subcontractor's name, location of business, and California contractor license number, and public works contractor registration number to the AGENCY up to 24 hours after the deadline for submitting bids.

IB-14 WITHDRAWAL OF BIDS

Prior to the bid closing deadline, a Bid may be electronically withdrawn by the Bidder. Any request to withdraw a bid after bid closing must be made in accordance with Public Contract Code section 5100 et seq. and must be submitted in writing within five (5) working days, excluding Saturday, Sundays and State holidays, specifying in detail how the mistake was made.

IB-15 OPENING AND COMPARISON OF BIDS

Bids will be received by the AGENCY via the PlanetBids electronic bid management system up to the date and time shown in the Notice Inviting Bids. It is the Bidder's sole responsibility to ensure that its Bid is received as specified. Bids may be submitted earlier than the dates(s) and time(s) indicated.

Bid results are immediately available to the public at the closing deadline on the AGENCY's website in the electronic bid management system. Bid results will also be available immediately following bid opening at the Engineering Department, Customer Service Building, 26515 Summit Circle, Santa Clarita CA 91350.

IB-16 AWARD OR REJECTION OF BIDS

If award is made, the AGENCY will award based primarily on the lowest overall cost to the AGENCY, and the award will be made to the lowest responsive, responsible Bidder who has complied with the Instructions to Bidders and with the provisions of the advertised Notice Inviting Bids. Unless otherwise indicated, a single award will not be made for less than all the bid items in an individual bidding schedule. The AGENCY reserves the right to reject any or all bids and to waive any irregularities or informalities of any bid. The competency and responsibility of Bidders as evidenced by the information accompanying the Bids, which will be subject to verification, will be considered in making the award. The AGENCY may reject any Bid which, in its opinion when compared to other bids received or to the AGENCY's internal estimates, does not accurately reflect the cost to perform the Work. The AGENCY may reject as non-responsive any bid which unevenly weights or allocates costs, including but not limited to overhead and profit, to one or more particular bid items.

Award, if award is made, will be made within ninety (90) days of the opening of sealed Bids. No Bidder may withdraw his Bid within such period, even if a Notice of Award is given to another Bidder.

Once the AGENCY notifies the Bidder of the award, the Bidder will have fifteen (15) calendar days from the date of the award to execute the Contract and supply the AGENCY with an executed contract and all of the required bonds, evidence of insurance and other materials.

As required herein the successful Bidder shall execute the Contract included with the bid documents in the amount determined in accordance with the Contract Documents. The AGENCY may require appropriate evidence that the persons executing the Contract are duly authorized to do so on the Contractor's behalf.

Immediately after making an award, the AGENCY will issue a Notice of Award and mail the notice to the Bidder to whom such award is made.

Upon the AGENCY's execution of a Contract or rejection of Bids, the AGENCY will return to Bidders the Bid guarantee instrument which accompanied their Bids.

IB-17 BID PROTESTS

Submitted bids will be timely made available for review upon written request of any bidder. Bidders may file a "protest" of Bid with the AGENCY. The protest must:

- A. Be filed in writing with the AGENCY at 26515 Summit Circle, Attention: Mr. Orlando Moreno;
- B. Be filed before 5:00 p.m. on the fifth (5th) business day following the date on the notice of intended award or the notice of intent to reject, or the date of the award, whichever occurs first.;
- C. Shall include the name, address and telephone number of the person representing the protesting party;
- D. Clearly identify the specific irregularity or other basis for the protest;
- E. Clearly identify the specific AGENCY staff determination or recommendation being protested;
- F. Specify, in detail, the legal grounds of the protest and the facts supporting the protest;
- G. Include all relevant, supporting documentation with the protest at time of filing.

If the protest does not meet all of these requirements, the AGENCY may reject it without further review.

If the protest is timely and complies with all of the above requirements, the AGENCY will review and will issue a decision on the protest.

The procedure and time limits set forth herein are mandatory and are the Bidder's sole and exclusive remedy in the event of Bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.

IB-18 MANDATORY PRE-BID CONFERENCE

A mandatory pre-bid conference will be held for the project at the time and place noted in the Notice Inviting Bids. The project will be discussed, and there will be a virtual tour of the project site. The plans and specifications will not be available for purchase at the pre-bid conference. Prospective bidders must attend the mandatory pre-bid conference, and attendance is a condition precedent to submittal of a bid. The AGENCY will not consider a bid from any Bidder not represented at the mandatory pre-bid conference as indicated in the sign in sheet maintained by AGENCY. Attendance at the pre-bid conference by subcontractors is not required.

The site will also be available for bidders to visit at the time and place noted in the Notice Inviting Bids. Bidders are advised to wear appropriate protective footwear

during the tour of the project site. Protective footwear shall safeguard from sharp objects, rolling objects, wet or slippery surfaces, or electrical hazards.

Any person, unless already bound by a current contract with the AGENCY, prior to entering AGENCY property, must complete, sign and submit AGENCY's Release of Liability Form. AGENCY's Release of Liability Form is included on the AGENCY'S website. The AGENCY will not allow any visitor/prospective bidder access to Agency property without the Release of Liability Form being fully executed and submitted.

IB-19 DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

In accordance with the provisions of the Labor Code, contractors and subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public works project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor shall be returned to the AGENCY. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor used on the Work.

IB-20 IRAN CONTRACTING ACT CERTIFICATION

Each Bidder shall submit the certification required by the Iran Contracting Act of 2010, Public Contract Code Section 2200 *et seq.* with the Bid. The certification form is included in the Bid Documents.

IB-21 PREVAILING WAGES

The AGENCY has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract. These rates are on file and available at the AGENCY or may be obtained online at <http://www.dir.ca.gov/dlsr>. Bidders are advised that a copy of these rates must be posted by the successful Bidder at the job site(s).

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted, nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the Department of Industrial Relations. Bidder shall sign and submit with its Bid the Public Works Contractor Registration Certification, attesting to the facts contained therein. Failure to submit this Certification with the Bid may render the Bid non-responsive. Each Bidder shall provide the registration number for each listed subcontractor in the space provided in the Designation of Subcontractors Form. In addition, each Bidder shall provide the workers classifications for the Bidder and for each listed subcontractor on the provided Bidder Worker Classifications Form and Subcontractor Classifications Form.

In accordance with Labor Code section 1773.3, the AGENCY will provide notice of the award to the Department of Industrial Relations on the Form PWC-100. The Bidder who is awarded the Contract shall submit to the AGENCY any information requested by the AGENCY to complete the form, including but not limited to identification of the worker classifications for the Bidder and all listed subcontractors. Failure or refusal to provide the requested information prior to execution of the Contract may result in forfeiture of the Bidder's Bid deposit or bond to the AGENCY, and the AGENCY may award the Contract to the next lowest responsive and responsible Bidder, or may call for new Bids.

In accordance with the Water Infrastructure Financing and Innovations Act ("WIFIA"), the work must also comply with the minimum rates for wages for laborers and mechanics as determined by the Secretary of Labor in accordance with the provisions of Davis-Bacon. **The higher of the two rates must be paid.** Attention is directed to the Special Conditions in the Contract Documents.

IB-22 INSURANCE; BONDS

The successful Bidder shall procure and maintain insurance in the form and in the amount specified in the Contract Documents.

Within the time specified in the Contract Documents, the successful bidder shall deliver to the AGENCY two identical counterparts of the Performance Bond and Payment (Labor and Materials) Bond in the form supplied by the AGENCY and included in the Contract Documents. Failure to do so may, in the sole discretion of AGENCY, result in the forfeiture of the Bid Security. The surety supplying the bond must be an admitted surety insurer, as defined in Code of Civil Procedure Section 995.120, authorized to do business in the State of California and satisfactory to the AGENCY. The Performance Bond and the Payment (Labor and Materials) Bond shall be for one hundred percent (100%) of the Total Bid Price. At the AGENCY'S discretion, it may allow Performance and Payment Bonds to be executed with digital signatures, in accordance with the same requirements of those Bid Bonds submitted and executed electronically. If allowed, the successful Bidder and surety agree that the Performance and Payment Bonds are authorized, and enforceable despite being submitted and signed electronically, and both waive any challenge to the form and/or validity of the bonds.

IB-23 SUBSTITUTION OF SECURITY

The Contract Documents call for monthly progress payments based upon the percentage of the Work completed. The AGENCY will retain a percentage of each progress payment as provided by the Contract Documents. At the request and expense of the successful Bidder, the AGENCY will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.

IB-24 INFORMATION REQUIRED OF BIDDERS FORM

Each Bidder shall complete the Information Required of Bidders Form provided herein and shall submit the questionnaire along with its Bid. Failure to provide all information requested within the questionnaire along with the Bid may cause the Bid to be rejected as non-responsive. The AGENCY reserves the right to reject any Bid if an investigation

of the information submitted does not satisfy the AGENCY that the Bidder is qualified to properly carry out the terms of the Contract.

IB-25 SALES AND OTHER APPLICABLE TAXES, PERMITS, LICENSES AND FEES

Contractor and its subcontractors performing work under this Contract will be required to pay California sales tax and other applicable taxes, and to pay for permits, licenses and fees required by the agencies with authority in jurisdiction in which the work will be located, unless otherwise expressly provided by the Contract Documents. Bidders shall include all applicable taxes, and fees in their bid price.

IB-26 WIFIA REQUIREMENTS

The successful Bidder will be required to comply with all terms and conditions imposed by WIFIA, including but not limited to the following: Build America, Buy America Act, American Iron and Steel, Disadvantaged Business Enterprises, and Davis-Bacon. Bidder shall refer to the Special Conditions for the requirements of WIFIA.

The Disadvantaged Business Enterprise (“DBE”) Program is an EPA outreach, education, and goal program designed to increase and encourage the utilization and participation of DBEs in procurements funded by EPA assistance programs (73 FR 15904). The implementing regulations can be found at 40 CFR Part 33. Bidders shall make good faith efforts to assure that small, minority, and women-owned businesses are used when subcontracting. The good faith efforts include:

- Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities, including placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- Make information on forthcoming opportunities available to DBEs, arrange time frames for contracts, and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids for a minimum of 30 calendar days before the bid closing date.
- Dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
- Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

In accordance with WIFIA, and as further detailed in Special Provisions, Bidders shall complete the following forms located in Bid Forms and submit them with their bids:

- American Iron and Steel Certification
- Build America, Buy America Certification
- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity
- Anti-Lobbying Certification
- DBE Good Faith Efforts Verification

- Debarment and Suspension Certification

IB-27 California State Water Resources Control Board Grant Requirements

The successful Bidder will be required to comply with all terms and conditions set forth in the Finance Agreement and Guidelines issued by the State Water Resources Control Board for potential grant funding.

As further detailed in Special Provisions, Bidders shall complete the following DBE forms located in Bid Forms and submit them with their bids:

- DBE Subcontractor Performance Form
- DBE Subcontractor Utilization Form

DBE Contractors and subcontractors must be certified at bid-opening. Bidders shall provide Proof of DBE certification for all listed DBEs with their bids.

END OF SECTION

BID FORM-ADDENDUM NO. 1

AGENCY BOARD
SANTA CLARITA VALLEY WATER AGENCY
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

Bidder: _____

Gentlepersons:

Pursuant to the attached Notice Inviting Bids, the undersigned Bidder hereby declares that it has carefully examined the location of the proposed Work, and has examined the Contract Documents, including all drawings, specifications, and all addenda, if any, for the following Work:

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY

We hereby propose and agree, on award by the AGENCY under this Bid, and in accordance with the provisions therein stated, to execute the Contract Documents, provide specification-required bonds and insurance documents, to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Work in strict accordance with the Contract Documents and within the time hereafter set forth, at the prices set in the electronically submitted Bid Schedule.

Refer to Specification Section 01270 Measurement and Payment for description of Bid Items. Bidder shall not enter "N/A" on any bid item. Also, Bidder shall not modify or cross out any of the bid item descriptions and/or quantities. Please enter a dollar amount for each bid item.

The undersigned agrees that the electronic bid accompanied by this Bid Form constitutes a firm offer to the AGENCY which cannot be withdrawn for the number of calendar days indicated in the Notice Inviting Bids from and after the bid opening, or until a Contract for the Work is fully executed by the AGENCY and a third party, whichever is earlier.

The undersigned acknowledges understanding and full consideration of the electronically issued addenda to the Contract Documents.

The undersigned has carefully examined the location of the proposed Work and has read and examined the Contract Documents, including all plans, specifications, and all addenda, if any, for the proposed Work. The undersigned has checked the above amount and understands that the AGENCY will not be responsible for any errors or omissions on the part of the undersigned in making this Bid.

It is agreed that this Bid may not be withdrawn under any circumstances whatsoever within a period of ninety (90) days after the date set for the opening thereof.

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 2400420

BID FORM-ADDENDUM NO. 1

The undersigned understands that the AGENCY reserves the right to reject any or all bids and to waive any informality in bids received that in the judgment of the AGENCY is to the best interest of the AGENCY. The AGENCY will determine the lowest responsive, responsible Bidder as defined in the Instruction to Bidders.

Bidder has submitted a Bid bond or check (certified or cashiers) for not less than ten percent (10%) of the total Base Bid amount of this Bid, and the undersigned agrees that, in case of his/her default in timely executing the contract or timely providing the specification-required bonds and insurance documents after award and due notice thereof, the said check or bond and the money payable thereon shall become and remain the property of the AGENCY as liquidated damages, without proof of actual loss. It is agreed that the AGENCY's actual damages would be impracticable and extremely difficult to determine and said liquidated damages amount is reasonable. If the Bid Bond is submitted electronically with digital signatures in accordance with the Instruction to Bidders, the undersigned and surety agree that the Bid Bond is authorized and enforceable despite being submitted and signed electronically and both waive any challenge to the form and/or validity of the Bid Bond.

In accordance with the specifications, the undersigned further agrees to so plan the Work and to prosecute it with such diligence that said Work shall be commenced within fifteen (15) days after the date established by the AGENCY in its Notice to Proceed. The CONTRACTOR shall diligently prosecute all portions of the Work to completion, tested and ready for service, by the dates defined in the Special Conditions.

The undersigned is aware of and understands the liquidated damages provisions of the agreement as specified in the General Conditions and in the Special Conditions. The undersigned certifies that the amount of reverse liquidated damages represents a fair and reasonable estimate of the amount of daily damages that the undersigned would incur as a result of an unreasonable delay.

The undersigned agrees, if awarded the Contract, that payment shall be made by the undersigned and by all subcontractors under him/her to all laborers, workers, and mechanics employed in the execution of such Contract, or any subcontract thereunder, not less than the general prevailing rate of per diem wages and rates for overtime and legal holidays in the locality in which the Work is to be performed, as ascertained and determined, pursuant to the State statute thereto applicable.

The estimated quantities for unit items are for bidding purposes only and the AGENCY makes no representation that the actual quantities of work performed will not vary from estimate.

Each of the bid items must be filled in and completed. The amount is for the work completed and includes any and all sales taxes and levies which may be applicable.

Note: The Bids will be evaluated, and the Contract will be awarded to the lowest responsive, responsible bidder based on the Base Bid Price.

In case of discrepancy between the unit price and the item cost set for a unit price item, the item cost, calculated at the unit price multiplied by the estimated quantity, shall prevail and shall be utilized as the basis for determining the lowest, responsive, and responsible bidder. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or is the same amount as the entry in the "Item Price" column, then the amount set forth in the "Item Price" columns for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price. If any of the above discrepancies exist, the AGENCY may recalculate the bid price on basis of the unit price and the bidder agrees to be bound by such recalculation. Final payment for the unit price items shall be determined by the AGENCY from measured quantities of work performed.

Bidder has examined copies of the following Addenda (receipt of which is hereby acknowledged):

Date	Number
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned has carefully examined the location of the proposed Work and has read and examined the Contract Documents, including all plans, specifications, and all addenda, if any, for the proposed Work. The undersigned has checked the above amount and understands that the AGENCY will not be responsible for any errors or omissions on the part of the undersigned in making this Bid.

It is agreed that this Bid may not be withdrawn under any circumstances whatsoever within a period of ninety (90) days after the date set for the opening thereof.

The undersigned understands that the AGENCY reserves the right to reject any or all bids and to waive any informality in bids received that in the judgment of the AGENCY is to the best interest of the AGENCY. The AGENCY will determine the lowest responsive, responsible Bidder as defined in the Instruction to Bidders.

Enclosed herein is a Bid bond or check (certified or cashiers) for not less than ten percent (10%) of the total Base Bid amount of this Bid, and the undersigned agrees that, in case of his/her default in timely executing the contract or timely providing the specification-required bonds and insurance documents after award and due notice thereof, the said check or bond and the money payable thereon shall become and remain the property of the AGENCY as liquidated damages, without proof of actual loss. It is agreed that the AGENCY's actual damages would be impracticable and extremely difficult to determine and said liquidated damages amount is reasonable.

In accordance with the specifications, the undersigned further agrees to so plan the Work and to prosecute it with such diligence that said Work shall be commenced within fifteen (15) days after the date established by the AGENCY in its Notice to Proceed. The CONTRACTOR shall diligently prosecute all portions of the Work to completion, tested and ready for service, by the dates defined in the Special Conditions.

The undersigned is aware of and understands the liquidated damages provisions of the agreement as specified in the General Conditions and in the Special Conditions. The undersigned certifies that the amount of reverse liquidated damages represents a fair and reasonable estimate of the amount of daily damages that the undersigned would incur as a result of an unreasonable delay.

The undersigned agrees, if awarded the Contract, that payment shall be made by the undersigned and by all subcontractors under him/her to all laborers, workers, and mechanics employed in the execution of such Contract, or any subcontract thereunder, not less than the general prevailing rate of per diem wages and rates for overtime and legal holidays in the locality in which the Work is to be performed, as ascertained and determined, pursuant to the State statute thereto applicable.

BIDDER'S REPRESENTATIONS

1. DECLARATION OF LICENSE STATUS. The Bidder declares that it possesses a valid State of California Class A, General Engineering Contractor license, at the time of submitting this bid, as follows:

Bidder's License Number _____

Classification _____

License Expiration Date _____

2. NON-COLLUSION DECLARATION. In accordance with Section 7106 of the Public Contracts Code, Bidder is required to execute the following Non-Collusion Declaration.

NON-COLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

_____ [date], at _____ [city],
_____ [state].

Signature: _____

Name: _____

Title: _____

3. BIDDER'S SIGNATURE
(RE: Bid and
representations)

Bidder: _____

Signature: _____

Name/Title: _____

Business Address: _____

Business Tel: _____

Dated _____

Home Office Address (if different from above):

Telephone _____

**NOTARY ACKNOWLEDGMENT OF
NON-COLLUSION DECLARATION IS
REQUIRED**

Signing of Bid

If the Bid is made by an individual, it shall be signed by him/her; if made by a partnership, it shall be signed with the partnership name by a partner, who shall also sign his/her name and list all other partners; and if made by a corporation, it shall be signed by a duly authorized officer or officers, with their titles specified, and with the corporation's state of incorporation listed.

DESIGNATION OF EQUIPMENT OR MATERIAL MANUFACTURERS
(do not show dealer or supplier unless specifically called for below)

Pursuant to Public Contract Code Section 3400(c), the AGENCY, in order to ensure continuous operation of the AGENCY'S facility and to facilitate maintenance of the essential facilities, is standardizing the products, things or services to be provided under this Contract to match the products, things, or services in use in the facility. The AGENCY is designating the following sole source materials, products, things or services by specific brand or trade name to be provided by the CONTRACTOR under the Contract. The brand or trade names of such sole source materials, products, things, or services are specified below. No substitutions will be allowed for these items.

Spec. Section	Product/Equipment Description	Brand or Trade Name
11220	Static Mixer	Westfall
11240	Sodium Hypochlorite Chemical Pumps	Milton Roy Milroyal B
11240	Liquid Ammonia Sulfate Chemical Pumps	Milton Roy mRoy A
13150	On-Site Generator Sodium Hypochlorite System	De Nora
15100	Valve Operators and Electric Valve Actuators	AUMA
15115	PVC and CPVC Valves	Spears
16495	Low Voltage Variable Frequency Drives (VFD)	Rockwell Automation (Allen-Bradley)
17120/13150	Programmable Logic Controllers	Allen-Bradley Compact Logix
17703	Transit-Time Flow Meters	Titian Metraflow
17745/13150	Radar Level Measurement System	Vega
17831	Chlorine Analyzers (pH sensors)	Prominent
17832	Nitrate Analyzer	ChemScan

The Bidder states that the manufacturer of each listed item of equipment or material proposed by the CONTRACTOR for use on this project will be as listed below:

Spec. Section	Description	Equipment or Material Manufacturers/Fabricators (Name one only)
02080	Asphalt Paving	
02710	Storm Drains and Roof Drains	
02820	Ornamental Fences and Gates	
08110	Steel Doors and Frames	
08330	Roll-up Doors	
10524	Emergency Showers/Eyewash Stations	
06610	FRP Floors	

Spec. Section	Description	Equipment or Material Manufacturers/Fabricators (Name one only)
11216	Submersible Turbine Pumps	
11230	Cartridge Filters	
11416	GAC Media	
13204	Granular Activated Carbon System	
13206	Ion Exchange System	
13207	Polyethylene Storage Tanks	
15006	Ductile Iron Pipe	
15008	PVC, CPVC Pipe	
15011	PVDF Pipe	
15102	Steel Pipe	
15020	Pipe Supports	
15101	Butterfly Valves	
15104	Ball Valves	
15105	Check Valves	
15107	Electronic Flow Control Valves	
15108	Gate Valves	
15113	Air Valves	
15170	Low Voltage Electric Motors	
15590	Fans	
16280	Surge Protection Devices	
16440	Disconnect Switches	
16470	Panelboards	
16481	Individual Motor Starters	
16902	Electric Controls and Relays	
17180	Ethernet Switches	
17190	Uninterruptible Power Supply	
17512	Cabinet Air Conditioning Units	

BID FORM-ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 2400420

Spec. Section	Description	Equipment or Material Manufacturers/Fabricators (Name one only)
17560	Control System Surge Protection Devices	
17640	Pressure Gauges	
17670	Level Switches	
17675	Pressure Switches	
17701	Magnetic Flow Meters	
17760	Pressure Indicating Transmitters	

The CONTRACTOR must include in the space provided, the name of the equipment or material manufacturer he/she has used in determining his/her base bid which will be used by the CONTRACTOR in constructing the project. If the CONTRACTOR does not fill in any of the spaces, it will be considered that the CONTRACTOR has selected the first-named manufacturer as his/her selection for those spaces not filled in.

After the opening of bids, no changes or substitutions from those listed manufacturers will be allowed without the express written approval of the AGENCY. If such change is permitted by the AGENCY, it will be evaluated in accordance with provisions of the Contract Documents pertaining to substitutions and equals.

It is the responsibility of the CONTRACTOR to furnish materials and equipment meeting the requirements of the project specifications, and acceptance of the bid does not constitute nor imply approval of items proposed. The AGENCY reserves the right to deny approval of any equipment or materials which do not comply with project specifications even though listed herein. AGENCY approval of changes in equipment or material suppliers shall not change or modify in any way CONTRACTOR's obligation to complete all Work at the prices set forth in the Bid.

DESIGNATION OF SUBCONTRACTORS

Each Bidder shall set forth on provided Designation of Subcontractors Form: 1) the name, the location of the place of business and California contractor license number of each subcontractor who will perform labor, fabricate a portion of the Work or improvement according to detailed drawings in the project plans, or render service to the CONTRACTOR in or about the construction of the Work; and 2) the portion of the Work which will be done by each such subcontractor who will perform work or labor or render services to the CONTRACTOR in or about the construction of the Work in an amount in excess of one-half of one percent ($\frac{1}{2}$ %) of the CONTRACTOR's Total Bid Price.

Notwithstanding the forgoing, if the work involves streets and highways, or bridge work then the CONTRACTOR shall list each subcontractor who will perform work or labor or render services to CONTRACTOR in or about the work in excess of one-half of one percent ($\frac{1}{2}$ %) of the CONTRACTOR's Total Bid Price or ten thousand dollars (\$10,000), whichever is greater.

If the CONTRACTOR fails to specify a subcontractor for a portion of the Work, or if more than one subcontractor is specified for the same portion of Work, then the CONTRACTOR shall be deemed to have agreed that it is fully qualified to perform that Work, and that it shall perform that portion itself. Note that alternative subcontractors for the same work are not permitted under the California Public Contract Code.

CONTRACTOR or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered with the Department of Industrial Relations (DIR) and qualified to perform public work pursuant to Section 1725.5 of Labor Code.

Each Bidder shall complete and submit on the provided Subcontractor Workers Classifications Form the following: 1) business name of each subcontractor will perform labor, fabricate a portion of the Work, or render services in or about the construction of the Work; 2) registration number with the DIR for each subcontractor; 3) subcontractor designated contact person name, title, phone number and e-mail address and 4) subcontractor worker classifications will be utilized for the Work.

In accordance with Section 4100 to Section 4113, inclusive, of the Public Contract Code of the State of California and with Section 1725.5 of the Labor Code, as amended, the following is submitted concerning subcontractors:

(Attach additional pages, if needed, for listing all required information.)

SUBCONTRACTORS DESIGNATION FORM

Portion of Work	Subcontractor Name	Location of Business	CSLB License Number & Class	DIR Registration Number	% of the Work

SUBCONTRACTORS WORKERS CLASSIFICATIONS FORM

Subcontractor Business Name						
Subcontractor Registration Number with DIR						
Contact Person Name						
Contact Person Title						
Contact Person Phone Number						
Contact Person E-mail Address						
Workers Classifications						
ASBESTOS		BOILERMAKER		BRICKLAYERS		CARPENTERS
CARPET/LINOLEUM		CEMENT MASONS		DRYWALL FINISHER		DRYWALL/LATHERS
ELECTRICIANS		ELEVATOR MECHANIC		GLAZIERS		IRON WORKERS
LABORERS		MILLWRIGHTS		OPERATING ENG		PAINTERS
PILE DRIVERS		PIPE TRADES		PLASTERERS		ROOFERS
SHEET METAL		SOUND /COMM		SURVEYORS		TEAMSTER
TILE WORKERS						

Subcontractor Business Name						
Subcontractor Registration Number with DIR						
Contact Person Name						
Contact Person Title						
Contact Person Phone Number						
Contact Person E-mail Address						
Workers Classifications						
ASBESTOS		BOILERMAKER		BRICKLAYERS		CARPENTERS
CARPET/LINOLEUM		CEMENT MASONS		DRYWALL FINISHER		DRYWALL/LATHERS
ELECTRICIANS		ELEVATOR MECHANIC		GLAZIERS		IRON WORKERS
LABORERS		MILLWRIGHTS		OPERATING ENG		PAINTERS
PILE DRIVERS		PIPE TRADES		PLASTERERS		ROOFERS
SHEET METAL		SOUND /COMM		SURVEYORS		TEAMSTER
TILE WORKERS						

SUBCONTRACTORS WORKERS CLASSIFICATIONS FORM

Subcontractor Business Name				
Subcontractor Registration Number with DIR				
Contact Person Name				
Contact Person Title				
Contact Person Phone Number				
Contact Person E-mail Address				
Workers Classifications				
ASBESTOS	BOILERMAKER	BRICKLAYERS	CARPENTERS	
CARPET/LINOLEUM	CEMENT MASONS	DRYWALL FINISHER	DRYWALL/LATHERS	
ELECTRICIANS	ELEVATOR MECHANIC	GLAZIERS	IRON WORKERS	
LABORERS	MILLWRIGHTS	OPERATING ENG	PAINTERS	
PILE DRIVERS	PIPE TRADES	PLASTERERS	ROOFERS	
SHEET METAL	SOUND /COMM	SURVEYORS	TEAMSTER	
TILE WORKERS				

Subcontractor Business Name				
Subcontractor Registration Number with DIR				
Contact Person Name				
Contact Person Title				
Contact Person Phone Number				
Contact Person E-mail Address				
Workers Classifications				
ASBESTOS	BOILERMAKER	BRICKLAYERS	CARPENTERS	
CARPET/LINOLEUM	CEMENT MASONS	DRYWALL FINISHER	DRYWALL/LATHERS	
ELECTRICIANS	ELEVATOR MECHANIC	GLAZIERS	IRON WORKERS	
LABORERS	MILLWRIGHTS	OPERATING ENG	PAINTERS	
PILE DRIVERS	PIPE TRADES	PLASTERERS	ROOFERS	
SHEET METAL	SOUND /COMM	SURVEYORS	TEAMSTER	
TILE WORKERS				

INFORMATION REQUIRED OF BIDDERS

A. INFORMATION ABOUT BIDDER

Failure to complete all information may render bid non-responsive.

The Bidder authorizes the AGENCY to use the information provided on these Bid forms and/or obtained from the Project Owners listed below to evaluate the Bidder's responsibility.

NOTE: Where Bidder is a joint venture, pages shall be duplicated, and information provided for all parties to the joint venture.

1. Name of Bidder _____

2. Type, if Entity: _____

3. Bidder's Address: _____

4. Bidder's Telephone Number: _____

5. Bidder's Email: _____

6. How many years has Bidder's organization been in business as a Contractor?

7. How many years has Bidder's organization been in business under its present name?

8. Under what other or former names has Bidder's organization operated?

9. If Bidder's organization is a corporation, answer the following:

9.1 Date of Incorporation: _____

9.2 State of Incorporation: _____

9.3 President's Name: _____

9.4 Vice-President's Name(s) _____

9.5 Secretary's Name: _____

9.6 Treasurer's Name: _____

10. If an individual or a partnership, answer the following:

10.1 Date of Organization: _____

10.2 Name and address of all partners (state whether general or limited partnership):

11. If other than a corporation or partnership, describe organization and name principals:

12. List other states in which Bidder's organization is legally qualified to do business:

13. What type of work does the Bidder perform with its own forces?

14. Has Bidder ever failed to complete any work awarded to it? If so, note when, where, and why:

15. Within the last five years, has any officer or partner of Bidder's organization ever been an officer or partner of another organization that failed to complete a contract? If so, attach a separate sheet of explanation:

16. Bidder has never been disqualified or otherwise prevented from bidding on a project funded by an agency of the federal government, any state, or any local agency, except as follows:

(List any exceptions and reasons therefore. Use attachments, if necessary).

17. Bidder, as a CONTRACTOR, has never failed to satisfactorily complete an awarded contract except as follows:

18. Has CAL OSHA cited and assessed penalties against Bidder for any “serious”, “willful” or “repeat” violations of its safety or health regulations in the past five years? **NOTE: If Bidder has filed an appeal of a citation, and the California Occupational Safety and Health Appeals Board has not yet ruled on Bidder’s appeal, Bidder need not include information about it.**

_____ Yes _____ No

If “yes”, attach a separate signed page describing the citations, including information about the dates of the citations, the nature of the violation, the project on which the citation(s) was or were issued, and the amount of penalty paid, if any. If the citation was appealed to the Occupational Safety and Health Appeals Board and a decision has been issued, state the case number and the date of the decision.

B. CONTRACTOR

List and describe the projects that are similar in size, scope and complexity to the Work to demonstrate the Contractor's ability to perform the required Work. Reference the Notice Inviting Bids for minimum requirements. Attach additional pages if needed for listing additional completed projects.

B.1

Project Name: _____

Name of Project Owner: _____

Location: _____

Year Completed: _____

Description of Contractor's Work: _____

Contract Amount: _____

Person to Contact: Name: _____

Telephone No.: _____

B.2

Project Name: _____

Name of Project Owner: _____

Location: _____

Year Completed: _____

Description of Contractor's Work: _____

Contract Amount: _____

Person to Contact: Name: _____

Telephone No.: _____

C. CONTRACTOR'S SUPERINTENDENT

The Bidder shall identify the Superintendent to be assigned to this project. List and describe the project that is similar in size, scope and complexity to the Work to demonstrate the Superintendent's ability to perform the required Work. Reference the Notice Inviting Bids for minimum requirements. Attach additional pages if needed for listing additional completed projects.

C.1

Superintendent's Name: _____

Project Name: _____

Name of Project Owner: _____

Location: _____

Year Completed: _____

Description of Contractor's Work: _____

Contract Amount: _____

Person to Contact: Name: _____

Telephone No.: _____

D. EXPERIENCE AND TECHNICAL QUALIFICATIONS QUESTIONNAIRE

The Bidder shall identify the key personnel to be assigned to this project in a management, construction supervision or engineering capacity.

1. List General Contractor's Project Manager (PM) name, and Superintendent name:

2. Summarize General Contractor's PM's and Superintendent's experience/education:

3. List the General Contractor's PM and Superintendent's years of construction experience of relevant to the project:

Bidder agrees that personnel named in this Bid will remain on this project in their designated capacities until completion of all Work, unless replaced by personnel of equivalent experience and qualifications and approved in advance by the AGENCY.

Additional Bidder's Statement:

If Bidder feels that there is additional information which has not been requested in the questionnaire above, and which would contribute to the qualifications review, it may add that information in statement here or on an additional sheet, appropriately marked:

E. VERIFICATION AND EXECUTION

These Bid forms shall be executed only by a duly authorized official of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing information is true and correct:

Name of Bidder: _____

By: _____
Signature

Name: _____
Print

Title: _____

Dated: _____

IRAN CONTRACTING ACT CERTIFICATION
(Public Contract Code section 2200 *et seq.*)

As required by California Public Contract Code section 2204, the CONTRACTOR certifies subject to penalty for perjury that the option checked below relating to the CONTRACTOR's status in regard to the Iran Contracting Act of 2010 (Public Contract Code section 2200 *et seq.*) is true and correct:

The CONTRACTOR is not:

- (i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203; or
- (ii) a financial institution that extends, for forty five (45) days or more, credit in the amount of twenty millions dollars (\$20,000,000) or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

Y Agency has exempted the CONTRACTOR from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, Agency will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

Y The amount of the Contract payable to the CONTRACTOR for the Work does not exceed one million dollars (\$1,000,000).

Signature: _____

Name/Title: _____

Contractor: _____

Date: _____

Note: In accordance with Public Contract Code section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of two hundred fifty thousand dollars (\$250,000) or twice the Contract Price, termination of the Contract and/or ineligibility to bid on contracts for three years.

EXECUTIVE ORDER N-6-22 CERTIFICATION

Executive Order N-6-22 issued by Governor Gavin Newsom on March 4, 2022, directs all agencies and departments that are subject to the Governor’s authority to (a) terminate any contracts with any individuals or entities that are determined to be a target of economic sanctions against Russia and Russian entities and individuals; and (b) refrain from entering into any new contracts with such individuals or entities while the aforementioned sanctions are in effect.

Executive Order N-6-22 also requires that any contractor that: (1) currently has a contract with the AGENCY funded through grant funds provided by the State of California; and/or (2) submits a bid or proposal or otherwise proposes to or enter into or renew a contract with the AGENCY with State of California grant funds, certify that the person is not the target of any economic sanctions against Russia and Russian entities and individuals.

The contractor hereby certifies, SUBJECT TO PENALTY OF PERJURY, that a) the contractor is not a target of any economic sanctions against Russian and Russian entities and individuals as described in Executive Order N-6-22 and b) the person signing below is duly authorized to legally bind the contractor. This certification is made under the laws of the State of California.

Signature: _____

Printed Name: _____

Title: _____

Contractor: _____

Date: _____

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted, nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.¹

Name of Bidder: _____

DIR Registration Number: _____

DIR Registration Expiration: _____

Small Project Exemption: _____ Yes or _____ No

Unless Bidder is exempt pursuant to the small project exemption, Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature _____

Name and Title _____

Dated _____

¹ If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

BIDDER WORKERS CLASSIFICATIONS FORM				
Contractor Business Name				
Contact Person Name				
Contact Person Title				
Contact Person Phone Number				
Contact Person E-mail Address				
Workers Classifications				
	ASBESTOS	BOILERMAKER	BRICKLAYERS	CARPENTERS
	CARPET/LINOLEUM	CEMENT MASONS	DRYWALL FINISHER	DRYWALL/LATHERS
	ELECTRICIANS	ELEVATOR MECHANIC	GLAZIERS	IRON WORKERS
	LABORERS	MILLWRIGHTS	OPERATING ENG	PAINTERS
	PILE DRIVERS	PIPE TRADES	PLASTERERS	ROOFERS
	SHEET METAL	SOUND /COMM	SURVEYORS	TEAMSTER
	TILE WORKERS			

BID BOND

[Note: Not required when other form of Bidder's Security, e.g. certified check or cashier's check, accompanies bid.]

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, _____ (hereinafter called the "Principal") has submitted its Bid dated _____, 20____, for construction of the **T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 VOC TREATMENT AND NEW DISINFECTION FACILITY** to the Santa Clarita Valley Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, California 91350 (hereinafter called "Obligee"), the Bid, by reference thereto; being hereby made a part hereof.

NOW THEREFORE, we Principal, _____ and _____ a corporation duly organized under the laws of the State of _____ having its principal place of business at _____ in the State of _____ and admitted to conduct surety business in the State of California, (hereinafter called the "Surety"), are held and firmly bound unto the Obligee, on order, in the sum of \$ _____ Dollars, (\$ _____) [being at least ten percent (10%) of the total amount of Principal's bid price] lawful money of the United States, for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

If Principal's Bid is rejected or, in the alternate, if the Bid is accepted and the Principal signs and delivers a Contract and furnishes evidence of insurance and Performance Bond and Payment Bond, all in the Form and within the time requested by the Contract Documents, then this obligation shall become null and void, otherwise the same shall remain in full force and effect and upon default of the Principal shall be forfeited to the Obligee, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal shall be the amount of this obligation as herein stated, as liquidated damages.

The Surety, for value received, hereby agrees that the obligations of Surety and its bond shall not be impaired or affected by any extension of the time within which the Obligee may accept the bond, and the Surety hereby waives notice of any such extension.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay, in addition to the sum set forth above, all costs incurred by the Obligee in such suit, including reasonable attorney's fees and expert witness fees, to be fixed by the court, in addition to the penal sum of the Bond.

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporation.

(Corporate Seal)

Contractor/Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

Note: Signature of person executing for Surety must be notarized and evidence of corporate authority attached. An original Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$_____.
(The above must be filled in by corporate attorney.)

THE FOLLOWING INFORMATION IS MANDATORY

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of Agent or Representative for service of process in California, if different from above)

(Telephone number of Surety and Agent or Representative for service of process in California)

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory

Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public _____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- .. Individual
- .. Corporate Officer

Title(s)

Title or Type of Document

- .. Partner(s)
 - .. Limited
 - .. General

Number of Pages

- .. Attorney-In-Fact
- .. Trustee(s)
- .. Guardian/Conservator
- .. Other:

Date of Document

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
 PROJECT NO. 1000420

CERTIFICATE FOR WORKERS' COMPENSATION INSURANCE

(Required by Section 1861, California Labor Code)

TO: Santa Clarita Valley Water Agency

I am aware of the provisions of Section 3700 of the Labor Code of the State of California which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Name of Bidder

Signature

Name

Title

Dated

Signing of Security for Compensation Certificate

If the Bid is made by an individual, the Certificate shall be signed by him/her; if made by a partnership, the Certificate shall be signed with the partnership name by a partner, who shall also sign his/her name and list all other partners; and if made by a corporation, the Certificate shall be signed by a duly authorized officer or officers, with their titles specified, and with the corporation's state of incorporation listed.

AMERICAN IRON AND STEEL CERTIFICATION

1. Identification of American-made Iron and Steel Products: The Bidder certifies that this bid reflects the Bidder's best, good faith effort to identify domestic sources of iron and steel products for every component contained in the bid solicitation where such American-made components are required. The term "iron and steel products" means the following products made primarily of iron or steel - lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

2. Verification of U.S. Production: If this bid is accepted, the Bidder agrees that it will provide, to the District, reasonable, sufficient, and timely verification of the U.S. production of each Iron and Steel Product incorporated into the Project.

3. Documentation Regarding Non-American-made Iron and Steel: The Bidder certifies that for any Iron or Steel Product that is not American-made but was incorporated in the development of this bid, is allowed by waiver of the U.S. Environmental Protection Agency and such waiver is attached to this certification.

4. Warranty of Bidder: The Bidder hereby represents and warrants to and for the benefit of District that (a) Bidder has reviewed and understands the American Iron and Steel Requirement, and (b) if the bid is selected, all of the iron and steel products used in the project will be produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is attached to this certification.

Signature: _____

Name (Printed): _____

and Title (Printed): _____ of Signer (Please Print)

Dated: _____

Q & A's, Waiver request instructions, and a list of approved waivers can be found at http://water.epa.gov/grants_funding/aisrequirement.cfm

BUILD AMERICA, BUY AMERICA CERTIFICATION

Bidder hereby represents and warrants it shall:

- Comply with all federal requirements applicable to the assistance received (including those imposed by the Infrastructure Investment and Jobs Act (“IIJA”), Public Law No. 117-58) which the Bidder understands includes, but is not limited to, the following requirements: that all of the iron and steel, manufactured products, and construction materials used in the Project are to be produced in the United States (“Build America, Buy America Requirements”) unless (i) the Bidder has requested and obtained a waiver from the cognizant agency pertaining to the Project or the Project is otherwise covered by a general applicability waiver; or (ii) all of the contributing agencies have otherwise advised the Bidder in writing that the Build America, Buy America Requirements are not applicable to the Project.
- Comply with all record keeping and reporting requirements under all applicable legal authorities, including any reports required by the funding authority (such as EPA and/or the State), such as performance indicators of program deliverables, information on costs and project progress. Bidder understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the applicable legal requirements and this Contract may result in a default hereunder that results in a repayment of the assistance agreement in advance of the maturity of the bonds, termination and/or repayment of grants, cooperative agreements, direct assistance or other types of financial assistance, and/or other remedial actions.

Signature: _____

Name (Printed): _____

and Title (Printed): _____ of Signer (Please Print)

Dated: _____

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246) LOCATED AT 41 CFR
§ 60-4.2**

1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetable	Goals for minority participation for	Goals for female participation in
	28.3%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order and the regulations in 41 CFR part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is Santa Clarita, Los Angeles County, California.

ANTI-LOBBYING CERTIFICATION

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Typed Name & Title of Authorized Representative

Signature and Date of Authorized Representative

DBE GOOD FAITH EFFORTS VERIFICATION

Project: _____ Bid Opening Date _____

Bidder Name: _____

Bidder Phone Number: _____

Bidder Address: _____

The AGENCY, in accordance with 40 CFR part 33, requires bidders to provide information pertaining to the use of minority businesses, women's business enterprises, and labor surplus area firms (referred to herein as "DBEs").

Please provide the following information, using additional sheets of paper if necessary, and submit this form with your bid. Bidder should also submit mail logs, phone logs, electronic searches and communication, newspaper clippings or similar records documenting efforts to meet the Good Faith Effort requirements.

1. Solicitation Lists/Publications. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication), or information related to solicitation lists on which DBEs were included:

Publications/Solicitation Lists	Dates of Advertisement

2. Soliciting DBEs as Potential Sources. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

Name of DBEs Solicited	Date of Initial Solicitation	Follow Up Methods and Dates

3. Division of Requirements. The items of work which the bidder made available to DBE firms including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

Items of Work	Bidder Normally Performs Item? (Yes/No)	Breakdown of Items	Amount (\$)	Percentage of Total Bid (%)

3. Delivery Schedules. Efforts made to establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises:

4. Services of Other Agencies. The names of agencies, organizations or groups contacted to provide assistance in contacting, recruiting and using DBE firms, such as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce (please attach copies of requests to agencies and any responses received, i.e., lists, Internet page download, etc.):

Name of Agency/Organization	Method/Date of Contact	Results

Any additional data to support a demonstration of good faith efforts (use additional sheets if necessary):

DEBARMENT AND SUSPENSION CERTIFICATION

Contractors, Subcontractors, Debarment and Suspension, Executive Order 12549; 2 CFR Part 180; 2 CFR Part 1532

Bidder certifies that it and its principals, and shall obtain certifications from its subcontractors that they and their principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency;
- (b) Have not within a three (3) year period preceding this procurement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three (3) year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.
- (e) Suspension and debarment information can be accessed at <http://www.sam.gov>. Contractor represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement.
- (f) Contractor acknowledges that failing to disclose the information as required at 2 CFR 180.335 may result in the termination, delay or negation of any Contract entered into pursuant to this procurement, or pursuance of legal remedies, including suspension and debarment.

Name of Bidder _____

DUNS Number _____

Signature _____

Name _____

Title _____ Dated _____

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package.

Subcontractor Name		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity	

Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input type="checkbox"/> Other: _____		Meets/exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

FORM 4500-3 (DBE Subcontractor Performance Form)

Revised 12/2016

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

FORM 4500-3 (DBE Subcontractor Performance Form)

Revised 12/2016

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractor's² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity			

I have identified potential DBE certified subcontractors. YES NO
 If yes, please complete the table below. If no, please explain:

Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?

--Continue on back if needed--

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

FORM 4500-4 (DBE Subcontractor Utilization Form)

Revised 12/2016

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

FORM 4500-4 (DBE Subcontractor Utilization Form)

BID FORM ADDENDUM NO. 1

T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY
PROJECT NO. 1000420

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO. 2

Owner: Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC
Treatment and Disinfection Facility Project

To: All Planholders

From: Hazen and Sawyer

Bid Date: March 8, 2024 at 5:00 PM (Pacific Time)

Notice is hereby given to prospective bidders that the Plans and Specifications for T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC Treatment and Disinfection Facility Project dated December 2023, have been modified as hereinafter set forth. This Addendum No. 2 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 2 in the space below. This page AD 2-1 shall be attached to the Bid.

By: Ali Rahimian
Hazen and Sawyer

Date: 2/5/2024



ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 2 (Pages AD 2-1 through AD 2-18)

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents. All other provisions remain the same.

Addendum 2, ITEM 1.

SPECIFICATION DIVISION 01, SECTION 01270 –
MEASUREMENT AND PAYMENT, PART 1 – GENERAL, FF.
CARTRIDGE FILTER SYSTEM (BID ITEM NO. 32), Page 11

DELETE in its entirety and REPLACE with the following:

“The Cartridge Filter System bid item shall include installation of the Cartridge Filters and all associated piping, valves, concrete pad, and instrumentation, as specified in the Contract Drawings and Contract Documents, complete and operable, and no additional compensation will be allowed.

Payment for this bid item will be made at the lump sum price bid therefor in the Bid Schedule, complete and in place in accordance with the Contract Documents or as directed by the Owner.”

Addendum 2, ITEM 2.

SPECIFICATION DIVISION 01, SECTION 01270 –
MEASUREMENT AND PAYMENT, PART 1 – GENERAL, GG.
ION EXCHANGE (IX) SYSTEM (BID ITEM NO. 33), Page 12

DELETE in its entirety and REPLACE with the following:

“The Ion Exchange (IX) System bid item shall include furnishing and installation of the IX System and all associated equipment including piping, valves, concrete pad, and instrumentation for IX vessels, pipe testing and disinfection, and all other incidental items as specified in the Contract Drawings and Contract Documents, complete and operable, and no additional compensation will be allowed therefor. Additionally, this bid Item shall include IX Resin loading coordination between the IX Resin vendor and the Agency, as well as maintenance and flushing of the IX Resin during startup and until system compliance, in accordance with the Contract Documents or as directed by the Owner, full and complete, and includes the cost for labor, tools, materials, equipment and incidentals necessary for the completion of the Work.

Payment for this bid item will be made at the lump sum price bid therefor in the Bid Schedule, complete and in place in accordance with the Contract Documents or as directed by the Owner.”

Addendum 2, ITEM 3.

SPECIFICATION DIVISION 01, SECTION 01270 –
MEASUREMENT AND PAYMENT, PART 1 – GENERAL, HH.
GRANULAR ACTIVATED CARBON (GAC) SYSTEM (BID ITEM
NO. 34), Page 12-13

DELETE in its entirety and REPLACE with the following:

“The Granular Activated Carbon (GAC) System bid item shall include installation of the GAC System and all associated equipment including demolition (clearing and grubbing, removal of structures, pavements, curbs, piping, storm drain piping, trees, protection of surrounding improvements), concrete pad, gravel, piping, valves, electrical and instrumentation for GAC vessels, pipe testing and disinfection, maintenance of the GAC media during startup and until system compliance and all other incidental items as specified in the Contract Drawings and Contract Documents, complete and operable, and no additional compensation will be allowed therefor.

Additionally, this bid item shall include the following onsite pipelines needed for the GAC system:

10-inch GAC backwash supply pipeline to the 10-inch Q2 treated water pipeline

12-inch GAC influent pipeline connection to the Saugus Wells IX pipeline

12-inch GAC effluent pipeline to the 12-inch treated water pipeline connection

10-inch GAC backwash waste pipeline to air gap

6-inch GAC equipment pad storm drain pipeline(s) to catch basin connection

Item also includes the following:

Protection of existing utilities, improvements and tress, temporary fencing, clearing and grubbing, dust and erosion control, excavation, dewatering, disposal of excess material, bedding, backfill, CLSM backfill where indicated, removal of paving, protection and restoration of traffic loops, compaction, surface restoration for non-paved areas, sidewalks, gutters and medians restoration , removal and replacement of existing improvements as necessary for installation and all other related work required to install the pipe and appurtenances, all in accordance with the requirements of Contract Documents.

Payment for this bid item will be made at the lump sum price bid therefor in the Bid Schedule, complete and in place in accordance with the Contract Documents or as directed by the Owner.”

Addendum 2, ITEM 4.

SPECIFICATION DIVISION 01, SECTION 01300 – SUBMITTALS,
PART 1 – GENERAL, 1.01.I.1, Page 9

DELETE in its entirety and REPLACE with the following:

“1. The Contractor shall complete and submit the List of Materials and Equipment, provided herein Specification 01300, to the Owner/Engineer for review/approval within 6-weeks after issuance of the Notice to Proceed. A partially filled out list is provided on the following pages. The Contractor shall be responsible for completing the list to include all construction materials and manufactured products used in the project.

2. The Contractor shall submit certification or proof of BABA and AIS compliance for the materials and equipment identified as BABA and AIS compliant in the approved List of Materials and Equipment within 8-weeks after issuance of the Notice to Proceed.

3. The Contractor shall be responsible for filing and obtaining all BABA and AIS waivers for any non-compliant materials and equipment identified in the approved List of Materials and Equipment. The Contractor shall be responsible for all fees and cost associated with obtaining the BABA and AIS waivers. The Owner shall not be responsible for any additional cost to the Contractor due to but not limited to delays caused by filing and obtaining any BABA or AIS waiver. The Contractor shall take into account a 4-month waiting period for BABA and AIS waiver processing. The Contractor will not receive any additional compensation by the Owner for this waiting period.

4. The Contractor shall include the tasks of completing the List of Materials and Equipment, providing certification or proof of BABA and AIS compliance, and filing and obtaining all BABA and AIS waivers in the Progress Schedule required herein Specification 01300.”

Addendum 2, ITEM 5. SPECIFICATION DIVISION 01, SECTION 01300 – SUBMITTALS, PART 1 – GENERAL, 1.01, Page 9

ADD the following paragraph after paragraph “I”:

“J. Long Lead Item List

1. The Contractor shall submit a list of materials and equipment considered long lead time within 6-weeks after issuance of the Notice to Proceed.”

Addendum 2, ITEM 6. SPECIFICATION DIVISION 05, SECTION 05500 – METAL FABRICATIONS, PART 2 – PRODUCTS, 2.04, Page 2

DELETE in its entirety and REPLACE with the following:

“A. Guard post shall be furnished and constructed in accordance with the Owner’s standard design, WP-106B in the SCV Water 2022 Construction Manual.”

Addendum 2, ITEM 7. SPECIFICATION DIVISION 07, SECTION 07190 – VAPOR BARRIER, PART 1 – THE REQUIREMENT, 1.01.B, Page 1

DELETE in its entirety and REPLACE with the following:

“Principal items of work include:

1. Vapor barrier below building slab.”

Addendum 2, ITEM 8.

SPECIFICATION DIVISION 09, SECTION 09900 – PAINTING,
PART 3 – EXECUTION, TABLE 9-1, Page 13

DELETE table in its entirety and REPLACE with the following:

SURFACE	APPLICATION	PAINTING SYSTEM & NO. OF COATS	PRODUCT REFERENCE (TABLE 9.2)	TOTAL MIN. DRY FILM THICKNESS (MILS)
Concrete secondary containment	Secondary Containment all locations	Filler 2 coats high solids epoxy	Manufacturer 119	1/8” 8-10/coat
<u>Metals</u>				
Interior and exterior nonsubmerged (gloss)	All blowers, pumps, motors and mechanical equipment, piping (exterior), etc.	1 coat epoxy polyamide primer	104	4-6
		1 coat epoxy polyamide 1 coat aliphatic polyurethane	102 115	4-6 3-5
Submerged water	All metal piping (interior or exterior), and mechanical equipment, etc.	2 coats NSF approved epoxy polyamide	105	4-6/coat
Submerged Wastewater		2 coats high solids epoxy	119	8-10/coat
Steel doors, windows and door frames, steel stairs, monorails, misc. metals (steel)	All buildings	1 coat epoxy polyamide	102	5-8
		1 coat aliphatic polyurethane	115	3-4
Aluminum surfaces in contact with concrete	All locations	2 coats coal tar	107	26
Structural Steel	All buildings	2 coats epoxy polyamide	102	4-6/coat
Exposed PVC Piping		1 coat epoxy polyamide	102	5-8
		1 coat aliphatic polyurethane	115	3-4

Addendum 2, ITEM 9.

SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE
SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM,
PART 2 – PRODUCTS, 2.03.C.1, Page 9 & 10

REVISE paragraph letters to read “a” through “m”.

Addendum 2, ITEM 10.

SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE
SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM,
PART 2 – PRODUCTS, 2.03.C.1.m, Page 10

ADD the new following item to the list:

“iii Solids level sensor shall be equipped with protections to prevent early failure due to contact with salt and brine.”

Addendum 2, ITEM 11. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.05.A.1, Page 11

DELETE in its entirety and REPLACE with the following:

“1. An air cooled switch mode (IGBT) type transformer/rectifier shall be furnished to provide DC power to each Hypochlorite Generator Rack.”

Addendum 2, ITEM 12. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.05.A.3, Page 12

DELETE in its entirety and REPLACE with the following:

“Output from transformer/rectifier shall be 1500A @ 37VDC for ClorTec system. Power output from the transformer/rectifier shall be DC having less than 5% RMS ripple when under nominal range of operating conditions.”

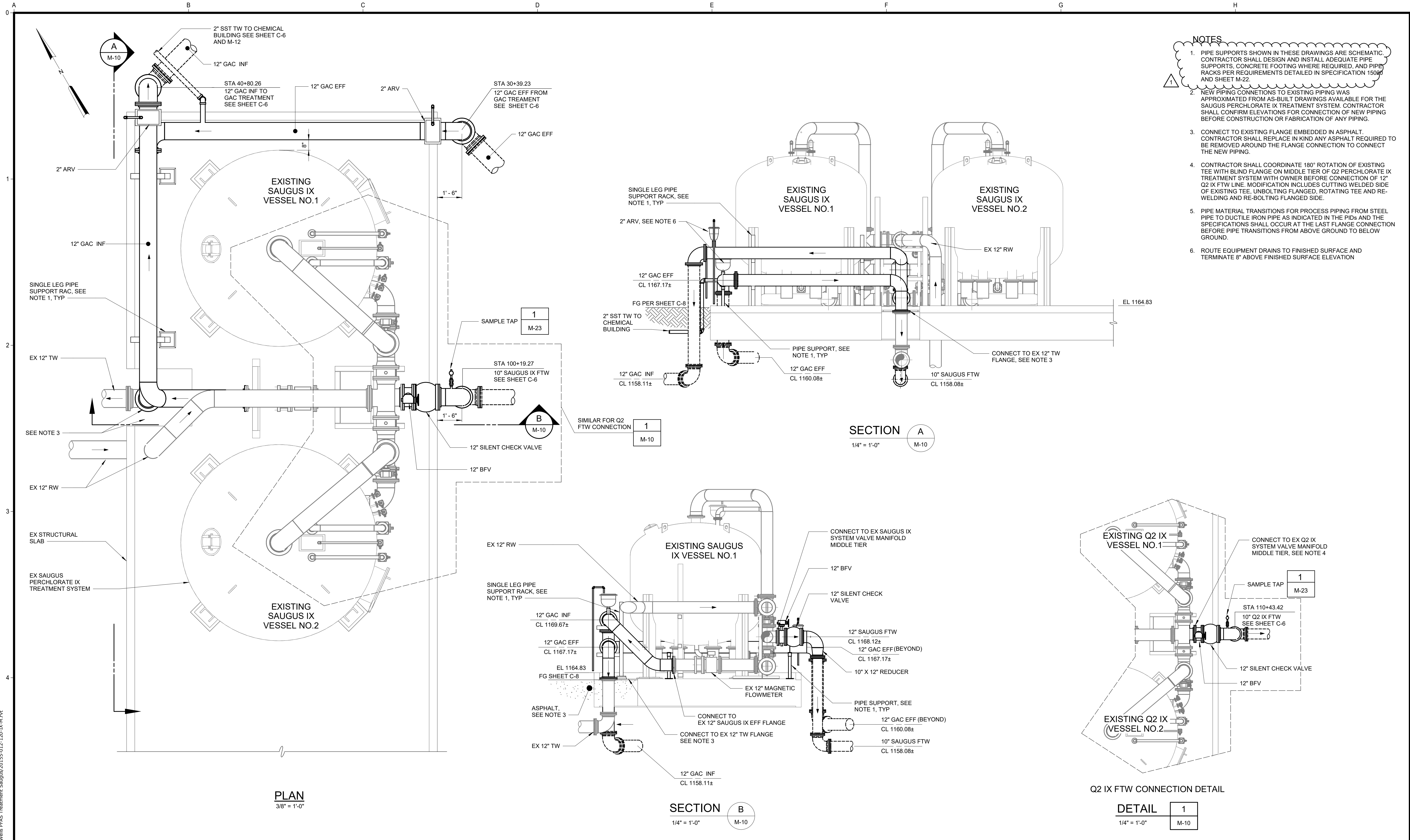
Addendum 2, ITEM 13. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.05.A.7, Page 12

DELETE in its entirety and REPLACE with the following:

“The transformer/rectifier shall be air cooled. Maximum room temperature shall be 120°F. Cooling air shall be free from corrosive fumes.”

Addendum 2, ITEM 14. DRAWINGS

REPLACE Drawings M-10, S-1, S-4, S-5, S-6, S-9, S-11, A-1, A-5, A-6, and A-7 with the REVISED drawings attached.



- NOTES**
- PIPE SUPPORTS SHOWN IN THESE DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE PIPE SUPPORTS, CONCRETE FOOTING WHERE REQUIRED, AND PIPE RACKS PER REQUIREMENTS DETAILED IN SPECIFICATION 15020 AND SHEET M-22.
 - NEW PIPING CONNECTIONS TO EXISTING PIPING WAS APPROXIMATED FROM AS-BUILT DRAWINGS AVAILABLE FOR THE SAUGUS PERCHLORATE IX TREATMENT SYSTEM. CONTRACTOR SHALL CONFIRM ELEVATIONS FOR CONNECTION OF NEW PIPING BEFORE CONSTRUCTION OR FABRICATION OF ANY PIPING.
 - CONNECT TO EXISTING FLANGE EMBEDDED IN ASPHALT. CONTRACTOR SHALL REPLACE IN KIND ANY ASPHALT REQUIRED TO BE REMOVED AROUND THE FLANGE CONNECTION TO CONNECT THE NEW PIPING.
 - CONTRACTOR SHALL COORDINATE 180° ROTATION OF EXISTING TEE WITH BLIND FLANGE ON MIDDLE TIER OF Q2 PERCHLORATE IX TREATMENT SYSTEM BEFORE CONNECTION OF 12\"/>

REVISIONS				SCALES	DESIGNED BY: A. QUIROZ	PLANS PREPARED BY: Hazen	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: DECEMBER 2023
NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCWVA: 2400420		
1	ADDENDUM NO. 2, vision 1	01/2024	ARP	1" = 1'-0" 3/8" = 1'-0" IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	CHECKED BY: S. GHILU	MECHANICAL EXISTING IX PERCHLORATE TREATMENT AREA PLAN AND SECTIONS	SHEET: M-10			

Autodesk Docs://20155-012_T and U Wells PFAS Treatment Saugus/20155-012-120-IX-M-10.rvt 2/5/2024 1:00:57 PM

GENERAL STRUCTURAL NOTES

- G-1 THESE NOTES ARE GENERAL AND SUPPLEMENT THE SPECIFICATIONS. THESE NOTES APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
- G-2 STANDARD DETAILS SHALL BE USED WHEN REFERRED TO OR WHEN NO MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
- G-3 DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2022 CALIFORNIA BUILDING CODE. THE DESIGN LOADS AND OTHER DESIGN VALUES GIVEN IN NOTES G-4 THROUGH G-8 WERE USED FOR DESIGN OF STRUCTURES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- G-4 LIVE LOADS:

STRUCTURE	LEVEL	ROOF	TOP / FIRST FLOOR	BOTTOM / GROUND FLOOR
CHEMICAL STORAGE AND FEED BUILDING		20 PSF	N/A	250 PSF
IX VESSEL AREA		N/A	N/A	150 PSF + CONCENTRATIONS
GAC VESSEL AREA		N/A	N/A	150 PSF + CONCENTRATIONS

-ALL STAIRWAYS, LANDINGS AND PLATFORMS ARE DESIGNED FOR A LIVE LOAD = 100 PSF UNLESS NOTED OTHERWISE.

- G-5 SNOW LOAD:
GROUND SNOW LOAD (Pg) = 0 PSF
- G-6 WIND DESIGN CRITERIA:

BASIC DESIGN WIND SPEED (V) = 101 MPH
ALLOWABLE STRESS DESIGN WIND SPEED (Vasd) = 78 MPH
RISK CATEGORY = III
WIND EXPOSURE = C

STRUCTURE	PARAMETER	PRESSURE COEFFICIENT Gcpi	WIND DESIGN PRESSURE	COMPONENTS AND CLADDING	LATERAL LOAD RESISTING SYSTEM
CHEMICAL STORAGE AND FEED BUILDING		0.18	20 PSF	38 PSF	SPECIAL MASONRY SHEAR WALL
IX VESSEL AREA		BY MFR	BY MFR	BY MFR	BY MFR
GAC VESSEL AREA		BY MFR	BY MFR	BY MFR	BY MFR
CARTRIDGE FILTER AREA		BY MFR	BY MFR	BY MFR	BY MFR

- G-7 SEISMIC LOAD:
RISK CATEGORY = III
SEISMIC IMPORTANCE FACTOR (Ie) = 1.25
SITE CLASS = D
MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss/S1) = 2.15/0.78
SPECTRAL RESPONSE ACCELERATIONS (Sms/Sm1) = 2.15/1.33
SPECTRAL RESPONSE COEFFICIENTS (SDS/SD1) = 1.44/0.89
SEISMIC DESIGN CATEGORY = E

STRUCTURE	PARAMETER	BASIC STRUCTURAL SYSTEM	DESIGN BASE SHEAR	SEISMIC RESPONSE COEFFICIENT Cs	RESPONSE MODIFICATION COEFFICIENT R	ANALYSIS PROCEDURE
CHEMICAL STORAGE AND FEED BUILDING		SPECIAL MASONRY SHEAR WALL	200 K	0.36	5	EQUIVALENT LATERAL FORCE
IX VESSEL AREA		BY MFR	BY MFR	BY MFR	BY MFR	EQUIVALENT LATERAL FORCE
GAC VESSEL AREA		BY MFR	BY MFR	BY MFR	BY MFR	EQUIVALENT LATERAL FORCE

- G-8 RAIN LOAD:
RAIN INTENSITY (i) = 1.52 IN/HR BASED ON 60 MINUTE PRECIPITATION INTENSITY
- G-9 ALL DIMENSIONS INDICATED FOR EXISTING STRUCTURES SHALL BE VERIFIED BY FIELD MEASUREMENT. ALL DIMENSIONS THAT ARE CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER SHOP DRAWINGS PRIOR TO CONSTRUCTION.
- G-10 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR NEW WORK.
- G-11 IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED.
- G-12 EQUIPMENT ANCHOR SIZES, TYPES, EMBEDMENT AND PATTERNS SHALL BE VERIFIED WITH THE MANUFACTURER. ALL ANCHOR PATTERNS SHALL BE TEMPLATED TO ENSURE ACCURACY OF PLACEMENT.
- G-13 STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.
- G-14 STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.
- G-15 IF CONTRACTOR DESIRES TO TEMPORARILY PLACE OR MOVE LOADS ON OR ADJACENT TO EXISTING STRUCTURES OR UTILITIES DURING CONSTRUCTION PROCESS, CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY AND AVOIDING OVERSTRESSING AND DAMAGING EXISTING STRUCTURES AND UTILITIES. CONTRACTOR SHALL SUBMIT STRUCTURAL CALCULATIONS AND DRAWINGS VERIFYING THAT PROPOSED CONSTRUCTION (INCLUDING APPLICATION OF TEMPORARY CONSTRUCTION LOADS) WILL NOT OVERSTRESS OR DAMAGE EXISTING STRUCTURES AND UTILITIES. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA.

GENERAL STRUCTURAL NOTES, CONTINUED

- G-16 NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ALL ADJACENT SUPPORTING ELEMENTS HAVE ACHIEVED DESIGN STRENGTH, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER. SUPPORTING ELEMENTS SHALL INCLUDE ADJACENT WALLS, SLABS, BEAMS AND COLUMNS.

STRUCTURAL METALS

- M-1 DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH ANSII/AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION.
- M-2 STEEL MATERIAL:
A) STRUCTURAL HSS: ASTM A500, GRADE C (46/50 KSI) OR A1085 GRADE A (50 KSI)
B) STRUCTURAL PIPE: ASTM A53, GRADE B (35 KSI)
C) PLATES, BARS AND ANGLES: ASTM A36 UNO (36 KSI)
D) STRUCTURAL W, C, & MC SHAPES: ASTM A992 (50 KSI)
E) STRUCTURAL M & S SHAPES: ASTM A36 (36 KSI)
F) STRUCTURAL HP: ASTM A572 GRADE 50 (50 KSI)
G) ANCHOR RODS: ASTM F1554 GRADE 55 (55 KSI)
- M-3 PROVIDE MINIMUM 3/4" DIAMETER ASTM F3125 GRADE A325 TYPE 1 OR GRADE F1852 TYPE 1 HIGH STRENGTH BOLTS WITH SNUG TIGHTENED TYPE N CONNECTIONS FOR STRUCTURAL STEEL UNLESS NOTED OTHERWISE. HOLES FOR BOLTS SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.
- M-4 PROVIDE TYPICAL STEEL BEAM CONNECTIONS FOR A CAPACITY OF NOT LESS THAN ONE HALF OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE AISC TABLES FOR ALLOWABLE LOADS OF BEAMS UNLESS NOTED OTHERWISE.
- M-5 DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ARE TO BE ENCASED IN CONCRETE.
- M-6 ALL STAINLESS STEEL FABRICATIONS EXPOSED TO UNDERWATER SERVICE SHALL BE TYPE 316. ALL OTHER STAINLESS STEEL FABRICATIONS SHALL BE TYPE 304 UNLESS NOTED OTHERWISE.
- M-7 ALUMINUM SHALL BE ALLOY 6061-T6 UNLESS NOTED OTHERWISE.
- M-8 ALL BOLTS, ANCHORS, AND CONCRETE ANCHORS CONNECTING ALUMINUM SHALL BE STAINLESS STEEL TYPE 316 FOR UNDERWATER APPLICATIONS AND TYPE 304 FOR ALL OTHER APPLICATIONS.
- M-9 ALUMINUM SHALL BE ISOLATED FROM CONTACT WITH CONCRETE AND DISSIMILAR METALS.
- M-10 ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION.
- M-11 FILLET WELD SIZES SHALL NOT BE LESS THAN THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH, AND NOT LESS THAN 3/16".
- M-12 ALL WELDS SHALL BE PERFORMED IN THE SHOP UNLESS NOTED BY A FIELD WELD SYMBOL OR APPROVED BY ENGINEER.
- M-13 BOTTOM SURFACES OF BASE PLATES SHALL BE GROUTED TO ENSURE FULL BEARING CONTACT WITH CONCRETE SLAB.
- M-14 WHENEVER ONE MEMBER IS FASTENED TO ANOTHER WITH FASTENINGS (BOLTS, WELDS, ETC.) SET AT A UNIFORM SPACING, A MINIMUM OF TWO FASTENINGS PER PIECE SHALL BE CONNECTED AND THE FIRST AND LAST FASTENINGS SHALL BE LOCATED NOT TO EXCEED 0.25 OF FASTENER SPACING FROM EACH END.
- M-15 GRATING PANELS SHALL BE CONFINED TO PREVENT MOVEMENT PER STANDARD DETAIL S-05-0706. USE OF GRATING CLIP ATTACHMENT IS NOT ACCEPTABLE TO PREVENT GRATING MOVEMENT.

FOUNDATIONS

- F-1 CONCRETE (CAST-IN-PLACE) NOTES APPLY TO FOUNDATIONS.
- F-2 ALLOWABLE SOIL BEARING PRESSURE

STRUCTURE	PARAMETER	ALLOWABLE SOIL BEARING PRESSURE
CHEMICAL STORAGE AND FEED BUILDING		2500 PSF
IX VESSEL AREA		2500 PSF
GAC VESSEL AREA		2500 PSF

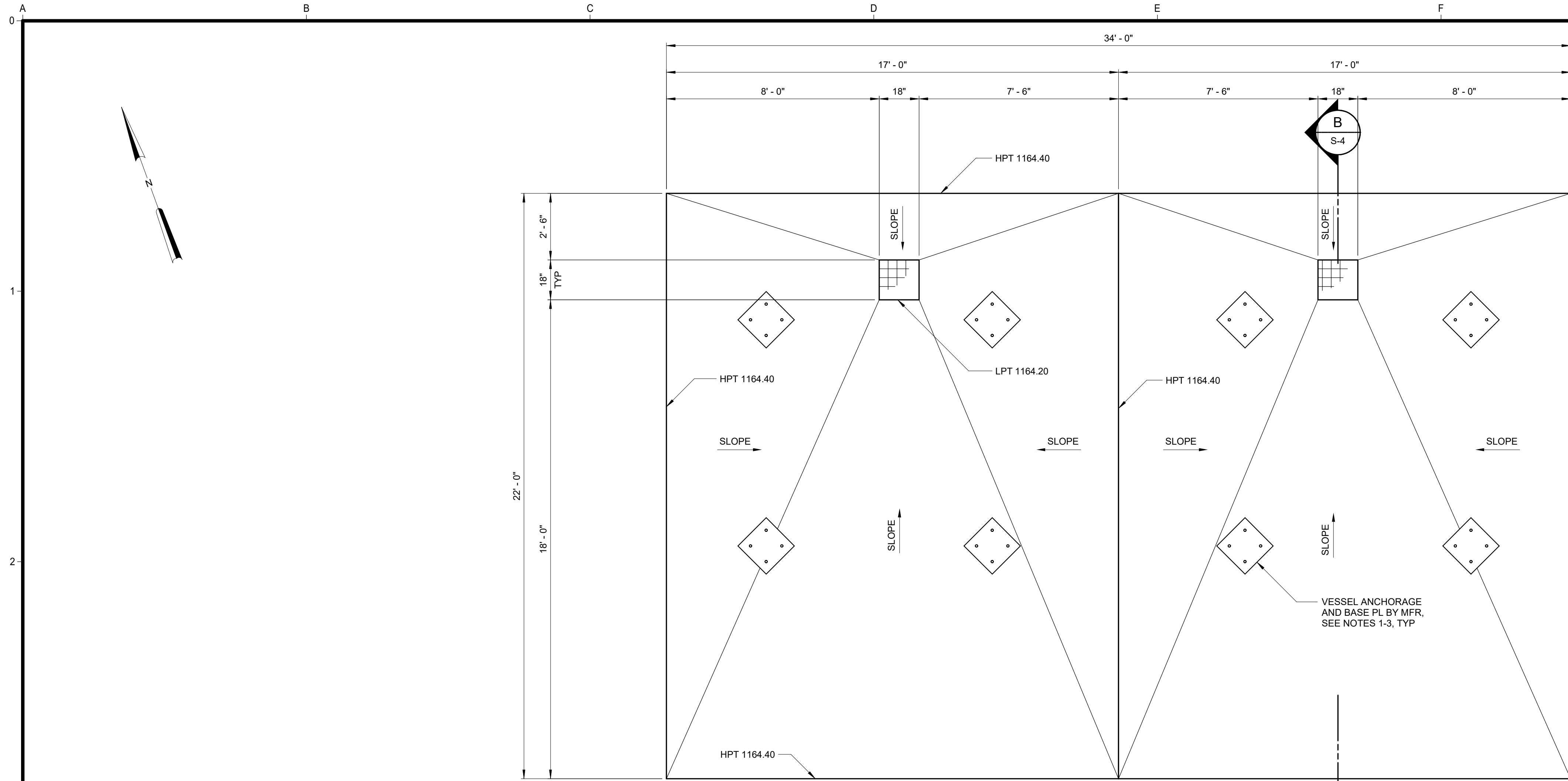
- F-3 SOIL PROPERTIES, ALLOWABLE DESIGN VALUES, GRADING AND COMPACTION REQUIREMENTS ARE BASED ON THE GEOTECHNICAL INVESTIGATION REPORT BY CONVERSE CONSULTANTS (PROJECT NO. 21-31-177-01), DATED AUGUST 3, 2022.
UNSATURATED ACTIVE = 35 PSF/FT
UNSATURATED AT-REST = 55 PSF/FT
PASSIVE EARTH PRESSURE = 235 PSF/FT
SOIL COEFFICIENT OF FRICTION = 0.30
- F-4 MINIMUM DEPTH FROM ADJACENT FINISHED GRADE TO BOTTOM OF FOUNDATION = 24 INCHES.
- F-5 STRUCTURES ARE DESIGNED FOR THE 100-YEAR FLOOD ELEVATION OF 1145.5
- F-6 FOUNDATIONS AND STRUCTURES BELOW GRADE SHALL BE DESIGNED FOR THE FOLLOWING EQUIVALENT LATERAL EARTH PRESSURES:
LATERAL PRESSURES ARE BASED ON PSF PER FOOT OF WALL HEIGHT. LATERAL PRESSURES DO NOT INCLUDE SURCHARGE PRESSURES.

CONCRETE (CAST-IN-PLACE)

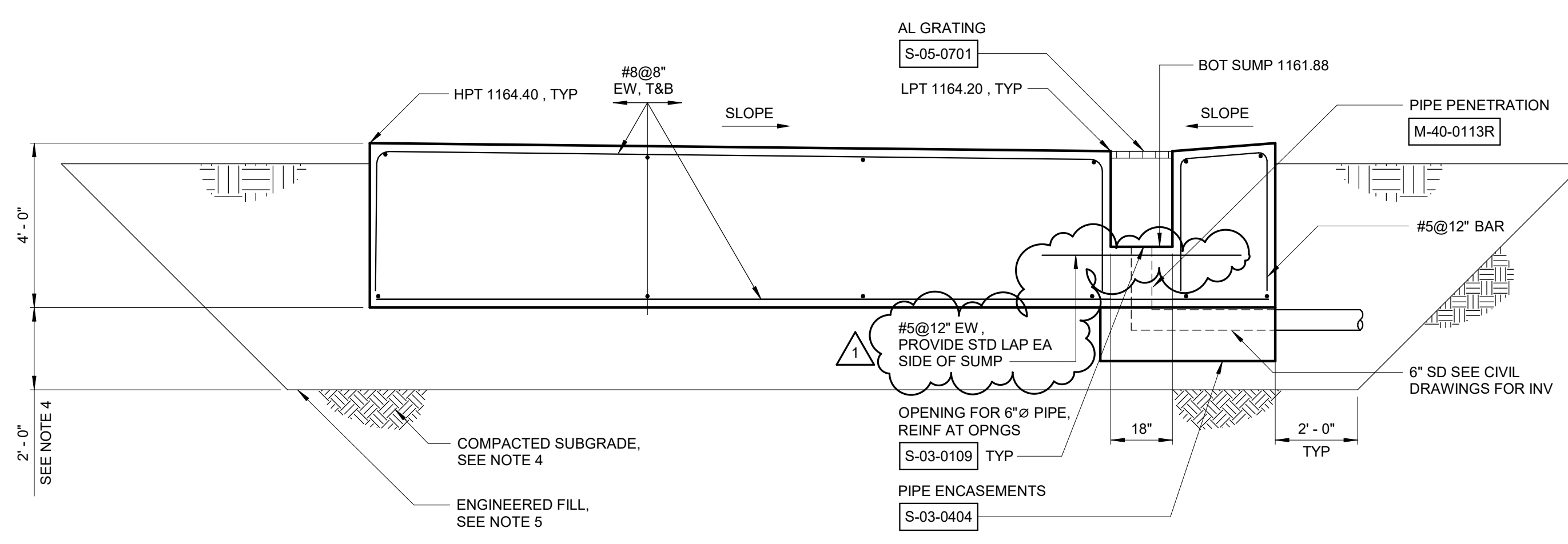
- C-1 DESIGN OF CONCRETE ELEMENTS INCLUDING WALLS, FORMED SLABS, BEAMS, AND COLUMNS IS IN ACCORDANCE WITH ACI 318 (CODE REQUIREMENTS FOR STRUCTURAL CONCRETE) AND 350 (CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES).
- C-2 CONCRETE STRENGTH CLASSES (28-DAY COMPRESSIVE STRENGTH):
A) CLASS A1 CONCRETE (4,500 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE TO BE USED IN ALL STRUCTURES QUALIFYING AS ENVIRONMENTAL CONCRETE STRUCTURES THAT ARE DESIGNED IN ACCORDANCE WITH ACI 350 INCLUDING PUMP STATIONS, TANKS, BASINS, PROCESS STRUCTURES, AND ANY STRUCTURES CONTAINING FLUID OR PROCESS CHEMICALS OR OTHER MATERIALS USED IN TREATMENT PROCESS.
B) CLASS A2 CONCRETE (4,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE IN ALL STRUCTURES OTHER THAN STRUCTURES QUALIFYING AS ENVIRONMENTAL CONCRETE STRUCTURES AS DESCRIBED ABOVE, AND FOR ALL SIDEWALKS, CURB AND GUTTERS, AND PAVEMENT.
C) CLASS A3 CONCRETE (4,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE TO BE USED FOR INTERIOR SLABS WHERE A TYPE "D" STEEL TROVELED FINISH OR TYPE "G" HARDENED FINISH IS REQUIRED. CLASS A3 CONCRETE SHALL NOT CONTAIN ENTRAINED AIR.
D) CLASS A4 CONCRETE (4,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE TO BE USED WHERE SPECIFICALLY CALLED FOR ON CONTRACT DRAWINGS OR AREAS WHERE SPECIFICALLY REQUESTED BY CONTRACTOR AND APPROVED BY ENGINEER. CLASS A4 CONCRETE IS IDENTICAL TO CLASS A2 CONCRETE EXCEPT THAT COARSE AGGREGATE SHALL BE SIZE #8 IN ACCORDANCE WITH ASTM C33.
E) CLASS B CONCRETE (3,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE USED FOR DUCT BANK ENCASEMENTS, CATCH BASINS, FENCE AND GUARD POST EMBEDMENT, CONCRETE FILL, AND OTHER AREAS WHERE SPECIFICALLY NOTED ON CONTRACT DRAWINGS.
- C-3 ALL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
- C-4 CONCRETE COVER FOR REINFORCING (UNLESS NOTED OTHERWISE ON THE DRAWINGS):
A) CONCRETE DEPOSITED DIRECTLY AGAINST SOIL: 3"
B) CONCRETE EXPOSED TO WEATHER (#5 OR SMALLER): 1 1/2"
CONCRETE EXPOSED TO WEATHER (#6 OR LARGER): 2"
C) SLABS: 1 1/2"
AT SURFACES CONTACTING FLUID: 2"
D) BEAMS AND COLUMNS (TO MAIN REINFORCEMENT): 2"
BEAMS AND COLUMNS (TO COLUMN TIES OR STIRRUPS): 1 1/2"
E) WALLS 12" OR MORE: 2"
WALLS LESS THAN 12" (#5 OR SMALLER): 1 1/2"
WALLS LESS THAN 12" (#6 OR LARGER): 2"
F) FOR SURFACES EXPOSED TO FLUID IN BEAMS, COLUMNS AND WALLS: ADD 1/2" TO ABOVE VALUES
- C-5 SPLICES SHALL BE CLASS "B" CONFORMING TO THE PROVISIONS OF ACI 318 UNLESS NOTED OTHERWISE. SPLICE LENGTH FOR TWO DIFFERENT SIZED BARS TO BE LAP SPliced TOGETHER SHALL BE THE LENGTH OF THE LARGER BAR UNLESS NOTED OTHERWISE.
- C-6 CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS NOT SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER PRIOR TO SUBMITTING REBAR SHOP DRAWINGS.
- C-7 ALL JOINTS WHICH ARE IN MEMBERS IN CONTACT WITH LIQUID OR BELOW GRADE SHALL HAVE A WATERSTOP. CONSTRUCTION JOINTS SHALL HAVE A 6" PVC RIBBED WATERSTOP. EXPANSION JOINTS SHALL HAVE A 9" PVC CENTER BULB RIBBED WATERSTOP. IN VERTICAL JOINTS, WATERSTOPS SHALL TERMINATE NO LESS THAN 18" ABOVE THE MAXIMUM WATER SURFACE OR 18" ABOVE GRADE, WHICHEVER IS HIGHER.
- C-8 ALL EXPOSED CORNERS SHALL HAVE A 3/4" CHAMFER.
- C-9 EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DOCUMENTS, SHALL BE INSTALLED PRIOR TO PLACING CONCRETE.
- C-10 REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY METAL PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2" SHALL BE PROVIDED.
- C-11 CONDUITS AND OTHER SIMILAR ITEMS EMBEDDED IN OR PENETRATING THROUGH CONCRETE SHALL BE SPACED ON CENTER NOT LESS THAN 3 TIMES THEIR OUTSIDE DIMENSION, BUT NOT LESS THAN 2 1/2" CLEAR. WHEN SUCH ITEMS ARE EMBEDDED IN WALLS OR SLABS, THEY SHALL NOT OCCUPY MORE THAN 1/3 OF THE MEMBER THICKNESS.
- C-12 AT ALL TYPICAL CURBS, EQUIPMENT PADS, AND PIPE SUPPORT PIERS, REINFORCING DOWELS SHOWN MAY BE REPLACED WITH ADHESIVE DOWELS AS SPECIFIED. DOWELS LOCATED CLOSER THAN 3" FROM ANY EDGE OF CONCRETE SHALL NOT BE REPLACED WITH DRILLED DOWELS.
- C-13 ADJUST THE LOCATION OF DOWELS OR ANCHORS PLACED INTO HARDENED CONCRETE AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER. CONTRACTOR SHALL USE NON-DESTRUCTIVE MEANS TO FIELD LOCATE REINFORCEMENT PRIOR TO DRILLING HOLES FOR DOWELS OR ANCHORS.
- C-14 CLEAR DISTANCE FROM ANCHOR RODS TO ANY CONCRETE EDGE SHALL BE 4" MINIMUM UNLESS NOTED OTHERWISE.

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012_General Structural Notes.rvt 1/29/2024, 10:43:30 AM

REVISIONS				SCALES  IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	DESIGNED BY: S. DUPUIS	PLANS PREPARED BY:	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY	DATE: JANUARY 2024
NO.	DESCRIPTION	DATE	BY		DRAWN BY: A. FREDERICK	 HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618			PROJECT NO. SCWVA: 2400420
1	ADDENDUM NO.2	01/2024	SPD	CHECKED BY: W. DRESSLER	STRUCTURAL GENERAL STRUCTURAL NOTES 1		SHEET: S-1		



FOUNDATION PLAN
3/8" = 1'-0"

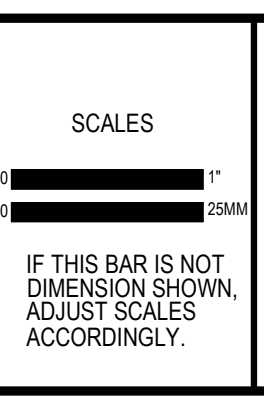


SECTION B
3/8" = 1'-0"

- NOTES:**
- CONTRACTOR SHALL REFER TO THE MECHANICAL DRAWINGS FOR LOCATION OF GAC VESSELS. CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURER TO VERIFY PLAN DIMENSION AND THICKNESS OF EQUIPMENT PADS. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF PIPE SUPPORTS IN CONFORMANCE WITH SPECIFICATION 15020. REFER TO THE MECHANICAL DRAWINGS FOR PIPE SUPPORT LOCATIONS.
 - CONTRACTOR SHALL SUBMIT PROPOSED ANCHORAGE PLAN FOR EQUIPMENT AND PIPE SUPPORTS WITH STRUCTURAL CALCULATIONS AND DRAWINGS, SIGNED AND SEALED BY A CIVIL OR STRUCTURAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA. MINIMUM EMBEDMENT OF ANCHOR SHALL BE INTO THE SLAB AND NOT THE EQUIPMENT PAD. CONTRACTOR SHALL COORDINATE ANCHORAGE DESIGN WITH THE ENGINEER PRIOR TO THE CONCRETE POUR.
 - CONTRACTOR SHALL COORDINATE WITH GAC VESSEL MANUFACTURER TO CREATE ANCHOR ROD TEMPLATE USED TO LOCATE ANCHOR RODS AND SUPPLEMENTARY ANCHOR REINFORCING IN SLAB AROUND EACH ANCHOR ROD GROUP. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITION OF ANCHOR REINFORCING DURING CONCRETE PLACEMENT.
 - OVER-EXCAVATION SHALL EXTEND VERTICALLY 2'-0" BELOW SLAB BOTTOM ELEVATION AND LATERALLY 2'-0" ALL AROUND UNLESS SHOWN OTHERWISE ON THE DRAWING. EXPOSED BOTTOM OF EXCAVATION SHALL BE SCARIFIED A MINIMUM DEPTH OF 6". MOISTURE-CONDITIONED TO WITHIN +/-3% OF OPTIMUM MOISTURE CONTENT FOR COARSE-GRAINED SOILS, AND 0 TO 2% ABOVE OPTIMUM MOISTURE CONTENT FOR FINE-GRAINED SOILS. RECOMPACT SUBGRADE TO AT LEAST 90% RELATIVE COMPACTION. THE BOTTOM OF EXCAVATION SHALL BE OBSERVED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY SUITABILITY OF SUBGRADE PRIOR TO BACKFILLING AND CONSTRUCTION OF CONCRETE FOUNDATION.
 - IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION, ENGINEERED FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NO GREATER THAN 8 INCHES IN UNCOMPACTED THICKNESS. ENGINEERED FILL SHALL BE MOISTURE CONDITIONED TO WITHIN 3 PERCENT OF OPTIMUM FOR COARSE SOILS AND 0 TO 2 PERCENT ABOVE OPTIMUM FOR FINE SOILS, AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D1557.

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-150-GAC-Struct
1/26/2024 11:23:45 AM

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO.2	01/2024	SPD



DESIGNED BY:
S. DUPUIS

DRAWN BY:
A. FREDERICK

CHECKED BY:
W. DRESSLER

PLANS PREPARED BY:

Hazen

HAZEN AND SAWYER
7700 IRVINE CENTER DRIVE, SUITE 200
IRVINE, CALIFORNIA 92618

SCV WATER

SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION

26521 SUMMIT CIRCLE
SANTA CLARITA, CA. 91350
(661) 259-2737

**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
VOC TREATMENT AND NEW DISINFECTION FACILITY**

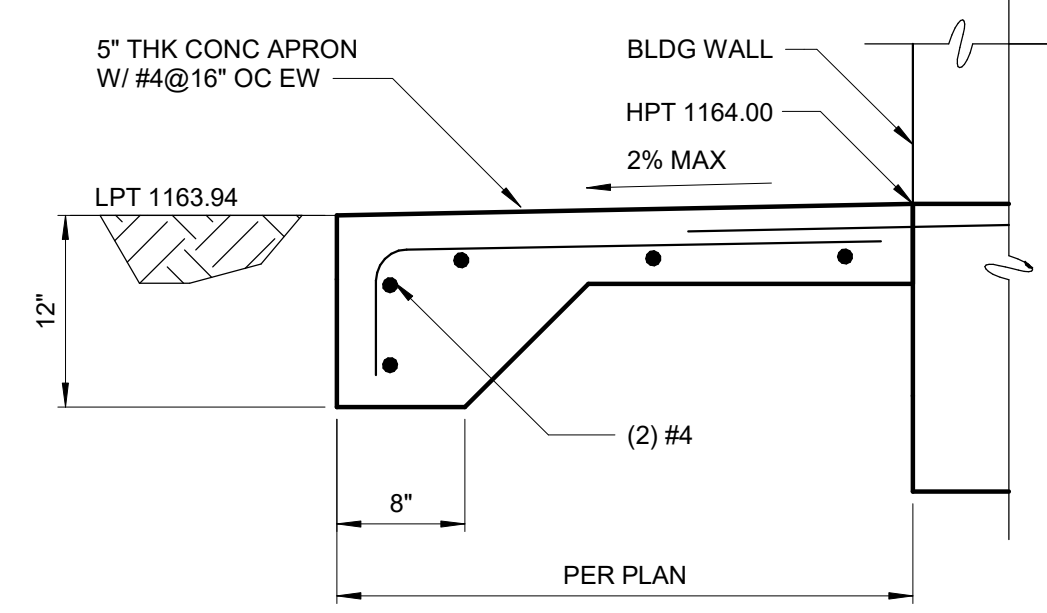
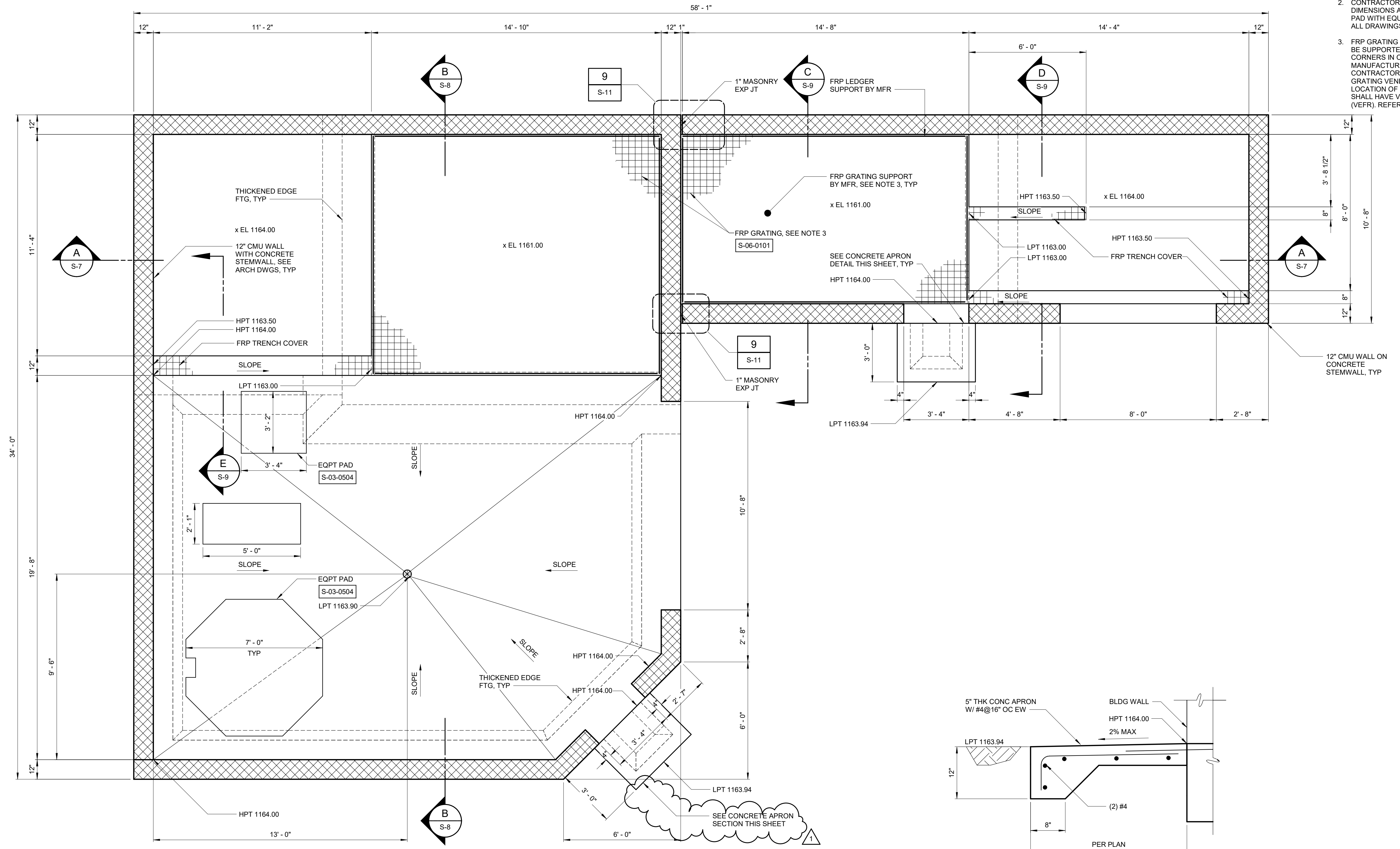
STRUCTURAL
GAC TREATMENT FOUNDATION PLAN AND SECTION

DATE:
JANUARY 2024

PROJECT NO.
SCWVA: 2400420

SHEET:
S-4

- NOTES:**
- REFER TO ARCHITECTURAL DRAWINGS FOR BALANCE OF INFORMATION NOT SHOWN HEREIN, INCLUDING LOCATION AND ELEVATION OF ALL WALL OPENINGS ABOVE FINISH FLOOR, AND MASONRY CONTROL JOINT LOCATIONS.
 - CONTRACTOR SHALL COORDINATE DIMENSIONS AND LOCATIONS OF EQUIPMENT PAD WITH EQUIPMENT MANUFACTURER AND ALL DRAWINGS.
 - FRP GRATING ACCESS FLOOR SYSTEM SHALL BE SUPPORTED BY FRP POSTS AT PANEL CORNERS IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO COORDINATE WITH GRATING VENDOR ON RECOMMENDED LOCATION OF SUPPORTS. FRP GRATING SHALL HAVE VINYL ESTER FIRE RETARDANT (VEFR). REFER TO SPECIFICATION 06610.



BOTTOM PLAN
3/8" = 1'-0"

CONCRETE APRON
1" = 1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO.2	01/2024	SPD

DESIGNED BY: S. DUPUIS
DRAWN BY: A. FREDERICK
CHECKED BY: W. DRESSLER

PLANS PREPARED BY:

HAZEN AND SAWYER
7700 IRVINE CENTER DRIVE, SUITE 200
IRVINE, CALIFORNIA 92618

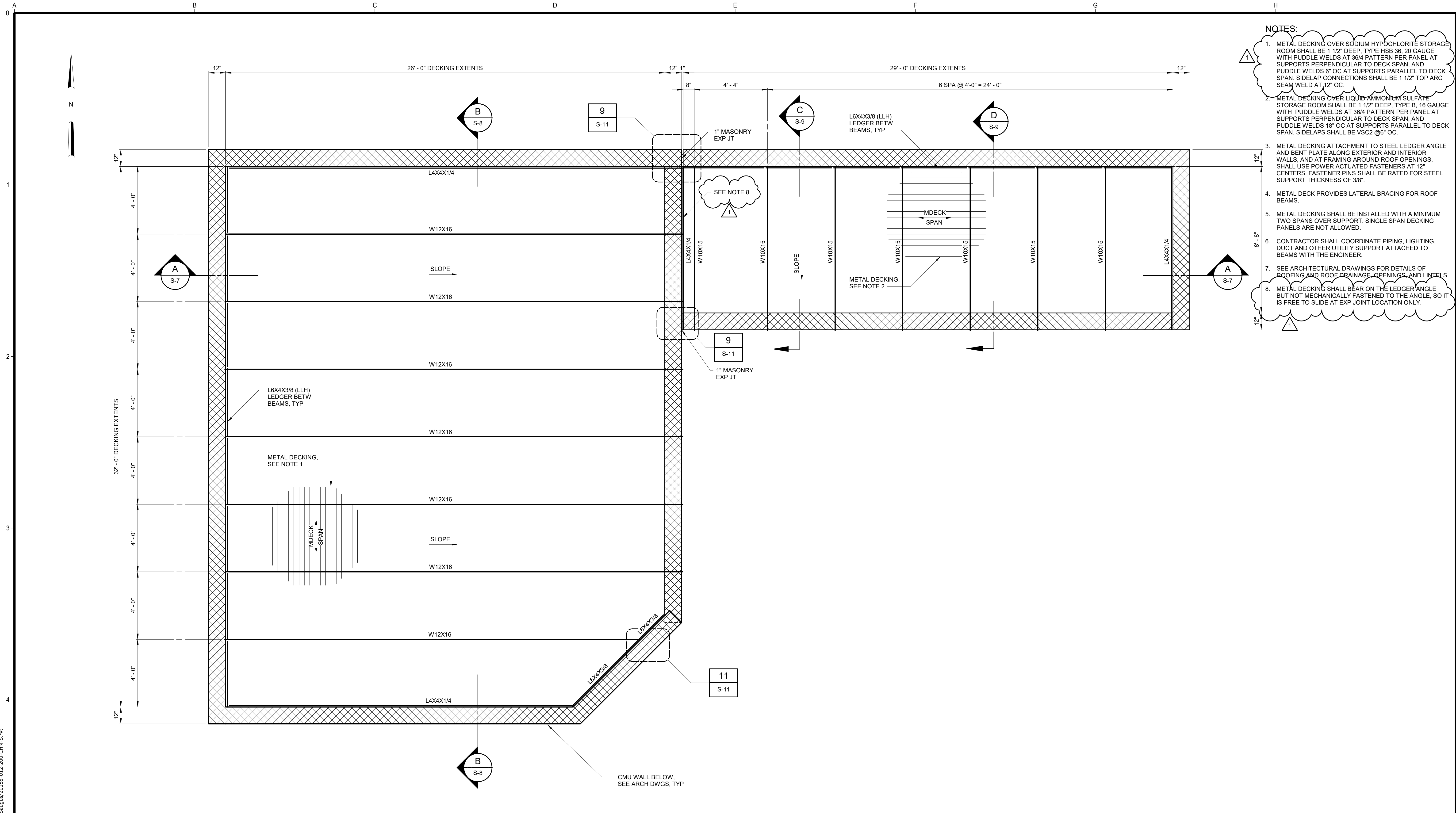
SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION
26521 SUMMIT CIRCLE
SANTA CLARITA, CA. 91350
(661) 259-2737

**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
VOC TREATMENT AND NEW DISINFECTION FACILITY**

**STRUCTURAL
CHEMICAL BUILDING BOTTOM PLAN**

DATE: JANUARY 2024
PROJECT NO. SCWWA: 2400420
SHEET: S-5

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHK-S.rvt
1/25/2024, 11:52:29 AM



- NOTES:**
- METAL DECKING OVER SODIUM HYPOCHLORITE STORAGE ROOM SHALL BE 1 1/2" DEEP, TYPE HSB 36, 20 GAUGE WITH PUDDLE WELDS AT 3/8" PATTERN PER PANEL AT SUPPORTS PERPENDICULAR TO DECK SPAN, AND PUDDLE WELDS 6" OC AT SUPPORTS PARALLEL TO DECK SPAN. SIDELAP CONNECTIONS SHALL BE 1 1/2" TOP ARC SEAM WELD AT 12" OC.
 - METAL DECKING OVER LIQUID AMMONIUM SULFATE STORAGE ROOM SHALL BE 1 1/2" DEEP, TYPE B, 16 GAUGE WITH PUDDLE WELDS AT 3/8" PATTERN PER PANEL AT SUPPORTS PERPENDICULAR TO DECK SPAN, AND PUDDLE WELDS 18" OC AT SUPPORTS PARALLEL TO DECK SPAN. SIDELAPS SHALL BE VSC2 @ 6" OC.
 - METAL DECKING ATTACHMENT TO STEEL LEDGER ANGLE AND BENT PLATE ALONG EXTERIOR AND INTERIOR WALLS, AND AT FRAMING AROUND ROOF OPENINGS, SHALL USE POWER ACTUATED FASTENERS AT 12" CENTERS. FASTENER PINS SHALL BE RATED FOR STEEL SUPPORT THICKNESS OF 3/8".
 - METAL DECK PROVIDES LATERAL BRACING FOR ROOF BEAMS.
 - METAL DECKING SHALL BE INSTALLED WITH A MINIMUM TWO SPANS OVER SUPPORT. SINGLE SPAN DECKING PANELS ARE NOT ALLOWED.
 - CONTRACTOR SHALL COORDINATE PIPING, LIGHTING, DUCT AND OTHER UTILITY SUPPORT ATTACHED TO BEAMS WITH THE ENGINEER.
 - SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF ROOFING AND ROOF DRAINAGE, OPENINGS, AND LINTELS.
 - METAL DECKING SHALL BEAR ON THE LEDGER ANGLE BUT NOT MECHANICALLY FASTENED TO THE ANGLE, SO IT IS FREE TO SLIDE AT EXP JOINT LOCATION ONLY.

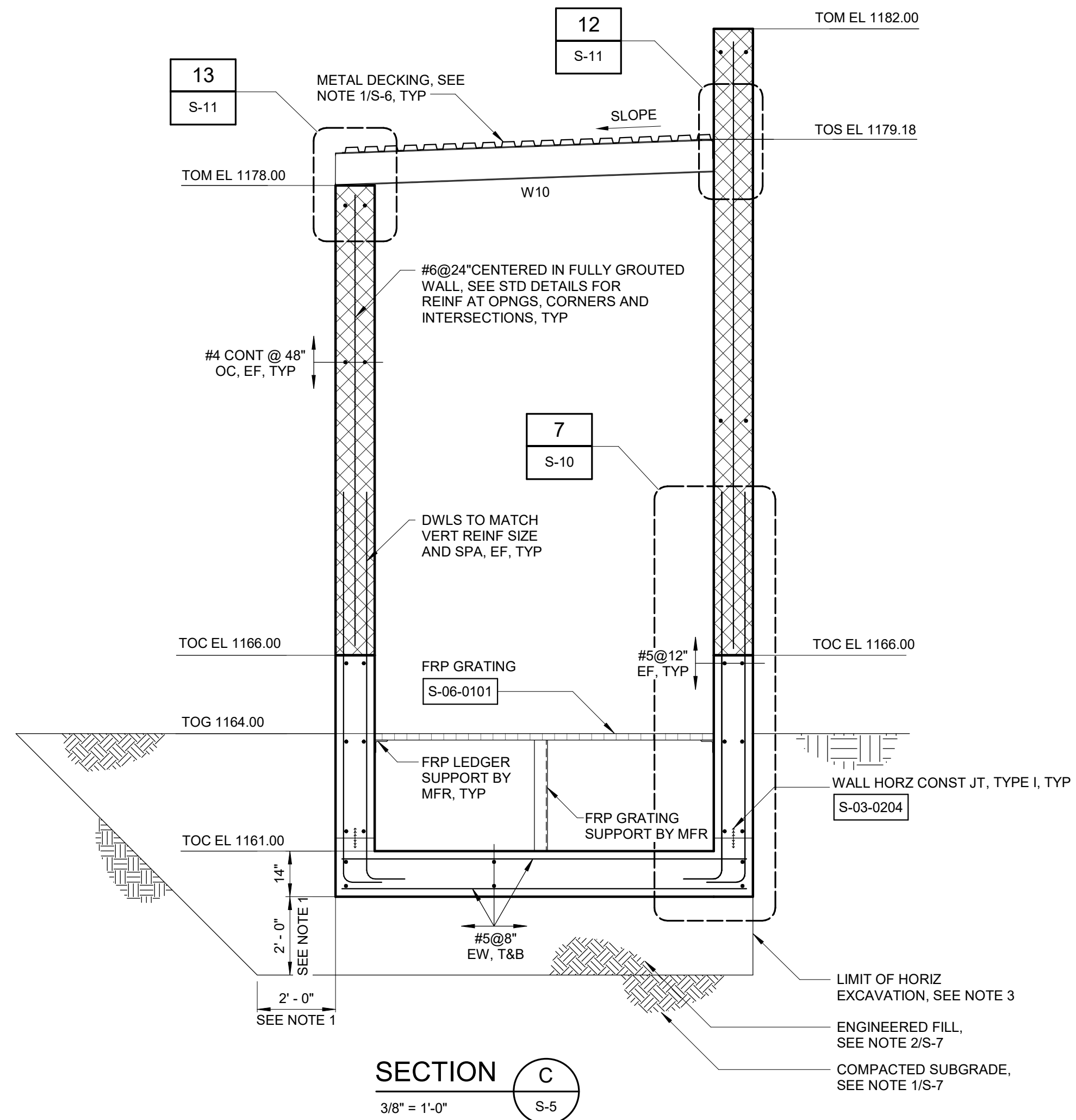
ROOF PLAN
3/8" = 1'-0"

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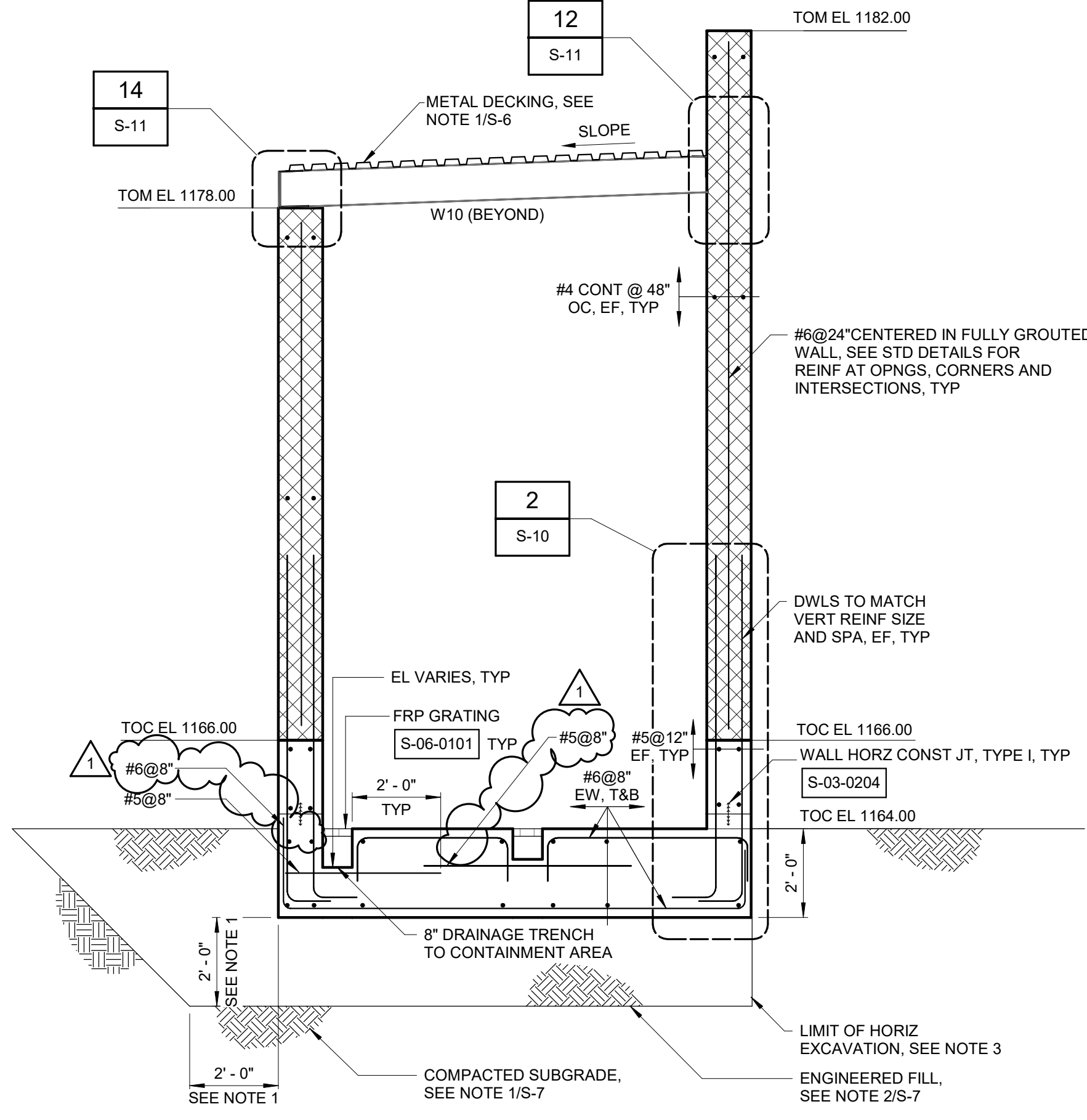
REVISIONS				SCALES	DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: JANUARY 2024
NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCWWA: 2400420		
1	ADDENDUM NO.2	01/2024	SPD	IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	CHECKED BY: W. DRESSLER			STRUCTURAL CHEMICAL BUILDING ROOF PLAN		SHEET: S-6

NOTES:

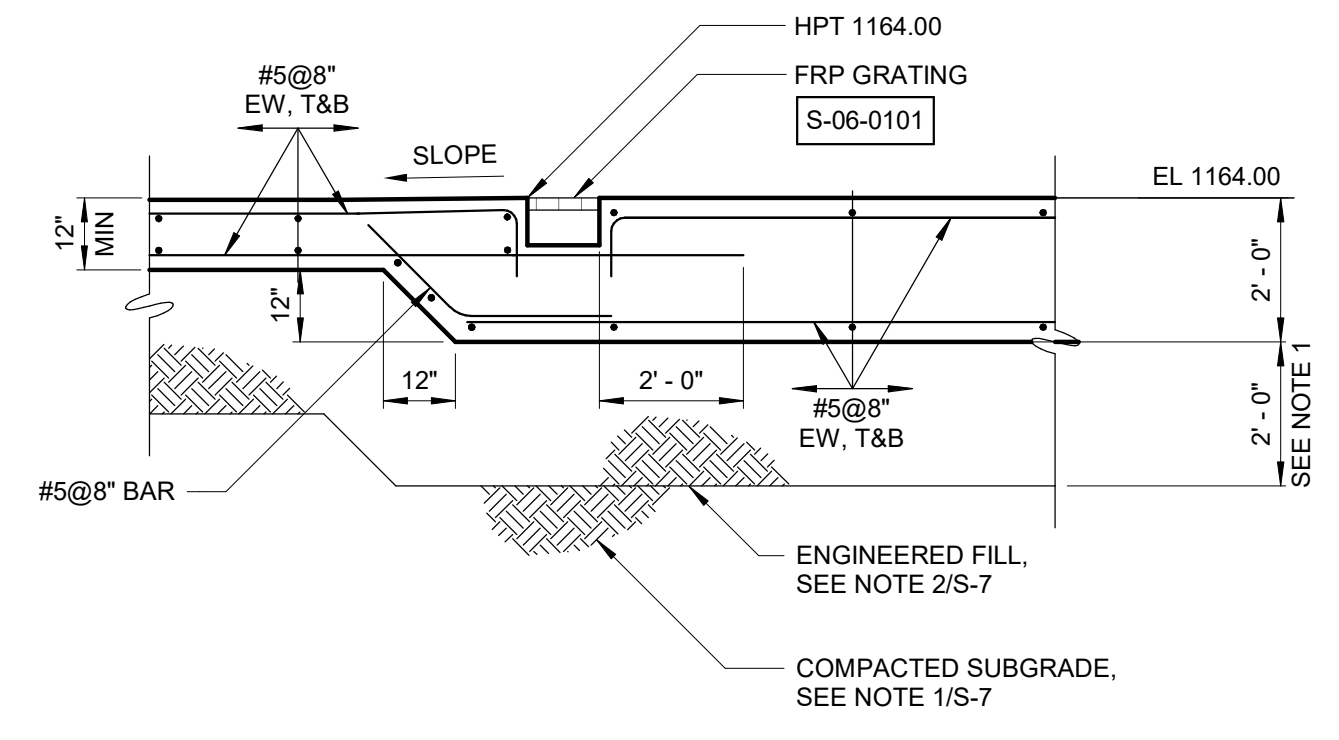
- REFER TO NOTES ON DRAWING S-7 FOR OVER-EXCAVATION REQUIREMENTS, SUBGRADE PREPARATION AND ENGINEERED FILL.
- HORIZONTAL OVER-EXCAVATION AT WEST AND NORTH SIDES OF BUILDING LIMITED BASED ON PROPERTY LINE, SEE CIVIL SITE LAYOUT AND HORIZONTAL CONTROL PLAN C-4. CONTRACTOR SHALL PROVIDE EXCAVATION SUPPORT SYSTEM AS REQUIRED TO FACILITATE VERTICAL OVER-EXCAVATION.



SECTION C
3/8" = 1'-0"



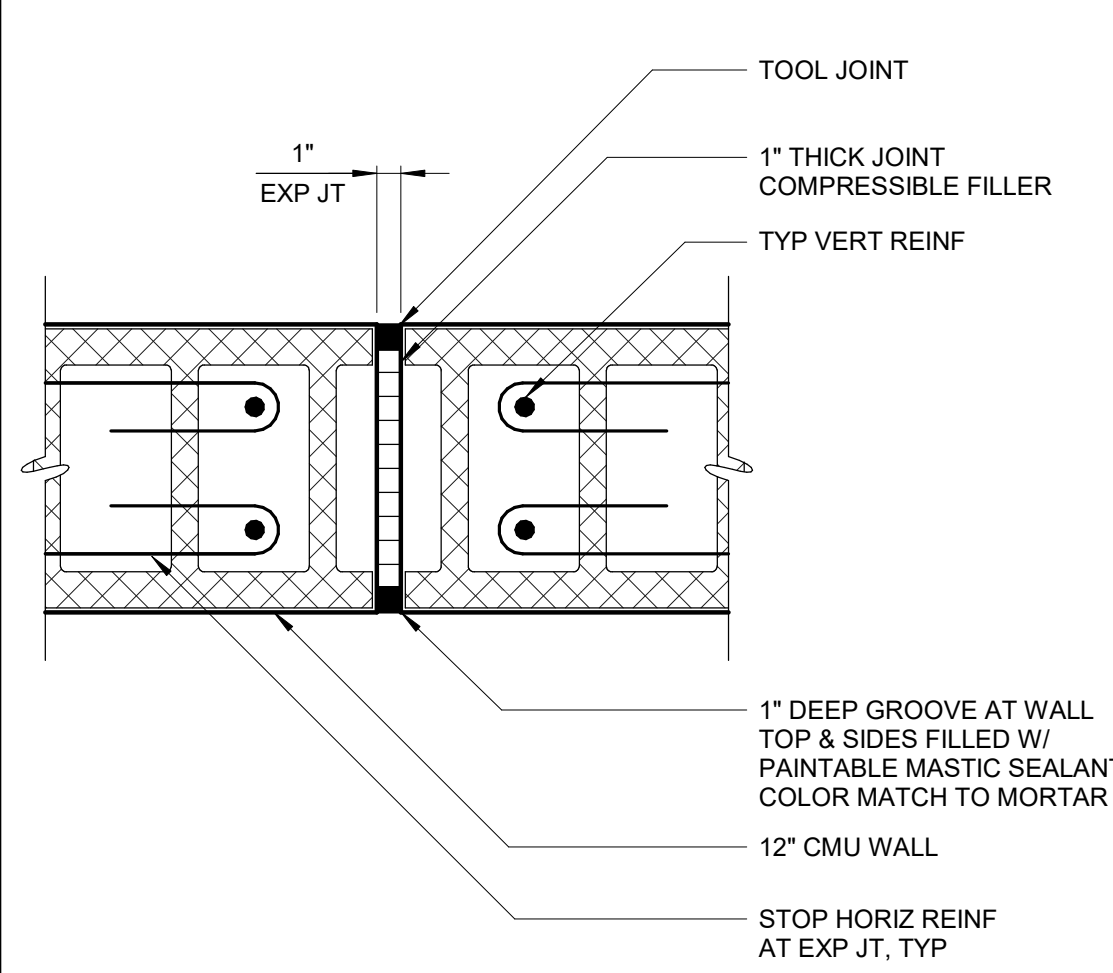
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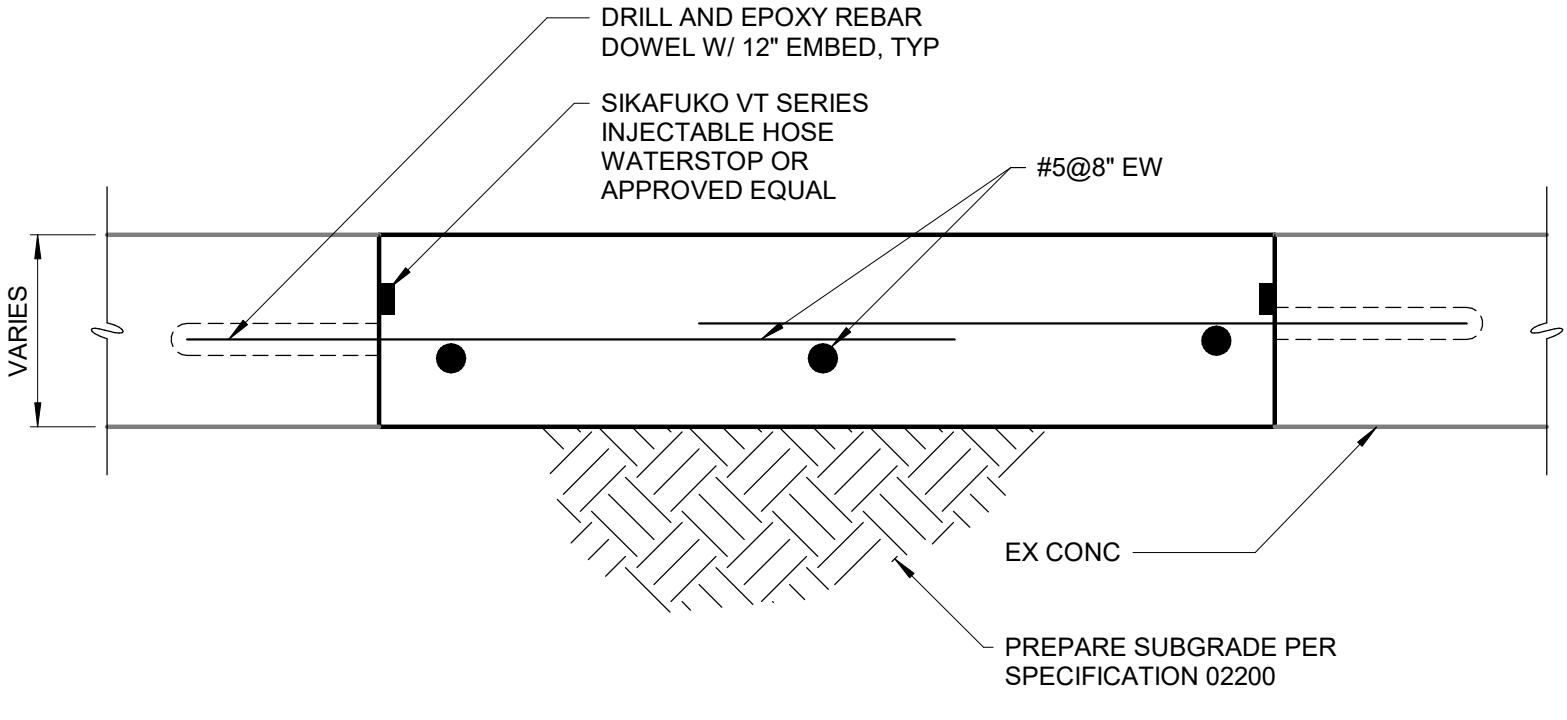
SECTION E
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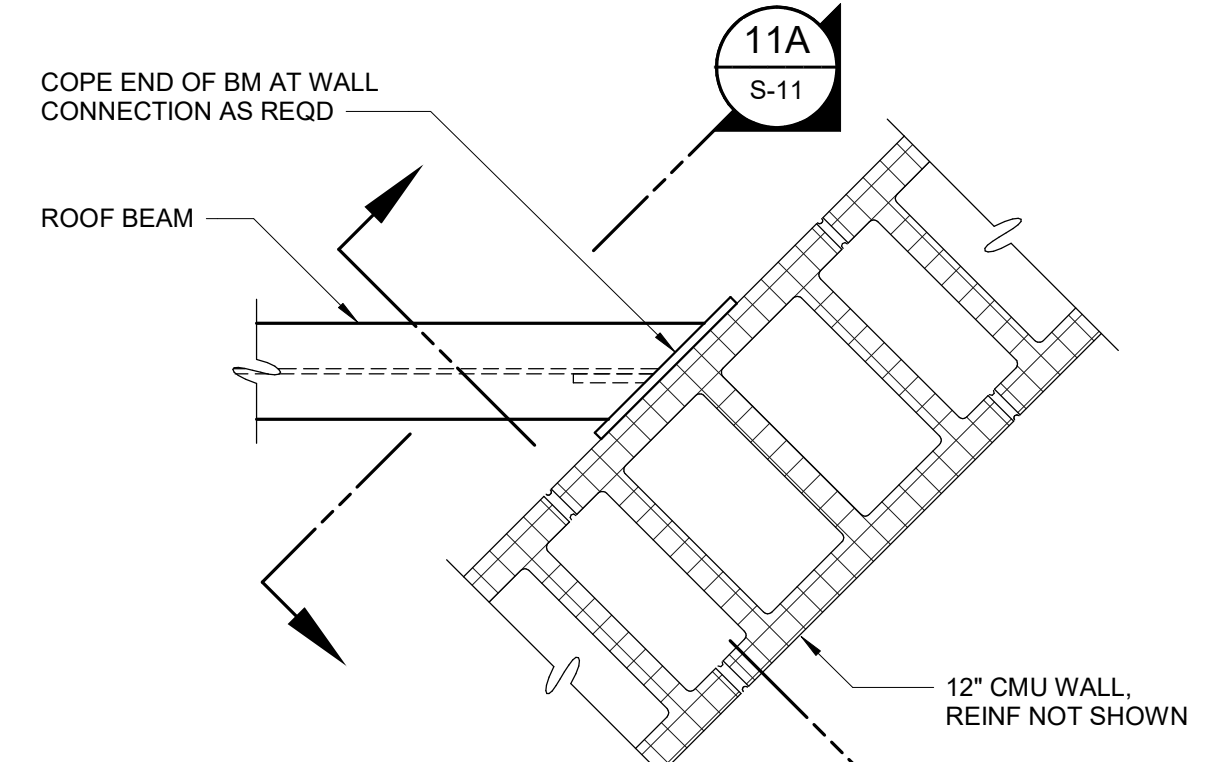
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NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCWVA: 2400420		
1	ADDENDUM NO.2	01/2024	SPD	1" = 1'-0" 3/8" = 1'-0"	CHECKED BY: W. DRESSLER	HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618	STRUCTURAL CHEMICAL BUILDING SECTION 3		SHEET: S-9	



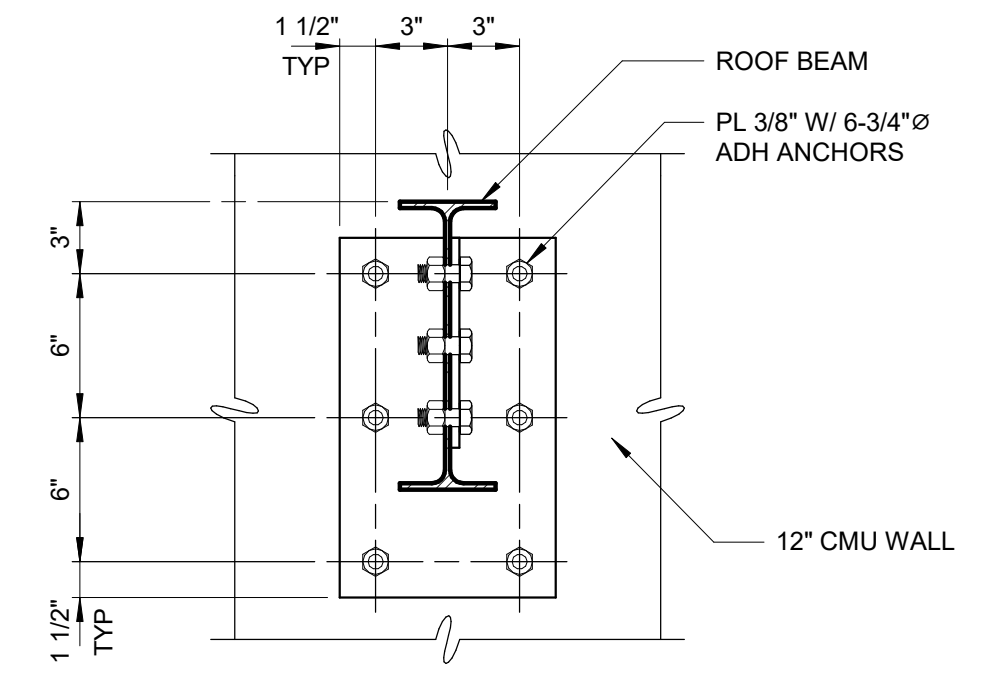
DETAIL 9
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S-5



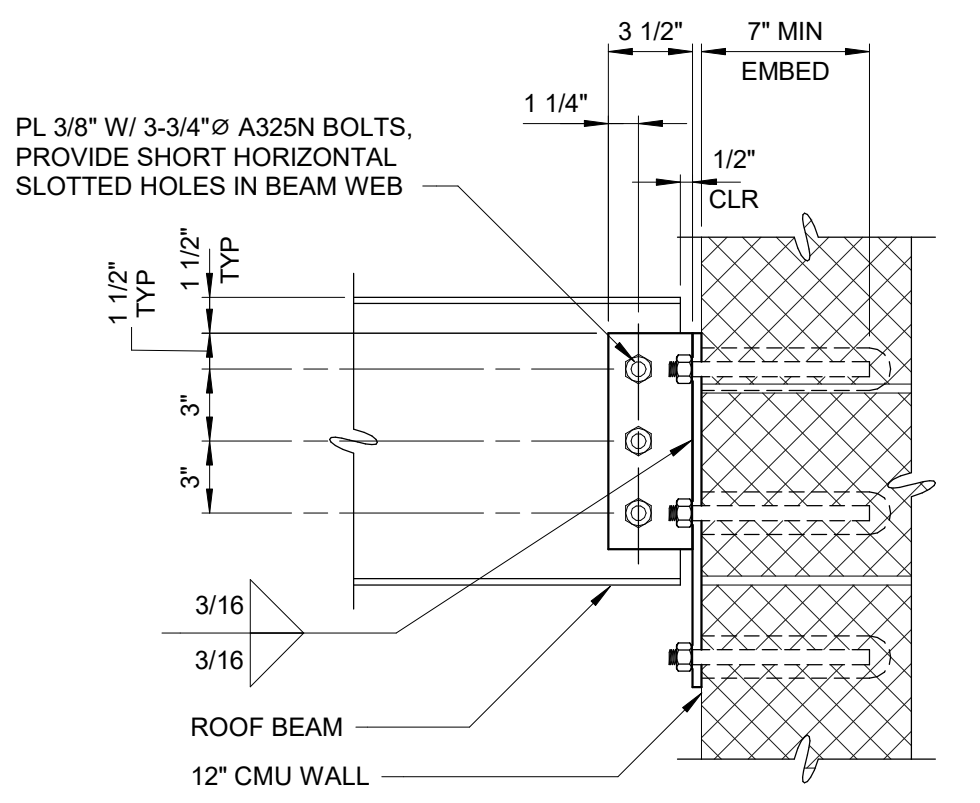
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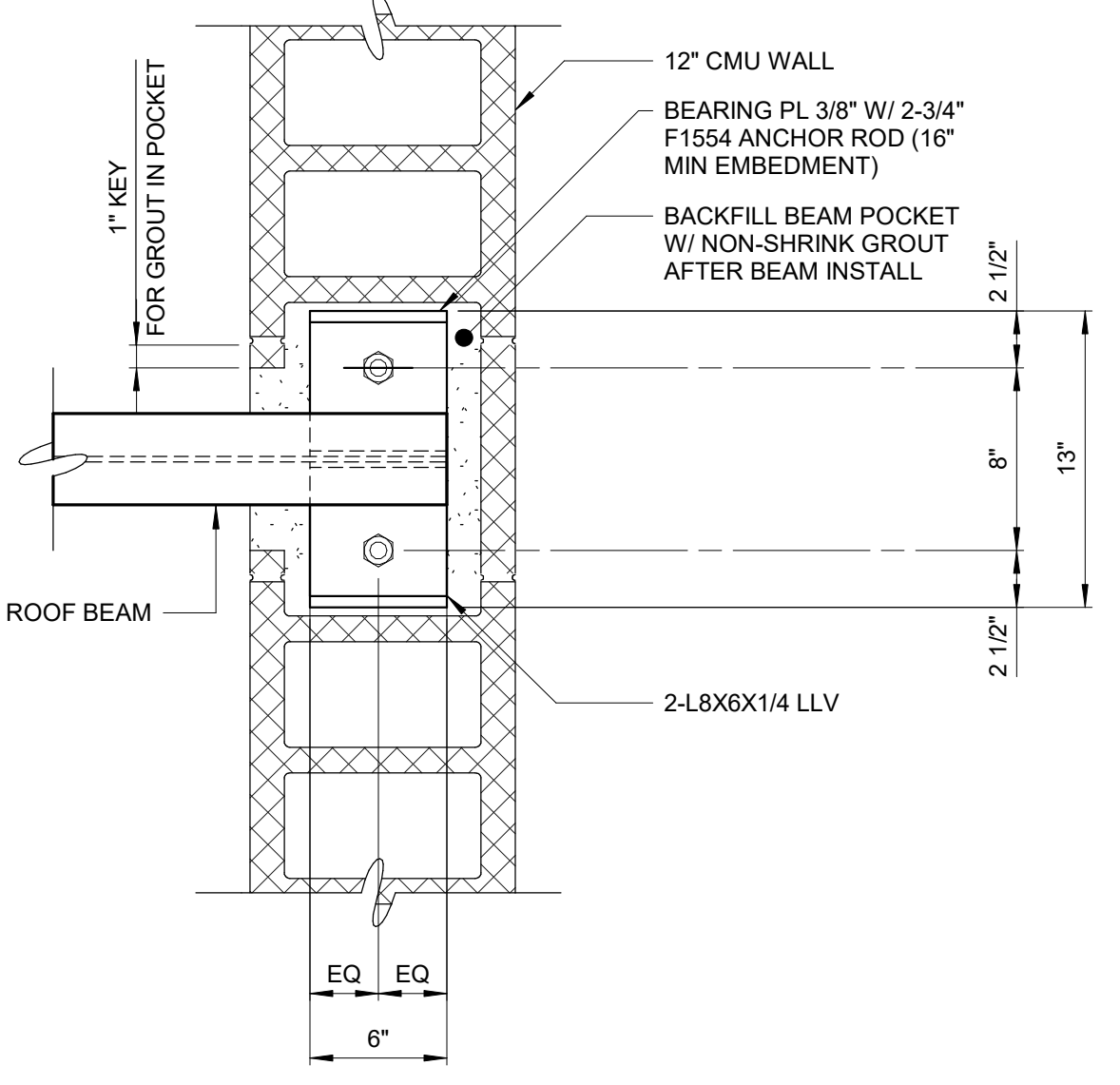
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S-6



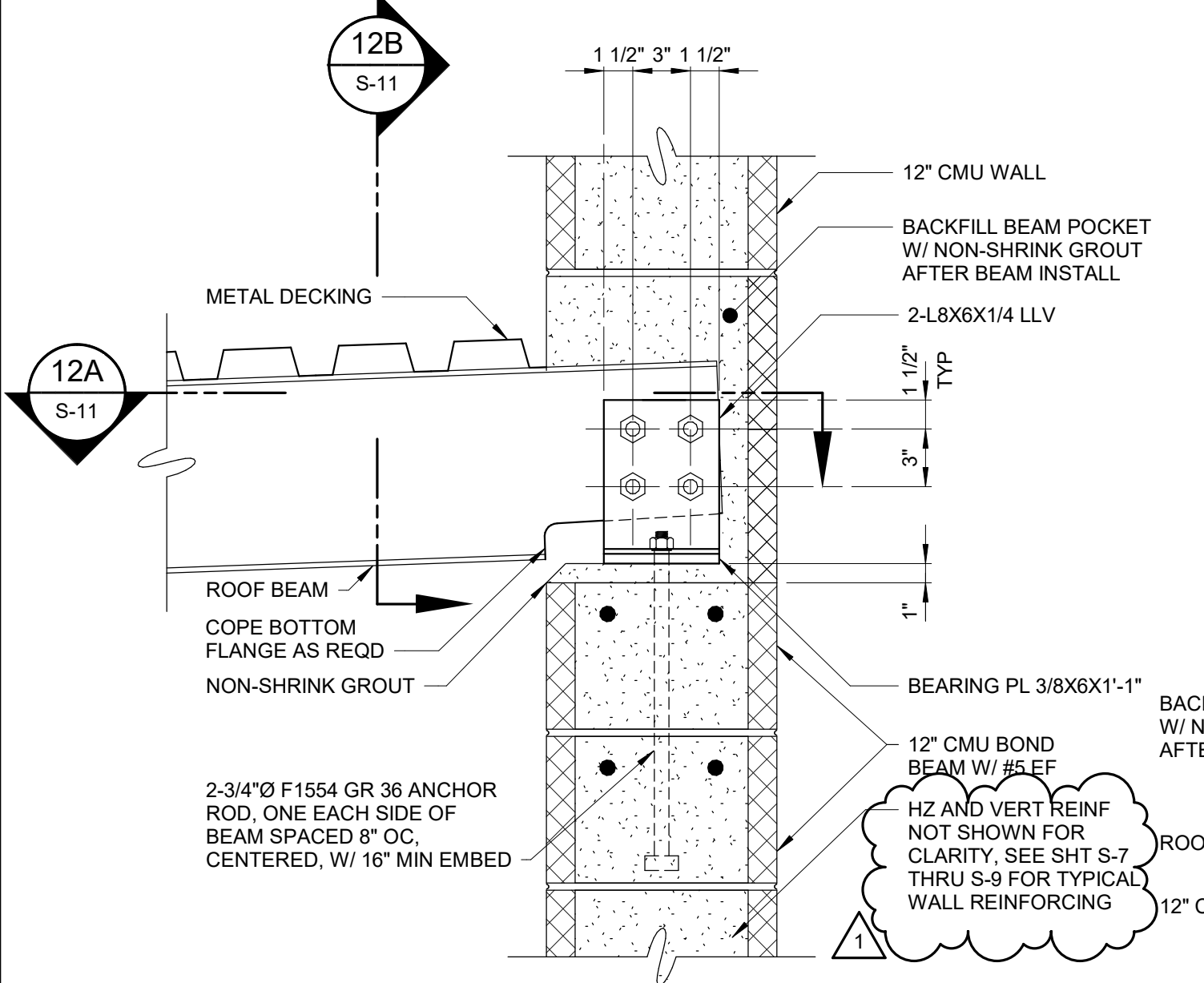
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S-11



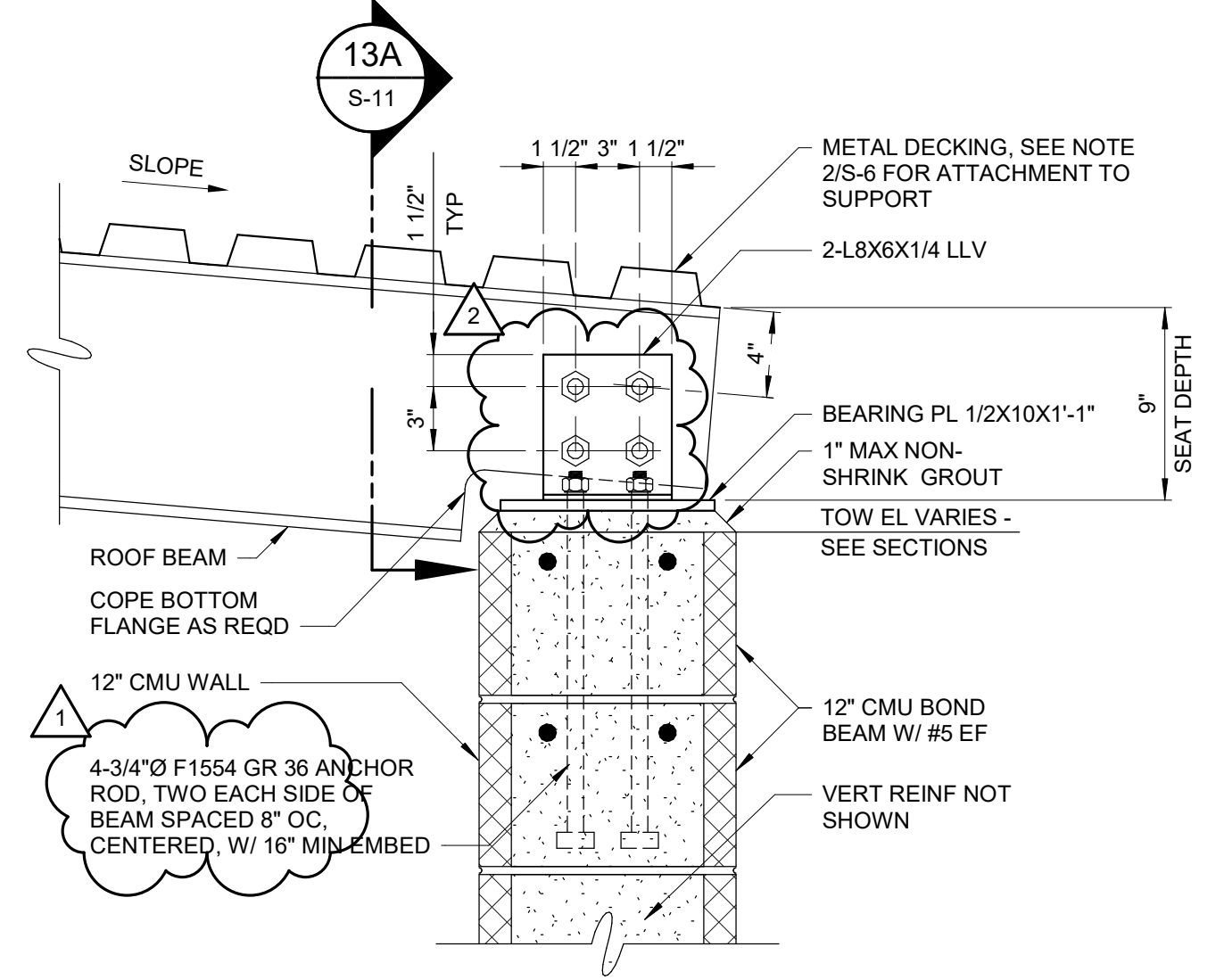
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S-11



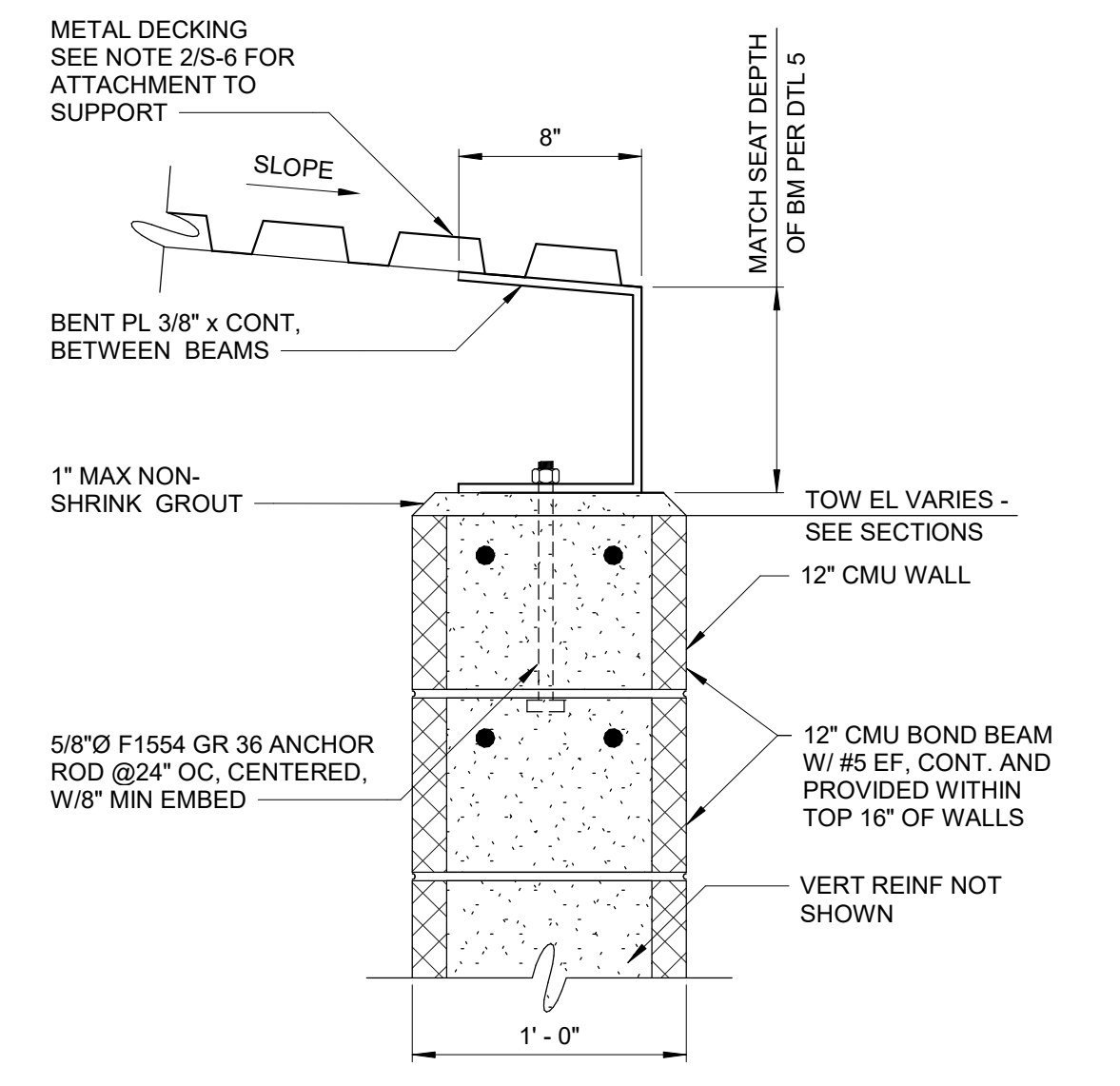
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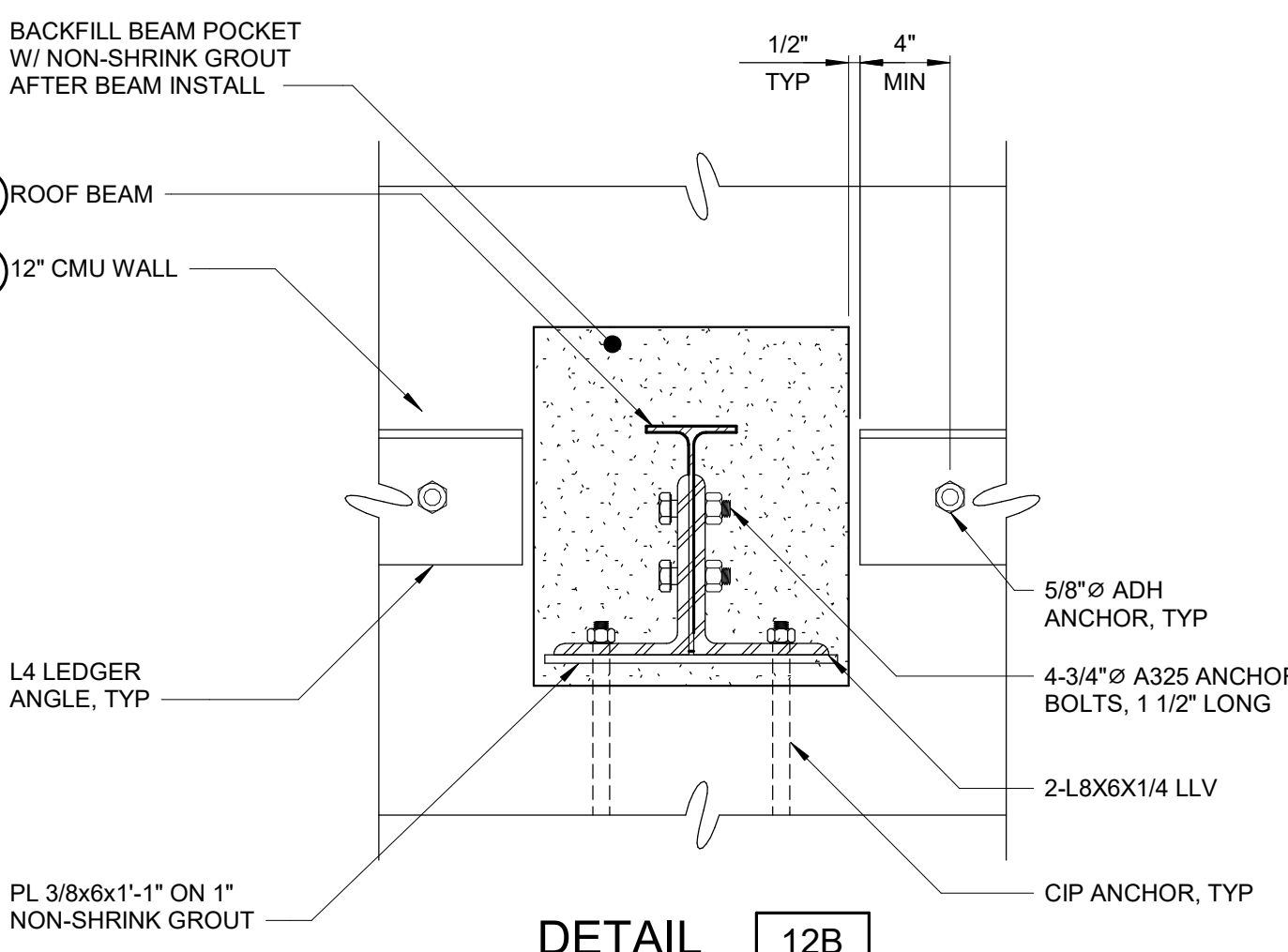
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S-7



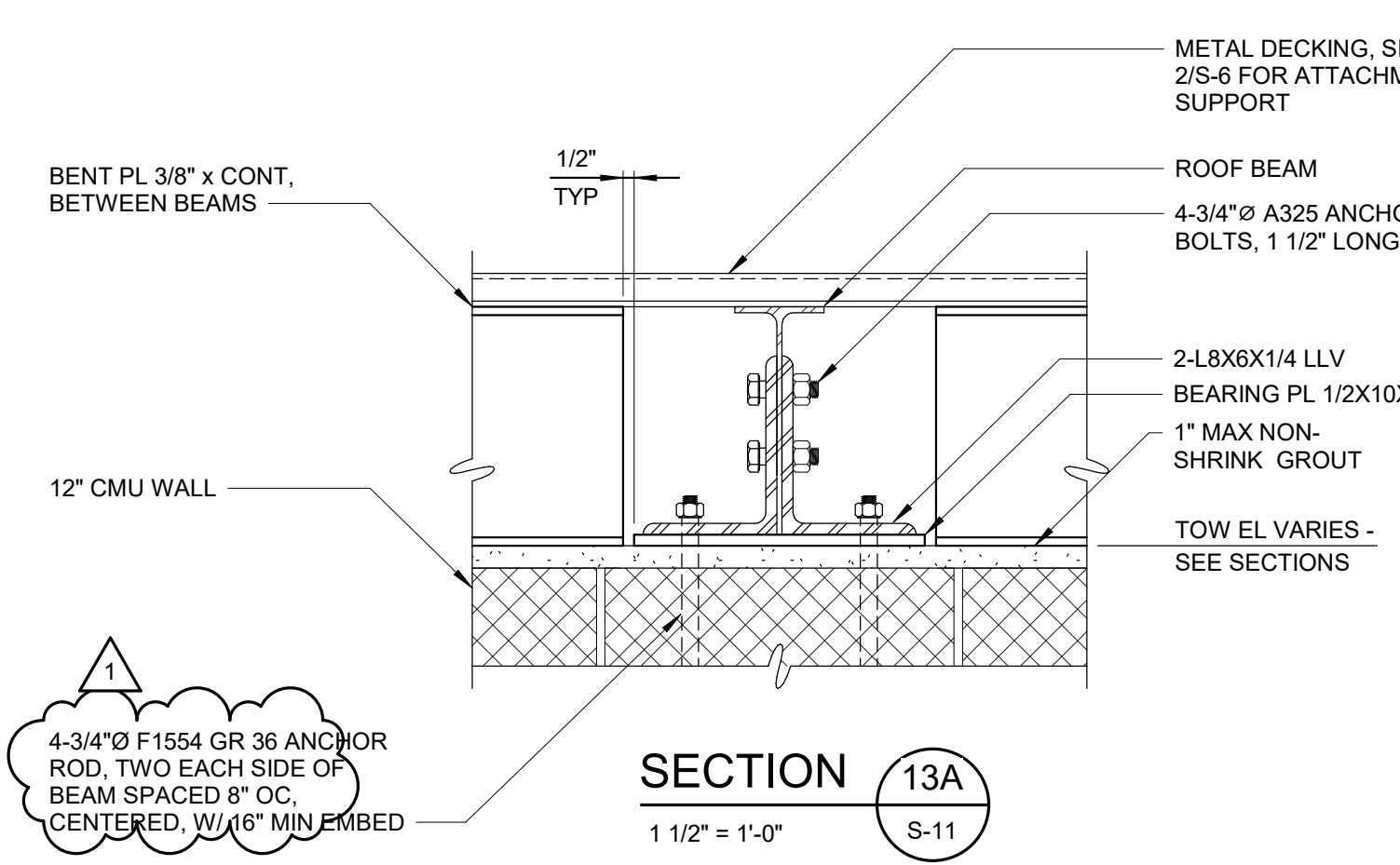
DETAIL 13
1 1/2" = 1'-0"
S-7



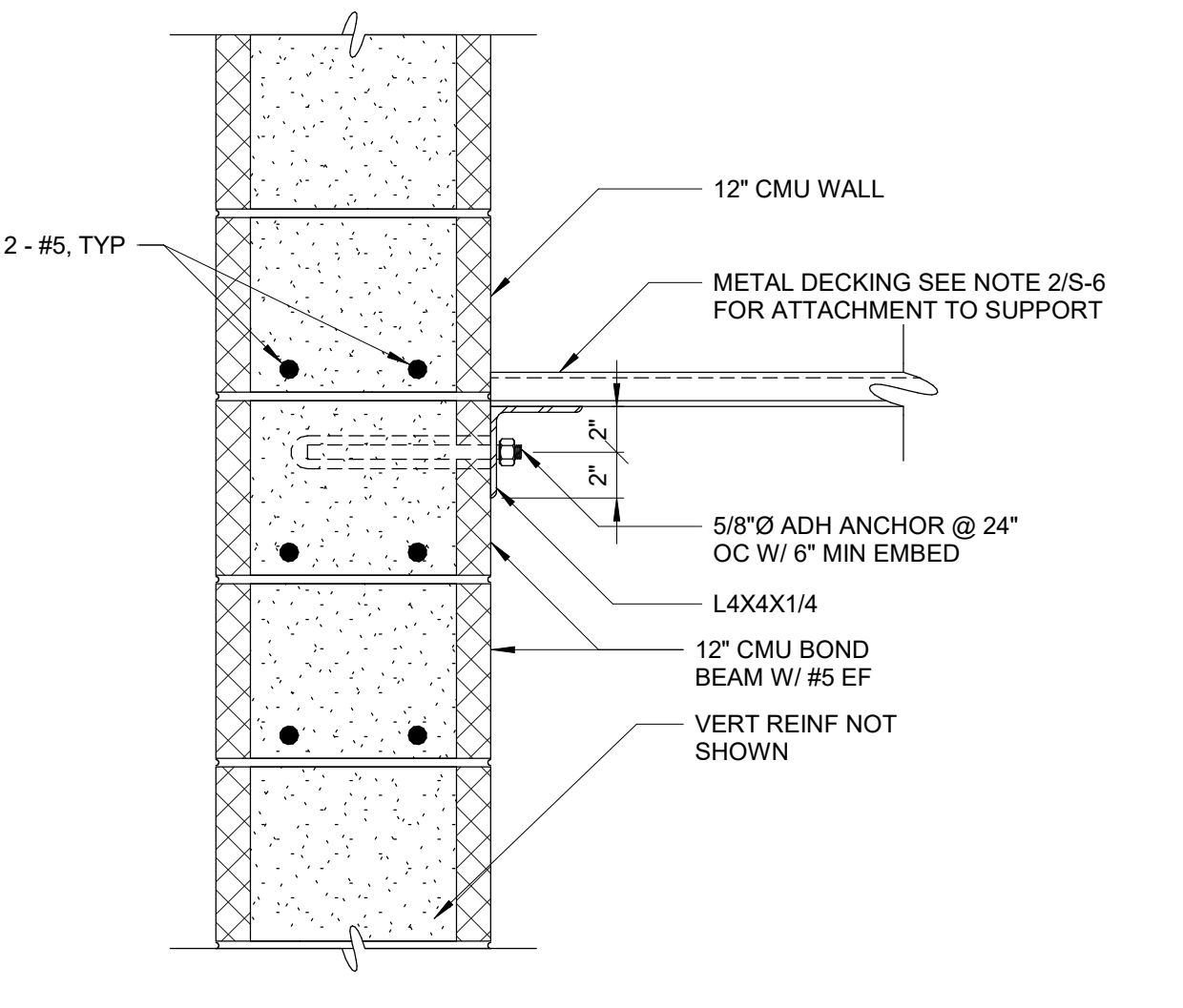
DETAIL 14
1 1/2" = 1'-0"
S-9



DETAIL 12B
1 1/2" = 1'-0"
S-11



SECTION 13A
1 1/2" = 1'-0"
S-11



DETAIL 15
1 1/2" = 1'-0"
S-7

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO.2	01/2024	SPD

SCALES	
1" = 1'-0"	1/8" = 1'-0"

DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen
DRAWN BY: A. FREDERICK	Hazen and Sawyer 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618
CHECKED BY: W. DRESSLER	SCV WATER SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737

Hazen
HAZEN AND SAWYER
7700 IRVINE CENTER DRIVE, SUITE 200
IRVINE, CALIFORNIA 92618

SCV WATER
SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION
26521 SUMMIT CIRCLE
SANTA CLARITA, CA. 91350
(661) 259-2737

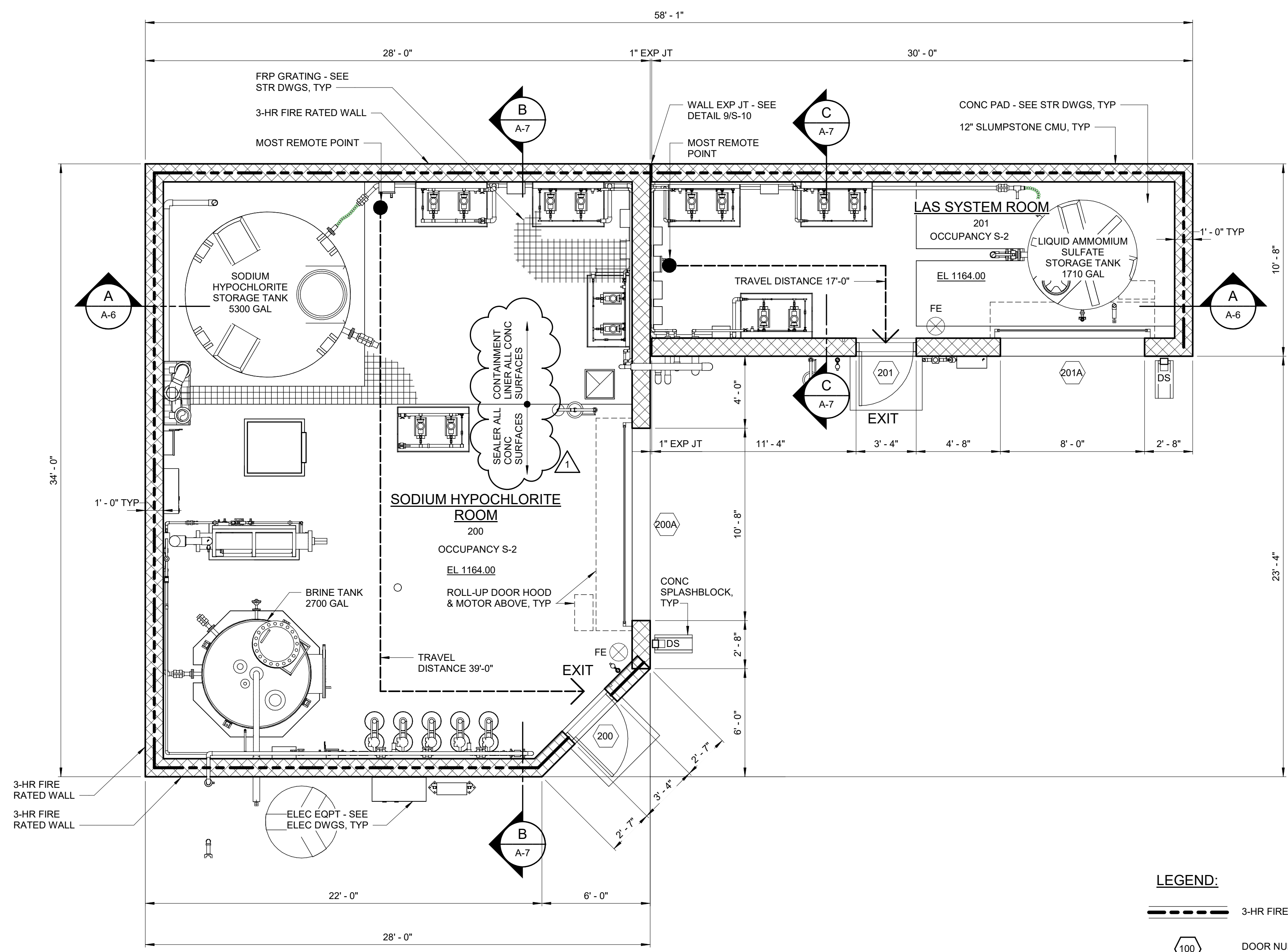
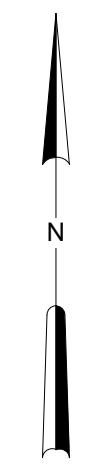
**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
VOC TREATMENT AND NEW DISINFECTION FACILITY**

**STRUCTURAL
DETAILS**

DATE: JANUARY 2024
PROJECT NO. SCVWA: 2400420
SHEET: S-11

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-S.rvt
2/1/2024 1:21:31 PM

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-A.ctb 2/5/2024 1:28:01 PM



LIFE SAFETY PLAN
1/4" = 1'-0"

- NOTES:**
- ALL UNREINFORCED MASONRY CELLS SHALL BE FILLED WITH MASONRY GROUT.
 - ALL EXTERIOR COLORS SHALL CLOSELY MATCH THE COLORS OF THE EXISTING RIO VISTA PUMP STATION BUILDING.

BUILDING CODE ANALYSIS CALIFORNIA BUILDING CODE 2022		
CODE ITEM	CODE REFERENCE	CHEMICAL BUILDING
OCCUPANCY CLASSIFICATION	CHAPTER 3	GROUP S-2
CONSTRUCTION CLASSIFICATION	CHAPTER 6	TYPE IIB
TABULAR HEIGHT ALLOWED		55'-0"
ACTUAL HEIGHT AS DESIGNED	CHAPTER 5-TABLE 504.3	21'-0"
TABULAR AREA ALLOWED		26,000 S.F. PER FLOOR
TOTAL AREA	CHAPTER 5 - TABLE 506	1254 S.F.
STORIES ALLOWED		3
ACTUAL STORIES	CHAPTER 5-TABLE 504.4	1
FIRE RESISTANCE RATING REQUIREMENTS		
STRUCTURAL FRAME	CHAPTER 6 - TABLE 601	NC
EXTERIOR BEARING WALLS	CHAPTER 6 TABLE 601 & 602	SEE NOTE 4
INTERIOR BEARING WALLS	CHAPTER 6 - TABLE 601	NA
EXTERIOR NON-BEARING WALLS AND PARTITIONS	CHAPTER 6 - TABLE 602	NA
INTERIOR NON-BEARING WALLS AND PARTITIONS	CHAPTER 6 - TABLE 601	NA
FLOOR CONSTRUCTION	CHAPTER 6 - TABLE 601	NC
ROOF CONSTRUCTION	CHAPTER 6 - TABLE 601	NC
SHAFT ENCLOSURES - EXIT	CHAPTER 7	NA
OCCUPANCY SEPARATION	TABLE 508.4	NA
OPENING PROTECTIVES	CHAPTER 7	NA
FIRE RATED OPENING DETAILS	SHEET A-8	N/A
EGRESS REQUIREMENTS		
STAIRWAYS	SECTION 1005	N/A
OTHER EGRESS COMPONENTS	SECTION 1005	0.2" PER OCCUPANT
OCCUPANT LOAD	TABLE 1004.1.2 INDUSTRIAL 100/SF	4 OCCUPANTS
ALLOWABLE COMMON PATH OF TRAVEL DISTANCE		75'-0"
ACTUAL MAX COMMON PATH OF TRAVEL DISTANCE	TABLE 1014.3	39'-0"
LIFE SAFETY SYSTEM REQUIREMENTS		
EMERGENCY LIGHTING	SECTION 1006.1	YES
EXIT SIGNS	SECTION 1011	YES
AUTOMATIC SPRINKLERS	SECTION 903	NO
PORTABLE FIRE EXTINGUISHERS	SECTION 907	YES
FIRE ALARM	SECTION 907	NO
SMOKE DETECTION SYSTEMS	SECTION 907.2.5	NO
PANIC HARDWARE	SECTION 1008.1.10	NO
STRUCTURAL AND SEISMIC DESIGN LOADS - SEE STRUCTURAL DRAWINGS		

- NOTES:**
- BUILDING IS NOT TYPICALLY OCCUPIED.
 - CHEMICALS STORED ARE NON-COMBUSTIBLE AND ARE CLASSIFIED AS IRRITANTS.
 - CHEMICALS STORED ARE 0.8% SODIUM HYDROCHLORITE AND 40% LIQUID AMMONIUM SULFATE BOTH CHEMICALS ARE CLASSIFIED AS IRRITANTS.
 - EXTERIOR FIRE RATED WALLS ARE PROVIDED AS THE WALLS ARE LOCATED WITHIN 5 FEET OF THE PROPERTY LINE.

- LEGEND:**
- 3-HR FIRE RATED WALL - SEE DRAWING A-8
 - DOOR NUMBER - SEE DRAWING A-5
 - FIRE EXTINGUISHER - DRY CHEMICAL
 - LOUVER NUMBER - SEE DRAWING A-5
 - DOWNSPOUT
 - NON-APPLICABLE
 - NON-COMBUSTIBLE

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO.2	01/2024	WHR

DESIGNED BY: W. RUSSELL
 DRAWN BY: A. BLAHA
 CHECKED BY: D. FONG

PLANS PREPARED BY:
Hazen
 HAZEN AND SAWYER
 7700 IRVINE CENTER DRIVE, SUITE 200
 IRVINE, CALIFORNIA 92618

SCV WATER
 SANTA CLARITA VALLEY WATER AGENCY
 ENGINEERING SERVICES SECTION
 26521 SUMMIT CIRCLE
 SANTA CLARITA, CA. 91350
 (661) 259-2737

**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
 VOC TREATMENT AND NEW DISINFECTION FACILITY**

ARCHITECTURAL
 CHEMICAL STORAGE BUILDING - PLANS, BUILDING CODE AND LIFE SAFETY

DATE:	DECEMBER 2023
PROJECT NO.:	SCWWA: 2400420
SHEET:	A-1

ROOM FINISH SCHEDULE																	
NO.	DESCRIPTION	FLOOR		BASE		WALL-NORTH		WALL-EAST		WALL-SOUTH		WALL-WEST		CEILING		REMARKS	
		SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH	HEIGHT			
200	SODIUM HYPOCHLORITE ROOM	CONC	CL/SEALER	CONC	CL/SEALER	CONC/CMU	CL--	CONC/CMU	CL--	CONC/CMU	SEALER--	CONC/CMU	CL--	ES	MFR	16'-0"	NOTES 1, 2
201	LAS SYSTEM ROOM	CONC	CL	CONC	CL	CONC/CMU	CL--	CONC/CMU	CL--	CONC/CMU	CL--	CONC/CMU	CL--	ES	MFR	15'-0"	NOTE 2

ROOM FINISH LEGEND

CL	CONTAINMENT LINER	ES	EXPOSED STRUCTURE
CONC	CONCRETE	MFR	MANUFACTURER
CMU	CONCRETE MASONRY UNITS	SEALER	SEE SPECIFICATION 03350 PARAGRAPH 2.02

ROOM FINISH SCHEDULE NOTES:

- CONTAINMENT LINER ON ALL CONCRETE FLOOR AND BASE SURFACES OF SODIUM HYPOCHLORITE AREA AND BRINE TANK PAD. SEALER ON REMAINDER OF FLOOR. SEE PLAN.
- CMU WALLS TO BE CLEANED. NO COATINGS TO BE APPLIED TO CMU WALLS.

DOOR SCHEDULE																				
NO.	FRAME		DOOR				DETAILS			GLAZING		HARDWARE		THRESHOLD	REMARKS					
	TYPE	MATL	TYPE	MATL	ACTIVE WIDTH	INACTIVE WIDTH	HEIGHT	THICKNESS	HEAD	JAMB	SILL	FIRE RATING	TYPE			SIZE	FINISH	SECURITY WIRING	NO	NOTE
200	F-1	HM	F	HM	3'-0"	0'-0"	7'-2"	1 3/4"	1/A-3	1/A-3	1/A-3	90 MIN	--	--	PT		1	--	AL	PROVIDE PANIC HARDWARE
200A	MFR	STL	OH	AL	10'-8"		12'-0"	3/4"	2/A-3	2/A-3	2/A-3				MFR			MOTOR	AL	PREFINISHED INSULATED OVERHEAD DOOR, MOTORIZED
201	F-1	HM	F	HM	3'-0"	0'-0"	7'-2"	1 3/4"	1/A-3	1/A-3	1/A-3				PT		1	--	AL	PROVIDE PANIC HARDWARE
201A	MFR	STL	OH	AL	8'-0"		10'-0"	3/4"	2/A-3	2/A-3	2/A-3				MFR			MOTOR	AL	PREFINISHED INSULATED OVERHEAD DOOR, MOTORIZED

DOOR LEGEND

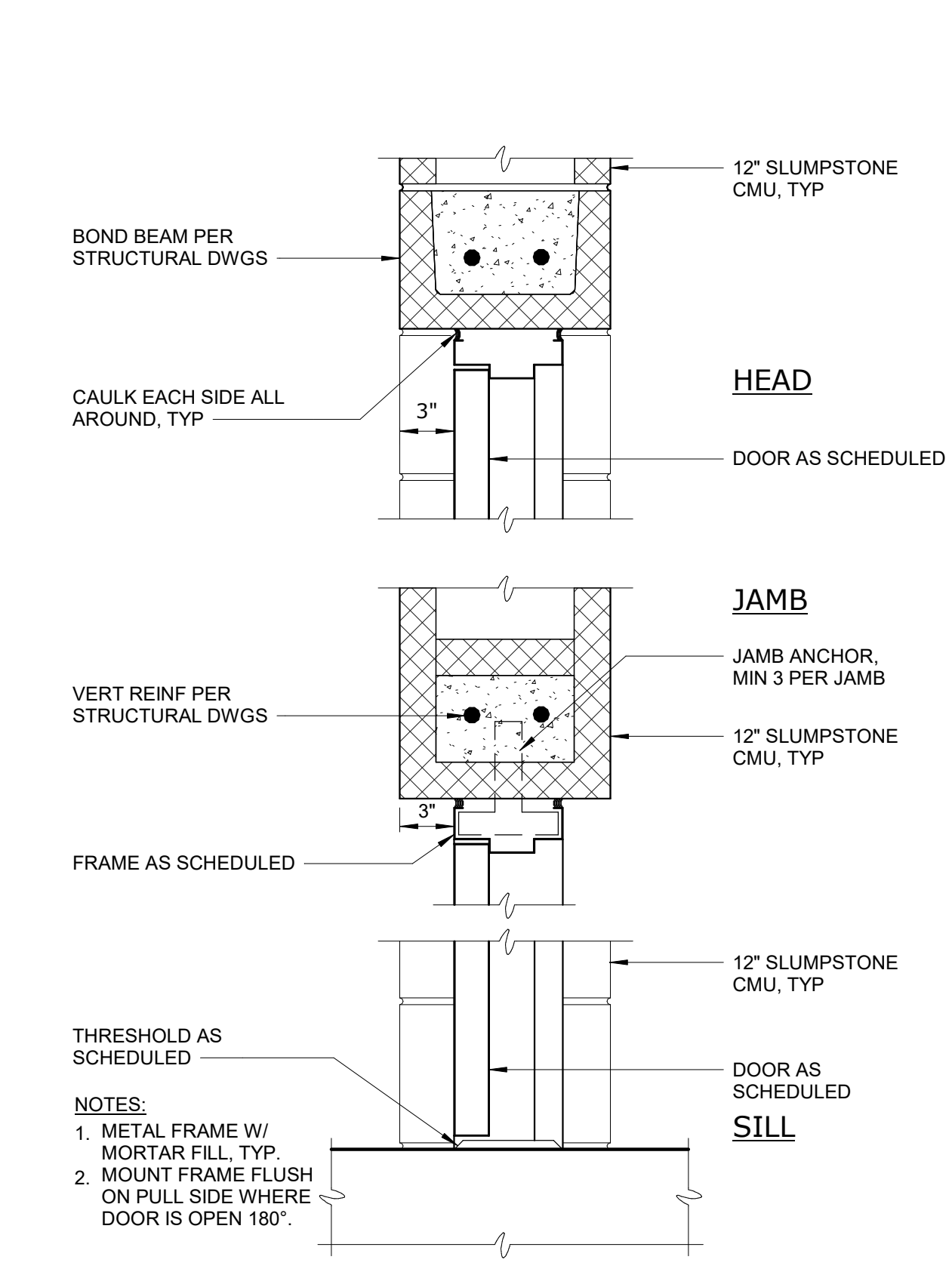
AL	ALUMINUM	PT	PAINT
FRP	FIBERGLASS REINFORCED PLASTIC	STL	STEEL
HM	HOLLOW METAL		
MFR	MANUFACTURER		

DOOR SCHEDULE NOTES:

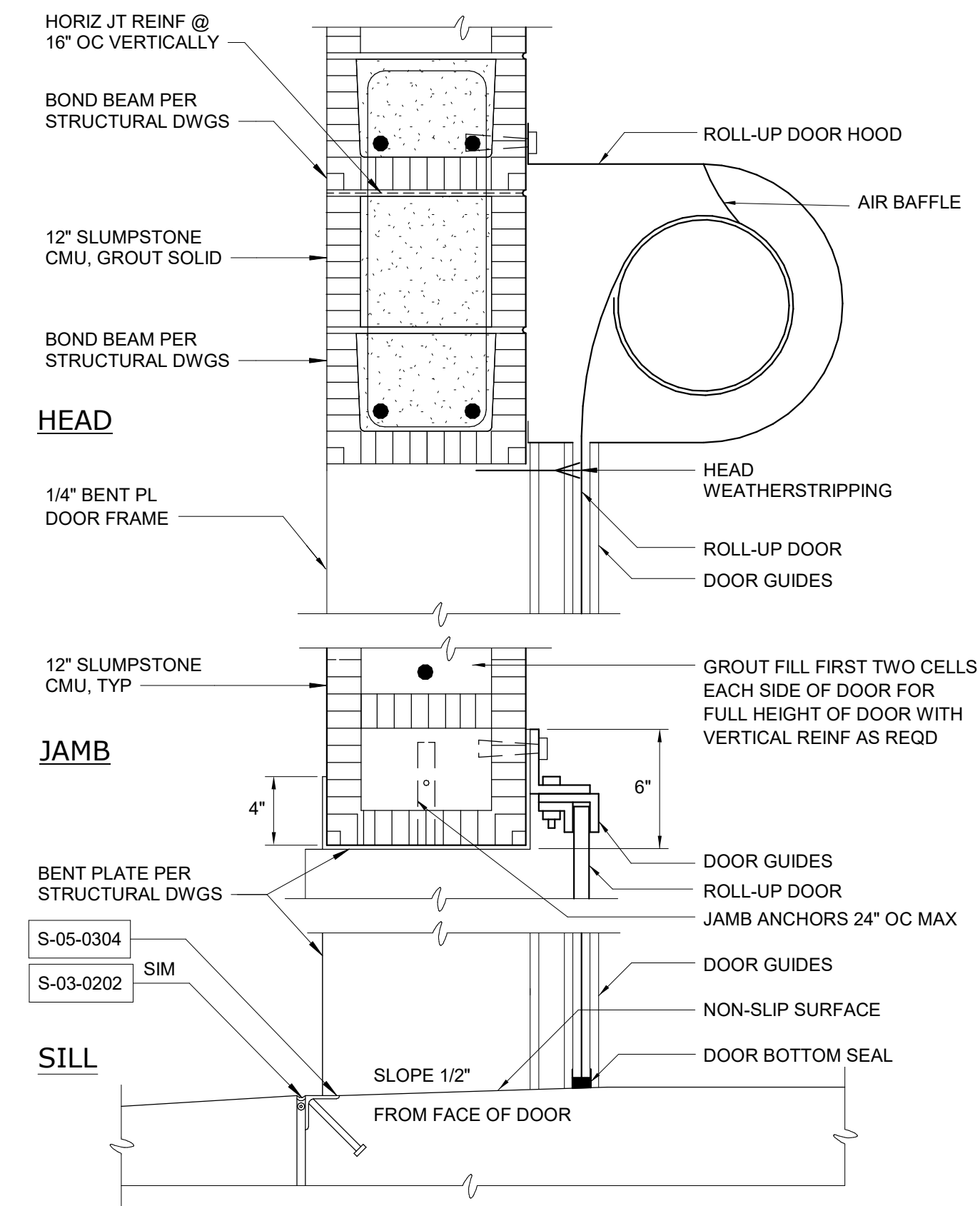
LOUVER SCHEDULE									
NO.	FRAME			FREE AREA	DETAILS			REMARKS	
	MATERIAL	WIDTH	HEIGHT		HEAD	JAMB	SILL		
L200	AL	4'-0"	4'-0"	9.08 SF	3/A-5	3/A-5	3/A-5		
L200A	AL	2'-0"	2'-0"	1.97 SF	3/A-5	3/A-5	3/A-5		
L201	AL	1'-4"	1'-4"	0.60 SF	3/A-5	3/A-5	3/A-5		
L201A	AL	2'-8"	2'-8"	1.97 SF	3/A-5	3/A-5	3/A-5		

LOUVER LEGEND

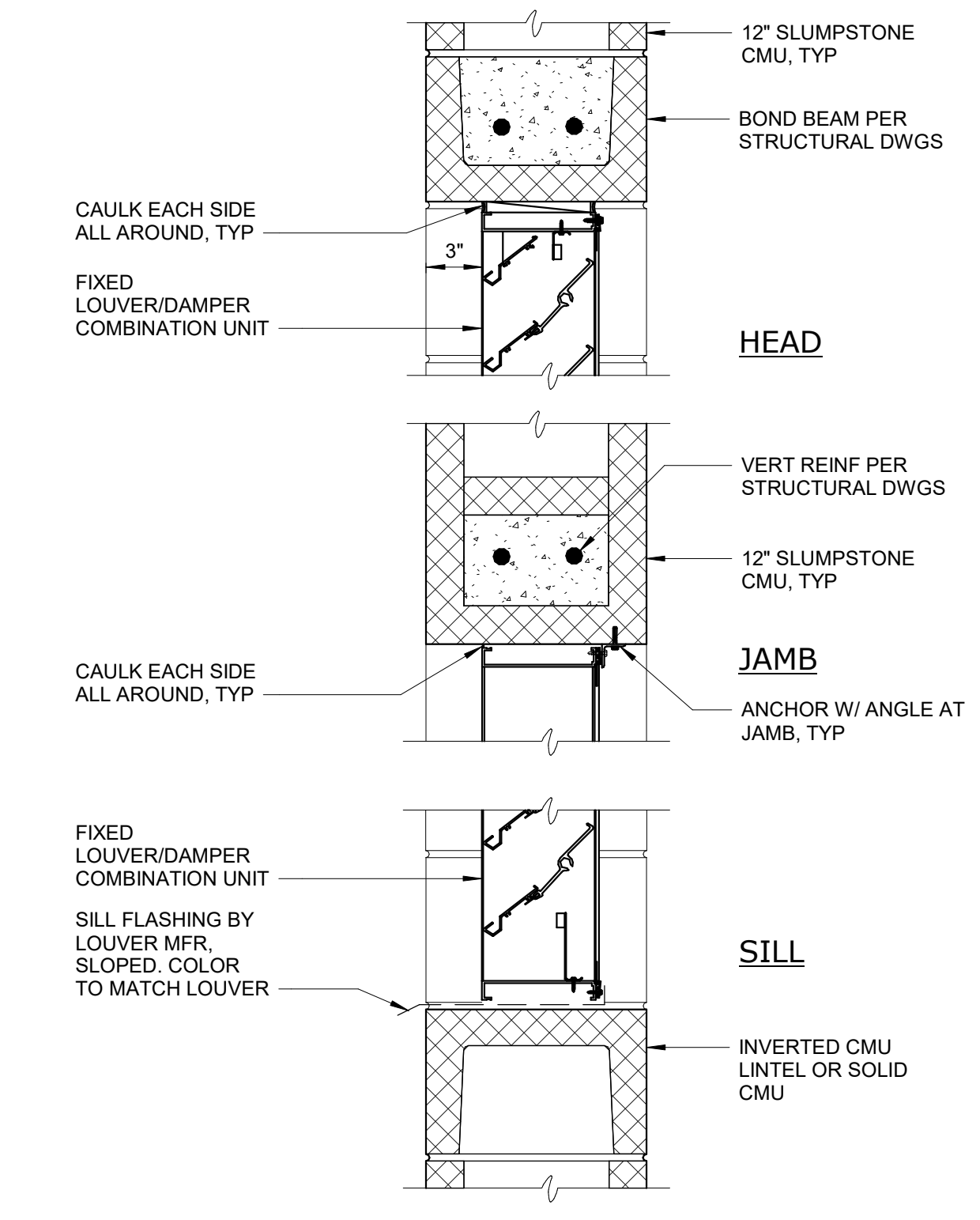
AL	ALUMINUM
MFR	MANUFACTURER



DOOR IN 12" CMU
DETAIL 1
 1 1/2" = 1'-0" A-3

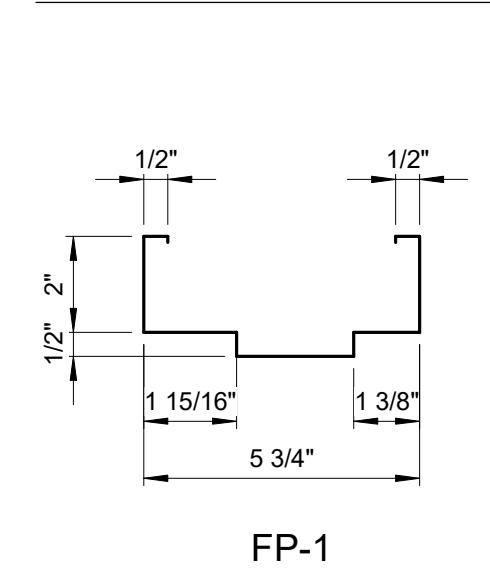


ROLL-UP DOOR IN 12" CMU
DETAIL 2
 1 1/2" = 1'-0" A-3

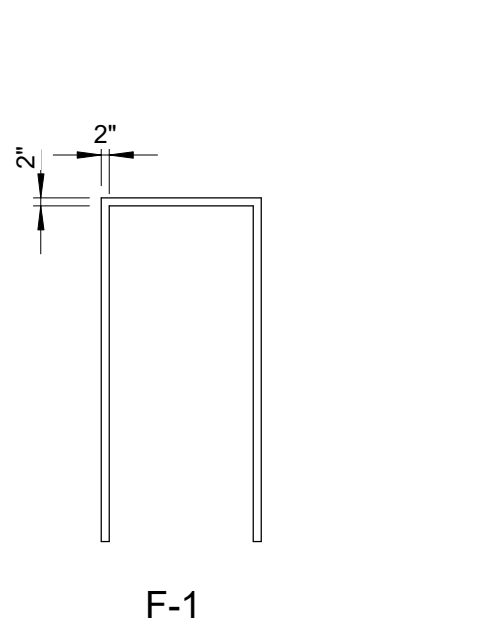


LOUVER IN 12" CMU
DETAIL 3
 1 1/2" = 1'-0" A-3

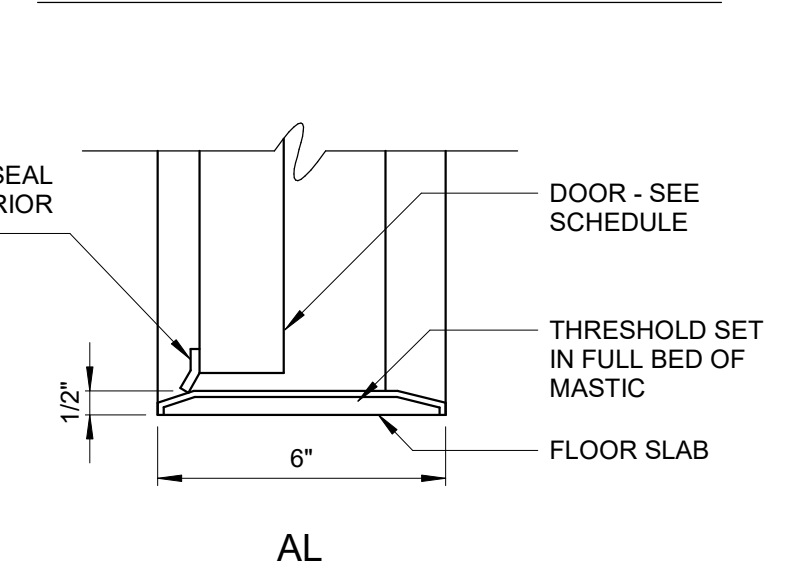
FRAME PROFILES 3" = 1'-0"



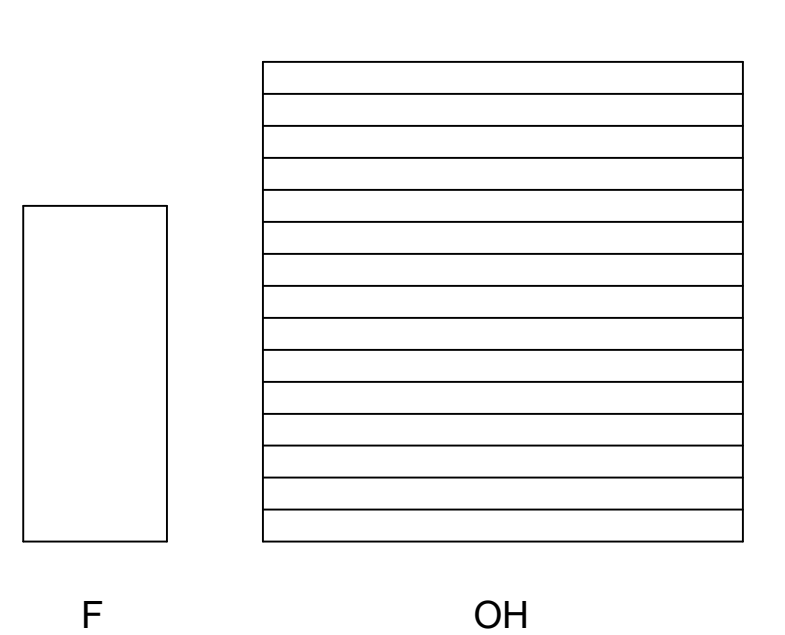
FRAME TYPES 1/4" = 1'-0"



THRESHOLD TYPES 3" = 1'-0"

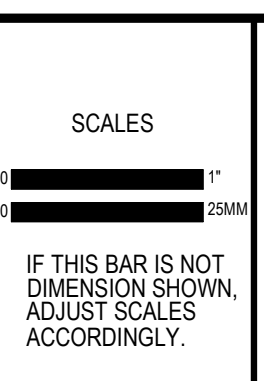


DOOR TYPES 1/4" = 1'-0"



Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-A.ctb 2/5/2024 1:28:01 PM

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO.2	01/2024	WHR



DESIGNED BY:	W. RUSSELL
DRAWN BY:	A. BLAHA
CHECKED BY:	D. FONG

PLANS PREPARED BY:

HAZEN AND SAWYER
 7700 IRVINE CENTER DRIVE, SUITE 200
 IRVINE, CALIFORNIA 92618

SANTA CLARITA VALLEY WATER AGENCY
 ENGINEERING SERVICES SECTION
 26521 SUMMIT CIRCLE
 SANTA CLARITA, CA 91350
 (661) 259-2737

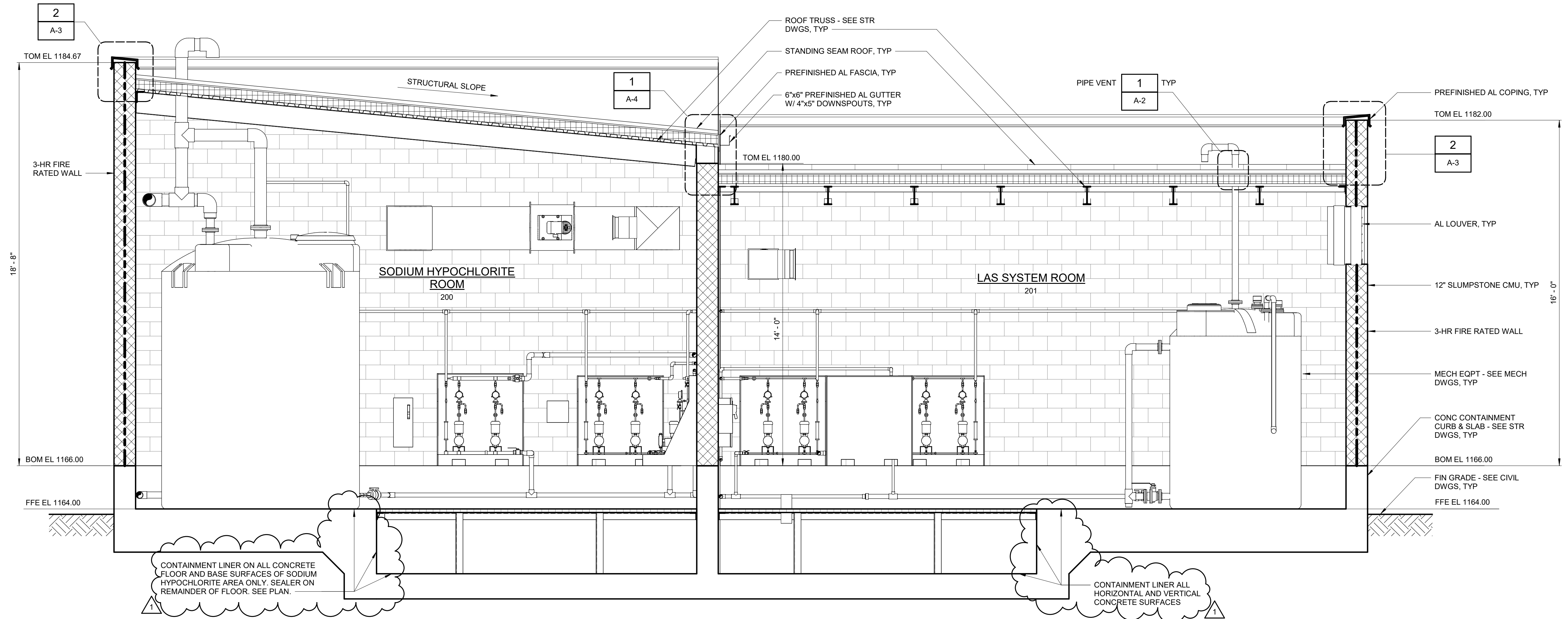
**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
 VOC TREATMENT AND NEW DISINFECTION FACILITY**

ARCHITECTURAL
 CHEMICAL STORAGE BUILDING - SCHEDULES AND DETAILS

DATE:	DECEMBER 2023
PROJECT NO.:	SCWWA: 2400420
SHEET:	A-5

NOTES:

- CONTRACTOR TO PROVIDE WALL, SLAB, EQUIPMENT, AND ROOF PENETRATION PLAN BEFORE CONSTRUCTION OF EACH ELEMENT COORDINATED WITH EACH PLAN. STRUCTURAL, ARCHITECTURAL ROOF, ETC.



SECTION A
3/8" = 1'-0"

LEGEND:

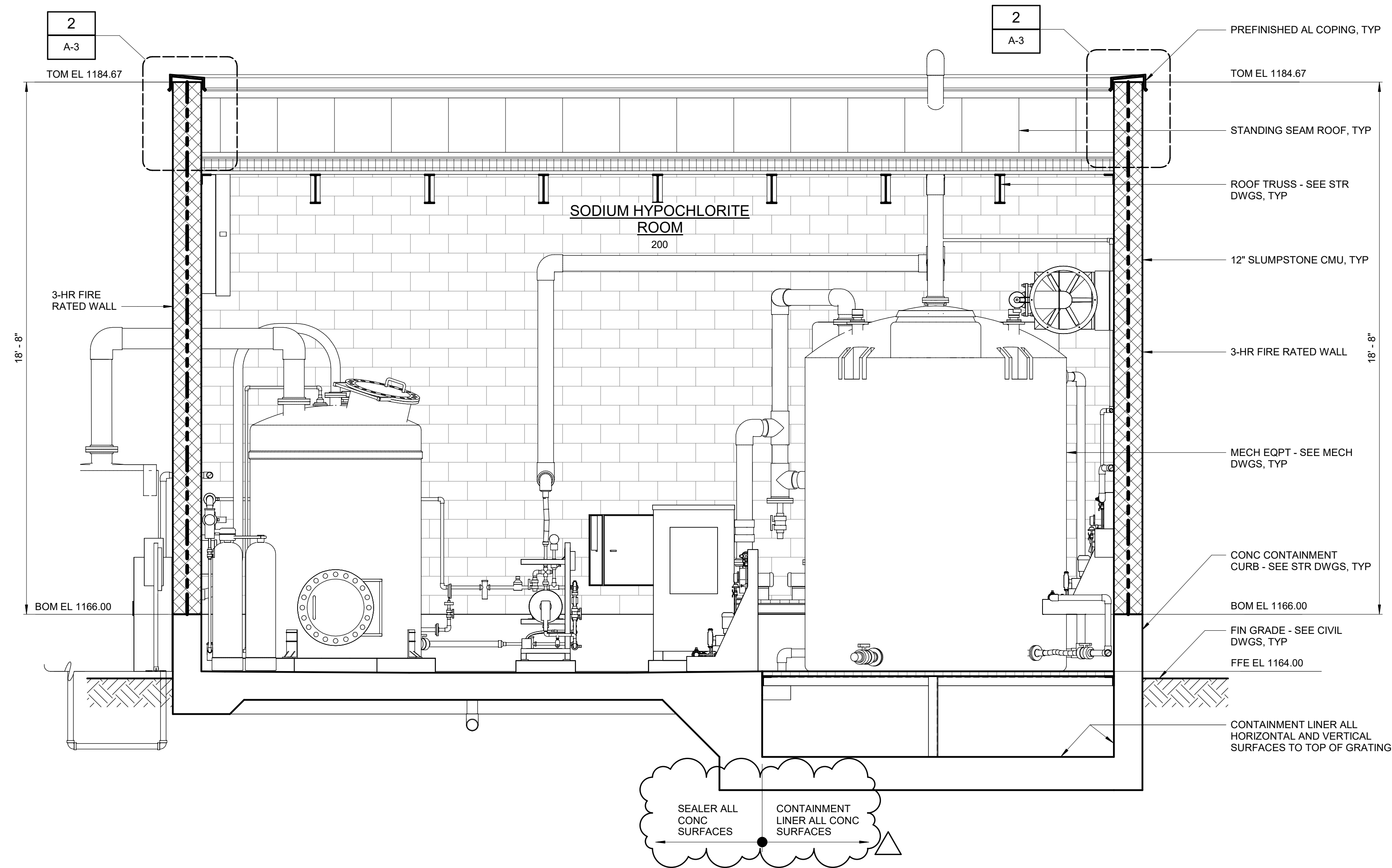
- 3-HR FIRE RATED WALL - SEE DRAWING A-8

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-A.rvt 2/5/2024 1:28:03 PM

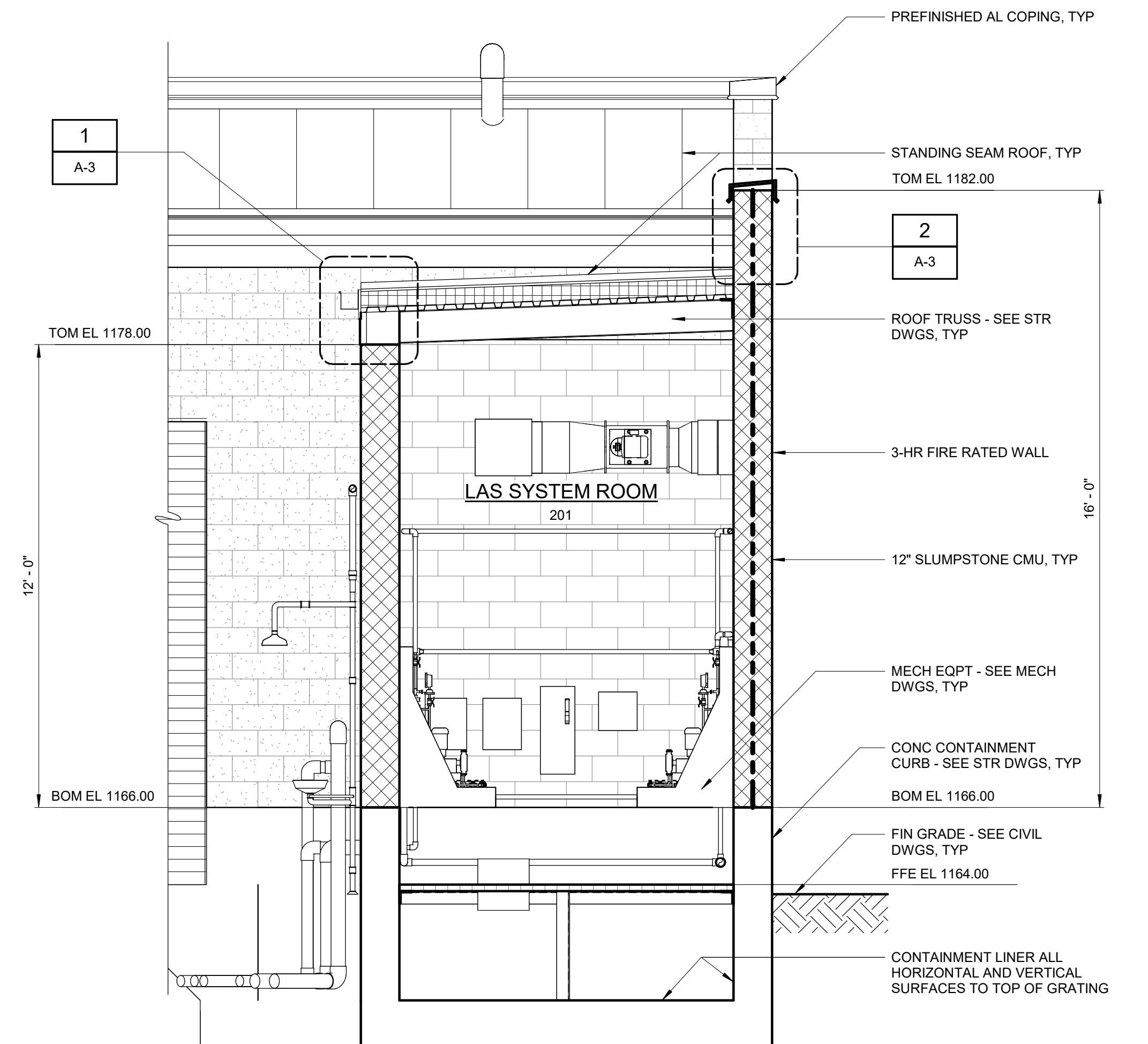
REVISIONS				SCALES	DESIGNED BY: W. RUSSELL	PLANS PREPARED BY: Hazen	SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: DECEMBER 2023
NO.	DESCRIPTION	DATE	BY					CHECKED BY: D. FONG	ARCHITECTURAL CHEMICAL STORAGE BUILDING - SECTIONS I	
1	ADDENDUM NO.2	01/2024	WHR	IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.					SHEET: A-6	

NOTES:

1. CONTRACTOR TO PROVIDE WALL, SLAB, EQUIPMENT, AND ROOF PENETRATION PLAN BEFORE CONSTRUCTION OF EACH ELEMENT COORDINATED WITH EACH PLAN. STRUCTURAL, ARCHITECTURAL ROOF, ETC.



SECTION B
3/8" = 1'-0"



SECTION C
3/8" = 1'-0"

LEGEND:

- 3-HR FIRE RATED WALL - SEE DRAWING A-8

Autodesk DocSet/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-A.rvt 2/5/2024 1:28:09 PM

REVISIONS				SCALES	DESIGNED BY: W. RUSSELL	PLANS PREPARED BY: Hazen	SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE:
NO.	DESCRIPTION	DATE	BY					NO.	DESCRIPTION	DATE
1	ADDENDUM NO.2	01/2024	WH	1" = 1'-0" 1/8" = 1'-0" 1/16" = 1'-0" IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	DRAWN BY: A. BLAHA	HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618	ARCHITECTURAL CHEMICAL STORAGE BUILDING - SECTIONS II	DECEMBER 2023		
				CHECKED BY: D. FONG	SCWVA: 2400420	SHEET: A-7				

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO. 3

Owner: Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC
Treatment and New Disinfection Facility Project


To: All Planholders

From: Santa Clarita Valley Water Agency

Bid Date: March 8, 2024, at 5:00 PM

Notice is hereby given to prospective bidders that the Contract Documents for the T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC Treatment and New Disinfection Facility Project, dated December 18, 2023, have been modified as hereinafter set forth. This Addendum No. 3 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 1 in the space below. This page AD 3-1 shall be attached to the Bid.

By: 
Orlando Moreno, P.E., Principal Engineer
Santa Clarita Valley Water Agency

Date: _____

ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 3 (pages AD 3-1 through AD 3-58).

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions remain the same.

ADDENDUM 3, ITEM 1. CONTRACT DOCUMENTS, INSTRUCTIONS TO BIDDERS-
PARAGRAPH IB-27

DELETE in its entirety and REPLACE with the following:

“The successful Bidder will be required to comply with all terms and conditions set forth in the Finance Agreement and Guidelines issued by the State Water Resources Control Board for potential grant funding.

As further detailed in Special Provisions, Bidders shall complete the following DBE forms located in Bid Forms and submit them with their bids:

- DBE Subcontractor Performance Form (Form 4500-3)
- DBE Subcontractor Utilization Form (Form 4500-4)

DBE Contractors and subcontractors must be certified at bid-opening. Bidders shall provide Proof of DBE certification for all listed DBEs with their bids.

Proof of DBE Certification and all mail logs, phone logs, electronic searches and communication, newspaper and similar records documenting efforts to meet the Good Faith Effort requirements shall be combined and submitted in a single file and shall be a separate file from all bid forms required from bidder as described in the Contractor Documents, Instructions to Bidders, Section IB-06.

Bid Forms shall be submitted on PlanetBids, under “Completed Bid Form” within the General Attachments tab.

Proof of DBE Certifications and Good Faith Effort supporting documents shall be submitted on PlanetBids, under “GFE Compliance Documents” within the General Attachment tab.”

ADDENDUM 3, ITEM 2.

CONTRACT DOCUMENTS, CONTRACT AGREEMENT

DELETE the following:

EXHIBIT A, in tis entirety

And REPLACE with:

the attached EXHIBIT A, Addendum No. 3

"General Decision Number: CA20240022 02/02/2024

Superseded General Decision Number: CA20230022

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Los Angeles County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658.

Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered	. Executive Order 14026
into on or after January 30,	generally applies to the
2022, or the contract is	contract.

renewed or extended (e.g., an	. The contractor must pay		
option is exercised) on or	all covered workers at		
after January 30, 2022:	least \$17.20 per hour (or		
	the applicable wage rate		
	listed on this wage		
	determination, if it is		
	higher) for all hours		
	spent performing on the		
	contract in 2024.		
_____		_____	

If the contract was awarded on	. Executive Order 13658		
or between January 1, 2015 and	generally applies to the		
January 29, 2022, and the	contract.		
contract is not renewed or	. The contractor must pay all		
extended on or after January	covered workers at least		
30, 2022:	\$12.90 per hour (or the		
	applicable wage rate listed		
	on this wage determination,		
	if it is higher) for all		
	hours spent performing on		
	that contract in 2024.		
_____		_____	

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date

- 0 01/05/2024
- 1 01/12/2024
- 2 02/02/2024

ASBE0005-002 09/01/2023

Rates Fringes

Asbestos Workers/Insulator
 (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....\$ 49.58 25.27

Fire Stop Technician
 (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls).....\$ 36.97 20.36

 ASBE0005-004 07/04/2022

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....	\$ 23.52	13.37

BOIL0092-003 01/01/2024

	Rates	Fringes
BOILERMAKER.....	\$ 51.98	42.11

* BRCA0004-007 05/01/2020

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 41.53	19.48

*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada

State Line) will be Three Dollars (\$3.00) above the standard San Bernardino/Riverside County hourly wage rate

BRCA0018-004 06/01/2022

	Rates	Fringes
MARBLE FINISHER.....	\$ 37.87	14.13
TILE FINISHER.....	\$ 32.44	12.54
TILE LAYER.....	\$ 45.05	18.33

BRCA0018-010 09/01/2022

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 38.37	14.13
TERRAZZO WORKER/SETTER.....	\$ 46.49	14.66

CARP0213-001 07/01/2021

	Rates	Fringes
CARPENTER		
(1) Carpenter, Cabinet		
Installer, Insulation		
Installer, Hardwood Floor		
Worker and acoustical		
installer.....	\$ 51.60	16.28

(2) Millwright.....	\$ 52.10	16.48
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Frammer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 51.73	16.28
(4) Pneumatic Nailer, Power Stapler.....	\$ 51.85	16.28
(5) Sawfiler.....	\$ 51.69	16.28
(6) Scaffold Builder.....	\$ 42.80	16.28
(7) Table Power Saw Operator.....	\$ 51.70	16.28

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

CARP0213-002 07/01/2021

Rates Fringes

Diver

(1) Wet.....	\$ 834.40	16.28
--------------	-----------	-------

(2) Standby.....	\$ 445.84	16.28
(3) Tender.....	\$ 437.84	16.28
(4) Assistant Tender.....	\$ 413.84	16.28

Amounts in ""Rates' column are per day

 CARP0213-004 07/01/2021

	Rates	Fringes
--	-------	---------

Drywall

DRYWALL INSTALLER/LATHER....	\$ 51.60	16.28
STOCKER/SCRAPPER.....	\$ 22.16	8.62

 CARP0721-001 07/01/2021

	Rates	Fringes
--	-------	---------

Modular Furniture Installer.....	\$ 21.85	7.15
----------------------------------	----------	------

 ELEC0011-004 06/30/2023

	Rates	Fringes
--	-------	---------

ELECTRICIAN (INSIDE
 ELECTRICAL WORK)

Journeyman Electrician.....	\$ 60.80	3%+29.77
-----------------------------	----------	----------

ELECTRICIAN (INTELLIGENT

TRANSPORTATION SYSTEMS Street

Lighting, Traffic Signals,
CCTV, and Underground Systems)

Journeyman Transportation

Electrician.....\$ 60.80 3%+29.77

Technician.....\$ 45.60 3%+29.77

FOOT NOTE:

CABLE SPLICER & INSTRUMENT PERSON: Receive 5% additional per hour above Journeyman Electrician basic hourly rate.

TUNNEL WORK: 10% additional per hour.

SCOPE OF WORK - TRANSPORTATION SYSTEMS

ELECTRICIAN:

Installation of street lights and traffic signals, including electrical circuitry, programmable controllers, pedestal-mounted electrical meter enclosures and laying of pre-assembled multi-conductor cable in ducts, layout of electrical systems and communication installation, including proper position of trench depths and radius at duct banks, location for man holes, pull boxes, street lights and traffic signals.

Installation of underground ducts for electrical, telephone, cable television and communication systems.

Pulling, termination and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/cable.

TECHNICIAN:

Distribution of material at job site, manual excavation and backfill, installation of system conduits and raceways for electrical, telephone, cable television and communication systems. Pulling, terminating and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/data.

* ELEC0011-007 01/01/2024

COMMUNICATIONS & SYSTEMS WORK (excludes any work on Intelligent Transportation Systems or CCTV highway systems)

Rates Fringes

Communications System

Installer.....\$ 46.47 3%+17.08

SCOPE OF WORK The work covered shall include the installation, testing, service and maintenance, of the following systems that utilize the transmission and/or transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for TV monitoring and surveillance, background foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media,

multiplex, nurse call system, radio page, school intercom and sound, burglar alarms and low voltage master clock systems.

A. Communication systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems SCADA (Supervisory control/data acquisition PCM (Pulse code modulation) Inventory control systems Digital data systems Broadband & baseband and carriers Point of sale systems VSAT data systems Data communication systems RF and remote control systems Fiber optic data systems

B. Sound and Voice Transmission/Transference Systems Background-Foreground Music Intercom and Telephone Interconnect Systems Sound and Musical Entertainment Systems Nurse Call Systems Radio Page Systems School Intercom and Sound Systems Burglar Alarm Systems Low-Voltage Master Clock Systems Multi-Media/Multiplex Systems Telephone Systems RF Systems and Antennas and Wave Guide

C. *Fire Alarm Systems-installation, wire pulling and testing.

D. Television and Video Systems Television Monitoring and Surveillance Systems Video Security Systems Video Entertainment Systems Video Educational Systems CATV and CCTV

E. Security Systems, Perimeter Security Systems, Vibration

Sensor Systems

Sonar/Infrared Monitoring Equipment, Access Control Systems,

Card Access Systems

*Fire Alarm Systems

1. Fire Alarms-In Raceways: Wire and cable pulling in raceways performed at the current electrician wage rate and fringe benefits.

2. Fire Alarms-Open Wire Systems: installed by the Technician.

ELEC1245-001 06/01/2022

Rates Fringes

LINE CONSTRUCTION

(1) Lineman; Cable splicer..\$ 64.40 22.58

(2) Equipment specialist

(operates crawler

tractors, commercial motor

vehicles, backhoes,

trenchers, cranes (50 tons

and below), overhead &

underground distribution

line equipment).....\$ 50.00 21.30

(3) Groundman.....\$ 38.23 20.89

(4) Powderman.....\$ 51.87 18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2023

Rates Fringes

ELEVATOR MECHANIC.....\$ 63.95 37.335+a+b

FOOTNOTE:

a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.

b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/01/2022

Rates Fringes

OPERATOR: Power Equipment

(All Other Work)

GROUP 1.....\$ 51.90 30.70

GROUP 2.....	\$ 52.68	30.70
GROUP 3.....	\$ 52.97	30.70
GROUP 4.....	\$ 54.46	30.70
GROUP 5.....	\$ 48.96	25.25
GROUP 6.....	\$ 54.68	30.70
GROUP 8.....	\$ 54.79	30.70
GROUP 9.....	\$ 49.29	25.25
GROUP 10.....	\$ 54.91	30.70
GROUP 11.....	\$ 49.41	25.25
GROUP 12.....	\$ 55.08	30.70
GROUP 13.....	\$ 55.18	30.70
GROUP 14.....	\$ 55.21	30.70
GROUP 15.....	\$ 55.29	30.70
GROUP 16.....	\$ 55.41	30.70
GROUP 17.....	\$ 55.58	30.70
GROUP 18.....	\$ 55.68	30.70
GROUP 19.....	\$ 55.79	30.70
GROUP 20.....	\$ 55.91	30.70
GROUP 21.....	\$ 56.08	30.70
GROUP 22.....	\$ 56.18	30.70
GROUP 23.....	\$ 56.29	30.70
GROUP 24.....	\$ 56.41	30.70
GROUP 25.....	\$ 56.58	30.70

OPERATOR: Power Equipment

(Cranes, Piledriving &

Hoisting)

GROUP 1.....	\$ 53.25	30.70
GROUP 2.....	\$ 54.03	30.70
GROUP 3.....	\$ 54.32	30.70

GROUP 4.....	\$ 54.46	30.70
GROUP 5.....	\$ 54.68	30.70
GROUP 6.....	\$ 54.79	30.70
GROUP 7.....	\$ 54.91	30.70
GROUP 8.....	\$ 55.08	30.70
GROUP 9.....	\$ 55.25	30.70
GROUP 10.....	\$ 56.25	30.70
GROUP 11.....	\$ 57.25	30.70
GROUP 12.....	\$ 58.25	30.70
GROUP 13.....	\$ 59.25	30.70

OPERATOR: Power Equipment

(Tunnel Work)

GROUP 1.....	\$ 54.53	30.70
GROUP 2.....	\$ 54.82	30.70
GROUP 3.....	\$ 54.96	30.70
GROUP 4.....	\$ 55.18	30.70
GROUP 5.....	\$ 55.29	30.70
GROUP 6.....	\$ 55.41	30.70
GROUP 7.....	\$ 55.71	30.70

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material

environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder

machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld

150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator;

Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less than 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth-moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self-loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote-control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator,

operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and

similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem

push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along

south boundary of T11N, SBM to SW corner of T11N, R7W, SBM.
Continue S to SW corner of T9N, R7W, SBM. Continue E along
south boundary of T9N, SBM to SW corner of T9N, R1E, SBM.
Continue S along west boundary of R1E, SMB to Riverside County
line at the SW corner of T1S, R1E, SBM. Continue E along south
boundary of T1s, SBM (Riverside County Line) to SW corner of
T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to
Imperial County line at the SW corner of T8S, R10E, SBM.
Continue W along Imperial and Riverside county line to NW
corner of T9S, R9E, SBM. Continue S along the boundary between
Imperial and San Diego Counties, along the west edge of R9E,
SBM to the south boundary of Imperial County/California state
line. Follow the California state line west to Arizona state
line, then north to Nevada state line, then continuing NW back
to start at the point which is the NW corner of Section 1,
T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO,
KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5
miles north of the community of Cholame, on the Monterey County
and San Luis Obispo County boundary at the NW corner of T25S,
R16E, Mt. Diablo Meridian. Continue south along the west side
of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW
corner of T30S, R17E, MDM. Continue S to SW corner of T31S,
R17E, MDM. Continue E to SW corner of T31S, R18E, MDM.
Continue S along West side of R18E, MDM as it crosses into San
Bernardino Meridian numbering area and becomes R30W. Follow

the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a thin strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the

intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2023

Rates Fringes

OPERATOR: Power Equipment

(DREDGING)

(1) Leverman.....	\$ 64.10	34.60
(2) Dredge dozer.....	\$ 58.13	34.60
(3) Deckmate.....	\$ 58.02	34.60
(4) Winch operator (stern winch on dredge).....	\$ 57.47	34.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 56.93	34.60
(6) Barge Mate.....	\$ 57.54	34.60

IRON0433-006 01/01/2024

Rates Fringes

IRONWORKER

Fence Erector.....	\$ 42.53	26.26
Ornamental, Reinforcing and Structural.....	\$ 47.45	34.90

PREMIUM PAY:

\$9.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval
Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training

Center-Goldstone, San Clemente Island, San Nicholas Island,
 Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine
 Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB
 Army Defense Language Institute - Monterey, Fallon Air Base,
 Naval Post Graduate School - Monterey, Yermo Marine Corps
 Logistics Center
 Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

 LABO0300-001 07/01/2022

	Rates	Fringes
Brick Tender.....	\$ 37.32	21.45

 LABO0300-003 07/01/2022

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 45.68	23.30
GROUP 2.....	\$ 46.00	23.30
GROUP 3.....	\$ 46.46	23.30
GROUP 4.....	\$ 47.15	23.30
LABORER		
GROUP 1.....	\$ 36.39	21.04
GROUP 2.....	\$ 36.94	21.04
GROUP 3.....	\$ 37.49	21.04

GROUP 4.....	\$ 39.04	21.04
GROUP 5.....	\$ 39.39	21.04

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane

and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services;

Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing;

Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars;; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0300-005 08/01/2022

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 39.23	23.28

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/01/2022

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 48.50	21.37
GROUP 2.....	\$ 47.55	21.37
GROUP 3.....	\$ 44.01	21.37

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable

classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LABO1184-001 07/01/2022

Rates Fringes

Laborers: (HORIZONTAL
DIRECTIONAL DRILLING)

(1) Drilling Crew Laborer...	\$ 40.69	18.25
(2) Vehicle Operator/Hauler.	\$ 40.86	18.25

(3) Horizontal Directional

Drill Operator.....\$ 42.71 18.25

(4) Electronic Tracking

Locator.....\$ 44.71 18.25

Laborers: (STRIPING/SLURRY

SEAL)

GROUP 1.....\$ 41.90 21.32

GROUP 2.....\$ 43.20 21.32

GROUP 3.....\$ 45.21 21.32

GROUP 4.....\$ 46.95 21.32

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble

and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

 LABO1414-001 08/03/2022

Rates Fringes

LABORER

PLASTER CLEAN-UP LABORER....\$ 38.92	23.32
PLASTER TENDER.....\$ 41.47	23.32

Work on a swing stage scaffold: \$1.00 per hour additional.

 PAIN0036-001 07/01/2023

Rates Fringes

Painters: (Including Lead
Abatement)

(1) Repaint (excludes San Diego County).....	\$ 29.59	17.12
(2) All Other Work.....	\$ 38.52	18.64

REPAINT of any previously painted structure. Exceptions:
work involving the aerospace industry, breweries,
commercial recreational facilities, hotels which operate
commercial establishments as part of hotel service, and
sports facilities.

PAIN0036-006 09/01/2022

Rates Fringes

DRYWALL FINISHER/TAPER

Antelope Valley North of the following Boundary: Kern County Line to Hwy. #5, South on Hwy. #5 to Hwy. N2, East on N2 to Palmdale Blvd., to Hwy. #14, South to Hwy. #18, East to Hwy. #395.....	\$ 42.15	23.52
Remainder of Los Angeles		

County.....\$ 46.28 23.52

PAIN0036-015 01/01/2020

Rates Fringes

GLAZIER.....\$ 43.45 23.39

FOOTNOTE: Additional \$1.25 per hour for work in a condor,
from the third (3rd) floor and up Additional \$1.25 per
hour for work on the outside of the building from a swing
stage or any suspended contrivance, from the ground up

PAIN1247-002 01/01/2023

Rates Fringes

SOFT FLOOR LAYER.....\$ 41.60 16.38

PLAS0200-009 08/03/2022

Rates Fringes

PLASTERER.....\$ 47.37 19.64

PLAS0500-002 07/01/2020

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...\$ 38.50 25.91

PLUM0016-001 09/01/2023

Rates Fringes

PLUMBER/PIPEFITTER

Work ONLY on new additions
and remodeling of bars,
restaurant, stores and
commercial buildings not
to exceed 5,000 sq. ft. of
floor space.....\$ 53.51 25.28

Work ONLY on strip malls,
light commercial, tenant
improvement and remodel
work.....\$ 42.49 23.86

All other work except work
on new additions and
remodeling of bars,
restaurant, stores and
commercial buildings not
to exceed 5,000 sq. ft. of
floor space and work on
strip malls, light
commercial, tenant
improvement and remodel
work.....\$ 55.18 26.26

PLUM0345-001 09/01/2023

Rates Fringes

PLUMBER

Landscape/Irrigation Fitter.\$ 40.20 25.90
Sewer & Storm Drain Work....\$ 44.29 23.28

ROOF0036-002 08/13/2023

Rates Fringes

ROOFER.....\$ 46.02 20.05

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour ""pitch premium"" pay.

SFCA0669-013 01/01/2024

DOES NOT INCLUDE THE CITY OF POMONA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

Rates Fringes

SPRINKLER FITTER.....\$ 45.31 27.91

SFCA0709-005 09/01/2023

THE CITY OF POMOMA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

Rates Fringes

SPRINKLER FITTER (Fire).....\$ 54.29 32.00

SHEE0105-002 07/01/2023

LOS ANGELES (South of a straight line between Gorman and Big Pines including Catalina Island)

Rates Fringes

SHEET METAL WORKER

(1) Light Commercial: Work on general sheet metal and heating and AC up to 4000 sq ft.....\$ 33.10 10.56

(2) Modernization :

Excluding New Construction

- Under 5000 sq. ft. Does

not include modification,

upgrades, energy

management, or

conservation improvements

of central heating and AC

equipment.....\$ 33.10 10.56

SHEE0105-003 01/01/2024

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines)and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

Rates Fringes

SHEET METAL WORKER

(1) Commercial - New

Construction and Remodel

work.....\$ 56.95 30.04

(2) Industrial work

including air pollution

control systems, noise

abatement, hand rails,

guard rails, excluding

aritechtural sheet metal

work, excluding A-C,

heating, ventilating
 systems for human comfort...\$ 56.95 30.04

SHEE0105-004 07/01/2023

KERN (Excluding portion East of Hwy 395) & LOS ANGELES (North
 of a straight line drawn between Gorman and Big Pines including
 Cities of Lancaster and Palmdale) COUNTIES

Rates Fringes

SHEET METAL WORKER.....\$ 45.98 29.24

TEAM0011-002 07/01/2023

Rates Fringes

TRUCK DRIVER

GROUP 1.....	\$ 38.19	33.69
GROUP 2.....	\$ 38.34	33.69
GROUP 3.....	\$ 38.47	33.69
GROUP 4.....	\$ 38.66	33.69
GROUP 5.....	\$ 38.69	33.69
GROUP 6.....	\$ 38.72	33.69
GROUP 7.....	\$ 38.97	33.69
GROUP 8.....	\$ 39.22	33.69
GROUP 9.....	\$ 39.42	33.69
GROUP 10.....	\$ 39.72	33.69

GROUP 11.....	\$ 40.22	33.69
GROUP 12.....	\$ 40.65	33.69

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB,
 El Centro Naval Facility, Fort Irwin, Marine Corps
 Logistics Base at Nebo & Yermo, Mountain Warfare Training
 Center, Bridgeport, Point Arguello, Point Conception,
 Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2
 axles; Traffic control pilot car excluding moving heavy
 equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3
 axles; Boot person; Cement mason distribution truck; Fuel
 truck driver; Water truck - 2 axle; Dump truck, less than
 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete
 truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work;
Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver;
Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses

(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1,

2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate

that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage

payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO. 4

Owner: Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC
Treatment and Disinfection Facility Project

To: All Planholders

From: Hazen and Sawyer

Bid Date: March 8, 2024 at 5:00 PM (Pacific Time)

Notice is hereby given to prospective bidders that the Plans and Specifications for T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC Treatment and Disinfection Facility Project dated December 2023, have been modified as hereinafter set forth. This Addendum No. 4 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 4 in the space below. This page AD 4-1 shall be attached to the Bid.

By: Ali Rahimian-Pour
Hazen and Sawyer

Date: 2/15/2024



ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 4 (Pages AD 4-1 through AD 4-10).

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents. All other provisions remain the same.

Addendum 4, ITEM 1. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.04.B.2, Page 11

DELETE in its entirety and REPLACE with the following:

“2. The brine metering pump shall be a diaphragm pump.”

Addendum 4, ITEM 2. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.05.B.1, Page 12

DELETE in its entirety and REPLACE with the following:

“1. Enclosure shall be NEMA 4, carbon steel with coating(s) for corrosion resistance with forced air cooling.”

Addendum 4, ITEM 3. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.08.A.4, Page 17

DELETE in its entirety and REPLACE with the following:

“4. Each blower shall be sized with adequate air flow capacity to maintain the concentration of Hydrogen gas in the tank to below 1% in air.”

Addendum 4, ITEM 4. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 2 – PRODUCTS, 2.09.B.1, Page 22

DELETE in its entirety and REPLACE with the following:

“1. The generator control panel enclosure shall be NEMA 4 painted carbon steel with lockable disconnect.”

Addendum 4, ITEM 5. SPECIFICATION DIVISION 13, SECTION 13150 – ON-SITE SODIUM HYPOCHLORITE GENERATION AND FEED SYSTEM, PART 3 – EXECUTION, 3.05.C.1.c, Page 24

DELETE in its entirety and REPLACE with the following:

“c. Samples shall be analyzed for available chlorine concentration by chemical titration.”

Addendum 4, ITEM 6. SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.B, Page 5

DELETE in its entirety and REPLACE with the following:

“4. Carbon slurry out – 4 inch”

Addendum 4, ITEM 7. SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.F, Page 6

DELETE in its entirety and REPLACE with the following:

“F. Pressure Vessel Ports and Nozzles: All port and nozzle connections shall be flush on the inside of the shell and provided with 150-pound full face flanges on the outside. Steel flanges shall conform to AWWA C207 for steel ring flanges, Class D. Bolts and nuts for flanges shall be hot dip galvanized grade 5, ASTM A307 grade B zinc plated, or HDG A325. Gaskets shall be ring face, EPDM rubber, 1/8inch thick, and NSF-61 certified.”

Addendum 4, ITEM 8. SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.I, Page 6

DELETE in its entirety the first sentence and REPLACE with the following:

“I. Underdrain Collection System: Provide one of the following two configurations:”

Addendum 4, ITEM 9. SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.J, Page 7

DELETE in its entirety and REPLACE with the following:

“J. GAC Transfer Piping: GAC fill and GAC drain piping and the shut-off valve and fittings shall be Type 316L stainless steel as specified in Section 15012. 316L Stainless steel ball valves for GAC fill and drain lines shall be 4-inch diameter Class 150 full port valves with 316L flanges and stems, and with TFE seats and seals.”

Addendum 4, ITEM 10.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.K, Page 7

DELETE in its entirety and REPLACE with the following:

“K. Transfer Hose Connectors: The GAC transfer piping shall be fitted with hose connectors such that GAC transfer to and from the pressure vessels can be facilitated with transfer hoses. These connectors shall be 4-inch quick disconnect adapters constructed of Type 316 stainless steel as manufactured by OPW Division of Dover Corporation as Kamlock Part No. 633-F, or equal.”

Addendum 4, ITEM 11.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.L, Page 7

DELETE in its entirety and REPLACE with the following:

“L. Flush Connections: One flush connection shall be provided on each GAC fill and GAC drain line. Flush connections shall consist of a short section of 3/4-inch pipe and a 3/4-inch full port ball valve and 3/4-inch quick disconnect adapter to match air hose fittings.”

Addendum 4, ITEM 12.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.P, Page 7

DELETE in its entirety and REPLACE with the following:

“P. Air Release Valve: A minimum 1-inch combination air release valve shall be provided per vessel inlet piping as specified in Section 15113 – Air Valves for Water Service. Each combination air release valve should include a 1” release drain line routed vertically to ground.”

Addendum 4, ITEM 13.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.Q, Page 7

DELETE in its entirety and REPLACE with the following:

“Q. Butterfly Valves: Butterfly valves shall be nondirectional, wafer type, lugged type, or short body, flanged type, and rating for minimum working differential pressure across the valve disc shall be 125 psi. Flanged ends shall be Class 150, ANSI B16.1. Valve stems shall be Type 416 or 316 stainless steel. Materials of construction shall be as follows:

Component	Material	Specification
Body	Cast iron or Ductile iron	ASTM A48, Class 20, ASTM A 126, Class B; or ASTM A 536, Grade 54-45-
Discs	Stainless steel	ASTM B 148, ASTM A 536, Grade 65-45-12
Seat material	EPDM	--

Addendum 4, ITEM 14.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.R, Page 7

DELETE in its entirety and REPLACE with the following:

“R. Pressure Relief: pressure relief valves shall be designed to protect against overtemperature expansion while isolated from the system and from extreme system pressure excursions. The pressure relief system shall consist of one or more pressure-relief valves with pressure switch sized to maintain a pressure less than the maximum allowable working pressure at a flow rate of 1,100 gpm. Valve shall be ANSI Class 150, ductile iron body, and bronze main valve trim. Valve shall be Cla-Val. Clayton 50 01 BKH, or equal.”

Addendum 4, ITEM 15.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC
SYSTEM, PART 2 – PRODUCTS, 2.02.U, Page 8

DELETE in its entirety and REPLACE with the following:

“U. Sampling Ports: Unless indicated otherwise, pressure vessels shall be outfitted with ½” 316 stainless steel tubing sampling ports in the locations listed below. Sample ports shall include dual ½” Type 316 stainless steel ball valves. Sample port discharge tubing shall be turned downward and extend down to three feet above finished floor.

1. Provide three 2-inch flanged nozzles at the 25%, 50%, and 75% depth of the IX media. Equip each nozzle with a ¾-inch 316 stainless steel sample probe welded to and penetrating a 2-inch carbon steel blind flange mounted on the nozzle. The probes shall extend horizontally approximately 12 inches into the IX and be capped with a stainless steel wedge wire screen sized to retain the IX. A 316 stainless steel full port ball valve shall be attached to the sample probe and capped with a blind flange.
2. GAC inlet to each pressure vessel
3. GAC treated water from each pressure vessel, on the section of pipe connecting each vessel to the valve tree

Addendum 4, ITEM 16.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC
SYSTEM, PART 2 – PRODUCTS, 2.02.W, Page 8

ADD the following:

“W. Provide restrained flanged couplings at the influent pipe connections from the valve manifold to the GAC pressure vessels per the drawings.”

Addendum 4, ITEM 17.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.X, Page 8

ADD the following:

- “X. Miscellaneous Piping and Fittings:
1. Piping Larger than Two Inches
 - a. Unless otherwise specified, piping shall be Schedule 40 carbon steel conforming to ASTM A 53, Grade B, Type E or S.
 - b. Fittings shall be flanged or welded.
 2. Piping 2 Inches and Smaller
 - a. Unless otherwise specified, piping shall be Schedule 40 carbon steel conforming to ASTM A 53, Grade B, Type E or S., or Schedule 10 Stainless Steel 316 piping.
 - b. Fittings shall be screwed, welded, or flanged.”

Addendum 4, ITEM 18.

SPECIFICATION DIVISION 13, SECTION 13204 – GAC SYSTEM, PART 2 – PRODUCTS, 2.02.Y, Page 8

ADD the following:

- “Y. Miscellaneous Fittings
1. Threaded fittings shall be Sch 40, conforming to ANSI B16.3 or forged steel fittings conforming to ANSI 16.11.
 2. Butt-welded steel fittings shall be carbon steel pipe of the same wall thickness as adjoining pipes conforming to ASTM 234 WPB and ANSI B16.9.”

Addendum 4, ITEM 19.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.3.C, Page 6

DELETE in its entirety and REPLACE with the following:

“C. Hose Connections: Provide 4-inch diameter 316SS camlock quick connects.”

Addendum 4, ITEM 20.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.4.D, Page 7

DELETE in its entirety and REPLACE with the following:

“D. All piping and valve interiors shall be coated per Specification Section 09960, System 5M. Exterior coating shall be per information provided in Appendix J.”

Addendum 4, ITEM 21.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.6.C.2, Page 8

DELETE table in its entirety and REPLACE with the following:

“2. Butterfly Valves: Butterfly valves shall be nondirectional, wafer type, lugged type, or short body, flanged type, and rating for minimum working differential pressure across the valve disc shall be 200 psi. Flanged ends shall be Class 150, ANSI B16.1. Valve stems shall be Type 416 or 316 stainless steel. Materials of construction shall be as follows:

<u>Component</u>	<u>Material</u>	<u>Specification</u>
Body	Cast iron or Ductile iron	ASTM A48, Class 20, ASTM A 126, Class B; or ASTM A 536, Grade 54-45-
Discs	Stainless steel	ASTM B 148, ASTM A 536, Grade 65-45-12
Seat material	EPDM	--

Addendum 4, ITEM 22.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.6.C.4, Page 9

DELETE in its entirety and REPLACE with the following:

“4. Combination Air Valves / Air Release Valves: Shall be provided per Specification 15113. A minimum 1” combination valve shall be supplied on top of each of the IX vessels as shown on the drawings. A minimum 1” air release valve shall be provided per vessel inlet piping as shown on the drawings. Vent line from valves shall be piped to convenient location near the front of the vessel with a shut off valve.

Addendum 4, ITEM 23.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.6.C.5, Page 9

DELETE in its entirety and REPLACE with the following:

- “5. Pressure Relief: Exchange vessel pressure relief shall be designed to protect against overtemperature expansion while isolated from the system and from extreme system pressure excursions. The pressure relief system shall consist of:
- a. Each vessel influent line shall be provided with a 4” pressure relief valve with pressure switch.
 - b. Valve shall be ANSI Class 150, ductile iron body, and bronze main valve trim. Valve shall be Cla-Val. Clayton 50 01 BKH, or equal.

Addendum 4, ITEM 24.

SPECIFICATION DIVISION 13, SECTION 13206 – ION EXCHANGE SYSTEM, PART 2 – PRODUCTS, 2.6.D.2, Page 9

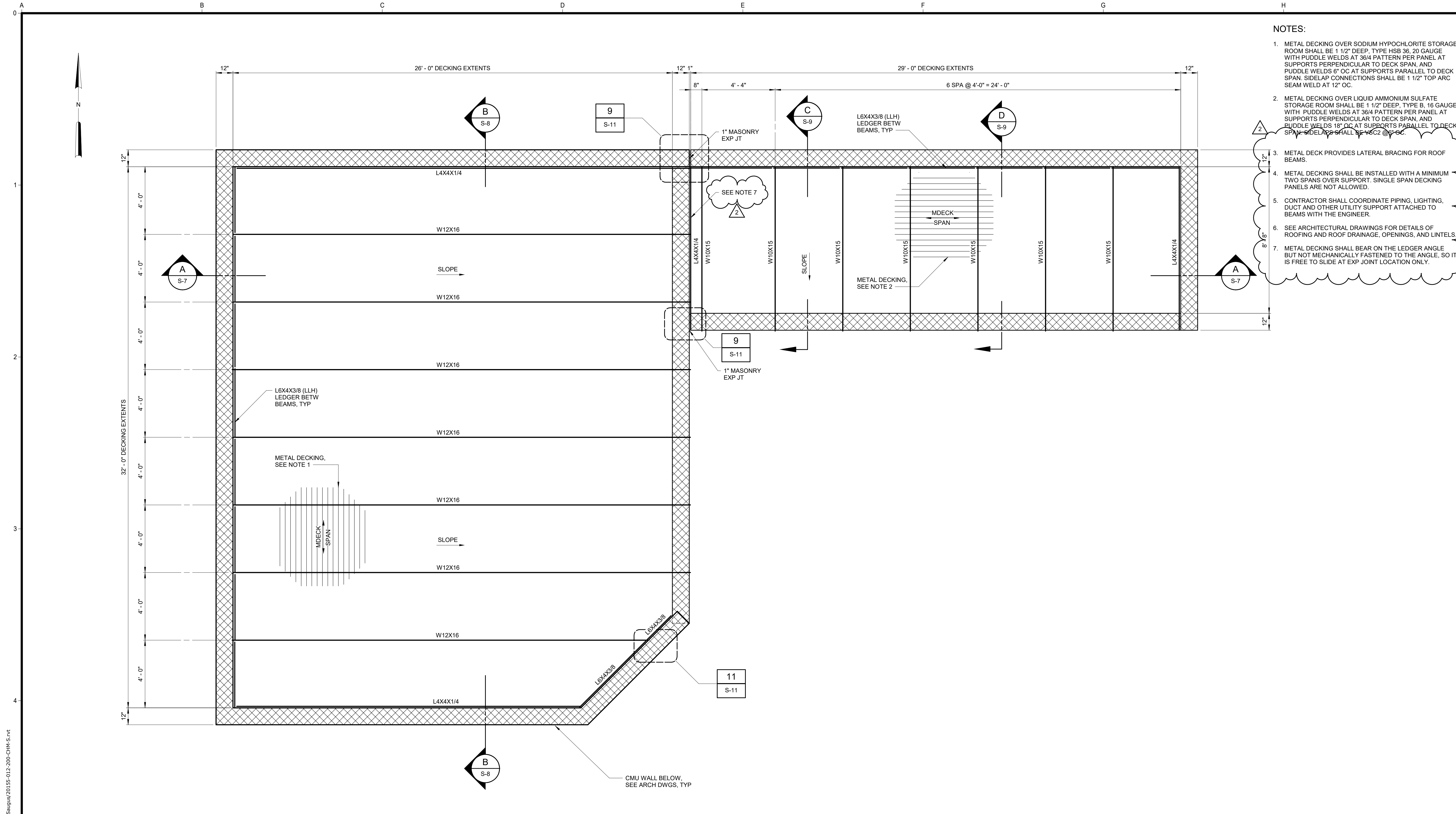
DELETE in its entirety and REPLACE with the following:

- “2. Transfer Hose Connectors: The IX Slurry piping shall be fitted with hose connectors, such that IX Resin transfer to and from the exchange vessels can be facilitated with transfer hoses. These connectors shall be 4-inch quick disconnect adapters constructed of 316 stainless steel as manufactured by OPW Division of Dover Corporation as Kamlock Part No. 633-F, or equal.”

Addendum 4, ITEM 25.

DRAWINGS

REPLACE Drawing S-6 with the REVISED drawing attached.



- NOTES:**
- METAL DECKING OVER SODIUM HYPOCHLORITE STORAGE ROOM SHALL BE 1 1/2" DEEP, TYPE HSB 36, 20 GAUGE WITH PUDDLE WELDS AT 3/8" PATTERN PER PANEL AT SUPPORTS PERPENDICULAR TO DECK SPAN, AND PUDDLE WELDS 6" OC AT SUPPORTS PARALLEL TO DECK SPAN. SIDELAP CONNECTIONS SHALL BE 1 1/2" TOP ARC SEAM WELD AT 12" OC.
 - METAL DECKING OVER LIQUID AMMONIUM SULFATE STORAGE ROOM SHALL BE 1 1/2" DEEP, TYPE B, 16 GAUGE WITH PUDDLE WELDS AT 3/8" PATTERN PER PANEL AT SUPPORTS PERPENDICULAR TO DECK SPAN, AND PUDDLE WELDS 18" OC AT SUPPORTS PARALLEL TO DECK SPAN. SIDELAP SHALL BE 1/8" @ 12" OC.
 - METAL DECK PROVIDES LATERAL BRACING FOR ROOF BEAMS.
 - METAL DECKING SHALL BE INSTALLED WITH A MINIMUM TWO SPANS OVER SUPPORT. SINGLE SPAN DECKING PANELS ARE NOT ALLOWED.
 - CONTRACTOR SHALL COORDINATE PIPING, LIGHTING, DUCT AND OTHER UTILITY SUPPORT ATTACHED TO BEAMS WITH THE ENGINEER.
 - SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF ROOFING AND ROOF DRAINAGE, OPENINGS, AND LINTELS.
 - METAL DECKING SHALL BEAR ON THE LEDGER ANGLE BUT NOT MECHANICALLY FASTENED TO THE ANGLE, SO IT IS FREE TO SLIDE AT EXP JOINT LOCATION ONLY.

ROOF PLAN
3/8" = 1'-0"

REVISIONS				SCALES	DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: JANUARY 2024
NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCWWA: 2400420		
2	ADDENDUM 4	2/12	SPD	IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	CHECKED BY: W. DRESSLER	HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618	STRUCTURAL CHEMICAL BUILDING ROOF PLAN		SHEET: S-6	
1	ADDENDUM 2	1/24	SPD							

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHA-S.rvt 2/12/2024 3:13:30 PM

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO.5

Owner: Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC Treatment and New Disinfection Facility Project


To: All Planholders

From: Santa Clarita Valley Water Agency

Bid Date: March 8, 2024, at 5:00 PM

Notice is hereby given to prospective bidders that the Contract Documents for the T7, U4, U6 Wells PFAS Treatment, Saugus 1 and Saugus 2 Wells VOC Treatment and New Disinfection Facility Project, dated December 18, 2023, have been modified as hereinafter set forth. This Addendum No. 5 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 5 in the space below. This page AD 5-1 shall be attached to the Bid.

By:  _____
Orlando Moreno , P.E., Principal Engineer
Santa Clarita Valley Water Agency

Date: 2/16/2024

ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 5 (pages AD 5-1 through AD 5-4).

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents and previous Addenda, as applicable. All other provisions remain the same.

ADDENDUM 5, ITEM 1. CONTRACT DOCUMENTS, INSTRUCTIONS TO BIDDERS-
PARAGRAPH IB-06

ADD the following item to the bid form list:

“Fleet Compliance Certification”

ADDENDUM 5, ITEM 2. CONTRACT DOCUMENTS, INSTRUCTIONS TO BIDDERS

ADD the following new paragraph after paragraph “IB-27”:

“IB-28 CARB COMPLIANCE

The AGENCY is a Public Works Awarding Body, as defined under Title 13 California Code of Regulations section 2449(c)(46). Accordingly, Bidders must submit, with their Bids, valid Certificates of Reported Compliance (“CRC”) for the Bidder’s fleet and for the fleet(s) of its listed subcontractors (including any applicable leased equipment or vehicles). Bidder must additionally complete and submit the Fleet Compliance Certification, included in the Bid Documents. Failure to provide a CRC for the Bidder, and for all listed subcontractors, or failure to complete the Fleet Compliance Certification, may render the Bid non-responsive.”

ADDENDUM 5, ITEM 3. CONTRACT DOCUMENTS, BID FORM

ADD the following bid form:

FLEET COMPLIANCE CERTIFICATION, Addendum No. 5

ADDENDUM 5, ITEM 4. CONTRACT DOCUMENTS, GENERAL CONDITIONS-GC-59.
COMPLIANCE WITH ENVIRONMENTAL LAWS

ADD the following paragraph:

“d. CARB Compliance

CONTRACTOR shall comply, and shall ensure all subcontractors comply, with all applicable requirements of the most current version of the regulations imposed by California Air Resources Board (“CARB”) including, without limitation, all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments (“Regulation”).

Throughout the Project, and for three (3) years thereafter, CONTRACTOR shall make available for inspection and copying any and all documents or information associated with CONTRACTOR’S and its subcontractors’ fleets including, without limitation, the Certificates of Reported Compliance (“CRCs”), fuel/refueling records, maintenance records, emissions records, and any other information the CONTRACTOR is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days’ notice from the AGENCY.

CONTRACTOR shall be solely liable for any and all costs associated with compliance with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation. CONTRACTOR shall defend, indemnify and hold harmless the AGENCY, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation.”

FLEET COMPLIANCE CERTIFICATION-(Addendum No. 5)

Bidder hereby acknowledges that they have reviewed the California Air Resources Board's policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Bidder hereby certifies, subject to penalty for perjury, that the option checked below relating to the Bidder's fleet, and/or that of their subcontractor(s) ("Fleet") is true and correct:

The Fleet is subject to the requirements of the Regulation, and the appropriate Certificate(s) of Reported Compliance have been attached hereto.

The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.

Bidder and/or their subcontractor is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Bidder shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).

The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Bidder shall only operate the exempted vehicles in the emergency situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).

The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.

Name of Bidder: _____

Signature: _____

Name: _____

Title: _____

Date: _____

**SANTA CLARITA VALLEY WATER AGENCY
NOTICE TO PLANHOLDERS**

ADDENDUM NO. 6

Owner: Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350

Project: T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC
Treatment and Disinfection Facility Project

To: All Planholders

From: Hazen and Sawyer

Bid Date: March 8, 2024 at 5:00 PM (Pacific Time)

Notice is hereby given to prospective bidders that the Plans and Specifications for T7, U4, U6 Wells PFAS Treatment, Saugus 1 and 2 Wells VOC Treatment and Disinfection Facility Project dated December 2023, have been modified as hereinafter set forth. This Addendum No. 6 shall form a part of the Contract Documents and the modifications indicated herein shall take precedence over the original Contract Documents, as applicable. All other provisions shall remain the same.

Bidder shall acknowledge receipt of this Addendum No. 6 in the space below. This page AD 6-1 shall be attached to the Bid.

By: Ali Rahimian-Pour
Hazen and Sawyer

Date: 2/22/2024



ACKNOWLEDGEMENT TO BE ATTACHED TO SEALED BID.

I have received Addendum No. 6 (Pages AD 6-1 through AD 6-72).

Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GENERAL: The following changes, additions, or deletions shall be made to the following documents as noted and shall take precedence over the original Contract Documents. All other provisions remain the same.

Addendum 6, ITEM 1. TABLE OF CONTENTS – DIVISION 16 – ELECTRICAL, TOC-4, Page 4:

ADD the following specification to the list:

“16461 – Dry Type Distribution Transformers”

Addendum 6, ITEM 2. TABLE OF CONTENTS – APPENDICES, TOC-6, Page 6:

ADD the following appendix to the list:

“APPENDIX N - Groundwater Containment, Treatment and Restoration Project As-Built Drawings”

Addendum 6, ITEM 3. SPECIFICATION DIVISION 02, SECTION 02050 – DEMOLITION, PART 2 – EXECUTION, 2.02, Page 2

ADD the following item:

“C. Contractor is responsible for removing and disposing of the chemicals in the existing storage tanks and piping, Refer to Appendix N – Groundwater Containment, Treatment and Restoration Project As-Built Drawings for the as-built drawings showing the capacity of the chemical tanks. Sulfuric acid tank does not contain acid, it has holds waste from the monochloramine analyzer (this waste cannot be sent to storm drain).”

Addendum 6, ITEM 4.

SPECIFICATION DIVISION 15, SECTION 15390 – PIPING AND VALVING SCHEDULES, PIPING SYSTEM SCHEDULE:

DELETE in its entirety and REPLACE with the following:

WATER TREATMENT PLANT PIPING SCHEDULE								
PIPE DESIGNATIONS		BURIED PIPING			EXPOSED PIPING			WORKING PRESSURE (PSI)
		MATERIAL	TYPE OF JOINT	CLASS/DESIGN	MATERIAL	TYPE OF JOINT	CLASS/DESIGN	
CF INF	CARTRIDGE FILTER INFLUENT	DUCTILE IRON	RESTRAINED MJ	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15012	200
IX INF	ION EXCHANGE INFLUENT	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15012	200
IX EFF	ION EXCHANGE EFFLUENT	DUCTILE IRON	RESTRAINED MJ	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15012	200
IX FTW	ION EXCHANGE FILTER TO WASTE	DUCTILE IRON	RESTRAINED MJ	SECTION 15006	CARBON STEEL	WELDED/RESTRAINED/FLANGED ³	SECTION 15012	200
GAC INF	GAC INFLUENT	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15012	125
GAC EFF	GAC EFFLUENT	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	125
GAC BWS ⁴	GAC BACKWASH SUPPLY	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	150
GAC BWS ⁴	GAC BACKWASH SUPPLY	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	125
GAC BWW	GAC BACKWASH WASTE	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	125
SHC	SODIUM HYPOCHLORITE	PVC/CPVC ²	SOCKET	SCH 80	PVC/CPVC ²	SOCKET/FLANGED	SCH 80	200
LAS	LIQUID AMMONIUM SULFATE	PVC/CPVC ²	SOCKET	SCH 80	PVC/CPVC ²	SOCKET/FLANGED	SCH 80	200
D	DRAIN	DUCTILE IRON	RESTRAINED	SECTION 15009	DUCTILE IRON	RESTRAINED/FLANGED ³	SECTION 15006	75
BL	BLEND LINE	DUCTILE IRON	RESTRAINED	SECTION 15006	CARBON STEEL	WELDED/FLANGED ³	SECTION 15006	125
S	SAMPLE	< 4" PVC / CPVC ²	SOCKET	SCH 80	< 4" PVC / CPVC ²	SOCKET/FLANGED	SCH 80	200

- 1) Restraint system design pressure shall be equal to the sum of working pressure and surge pressure and shall be used to determine the size, number, material, and dimensions of tabs and threaded-rods for piping specified or shown to have threaded-rods for thrust restraint.
- 2) For all PVC / CPVC designations, if piping is exposed to direct sunlight or if heat tracing is required, CPVC shall be used. Otherwise, PVC shall be used.
- 3) Flanges shall be provided as shown on the drawings or as approved by the Engineer.
- 4) The working pressure for GAC BWS upstream of FCV-204 shall be 150psi. The working pressure downstream of FCV-204 shall be 125psi

Addendum 6, ITEM 5.

SPECIFICATION DIVISION 15, SECTION 15390 – PIPING AND VALVING SCHEDULES, ELECTRICALLY OPERATED VALVE SCHEDULE:

DELETE in its entirety and REPLACE with the following:

TAG NO.	VALVE TYPE	OPERATOR TYPE	SIZE (in.)	Working Pressure (PSI)	SERVICE	LOCATION
54-MOV-701	BUTTERFLY	OPEN/CLOSE	12	200	IX INF	IX INFLUENT TO IX VESSEL 1/2
54-MOV-703	BUTTERFLY	OPEN/CLOSE	12	200	IX INF	IX INFLUENT TO IX VESSEL 3/4
60-MOV-200	BUTTERFLY	OPEN/CLOSE	10	125	GAC EFF	GAC EFFLUENT PIPE
60-MOV-500	BUTTERFLY	OPEN/CLOSE	10	125	BL	BLEND LINE
60-MOV202 ¹	BUTTERFLY	MODULATING	8	125	GAC INF	GAC VESSEL #1 INFLUENT
60-MOV-203 ¹	BUTTERFLY	MODULATING	8	125	GAC INF	GAC VESSEL #2 INFLUENT
60-FCV-203	CLA-VAL	MODULATING	10	125	GAC BWS	GAC BACKWASH SUPPLY

1) Valves to be provided under the GAC System Vendor scope.

Addendum 6, ITEM 6.

SPECIFICATION DIVISION 15, SECTION 15390 – PIPING AND VALVING SCHEDULES, MANUAL VALVE SCHEDULE:

DELETE in its entirety and REPLACE with the following:

VALVE TYPE AND QUANTITY	OPERATOR TYPE	SIZE (in.)	WORKING PRESSURE (psi)	SERVICE	DRAWING
BUTTERFLY (3)	WHEEL	6	250	WELL U6 AND WELL T7 HEADER PIPING	I-3
BUTTERFLY (1)	WHEEL	10	250	WELL U6 HEADER PIPING	I-3
BUTTERFLY (4)	WHEEL	12	200	CARTRIDGE FILTER INFLUENT AND EFFLUENT ISOLATION	I-3
BUTTERFLY (5)	WHEEL	12	200	ION EXCHANGE EFFLUENT, AND FILTER TO WASTE TO BOTH IX VESSEL SYSTEMS	I-4
BUTTERFLY (5)	WHEEL	10	125	GAC INFLUENT, EFFLUENT, BACKWASH SUPPLY, AND BACKWASH WASTE; IX FTW FROM SAUGUS WELLS	I-5 , M-10
BUTTERFLY (1)	WHEEL	10	150	IX FTW Q2 WELLS PERCHLORATE TREATMENT	I-5, M-10
BUTTERFLY (1)	WHEEL	10	125	BLEND LINE	I-6

1) Valves to be provided as part of IX AND GAC System Vendor Scope not listed herein.

2) Valves under 6-inch and chemical system valves not listed herein.

3) Manual valves with wheel type operators shall require a chainwheel if located higher than 6 ft from the finish floor elevation as per the contract drawings.

4) Contractor is responsible for supplying all valves per the contract drawings even if not listed on this table. See civil drawings for gate valves needed at connection points outside of the facility.

Addendum 6, ITEM 7. SPECIFICATION DIVISION 16, SECTION 16461 – DRY TYPE DISTRIBUTION TRANSFORMERS

ADD the specification section attached in its entirety.

Addendum 6, ITEM 8. APPENDIX N GROUNDWATER CONTAINMENT, TREATMENT AND RESTORATION PROJECT AS-BUILT DRAWINGS

ADD the appendix attached in its entirety.

Addendum 6, ITEM 9. DRAWINGS

REPLACE Drawing S-7, S-9, and S-13 with the REVISED drawing attached.

SECTION 16461

DRY TYPE DISTRIBUTION TRANSFORMERS

PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall furnish, install, and test transformers for power and lighting distribution systems as specified herein, as indicated on the Drawings, and as required to complete the electrical installations.
- B. All equipment specified in this Section shall be furnished by the transformer manufacturer who shall be responsible for the suitability and compatibility of all included equipment.
- C. Reference Section 16000, Basic Electrical Requirements; and Section 16195, Electrical Identification.

1.02 CODES AND STANDARDS

- A. All equipment shall be Listed by and shall bear the Label of Underwriter's Laboratories, Incorporated (UL).
- B. Transformers shall be designed, manufactured, and/or Listed to the following standards as applicable:
 - 1. American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE):
 - a. ANSI/IEEE C57.12.01 – Standard for General Requirements for Dry -Type Distribution and Power Transformers.
 - 2. National Electrical Manufacturers Association (NEMA):
 - a. NEMA ST 20 – Dry Type Transformers for General Applications.
 - 3. National Fire Protection Association (NFPA):
 - a. NFPA 70 – National Electrical Code (NEC).
 - 4. Underwriters Laboratories (UL):
 - a. UL 1561 – Dry-Type General Purpose and Power Transformers.
 - 5. U.S. Department of Energy 2016 Efficiency Standards

1.03 SUBMITTALS

- A. In accordance with the procedures and requirements set forth in the General Conditions and Division 1, the Contractor shall obtain from the equipment manufacturer and submit the following:
 - 1. Shop Drawings.
 - 2. Operation and Maintenance Manuals.
 - 3. Spare Parts List.
 - 4. Reports of Certified Shop Field Tests.
- B. Each submittal shall be identified by the applicable specification section.

1.04 SHOP DRAWINGS

- A. Each submittal shall be complete in all respects, incorporating all information and data listed herein, and all additional information required for evaluation of the proposed equipment's compliance with the Contract Documents.
- B. Partial, incomplete, or illegible submittals will be returned to the Contractor without review for resubmittal.
- C. Shop drawings shall include but not be limited to:
 - 1. Product data sheets.
 - 2. Drawings showing clearly marked dimensions and weight for each transformer.
 - 3. Sample equipment nameplate diagram.
- D. The submittal information shall reflect the specific equipment identification number as indicated on the Drawings (e.g. TX-LP-GAC).
- E. The shop drawing information shall be complete and organized in such a way that the Engineer can determine if the requirements of these Specifications are being met. Copies of technical bulletins, technical data sheets from "soft-cover" catalogs, and similar information which is "highlighted" or somehow identifies the specific equipment items that the Contractor intends to provide are acceptable and shall be submitted.

1.05 OPERATION AND MAINTENANCE MANUALS

- A. The Contractor shall submit operation and maintenance manuals in accordance with the procedures and requirements set forth in the General Conditions and Division 1.

1.06 SPARE PARTS

- A. All spare parts as recommended by the equipment manufacturer shall be furnished to the Owner by the Contractor.
- B. Reference Section 16000, Basic Electrical Requirements for spare parts delivery and handling requirements.

1.07 IDENTIFICATION

- A. Each transformer shall be identified with the equipment item number indicated on the Contract Drawings and the accepted Shop Drawings. A nameplate shall be securely affixed in a conspicuous place on each transformer. Nameplates shall be as specified in Section 16195, Electrical - Identification.

PART 2 -- PRODUCTS

2.01 MANUFACTURERS

- A. The equipment covered by this Specification is intended to be standard equipment of proven performance as manufactured by reputable concerns. Equipment shall be designed, constructed, and installed in accordance with the best practices of the trade, and shall operate satisfactorily when installed as shown on the Drawings.
- B. Dry type distribution transformers shall be Energy Star compliant and manufactured by the Square D Company, GE by ABB, Eaton, or Siemens Energy and Automation, Inc.

2.02 DRY TYPE TRANSFORMERS

- A. Furnish and install single-phase and three-phase general purpose, dry-type transformers, as specified herein and indicated on the Drawings. The transformers shall be 60 Hz, self-cooled, quiet-design insulated of the two winding type.
- B. The transformers shall be UL 1561 Listed.
- C. The primary windings shall be rated 480 VAC for use on 3-phase systems and connected delta unless indicated otherwise on the Drawings. KVA ratings shall be as shown on the Drawings. Furnish transformers with two 2-1/2% primary taps above, and four 2-1/2% primary taps below rated voltage for transformers 15 KVA and above, and two 2-1/2% primary taps above, and two 2-1/2% primary taps below rated voltage for transformers less than 15 kVA. All taps shall be full capacity rated.
- D. The ratings of the secondary windings shall be as indicated on the Drawings.
- E. Transformers shall be designed for continuous operation at rated KVA, 24 hours a day, 365 days a year, with normal life expectancy as defined in IEEE 65 and ANSI C57.96. This performance shall be obtainable without exceeding 150 degrees Celsius average temperature rise by resistance or 180 degrees Celsius hot spot temperature rise in a 40 degrees Celsius maximum ambient and 30 degrees Celsius average ambient. The maximum coil hot spot temperature shall not exceed 220 degrees Celsius. All insulating materials shall be flame retardant and shall not support combustion as defined in ASTM Standard Test Method D 635. All insulating materials shall be in accordance with NEMA ST 20 Standard for a 220 degrees Celsius UL component recognized insulation system.
- F. Transformer coils shall be of the continuous wound copper construction and shall be impregnated with non-hygroscopic, thermosetting varnish.

- G. All cores are to be constructed of high grade, non-aging, grain-oriented silicon steel with high magnetic permeability and low hysteresis and eddy current losses. Magnetic flux densities are to be kept well below the saturation point. The core laminations shall be tightly clamped and compressed with structural steel angles. The completed core and coil shall then be bolted to the base by means of vibration-absorbing mounts to minimize sound transmission. There shall be no metal-to-metal contact between the core and coil assembly and the enclosure.
- H. All transformers shall be equipped with a wiring compartment suitable for conduit entry and large enough to allow convenient wiring. The maximum temperature of the enclosure shall not exceed 90 degrees Celsius. Transformers shall be furnished with lugs of the size and quantity required and suitable for termination of the field wiring.
- I. The core of the transformer shall be visibly grounded to the enclosure by means of a flexible grounding conductor sized in accordance with applicable NEMA, IEEE, and ANSI standards.
- J. Transformers shall have core and coil assemblies mounted on rubber isolation pads to minimize the sound levels. Transformers shall not exceed the sound levels listed in NEMA ST-20.
- K. Transformers shall be furnished with the following enclosure type and material of construction, dependent upon the designation of the area in which they are to be installed. Area designations are indicated on the Drawings.

AREA DESIGNATION	ENCLOSURE TYPE AND MATERIAL
Indoor Wet Process Area	NEMA 3R, Painted Steel
Indoor Dry Process Area	NEMA 2, Painted Steel
Indoor Dry Non-process Area	NEMA 2, Painted Steel
All Outdoor Areas	NEMA 3R, Painted Steel

- L. The enclosure shall be made of heavy gauge steel and shall be degreased, cleaned, primed, and finished with a baked weather-resistant enamel using the manufacturer's standard painting process. Color shall be ANSI 49 or ANSI 61 grey.

PART 3 -- EXECUTION

3.01 INSTALLATION

- A. The transformers shall be furnished and installed as shown on the Drawings and as recommended by the equipment manufacturer.
- B. Conduit routed to and from the transformer shall be arranged for easy removal of the transformer access covers.
- C. Where transformers 50 kVA and smaller are shown to be wall mounted, a transformer manufacturer supplied wall mounting kit shall be used. The lowest point of the wall mounting bracket shall be no lower than 7'-0" above the finished floor. Field fabricated mounting hardware is not acceptable unless reviewed and approved in writing by the Engineer.

- D. Prior to final completion of the work, all metal surfaces of the equipment shall be cleaned thoroughly, and all scratches and abrasions shall be retouched with the same lacquer as used for shop finishing coats.

3.02 TESTING

- A. All tests shall be performed in accordance with the requirements of the General Conditions and Division 1. The following tests are required:

- 1. Certified Shop Tests

- a. The transformers shall be given routine factory tests in accordance with the requirements of the ANSI and NEMA standards. Temperature rises may be certified from basic design.
- b. As a minimum, the following tests shall be made on all transformers:
 - i. Ratio tests on the rated voltage connection and on all tap connections.
 - ii. Polarity and phase-relation tests on the rated voltage connection.
 - iii. Applied potential tests.
 - iv. Induced potential tests.
 - v. No-load and excitation current at rated voltage on the rated voltage connection.

- 2. Field Tests

- a. Field testing shall be done in accordance with the requirements specified in the General Conditions, Division 1, and NETA Acceptance Testing Specifications, latest edition.
- b. Insulation between windings shall be tested by 1000 VDC Megohmmeter for one (1) minute. Resistance value shall be no less than 100 Megaohms.

- END OF SECTION -

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Appendix N

Groundwater Containment, Treatment and Restoration Project As-Built Drawings

CASTAIC LAKE WATER AGENCY GROUNDWATER CONTAINMENT, TREATMENT AND RESTORATION PROJECT

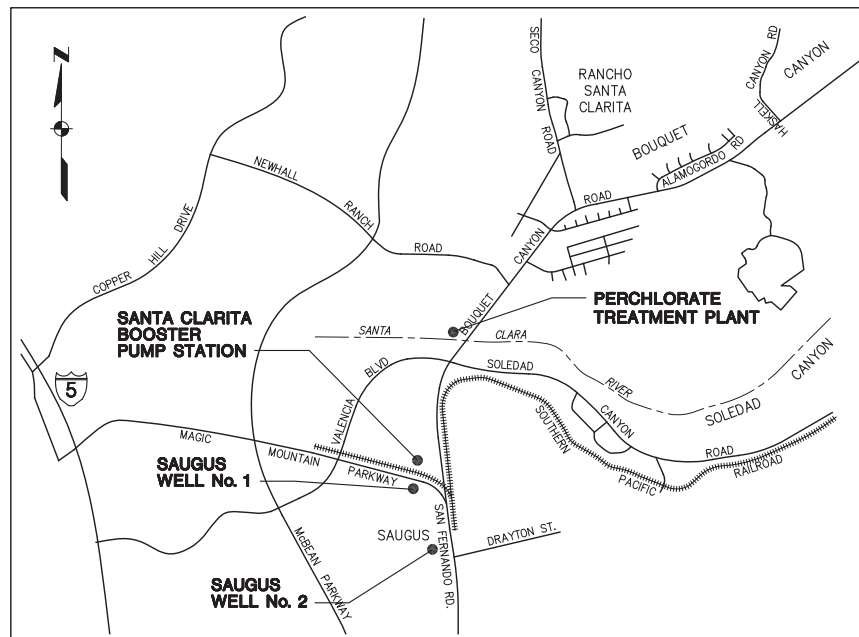
CL-118A
JUNE 2007

DMS# 104243

LIST OF DRAWINGS



VICINITY MAP
SCALE: 1" = 20 MILES



LOCATION MAP
NOT TO SCALE



DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS
BEFORE YOU DIG



UNDERGROUND SERVICE ALERT(USA) OF SOUTHERN CALIFORNIA

RECORD DRAWINGS

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DISCIPLINE	SHEET TITLE
GENERAL	
G-1	TITLE SHEET, VICINITY MAP, LOCATION MAP, AND LIST OF DRAWINGS
G-2	PIPING SYMBOLS, PIPING SCHEDULE, ABBREVIATIONS AND LEGEND
G-3	DESIGN BASIS
G-4	HYDRAULIC PROFILE
CIVIL	
C-1	EXISTING SITE PLAN / DEMOLITION PLAN
C-2	DEMOLITION PLAN EAST, SECTION AND CONNECTION DETAIL
C-3	SITE PLAN
C-4	SITE GRADING PLAN
C-5	SITE PIPING PLAN
C-6	SANTA CLARITA BOOSTER PUMP STATION - PLAN AND SECTIONS
C-7	MISCELLANEOUS DETAILS I
C-8	MISCELLANEOUS DETAILS II
ARCHITECTURAL	
A-1	CHEMICAL STORAGE BUILDING - PLAN, ELEVATIONS AND DETAILS
STRUCTURAL	
S-1	GENERAL STRUCTURAL NOTES - SPECIAL INSPECTION & TESTING SCHEDULE & STRUCTURAL ABBREVIATIONS
S-2	TYPICAL STRUCTURAL DETAILS
S-3	MEDIA VESSELS & BAG FILTERS - FOUNDATION PLANS & SECTIONS
S-4	TREATED WATER PUMPS, ARCHITECTURAL FENCE & RINGWALL FOUNDATION PLANS, SECTIONS & DETAILS
S-5	CHEMICAL STORAGE BUILDING - FOUNDATION PLAN, ROOF PLAN & SECTIONS
S-6	CHEMICAL STORAGE BUILDING - SECTIONS
S-7	AMMONIA SHELTER - PLANS, SECTIONS & DETAILS
S-8	SANTA CLARITA BOOSTER PUMP STATION - PLAN, SECTIONS & DETAILS
S-9	CHEMICAL SPILL PAD - PLAN & SECTIONS
MECHANICAL	
M-1	MEDIA VESSELS - PLAN AND SECTIONS
M-2	BAG FILTERS - PLAN AND SECTIONS
M-3	TREATED WATER PUMPS - PLAN AND SECTION
M-4	TREATED WATER EQUALIZATION TANK - PLAN, SECTIONS AND DETAILS
M-5	CHEMICAL STORAGE BUILDING AND AMMONIA SHELTER - PLANS
M-6	SAUGUS WELL NO. 1 - PLANS

DISCIPLINE	SHEET TITLE
MECHANICAL (CONT'D)	
M-7	SAUGUS WELL NO. 2 - PLANS AND DETAIL
M-8	SANTA CLARITA BOOSTER PUMP STATION - PLAN, SECTION AND DETAIL
M-9	PIPE SUPPORT AND MISCELLANEOUS DETAILS
M-10	MISCELLANEOUS DETAILS
INSTRUMENTATION	
I-1	P&ID - LEGEND AND ABBREVIATIONS
I-2	P&ID - SAUGUS WELLS NO. 1 AND NO. 2 AND Q2 WELL
I-3	P&ID - PERCHLORATE TREATMENT
I-4	P&ID - TREATED WATER PUMPS
I-5	P&ID - SULFURIC ACID FEED SYSTEM
I-6	P&ID - SODIUM HYPOCHLORITE FEED SYSTEM
I-7	P&ID - AMMONIA FEED SYSTEM
I-8	P&ID - SANTA CLARITA BOOSTER PUMP STATION
I-9	INSTRUMENTATION DETAILS
I-10	SCADA SYSTEM AND CONTROL PANELS
ELECTRICAL	
E-1	SYMBOLS AND ABBREVIATIONS
E-2	SINGLE LINE DIAGRAM, ELEVATION AND PANELBOARD SCHEDULE
E-3	ELECTRICAL SITE PLAN
E-4	EXISTING PUMP STATION BUILDING - ELECTRICAL PLAN
E-5	TREATMENT PLANT - POWER AND SIGNAL PLAN - CONDUIT/WIRE FIXTURE SCHEDULES
E-6	SAUGUS WELL NO. 1 - DEMOLITION PLAN - POWER AND SIGNAL PLANS
E-7	SAUGUS WELL NO. 2 - DEMOLITION PLAN - POWER AND SIGNAL PLANS
E-8	CHEMICAL STORAGE BUILDING - LIGHTING, POWER AND SIGNAL PLANS AND CONDUIT DIAGRAMS
E-9	AMMONIA SHELTER - LIGHTING, POWER AND SIGNAL PLANS AND CONDUIT DIAGRAMS
E-10	ELEMENTARY DIAGRAMS
E-11	FIBER OPTIC CABLE EXTENDED ELECTRICAL SITE PLAN
E-12	SANTA CLARITA BOOSTER PUMP STATION - ELECTRICAL SITE PLAN
E-13	SANTA CLARITA BOOSTER PUMP STATION - ELECTRICAL PLANS SINGLE LINE DIAGRAM AND ELEVATION
E-14	SANTA CLARITA BOOSTER PUMP STATION - ELECTRICAL SCHEDULES
E-15	MISCELLANEOUS DETAILS

PROJECT BASIS OF COORDINATES

THE BEARINGS SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, HIGH PRECISION GEODETIC NETWORK DENSIFICATION 1991.35. THE BEARING OF N33d07'41"W BEING BETWEEN NGS STATIONS "CMP9" AND "DAM2".

BENCHMARK

BM NO. L2895
NAVD 1988 ELEV=1152.409 (NEWHALL QUAD, 1995 ADJUSTED)
RDBM TAG W CB VALENCIA BLVD 6FT S BCR @ SW COR MAGIC MT PKWY & VALENCIA BLVD 97FT S & 42FT W C/L INT

APPROVALS

SUBMITTED: _____
KENNEDY/JENKS CONSULTANTS

RECOMMENDED: _____
CLWA

APPROVED: _____
CLWA

CONTACTS

OWNER: CASTAIC LAKE WATER AGENCY
27234 BOUQUET CANYON ROAD
SANTA CLARITA, CA 91350
(661) 297-1600

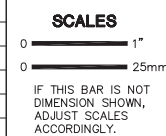
ENGINEER: KENNEDY/JENKS CONSULTANTS
1000 HILL ROAD, SUITE 200
VENTURA, CA. 93003
(805) 658-0607

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USE OF DOCUMENTS

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NO.	REVISION	DATE	BY
3	Revised Sheet G-3 & I-7	MAY 2014	FS
2	RECORD DRAWINGS	JULY 2010	JTD



DESIGNED: JSA

DRAWN: ROO

CHECKED: AdB

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

TITLE SHEET, VICINITY MAP,
LOCATION MAP, AND
LIST OF DRAWINGS

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
G-1	

AD 6-13

DMS# 104243

PIPING SYMBOLS

DESCRIPTION	SINGLE LINE	DOUBLE LINE
VALVES		
GATE		
GLOBE		
PLUG		
CHECK		
SPECIAL		
BUTTERFLY		
WAFER-BUTTERFLY		
BALL		
DIAPHRAGM		
PRESSURE RELIEF		
HOSE BIBB		
ANGLE		
PRESSURE REGULATOR		
ANTI-SIPHON		
BACKPRESSURE		
SOLENOID VALVE		
ELECTRIC MOTOR OPERATOR (ON BUTTERFLY VALVE)		
PNEUMATIC OPERATOR (ON BUTTERFLY VALVE)		
POST INDICATOR (PIV)		
BACKFLOW PREVENTER		
FIRE HYDRANT		
FITTINGS & MISCELLANEOUS		
DIRECTION OF FLOW		
REDUCER		
UNION		
FLEXIBLE COUPLING		
FLANGED COUPLING ADAPTER		
STATIC MIXER		
FLEXIBLE CONNECTOR		
ELBOW		
TEE		
Y STRAINER & FLUSH VALVE		
CAP		

DESCRIPTION	SINGLE LINE	DOUBLE LINE
BLIND FLANGE		
INSULATED PIPE		
HOT WATER LINE		
FLANGED PIPE CONNECTION		
BELL AND SPIGOT OR MECHANICAL JT. CONNECTION		
DRAIN		
FLOOR CLEANOUT		
PIPE CLEANOUT		
FLOOR DRAIN		
FLOW SWITCH		
PRESSURE GAUGE & COCK		
PULSATION DAMPENER		
CALIBRATION CYLINDER		
EQUIPMENT		
PUMP		
ROTAMETER		
VENTURI METER		
PROPELLER METER		

GENERAL LEGEND

	INSULATION IN SECTION		EXISTING STRUCTURE (E)		DESIGNATES DOOR NO. 1
	EARTH IN SECTION		NEW STRUCTURE (N)		DESIGNATES WINDOW TYPE A
	CONCRETE IN SECTION		(N) CONTOUR ELEVATION LINE		DESIGNATES ROOM NO. 101
	STEEL IN SECTION		(E) CONTOUR ELEVATION LINE		DEMOLISH
	WOOD IN SECTION		CENTERLINE		REMOVE AND RELOCATE
	GRATING		PAVEMENT EDGE IN PLAN		GRIND AND RESURFACE
	CHECKERED PLATE		(N) STORM DRAIN INLET		CHAIN LINK FENCE
	PAVING		(N) STORM DRAIN MANHOLE		ARCHITECTURAL FENCE
	FINISH GRADE		HOSE RACK		
	BORING LOG AND NUMBER		WATER SURFACE		

RECORD DRAWINGS

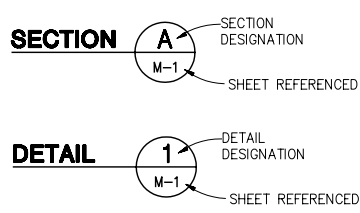
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ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	FCA	FLANGED COUPLING ADAPTER	REINF	REINFORCED
ADDIT	ADDITIONAL	FF	FINISHED FLOOR ELEVATION	REQ'D	REQUIRED
ALUM	ALUMINUM	F.H.	FIRE HYDRANT	RLD	RELOCATED
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	GALV	GALVANIZED	SA	SAMPLE
AWWA	AMERICAN WATER WORKS ASSOCIATION	GPM	GALLONS PER MINUTE	SCH	SCHEDULE
BFP	BACK FLOW PREVENTER	H	HEIGHT	SD	STORM DRAIN
BFV	BUTTERFLY VALVE	HM	HOLLOW METAL	SFM	SEWER FORCE MAIN
BM	BENCHMARK	HORIZ	HORIZONTAL	SQ	SQUARE
BOT	BOTTOM	JT	JOINT	SS	STAINLESS STEEL
C.C.	CENTER TO CENTER	MAX	MAXIMUM	STL	STEEL
CLS	CHLORINE SOLUTION	mg/l	MILLIGRAMS PER LITER	SUL	SULFURIC
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	TW	TREATED WATER
CONC	CONCRETE	MJ	MECHANICAL JOINT	TYP.	TYPICAL
CONT	CONTINUE, CONTINUATION	(N)	NEW	T/	TOP OF
D	DRAIN	N.T.S.	NOT TO SCALE	UON	UNLESS OTHERWISE NOTED
DI	DUCTILE IRON	O.C.	ON CENTER	VS	VARIABLE SPEED
DIA	DIAMETER	O.D.	OUTSIDE DIAMETER	VTR	VENT TO ROOF
DN	DOWN	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	UBC	UNIFORM BUILDING CODE
DWGS	DRAWINGS	PL	PLATE	∅	CENTERLINE
(E)	EXISTING	PSF	POUNDS PER SQUARE FOOT	#	DIAMETER
EQPT	EQUIPMENT				NUMBER

REFERENCE SYMBOLS



PIPING SCHEDULE

LINE	SYSTEM	SIZE	SERVICE	MATL	PIPE TYPE	VALVE SYSTEM	NOTES
PROCESS							
FP	FIRE PROTECTION	ALL	ALL	GS	Y-1	A	5
PW/NPW	POTABLE WATER/ NON-POTABLE WATER	ALL	B/E	PVC	V-1	A	3
RW	RAW WATER	ALL	B E	DI OR WS	N-1/M-2 M-2	A A	1
SA	SAMPLE LINE	ALL	B/E	PVC	V-1	C	3
TW	TREATED WATER	<3 ≥3 ≥3	ALL B E	CU DI OR WS WS	T-1 N-1/M-2 M-2	E A A	1
CHEMICAL							
AM	AQUA AMMONIA	ALL	B/E	PP/PVC	P/V-1	C	2,3,4
HYP	SODIUM HYPOCHLORITE	ALL	B/E	PVC	V-1	C	2,3,4
SUL	SULFURIC ACID	ALL	B/E	CPVC	V-1	H	2,3,4
DRAINAGE							
AM, D	STORM DRAIN	ALL	B	PVC	V-5	-	-
SD	SAMPLE DRAIN	ALL	E	GS	Y-1	A	-
		ALL	B	PVC	V-1	A	-
PIPE TYPE LEGEND							
SERVICE							
B	BURIED	CU	COPPER	DI	DUCTILE IRON	GS	GALVANIZED STEEL
C	CONCRETE ENCASED	PVC	POLYVINYL CHLORIDE	WS	WELDED STEEL	PP	POLYPROPYLENE
E	EXPOSED						
SIZE							
NOMINAL PIPE DIAMETER (∅) IN INCHES							
PIPE TYPE AND VALVE SYSTEM							
SEE SPECIFICATION SECTION 15050 UNLESS OTHERWISE NOTED							
NOTES:							
1. PROVIDE WS PIPE OR DI PIPE WITH RESTRAINED JOINTS AT CONTRACTOR'S OPTION.							
2. SEE SPEC SECTION 11240 FOR ADDITIONAL REQUIREMENTS.							
3. PAINT ALL PVC PIPING IN LOCATIONS EXPOSED TO SUNLIGHT.							
a) SURFACE PREPARATION: CLEAN SURFACE AND WIPE WITH DENATURED ALCOHOL OR CLEANER RECOMMENDED BY PAINT MANUFACTURER. LET DRY COMPLETELY PRIOR TO PAINTING.							
b) FIRST COAT: POLYAMIDE EPOXY PRIMER, APPLIED AT THE RATE RECOMMENDED BY THE MANUFACTURER.							
c) SECOND AND THIRD COATS: SEMI-GLOSS ACRYLIC ALIPHATIC URETHANE.							
4. PROVIDE DOUBLE CONTAINED PIPING FOR ALL BURIED CHEMICAL PIPE. CONTAINMENT PIPE SHALL BE TYPE V-1.							
5. SEE ALSO SPEC SECTION 13900. WHERE CONFLICT, 13900 SHALL GOVERN.							

PIPING LEGEND



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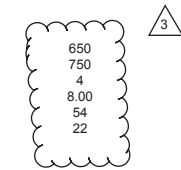
<p>USE OF DOCUMENTS</p> <p>THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.</p>	RECORD DRAWINGS	JULY 2010	JTD	<p>SCALES</p> <p>0 1" = 25mm</p> <p>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</p>		DESIGNED	JSA	<p>CASTAIC LAKE WATER AGENCY</p> <p>LOS ANGELES COUNTY, CALIFORNIA</p> <p>Kennedy/Jenks Consultants</p> <p>1000 HILL ROAD, SUITE 200, VENTURA, CA 93003</p>	<p>PERCHLORATE TREATMENT</p> <p>CLWA NO. CL-118A</p>	
							DRAWN		ROO	<p>PIPING SYMBOLS, PIPING SCHEDULE ABBREVIATIONS AND LEGEND</p> <p>JOB NO. 0789064</p>
				CHECKED	AdB	<p>JAN. 2008</p> <p>SHEET OF</p> <p>G-2</p>				

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ITEM	UNITS	Saugus 2400 GPM	Q2 1200 GPM	Notes
1. PLANT FLOW RATE With Two Vessels	GPM	2400	1200	
2. WELL PUMPS				
Saugus No. 1				
Type	Vertical Turbine			
Stages	No.	9		
Operating Point (Max. Flow @ TDH)	GPM @ Feet	1200 @ 520		
Horsepower		250		
Drive Type		VS		
Saugus No. 2				
Type	Vertical Turbine			
Stages	No.	10		
Operating Point (Max. Flow @ TDH)	GPM @ Feet	1200 @ 570		
Horsepower		250		
Drive Type		VS		
Q2				
Type	Vertical Turbine			
Stages	No.		6	
Operating Point (Max. Flow @ TDH)	GPM @ Feet		1200 @ 390	
Horsepower			250	
Drive Type			VS	
3. PERCHLORATE TREATMENT				
Bag Filters				
Number of Filters (active)		2	1	
Number of Filters (standby)		1	1	Stand-by filter shared between Saugus and Q2 Treatment Systems
Filter Mesh Size	Micron	80	80	
Filter Capacity (each)	GPM	1200	1200	
Min. Pressure Drop	psi	2	2	At plant flows based on US Filter data
Max. Pressure Drop	psi	12	12	At plant flows based on US Filter data
Treatment Vessels				
Number of Vessels		2	2	
Vessel Diameter	ft	12	12	
Overall Height	ft	14.33	14.33	
Vessel Volume	gal	7250	7250	
Maximum Flow Rate	GPM	2400	2400	
Type of Media		Amberlite PWA2	Amberlite PWA2	
Media Volume per Vessel	Cubic Feet	300	300	
Maximum Working Pressure (@ 150 F)	psi	125	125	
Maximum Pressure Drop (@ 58 F)	psi	35	17	At plant flows based on US Filter data
Treated Water Pumps				
Type	Vertical Turbine			
Stages	No.	4		
Number of Pumps	No.	3		
Pump 1 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1200, 320, 150, VS		
Pump 2 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1200, 320, 150, VS		
Pump 3 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1200, 320, 150, VS		
Total Pumping Capacity without Standby	GPM	3600		
4. EQUALIZATION TANK				
Type	Steel			
Operating Capacity	gal	29,000		
Minimum Nominal Capacity per Tank	gal	32,000		
Maximum Diameter	ft-inches	18.46'		
Maximum Height (Shell)	ft-inches	16.12'		
Retention Time at Design Flow of 2400 gpm	minutes	12		
5. CHLORAMINE				
Residual (Avg/Max)	mg/l (as Cl2)	2.5/3.5		
Chlorine (as Cl2) to NH3 (as N) - Typical	Weight Ratio	5.0 to 1		
Chlorine (as Cl2) to NH3 (as N) - Min	Weight Ratio	4.0 to 1		
6. SODIUM HYPOCHLORITE FEED SYSTEM				
Flow (Avg/Max)	GPM	2400/3600	5	
Concentration (% by weight NaOCl)	%	12.5		
Specific Gravity		1.2		
Available Chlorine	lb/gal	1.19		
Dosage (Avg/Max)	mg/l as Cl2	4/4.5		
Use (Avg/Max)	ppd as Cl2	97/163		
Storage Tank				
Type	Closed Top Vertical			2
Operating Capacity	gal	4200		
Nominal Capacity	gal	5000		
Maximum Diameter	ft	10		
Maximum Height	ft	9.83		
Supply at Average Use of 2400 gpm	days	44		
Supply at Maximum Use of 3600 gpm	days	26		
Metering Pumps				
Type	Mechanical Diaphragm			
Number of Pumps	2 (One Standby)	2		
Maximum Pump Capacity	GPH	10		
Pump Total Dynamic Head	ft	20		
Pump Motor	HP	0.5		
Speed Control	VS			

ITEM	UNITS	Saugus 2400 GPM	Q2 1200 GPM	Notes
7. AMMONIA FEED SYSTEM				
Flow (Avg/Max)	GPM	2400/3600		
Concentration (by weight)	%	19		
Specific Gravity	Sp. Gr	0.92		
Concentration as NH3	lb/gal	1.46		
Concentration as N	lb/gal	1.2		
Dosage (Avg/Max)	mg/l as N	0.5/0.8		
Use (Avg/Max)	ppd as N	15/35		
Storage Tank				
Type	Closed Top Vertical			2
Operating Capacity	gal	650		
Nominal Capacity	gal	750		
Maximum Diameter	ft	4		
Maximum Height	ft	8.00		
Supply at Average Use of 2400 gpm	days	54		
Supply at Maximum Use of 3600 gpm	days	22		
Metering Pumps				
Type	Mechanical Diaphragm			
Number of Pumps	2 (One Standby)			
Pump Capacity	GPH	1.2		
Pump Total Dynamic Head	ft	20		
Pump Motor	HP	0.5		
Speed Control	VS			
8. SULFURIC ACID FEED SYSTEM				
Flow	GPM	2400	1200	
Concentration (by weight)	%	50	50	
Bulk Chemical Concentration	lb/gal	5.82	5.82	
Dosage	mg/l	15	20	3
Use	ppd	435	580	
Storage Tank				
Type	Closed Top Vertical			2
Operating Capacity	gal	4000		
Nominal Capacity	gal	4100		
Maximum Diameter	ft	8.5		
Maximum Height	ft	10.75		
Supply at Maximum Use of 3600 gpm	days	30		
Metering Pumps				
Type	Mechanical Diaphragm			
Number of Pumps	4			4
Pump Capacity	GPH	3.5	2.5	
Pump Total Dynamic Head	ft	150	?	
Pump Motor	HP	0.5	0.5	
Speed Control	VS			
9. BOOSTER PUMP STATION				
Treated Water Pumps				
Type	Vertical Turbine			
Stages	No.	2		
Number of Pumps	No.	3		
Pump 1 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1700, 100, 60, FS		
Pump 2 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1700, 100, 60, FS		
Pump 3 (Capacity, TDH, Power, Drive)	GPM, Feet, HP, Drive	1700, 100, 60, FS		
Total Pumping Capacity without Standby	GPM	2800 (Future) - 3400 (Current)		
Suction Gradient	Feet	1390 (Future) - 1420 (Current)		
Discharge Gradient	Feet	1490 (at 1700 gpm) - 1520 (at 3400 gpm)		

- Notes:
- Speed, FS - Fixed Speed, VS - Variable Speed
 - Storage Tank sized for combined Saugus and Q2 flows of 3600 gpm
 - From US Filter data to achieve saturation pH
 - Two pumps each (duty and standby) used for Q2 and Saugus Treatment Systems
 - Q2 treated water to be disinfected by existing system



RECORD DRAWINGS

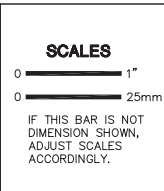
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NO.	REVISION	DATE	BY
3	Revised Ammonia Storage Tank Design Criteria	MAY 2014	ES
	RECORD DRAWINGS	JULY 2010	JTD



DESIGNED AdB
 DRAWN ROO
 CHECKED KCA

CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA

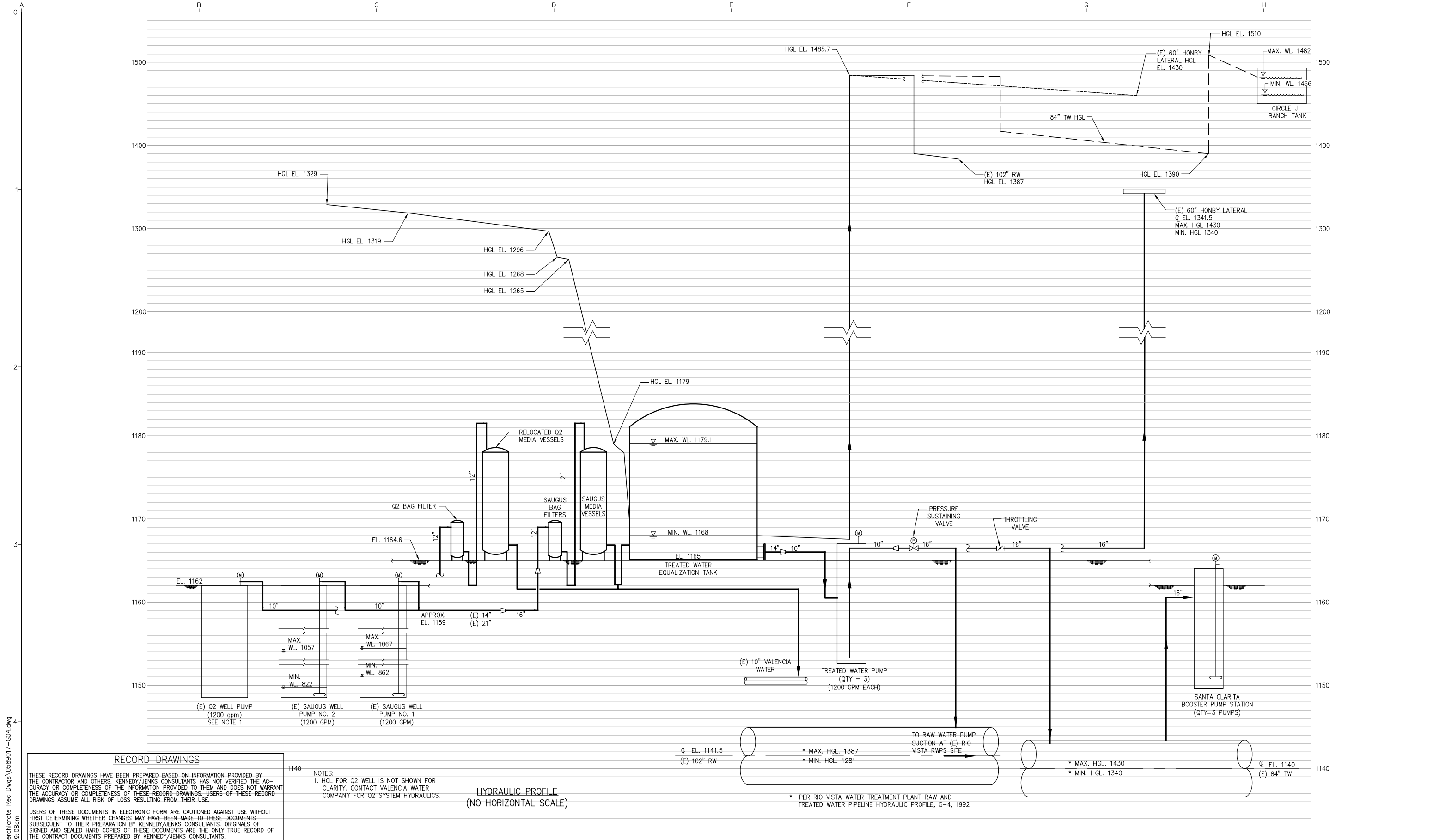
Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET OF

DESIGN BASIS

G-3



RECORD DRAWINGS

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- NOTES:
- HGL FOR Q2 WELL IS NOT SHOWN FOR CLARITY. CONTACT VALENCIA WATER COMPANY FOR Q2 SYSTEM HYDRAULICS.

**HYDRAULIC PROFILE
(NO HORIZONTAL SCALE)**

* PER RIO VISTA WATER TREATMENT PLANT RAW AND TREATED WATER PIPELINE HYDRAULIC PROFILE, G-4, 1992

N:\2009\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-604.dwg
PRINT DATE: Jan 19, 2011 9:08am

USE OF DOCUMENTS

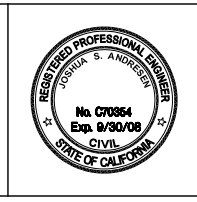
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 — 1"
0 — 25mm

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DESIGNED: JSA
DRAWN: PF
CHECKED: AdB

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

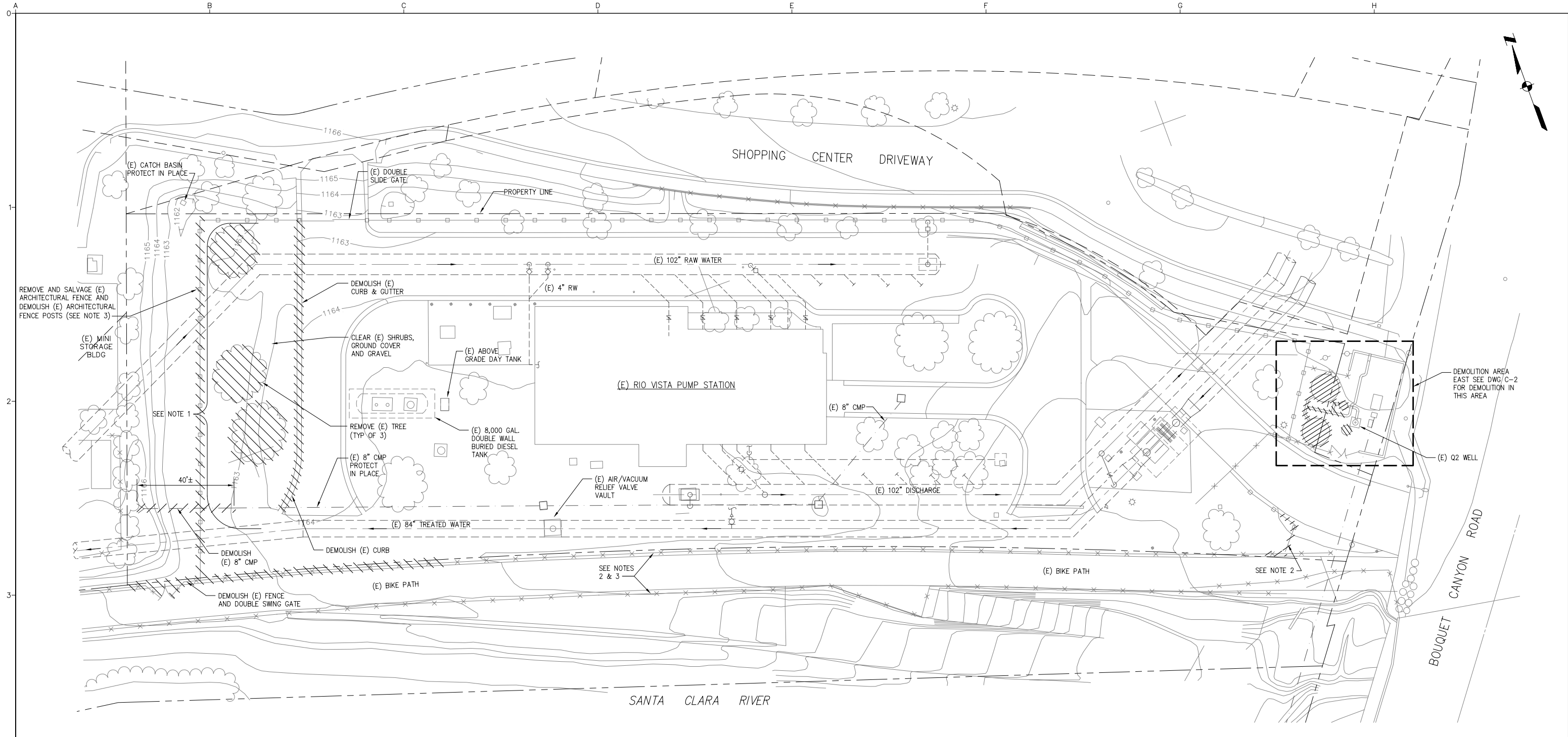
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PERCHLORATE TREATMENT

HYDRAULIC PROFILE

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF

G-4



EXISTING SITE/DEMOLITION PLAN

SCALE: 1"=20'

NOTES:

- REMOVE (E) IRRIGATION PIPING AND GROUND COVER VEGETATION. CAP (E) IRRIGATION PIPING AT LOCATIONS DETERMINED IN THE FIELD BY THE OWNER'S REPRESENTATIVE. FOR EXISTING IRRIGATION PIPING LAYOUT, SEE APPENDIX B OF THE SPECIFICATIONS.
- REMOVE AND SALVAGE (E) CHAIN LINK FENCE FOR EQUIPMENT AND PIPELINE INSTALLATION AT SOUTH PROPERTY LINE AND INSTALL SALVAGED FENCE AFTER PIPELINES ARE CONSTRUCTED.
- PROVIDE TEMPORARY FENCE TO RESTRICT PUBLIC ACCESS DURING CONSTRUCTION.

LEGEND:

- DEMOLISH
- RELOCATE

RECORD DRAWINGS

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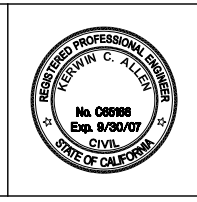
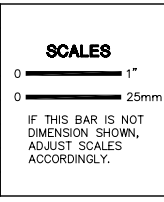
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PRINT DATE: Jan 19, 2011 8:54am

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NO.	REVISION	DATE	BY

NO.	REVISION	DATE	BY



DESIGNED	JSA
DRAWN	ROO
CHECKED	KCA/AdB

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

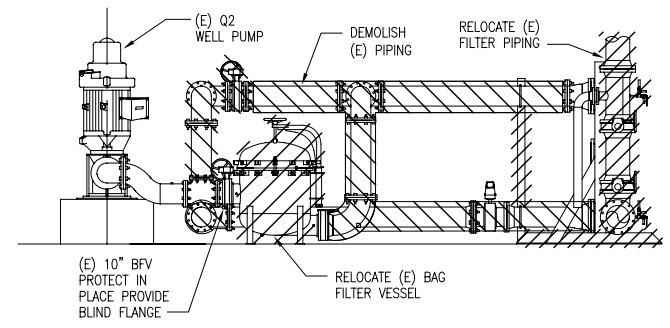
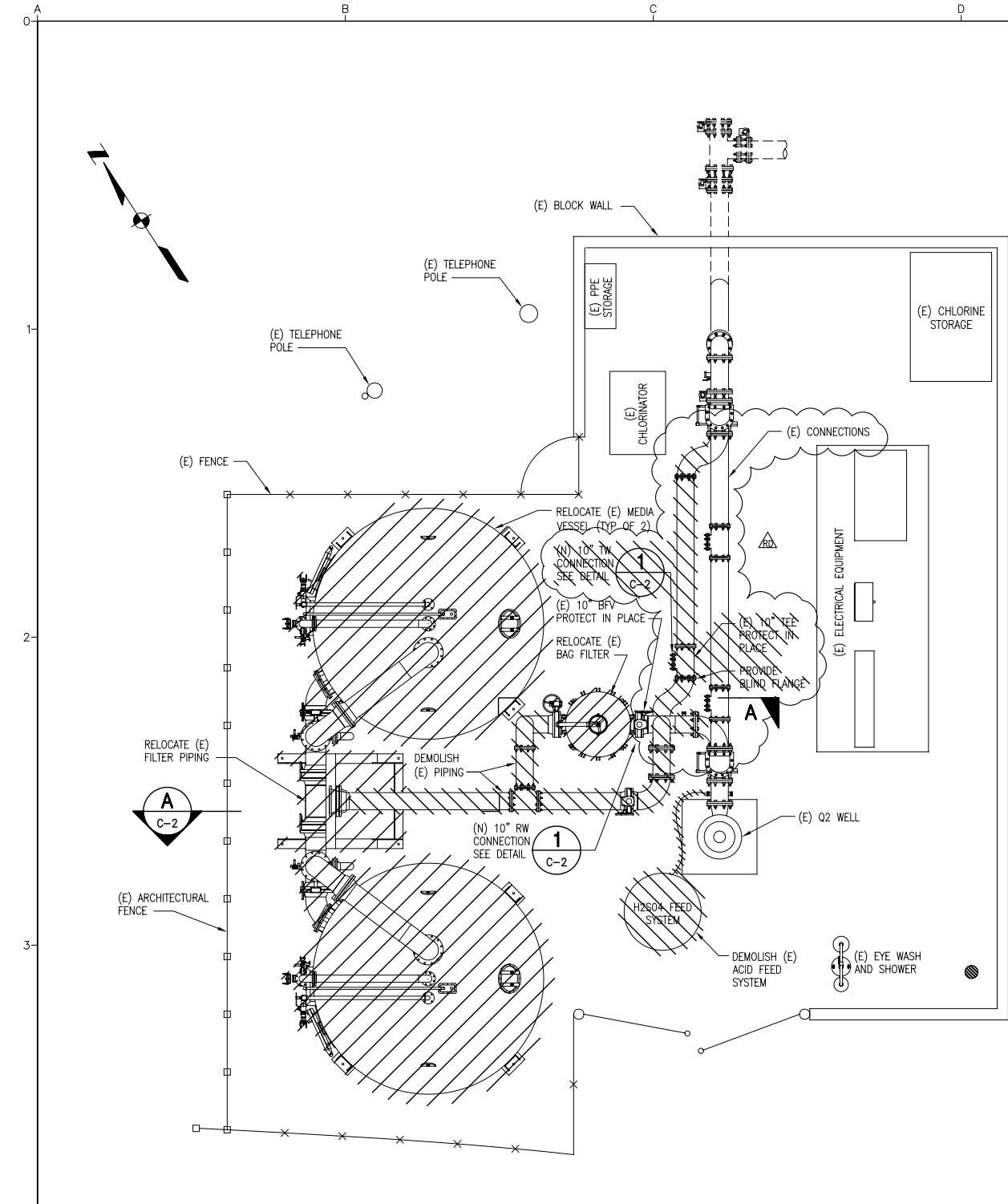
Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

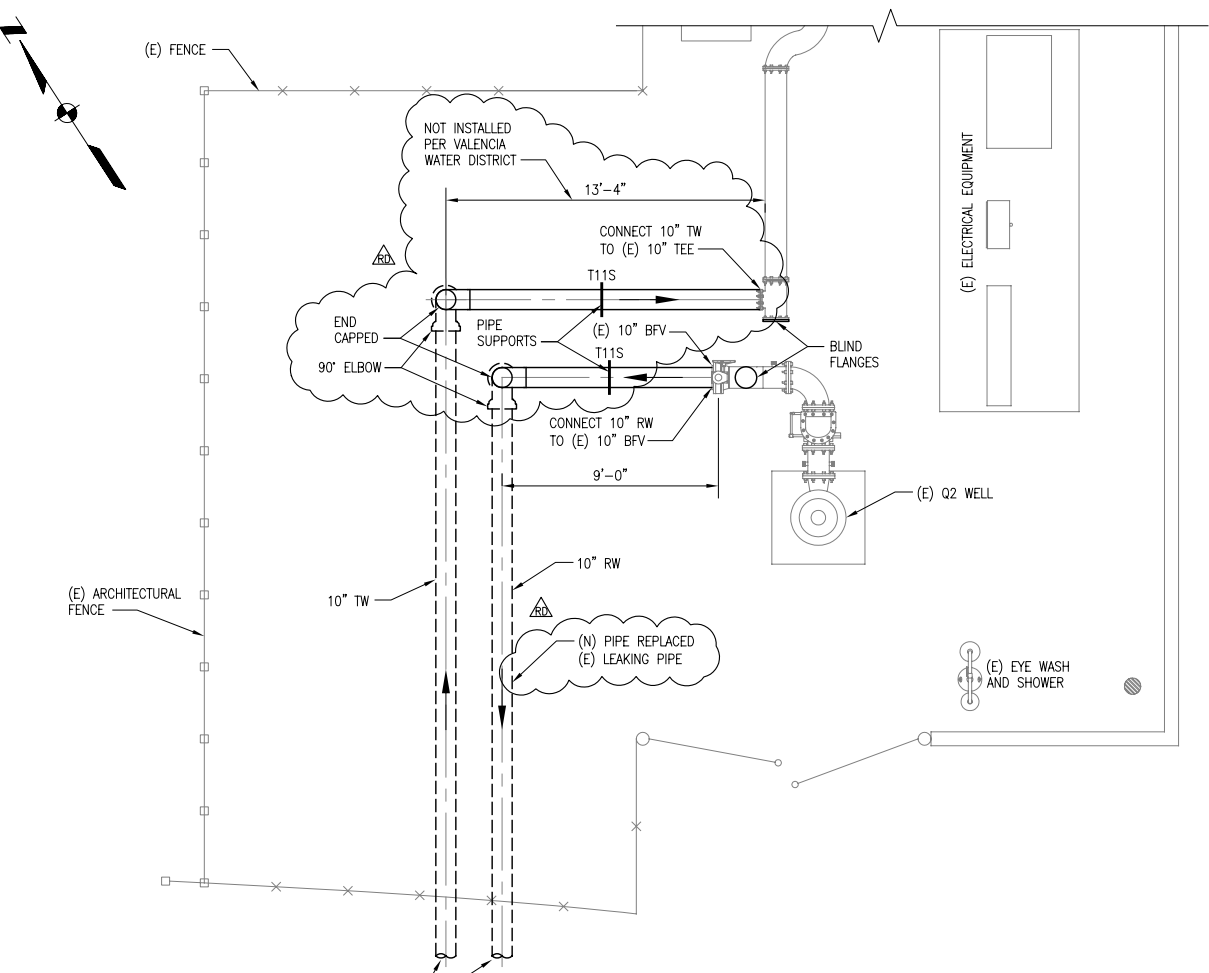
EXISTING SITE PLAN/DEMOLITION PLAN

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
C-1	

AD 6-17



SECTION A
SCALE: 1/4"=1'-0"
C-2



10' RW AND 10' TW CONNECTION DETAIL 1
SCALE: 1/4"=1'-0"
C-3



NOTE:
1. COORDINATE DEMOLITION AND RELOCATION WORK WITH VALENCIA WATER COMPANY.

LEGEND:
 DEMOLISH
 REMOVE AND RELOCATE

RECORD DRAWINGS
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DEMOLITION PLAN EAST
SCALE: 1/4"=1'-0"

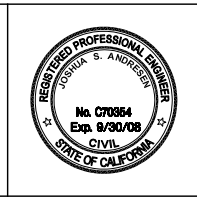
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NO.	REVISION	DATE	BY

SCALES
 0 1"
 0 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

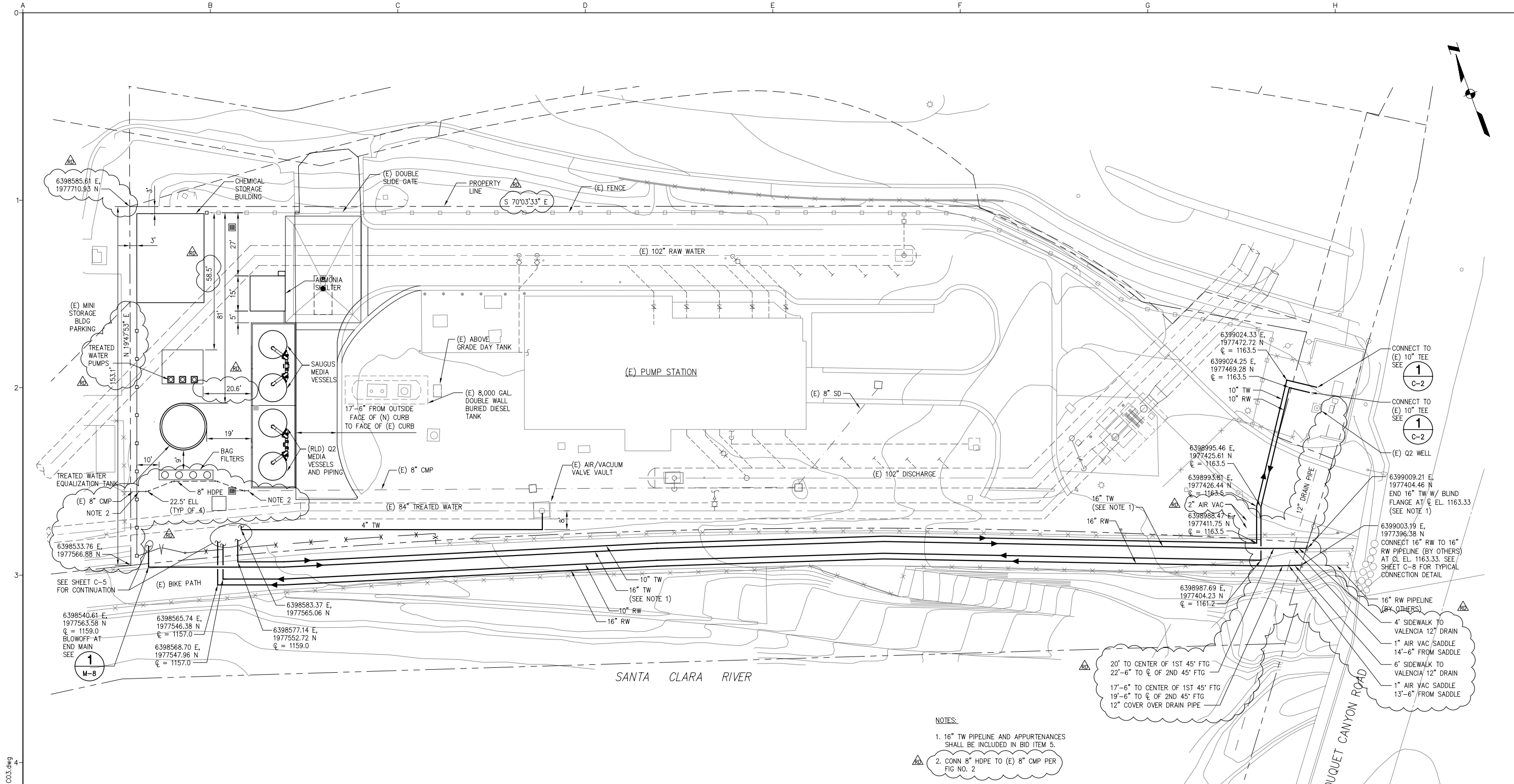


DESIGNED: JSA
 DRAWN: ROO
 CHECKED: KCA/AdB

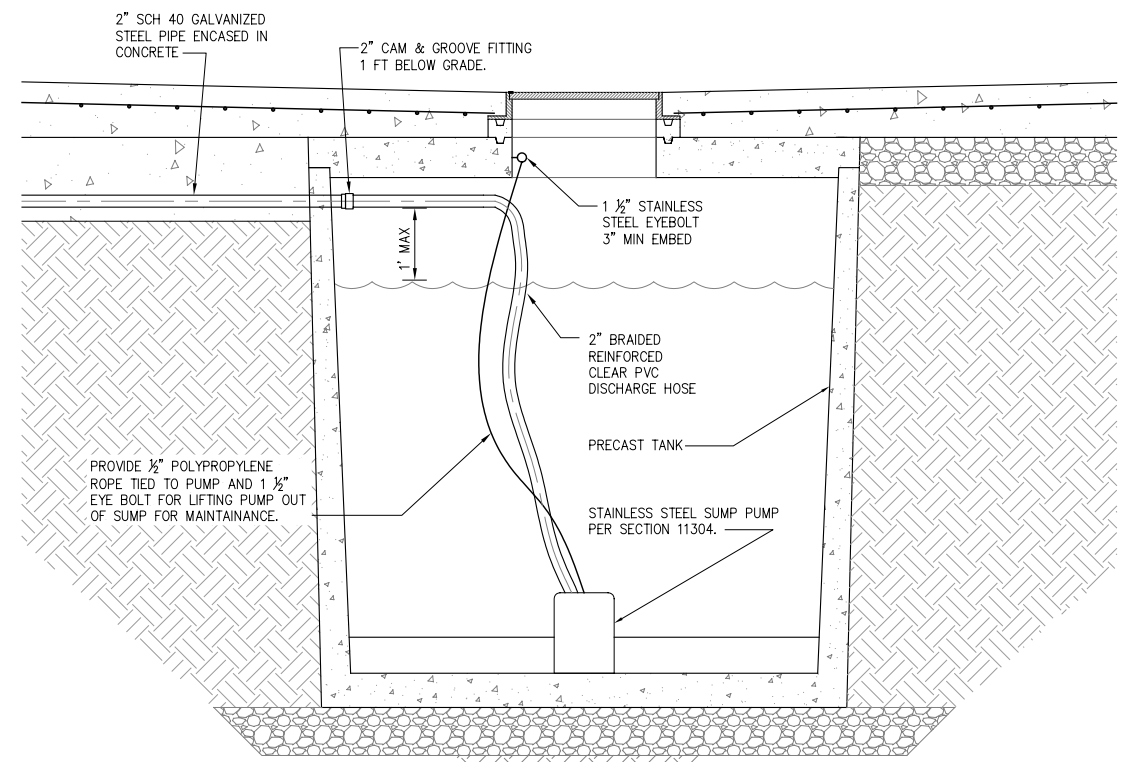
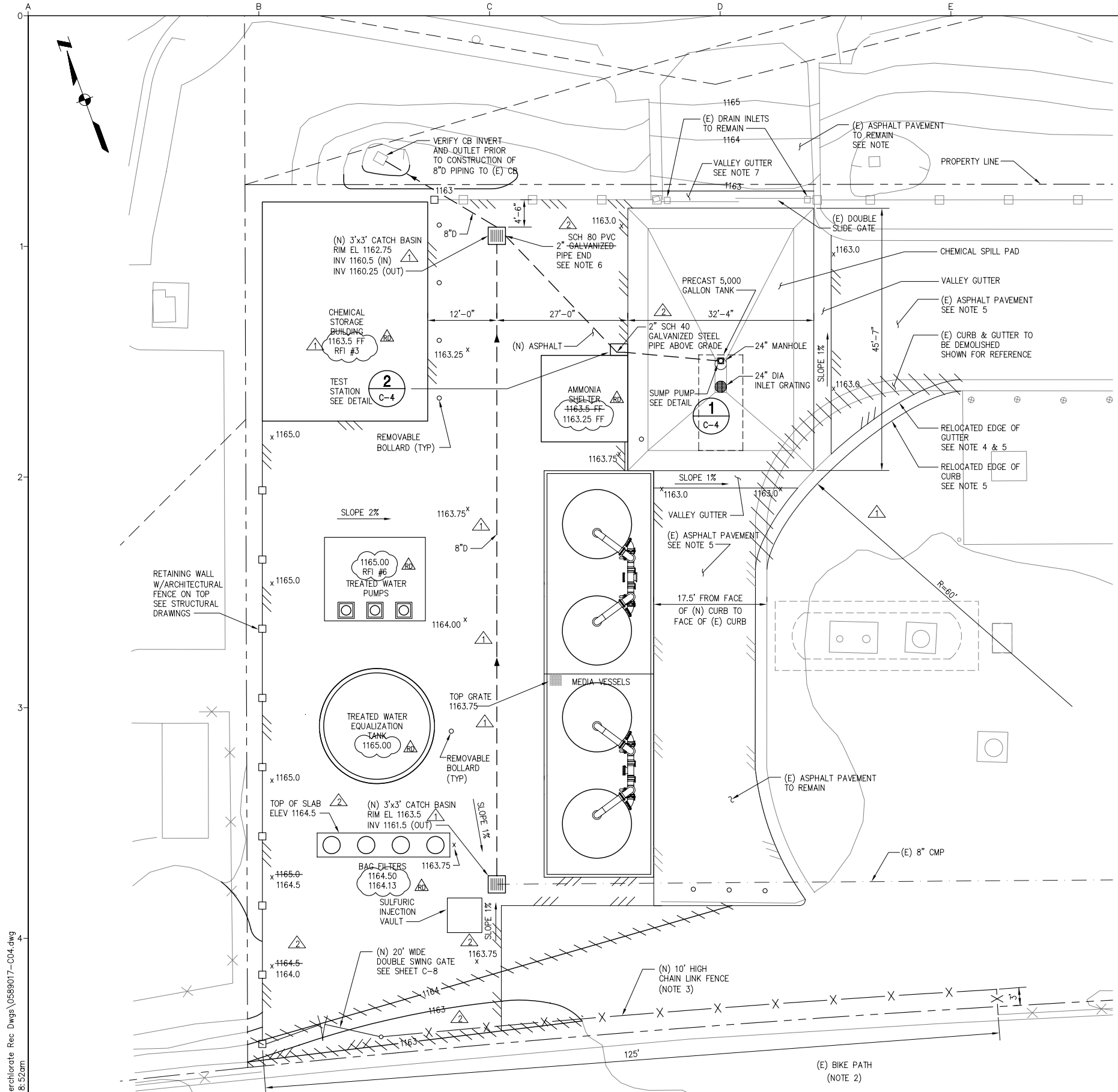
CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA
 Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT
 DEMOLITION PLAN EAST, SECTION AND CONNECTION DETAIL

CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET OF
C-2



N:\2009\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-C03.dwg
 PRINT DATE: Jan 19, 2011 8:53am



SUMP PUMP DETAIL 1
3/8" = 1"

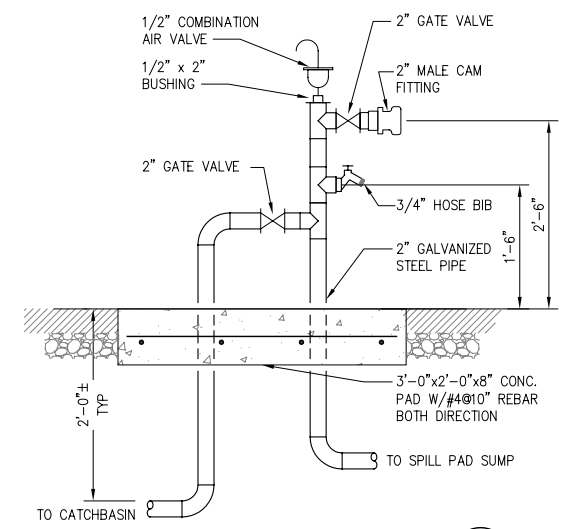
NOTES:

- CONTRACTOR TO COORDINATE PAVING AND PIPING INSTALLATION WITH IRRIGATION PIPING INSTALLATION (BY OTHERS) AT THE SOUTHWEST SECTION OF THE NEW SITE.
- REMOVE FULL WIDTH OF BIKE PATH FOR INSTALLATION OF PIPING AND REPLACE IN ACCORDANCE WITH THE BIKE PATH REPLACEMENT DETAIL IN APPENDIX D.
- CONTRACTOR TO COORDINATE FENCING POST LOCATIONS WITH PIPING TO AVOID INSTALLING POST OVER PIPING AT THE SOUTHWEST SECTION OF THE NEW SITE.
- TRANSVERSE SLOPE OF GUTTER TOWARDS CURB SHALL BE STEEPER THAN EXISTING WHERE EDGE OF GUTTER MEETS CORNER OF CHEMICAL SPILL PAD TO ENSURE STORMWATER RUNOFF DOES NOT ENTER INTO THE SPILL PAD
- REGRADE ASPHALT PAVEMENT, CURB, AND GUTTER AS NECESSARY TO PROVIDE A SMOOTH TRANSITION TO MEET INDICATED GRADE ELEVATIONS
- INVERT ELEVATION OF 2" GALVANIZED STEEL PIPE SHALL BE 1160.5.
- PROTECT (E) VALLEY GUTTER. VALLEY GUTTER SHALL BE REPLACED IF DAMAGED.

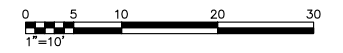
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TEST STATION DETAIL 2
NTS



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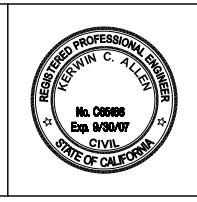
NO.	REVISION	DATE	BY
2	RECORD DRAWINGS	JULY 2010	JTD
1	RFQ NO. 003 REV 1	02/07/2008	JSA
1	RFQ NO. 003	01/09/2008	DL

NO.	REVISION	DATE	BY
2	RECORD DRAWINGS	JULY 2010	JTD
1	RFQ NO. 003 REV 1	02/07/2008	JSA
1	RFQ NO. 003	01/09/2008	DL

SCALES

0 1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: JSA/KCA
DRAWN: ROO
CHECKED: AdB/KCA

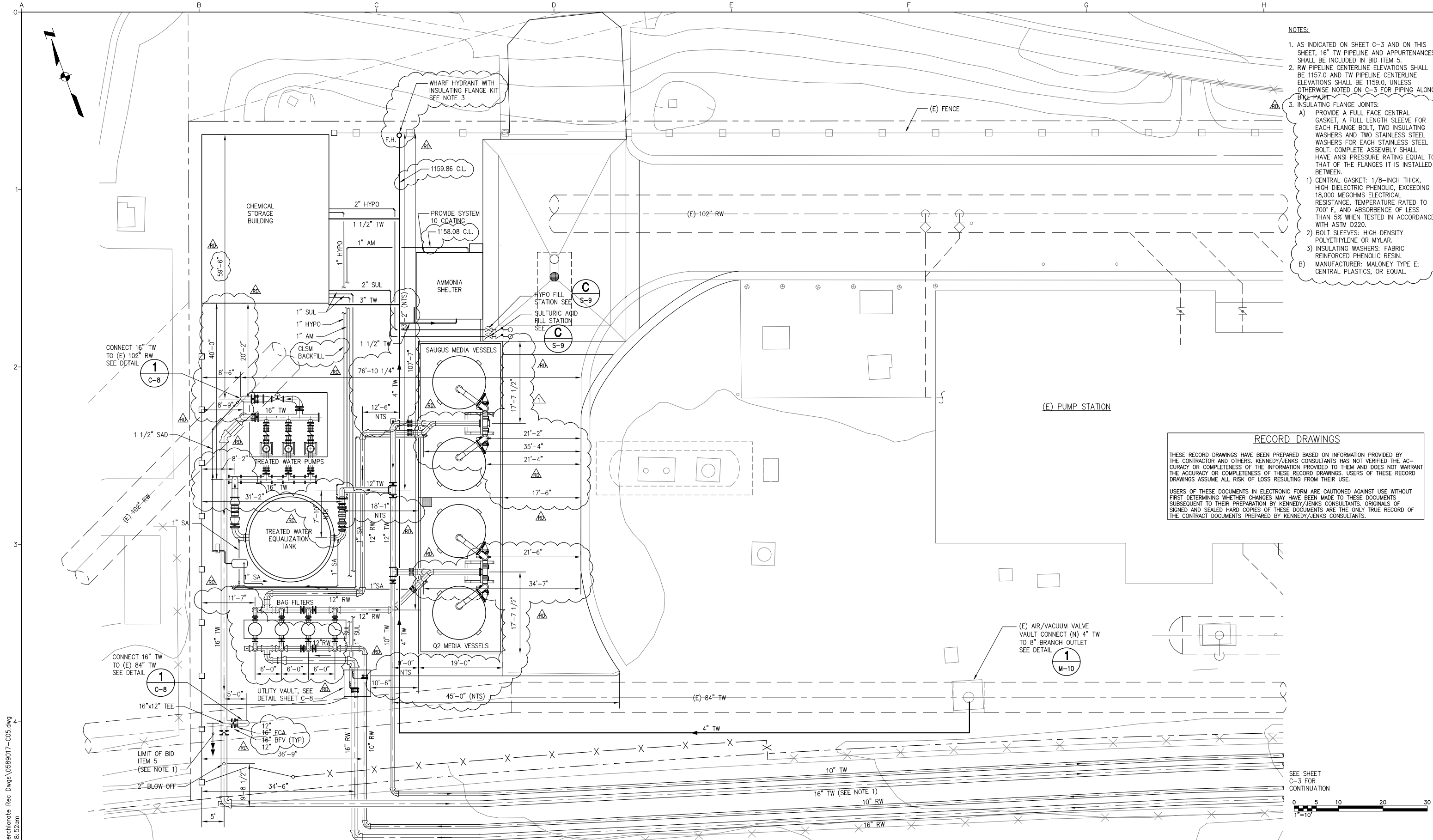
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SITE GRADING PLAN

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET C-4 OF

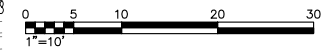


- NOTES:**
- AS INDICATED ON SHEET C-3 AND ON THIS SHEET, 16" TW PIPELINE AND APPURTENANCES SHALL BE INCLUDED IN BID ITEM 5.
 - RW PIPELINE CENTERLINE ELEVATIONS SHALL BE 1157.0 AND TW PIPELINE CENTERLINE ELEVATIONS SHALL BE 1159.0, UNLESS OTHERWISE NOTED ON C-3 FOR PIPING ALONG BULKHEAD.
 - INSULATING FLANGE JOINTS:
 - PROVIDE A FULL FACE CENTRAL GASKET, A FULL LENGTH SLEEVE FOR EACH FLANGE BOLT, TWO INSULATING WASHERS AND TWO STAINLESS STEEL WASHERS FOR EACH STAINLESS STEEL BOLT. COMPLETE ASSEMBLY SHALL HAVE ANSI PRESSURE RATING EQUAL TO THAT OF THE FLANGES IT IS INSTALLED BETWEEN.
 - CENTRAL GASKET: 1/8-INCH THICK, HIGH DIELECTRIC PHENOLIC, EXCEEDING 18,000 MEGOHMS ELECTRICAL RESISTANCE, TEMPERATURE RATED TO 700° F, AND ABSORBENCE OF LESS THAN 5% WHEN TESTED IN ACCORDANCE WITH ASTM D220.
 - BOLT SLEEVES: HIGH DENSITY POLYETHYLENE OR MYLAR.
 - INSULATING WASHERS: FABRIC REINFORCED PHENOLIC RESIN.
 - MANUFACTURER: MALONEY TYPE E; CENTRAL PLASTICS, OR EQUAL.

RECORD DRAWINGS

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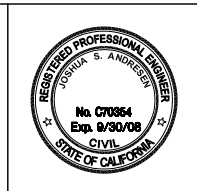
NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD
1	RFQ NO. 003	01/09/2007	DL

NO.	REVISION	DATE	BY

SCALES

0 — 1"
0 — 25mm

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 DRAWN: ROO
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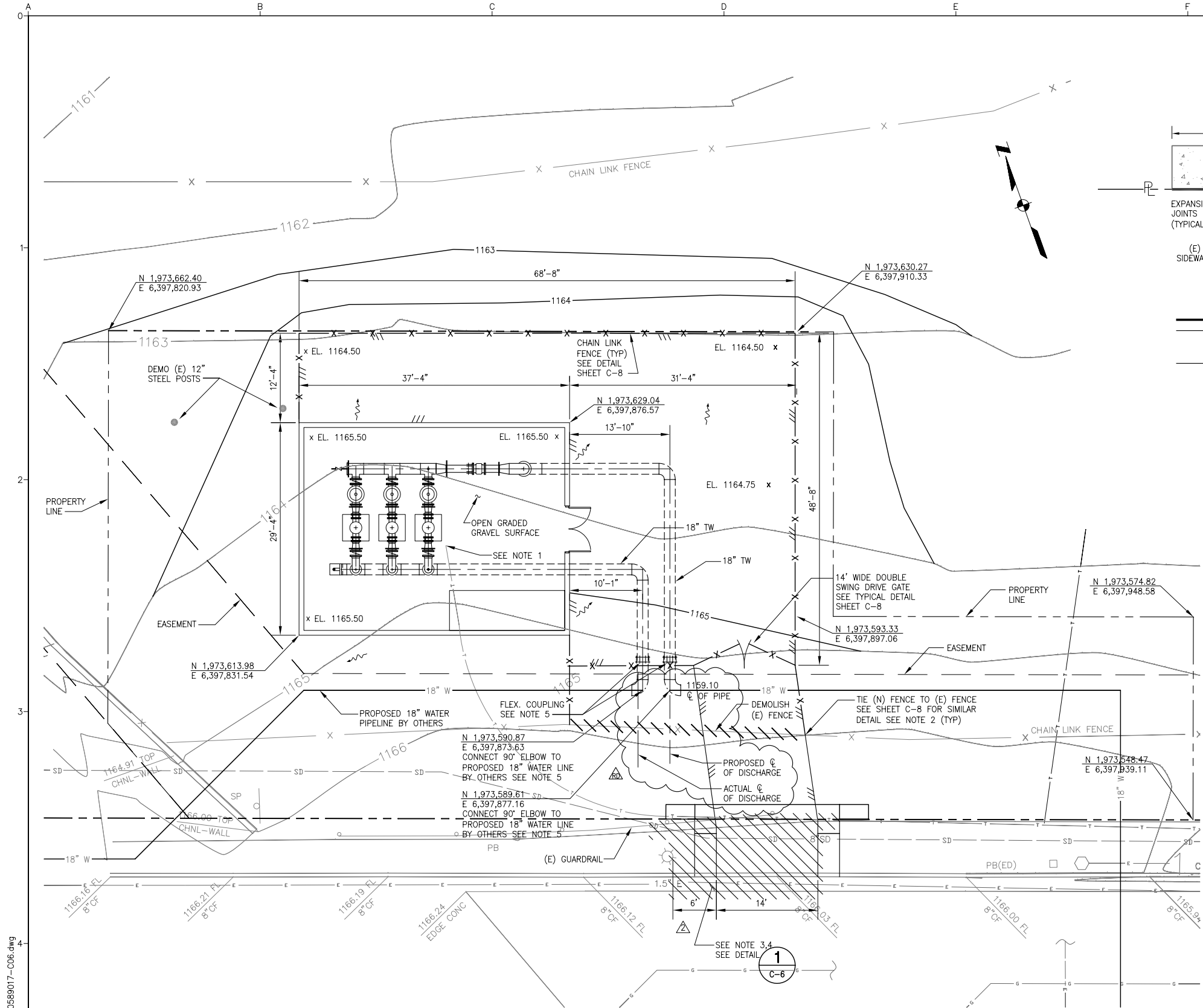
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 LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

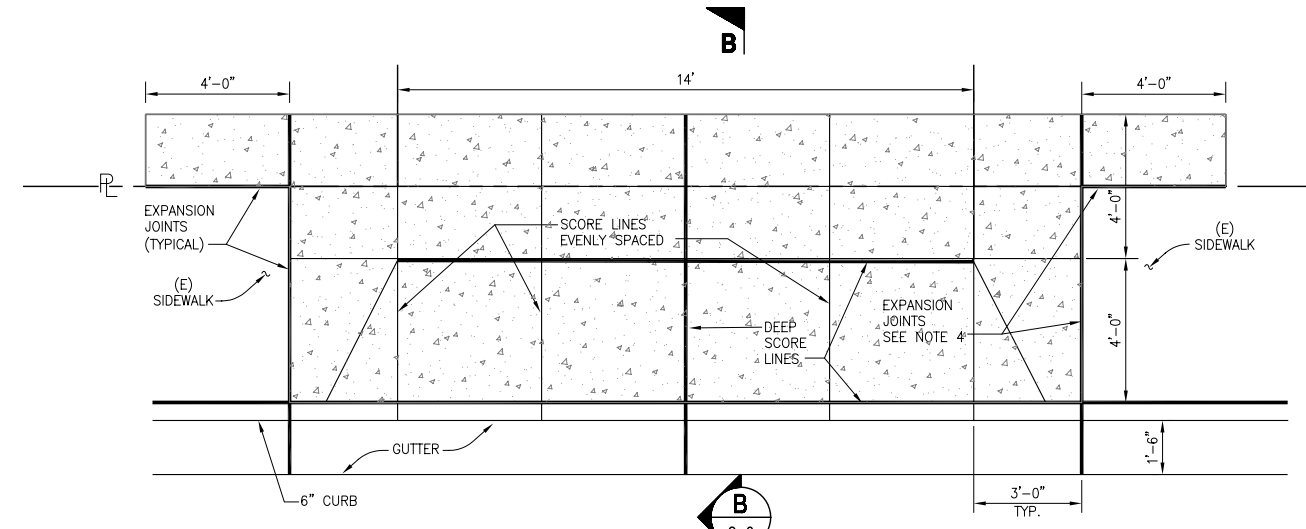
PERCHLORATE TREATMENT

SITE PIPING PLAN

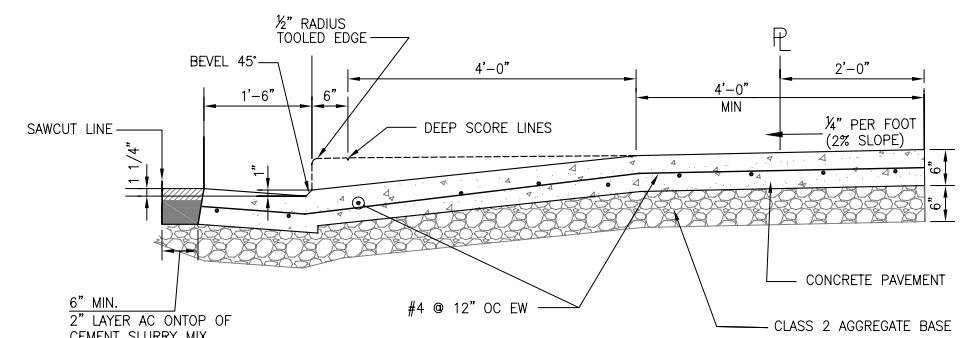
CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET C-5 OF



BOOSTER PUMP STATION SITE PLAN
SCALE: 1" = 10'



DRIVEWAY APRON DETAIL (1)
SCALE: 3/8" = 1'-0"



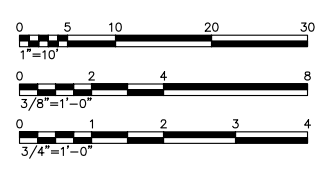
SECTION B
3/4" = 1'

- NOTES:**
- CONTRACTOR SHALL POTHOLE TO FIELD VERIFY CONTINUATION OF (E) UTILITY LINE AND PROTECT IN PLACE (E) UTILITY LINE DURING CONSTRUCTION.
 - DEMOLISH EXISTING FENCE BETWEEN THE TIE POINTS SHOWN FOR THE NEW FENCE
 - DEMOLISH APPROXIMATELY 20' OF THE EXISTING GUARDRAIL AND DEMOLISH AREA OF SIDEWALK TO BE REPLACED WITH (N) DRIVEWAY APRON. CONTRACTOR HAS THE OPTION TO EITHER BEND THE CUT END OF (E) GUARDRAIL TO MATCH (E) END OF GUARDRAIL OR SALVAGE END OF (E) GUARDRAIL AND RELOCATE/CONNECT TO REMAINING GUARDRAIL SUCH THAT THE END TERMINATES 2' CLEAR OF DRIVEWAY. GUARDRAIL MODIFICATION SHALL BE IN ACCORDANCE WITH SANTA CLARITA CITY STANDARDS
 - CONC CURB, GUTTER AND SIDEWALK TO BE REPLACED SHALL BE REMOVED TO THE NEAREST EXPANSION JOINT OR BY SAWCUTTING TO THE NEAREST SCOREMARK
 - FOR BOTH 18" TW LINES, CONNECT AT CENTERLINE ELEVATION OF 1159.10. SEE TYPICAL CONNECTION TO PIPELINE DETAIL ON SHEET C-8.

RECORD DRAWINGS

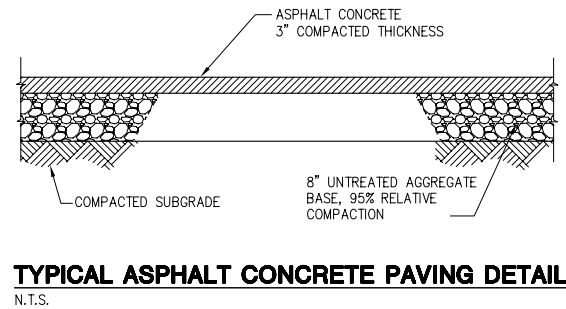
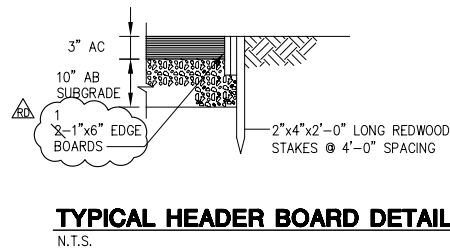
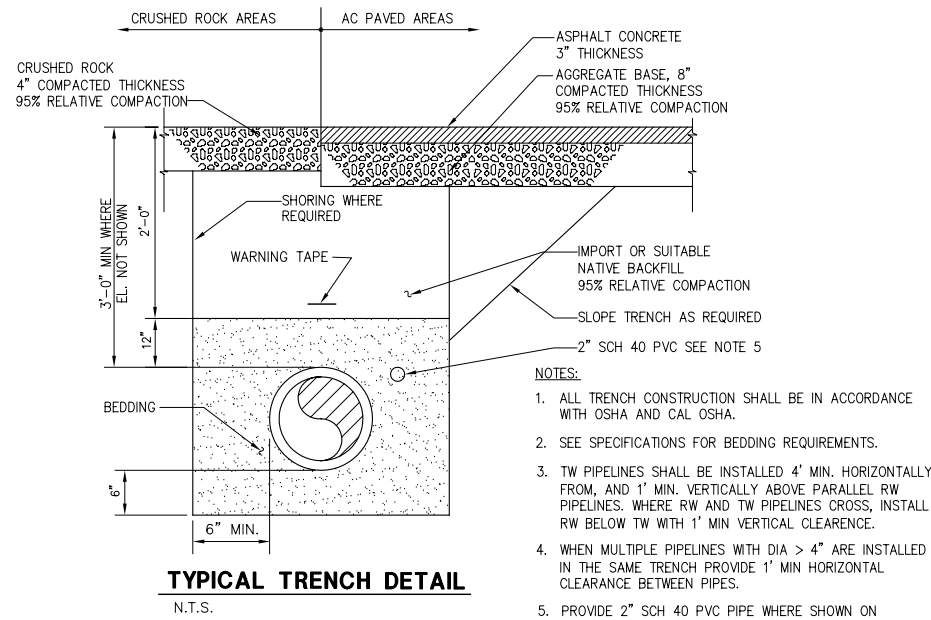
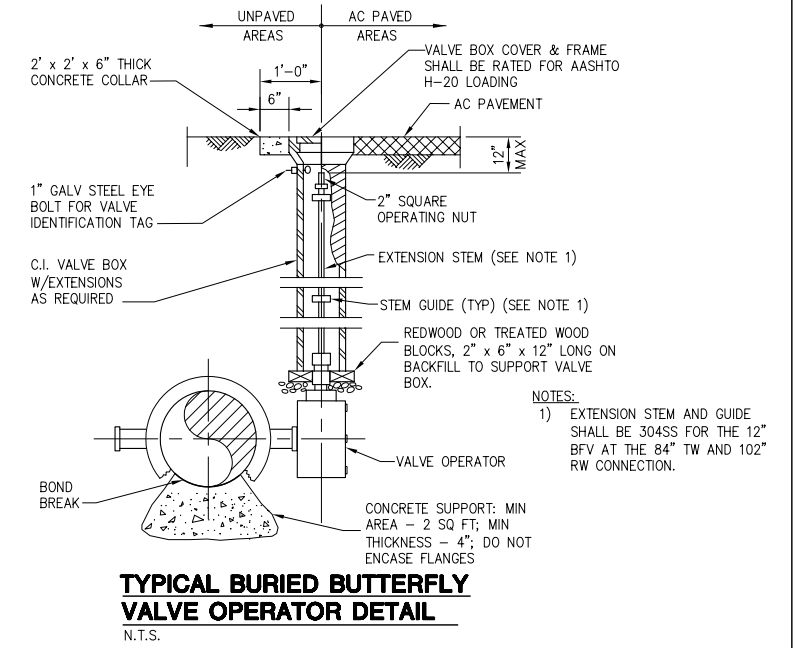
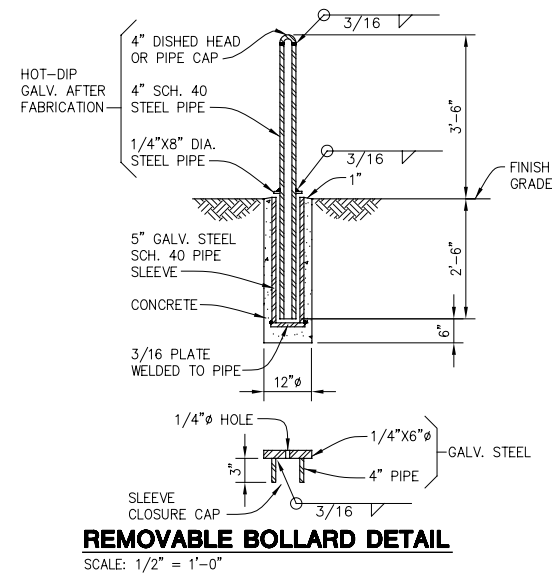
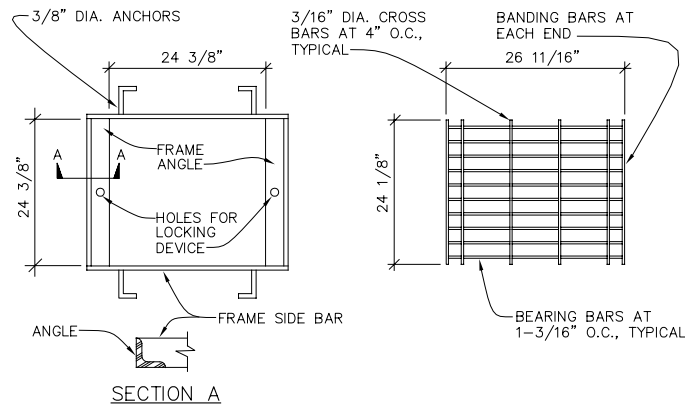
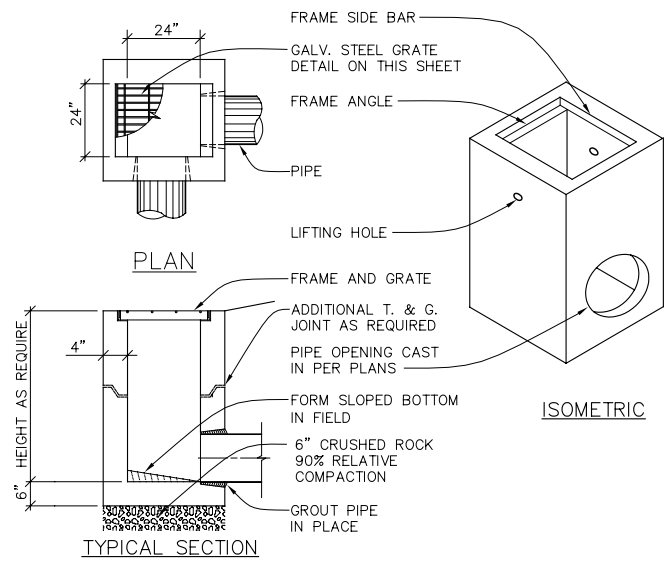
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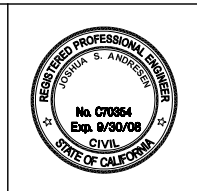
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NO.	REVISION	DATE	BY
1		JULY 2010	JTD

SCALES

0 1" = 25mm

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DRAWN: ROO
CHECKED: KCA

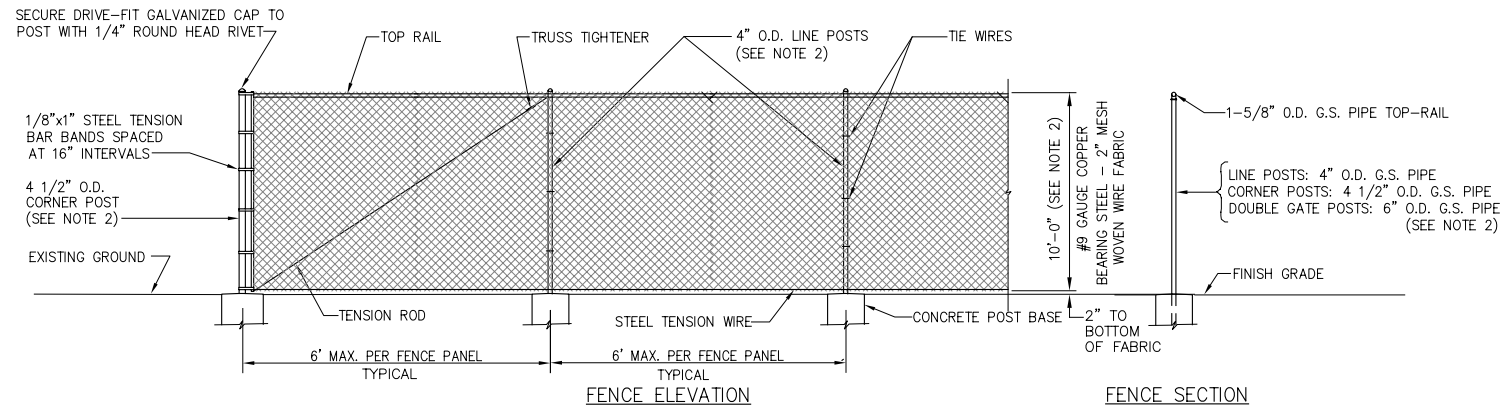
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Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

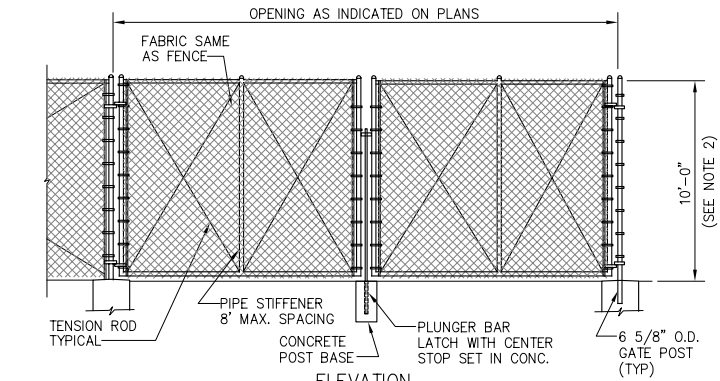
PERCHLORATE TREATMENT

MISCELLANEOUS DETAILS I

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
C-7

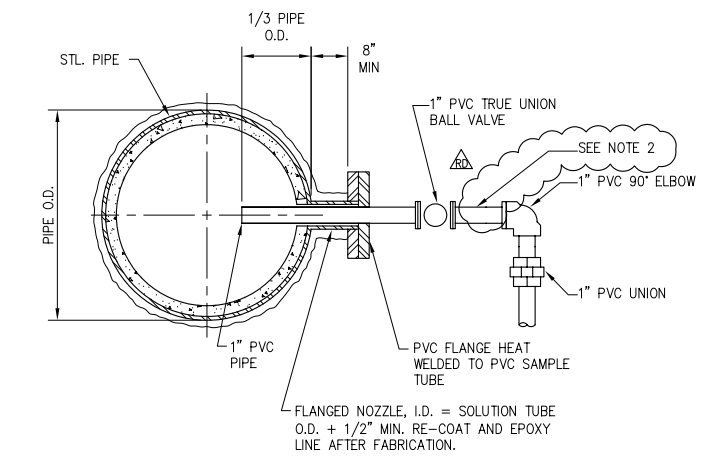


TYPICAL CHAIN LINK FENCE DETAIL
N.T.S.



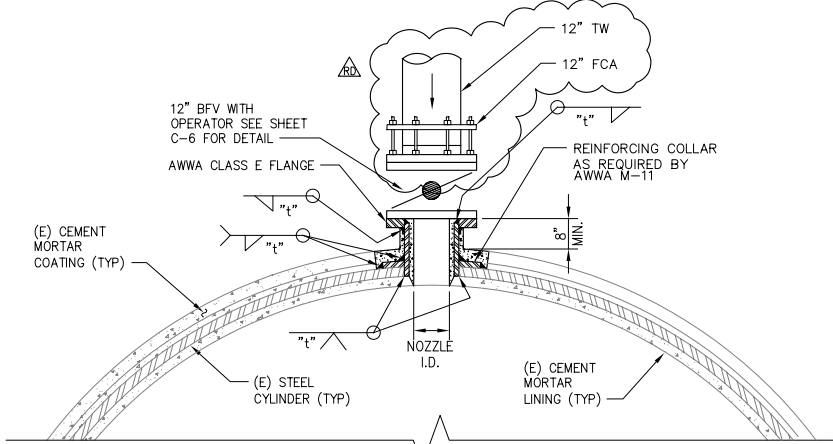
- NOTES:**
- LATCHES SHALL BE ARRANGED FOR LOCKING. ALL GATES SHALL HAVE KEEPERS CONSISTING OF A MECHANICAL DEVICE FOR SECURING THE FREE END OF THE GATE WHEN IT IS IN THE OPEN POSITION.
 - FENCING AT SAUGUS WELL NO. 1 AND BOOSTER PUMP STATION SITES SHALL BE 8 FEET HIGH WITH 2", 2 1/2", AND 4" OD GALVANIZED STEEL PIPE FOR LINE POST, CORNER POSTS, AND GATE POSTS RESPECTIVELY.

TYPICAL DOUBLE SWING GATE DETAIL
N.T.S.



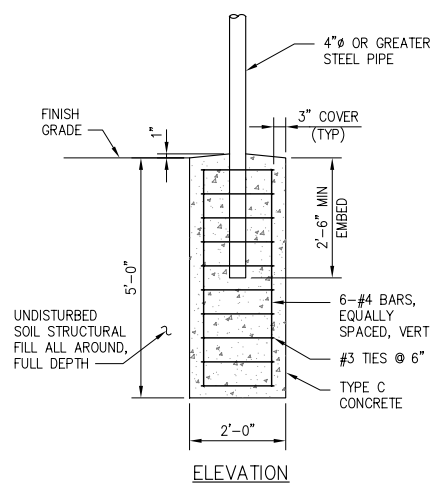
- NOTE:**
- ALL PVC SHALL BE SCHEDULE 80.
 - PROVIDE A SCHEDULE 40 316 SS NIPPLE TO PASS BETWEEN THE THREADED OUTLET AND (THREADED) FLANGE. PROVIDE A NIPPLE WITH 8-INCH OVERALL LENGTH, OR GREATER.

ABOVE GRADE 1 SAMPLE CONNECTION DETAIL 2
N.T.S. M-1 M-2

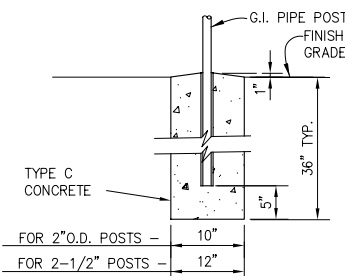


- NOTES:**
- CONTRACTOR TO MODIFY (E) 84" TW AND 102" RW PIPE TO PROVIDE 12-INCH NOZZLE AS SHOWN.
 C PIPE ≈ 1144.4 FOR 102" RW
 C PIPE ≈ 1143.2 FOR 84" TW
 - CONTRACTOR TO CONFIRM DEPTH AND LOCATION OF 84" TW AND 102" RW PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL COORDINATE ISOLATION AND DEWATER OF EXISTING PIPELINES WITH CLWA BEFORE MAKING CONNECTIONS. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR DEWATERING AND BE RESPONSIBLE FOR DISPOSAL IN ACCORDANCE WITH SECTION 01400.
 - PATCH (E) CEMENT MORTAR LINING AFTER INSTALLING NOZZLE.

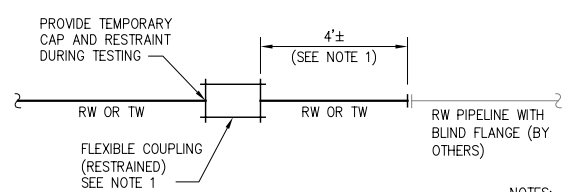
84" TW AND 102" RW CONNECTION DETAIL 1
N.T.S. C-5



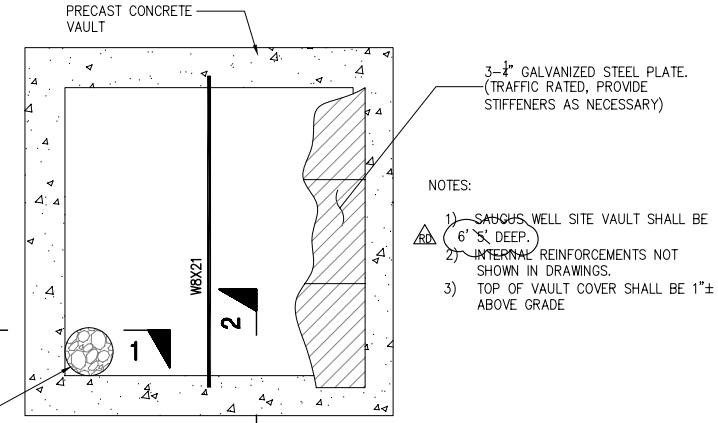
CONCRETE FENCE POST BASE FOR 10 HIGH FENCE
SCALE: 1/2" = 1'-0"



CONCRETE FENCE POST BASES FOR 8 HIGH FENCE
N.T.S.



TYPICAL CONNECTION TO PIPELINE (BY OTHERS) DETAIL
N.T.S.



TYPICAL UTILITY VAULT DETAIL
SCALE: 1/2" = 1'-0"

RECORD DRAWINGS

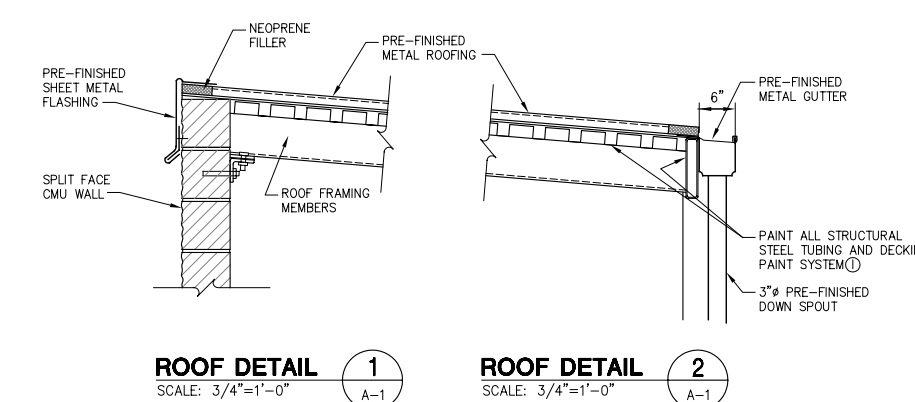
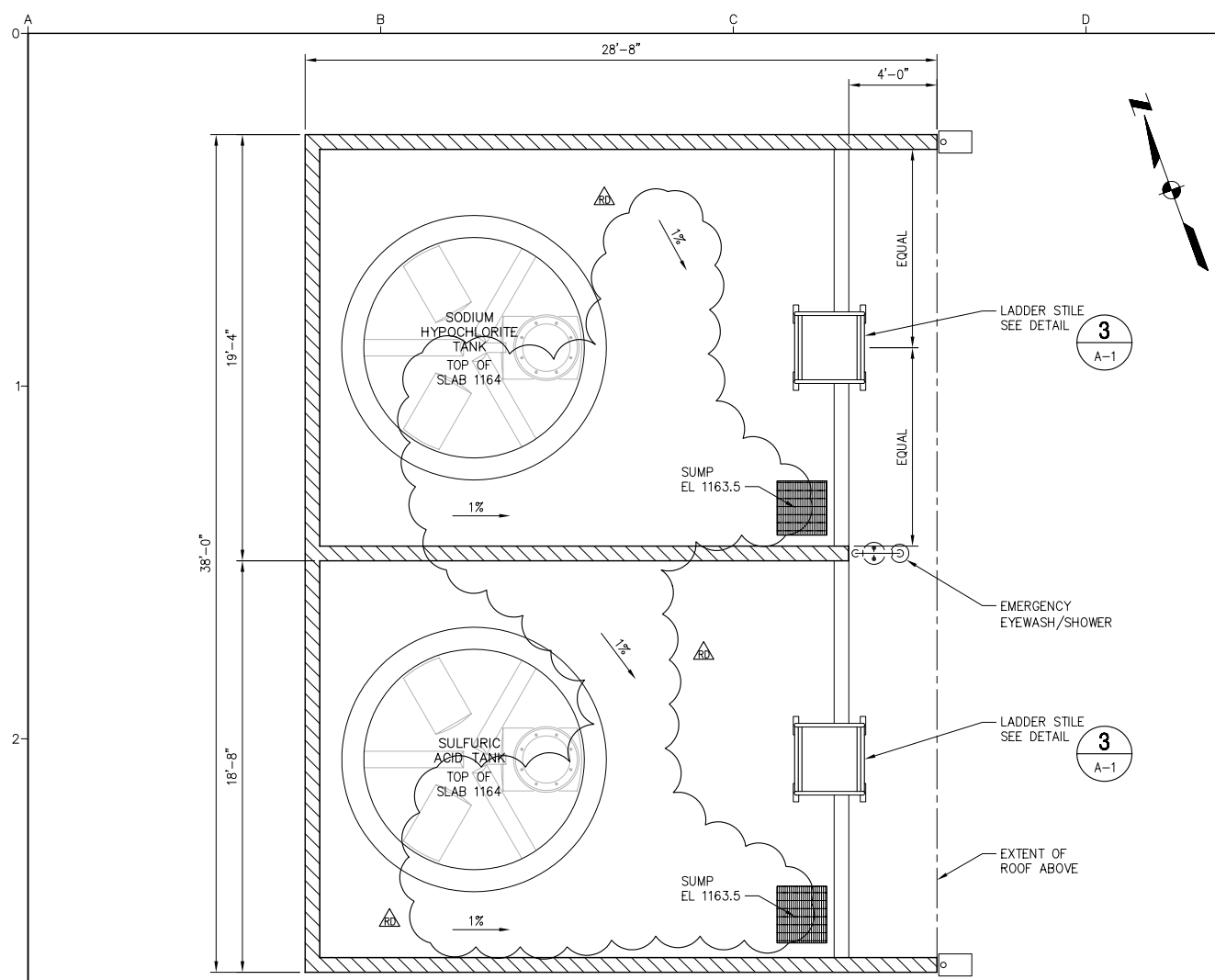
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- NOTES:**
- REMOVE BLIND FLANGE AND INSTALL INDICATED ITEMS UPON COMPLETION OF SUCCESSFUL PRESSURE TESTING AND DISINFECTION.
 - CONTRACTOR SHALL COORDINATE ISOLATION AND DEWATER OF EXISTING PIPELINES WITH CLWA BEFORE MAKING CONNECTIONS. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR DEWATERING AND BE RESPONSIBLE FOR DISPOSAL IN ACCORDANCE WITH SECTION 01400.

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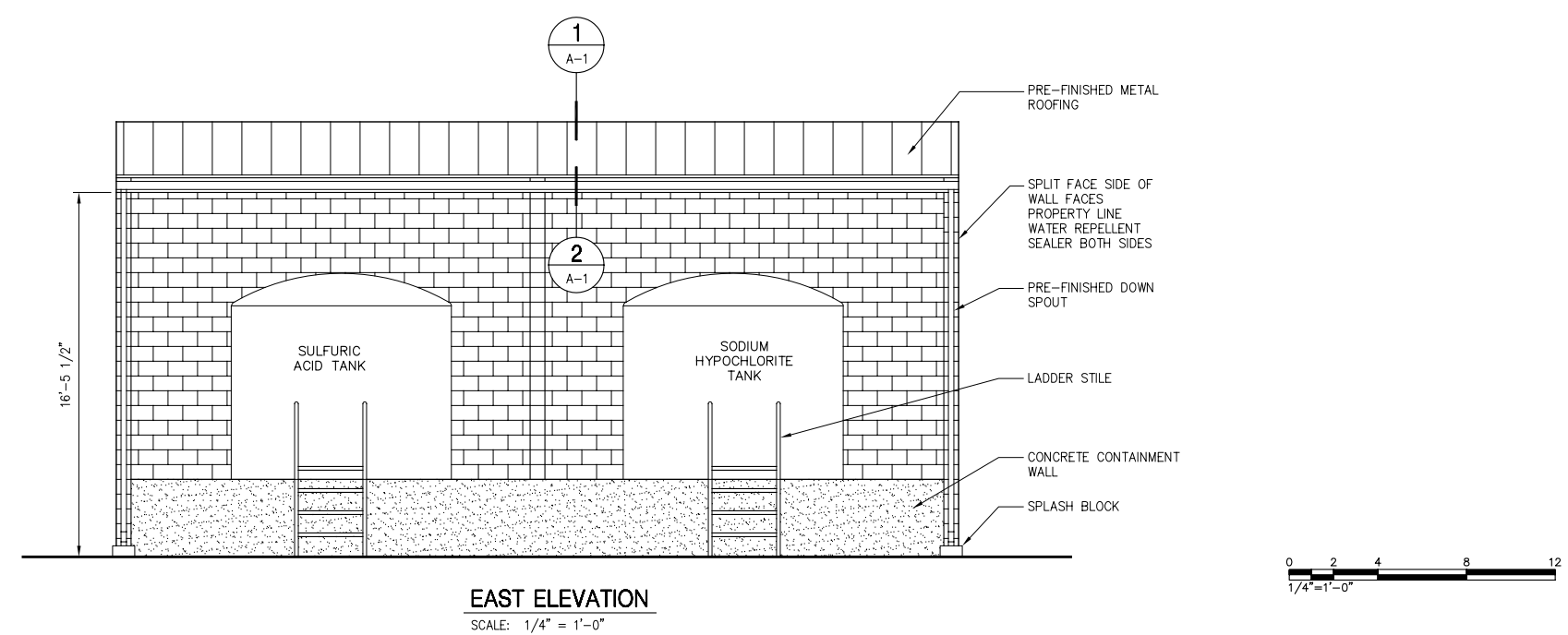
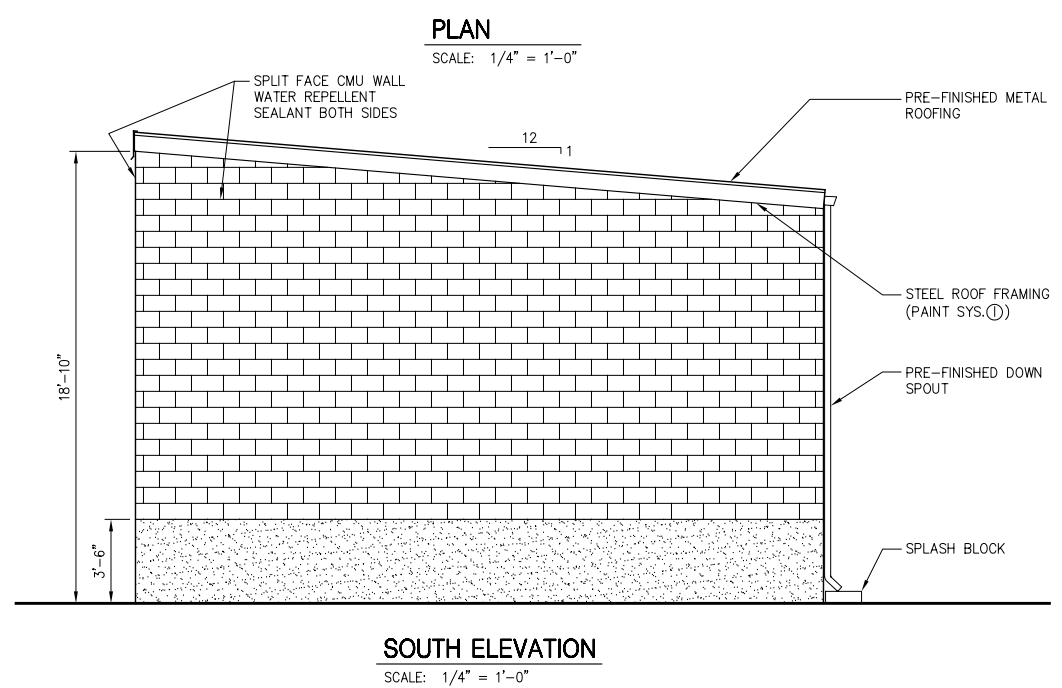
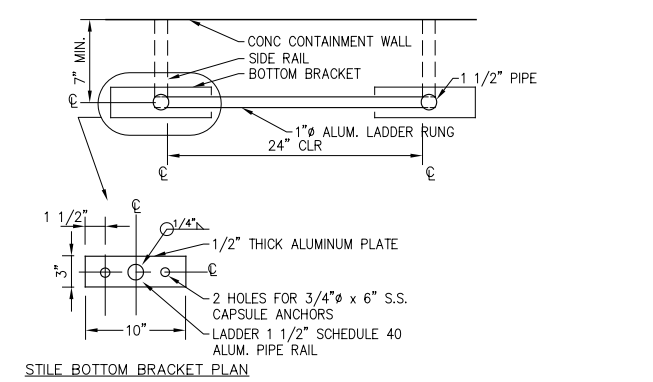
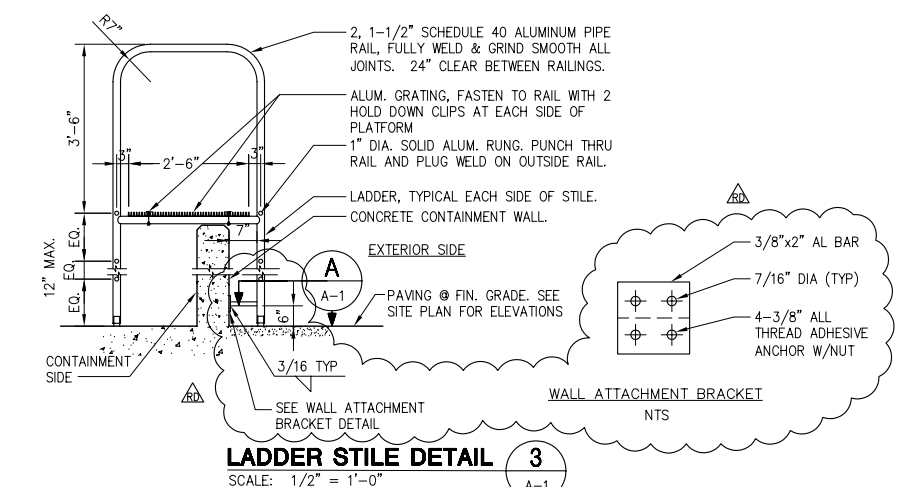
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							DRAWN		ROO	MISCELLANEOUS DETAILS II
					CHECKED	KCA			DATE	JAN. 2008
								SHEET		OF
										C-8



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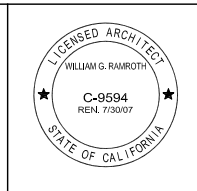
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1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

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0 — 25mm = 1'-0"

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DESIGNED: WGR
DRAWN: MN
CHECKED: PL

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

CHEMICAL STORAGE BUILDING
PLAN, ELEVATIONS AND DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET **A-1** OF

GENERAL STRUCTURAL NOTES

GENERAL

- DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 1997 UNIFORM BUILDING CODE, THE 2001 CALIFORNIA BUILDING CODE AND THE REFERENCED BUILDING CODE STANDARDS.
- THESE NOTES AS WELL AS THE TYPICAL DETAILS APPLY TO ALL PARTS OF THE PROJECT, UNLESS NOTED OTHERWISE.
- SHOP DRAWINGS FOR THIS CONTRACT SHALL BE COORDINATED WITH FAVORABLY REVIEWED EQUIPMENT MANUFACTURER'S DRAWINGS.
- DIMENSIONS NOTED WITH AN ASTERISK, " * ", ARE TO BE COORDINATED WITH FAVORABLY REVIEWED EQUIPMENT MANUFACTURER.

PERMITS AND INSPECTIONS

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED BY THE LOCAL BUILDING INSPECTOR AND AS DESCRIBED IN THE SPECIFICATIONS.
- THE CONTRACTOR SHALL SELECT, INSTALL AND MAINTAIN SHORING, SHEETING, BRACING AND SLOPING AS NECESSARY TO MAINTAIN SAFE EXCAVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING FULL COMPLIANCE WITH 29 CFR PART 1926 OSHA SUBPART P EXCAVATIONS AND TRENCHES REQUIREMENTS. ALL EARTHWORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE LAW, INCLUDING LOCAL ORDINANCES, CAL OSHA, CALIFORNIA CIVIL CODE AND CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY REQUIREMENTS, AND APPLICABLE OSHA REQUIREMENTS.

SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48-HOURS BEFORE PLACEMENT OF REINFORCING STEEL AND CONCRETE SO THAT THE SUBGRADE OF EXCAVATIONS MAY BE INSPECTED BY THE GEOTECHNICAL ENGINEER.
- THE GEOTECHNICAL ENGINEER SHALL VERIFY BACKFILL MATERIAL AND BACKFILLING PROCEDURES AND PROVIDE SOIL COMPACTION TESTS.
- STRUCTURAL OBSERVATION SHALL BE PROVIDED BY THE DESIGN ENGINEER(S) OF RECORD OR THEIR AUTHORIZED REPRESENTATIVES IN ACCORDANCE WITH UBC 97, SECTION 1702. STRUCTURAL OBSERVATION SHALL CONSIST OF SITE VISITS AT INTERVALS APPROPRIATE TO THE STAGE OF CONSTRUCTION TO OBSERVE CONSTRUCTION IN PROGRESS AND REVIEW OF TESTING AND INSPECTION REPORTS FOR GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS RELATING TO THE STRUCTURAL WORK AND THE NONSTRUCTURAL COMPONENTS AND EQUIPMENT ANCHORAGE.
- SPECIAL INSPECTION IN ACCORDANCE WITH UBC 97, SECTION 1701, SHALL BE REQUIRED AS INDICATED IN THE SPECIAL INSPECTION AND TESTING SCHEDULE ON THIS SHEET.

SOIL AND FOUNDATIONS

- GEOTECHNICAL INVESTIGATIONS FOR DESIGN PURPOSES AT THIS SITE WERE MADE FOR CASTAIC LAKE WATER AGENCY BY SCHAEFER DIXON ASSOCIATES, INC. IN A REPORT DATED NOVEMBER 6, 1991
- IN ACCORDANCE WITH THE UBC CHAPTER 18 THE SOILS AT THE RIO VISTA PUMP STATION SITE ARE GENERALLY CLASSIFIED AS ARTIFICIAL FILL ABOVE MEDIUM DENSE SAND
- THE DESIGN BEARING CAPACITY OF THE SOILS IS 2,500 PSF FOR FOOTINGS. BEARING CAPACITY OF SOILS ARE 3,300 PSF FOR LOAD COMBINATIONS INCLUDING WIND OR SEISMIC LOADS
- SOIL SHALL BE EXCAVATED TO THE ELEVATIONS INDICATED ON THE DRAWINGS FOR FOUNDATIONS. THE SUBGRADE SHALL BE PREPARED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS AND APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATED MATERIAL SHALL BE REPLACED WITH STRUCTURAL FILL AS SHOWN ON THE DRAWINGS. FOUNDATIONS SHALL BE CONSTRUCTED AGAINST UNDISTURBED NATIVE COMPETENT MATERIAL OR COMPACTED STRUCTURAL FILL.

LOADING CRITERIA

- MINIMUM LOADING REQUIREMENTS PER CHAPTER 16 OF THE 1997 UNIFORM BUILDING CODE INCLUDING LATEST REVISION.
- DEAD LOAD: AS CALCULATED
- LIVE LOADS:
 - CONCRETE VAULTS AND COVERS: AASHTO HS20-44
 - FIXED STAIRWAYS: 100 PSF UNIFORM, 1,000 LBS POINT
 - GRATING AND CHECKERED PLATE: 150 PSF UNIFORM, 1,000 LBS POINT
 - ACCESS HATCHES: 100 PSF UNIFORM, 1,000 LBS POINT
 - SIDEWALKS AND DRIVEWAYS: 300 PSF UNIFORM
 - UNRESTRICTED VEHICULAR ACCESS: AASHTO HS20-44
 - ELEVATED SLABS AND WALKWAYS: 100 PSF UNIFORM
 - HANDRAILS, GUARDRAILS AND STAIRRAILS: 20 PLF AT TOP RAIL
- WIND LOAD:
 - IMPORTANCE FACTOR, I_w : 1.15
 - BASIC WIND SPEED: 70 MPH
 - EXPOSURE: C
- SEISMIC LOAD:
 - OCCUPANCY CATEGORY: ESSENTIAL FACILITIES
 - SEISMIC IMPORTANCE FACTOR, I : 1.25
 - SEISMIC IMPORTANCE FACTOR, I_p : 1.5
 - SEISMIC ZONE FACTOR, Z : 0.40
 - SOIL PROFILE TYPE: S_o
 - SEISMIC SOURCE TYPE: A
 - SEISMIC COEFFICIENT, C_e : .66
 - SEISMIC COEFFICIENT, C_v : 1.28
 - NEAR SOURCE COEFFICIENT FACTOR, N_e : 1.5
 - NEAR SOURCE FACTOR, N_v : 2
 - OVERSTRENGTH AND DUCTILITY COEFFICIENT, R : 4.5
 - SEISMIC AMPLIFICATION FACTOR, Ω : 2.8

STRUCTURAL STEEL

- UNLESS OTHERWISE NOTED, STRUCTURAL STEEL SHALL CONFORM TO ASTM A36. W- AND WT- SHAPES SHALL CONFORM TO ASTM A992. PLATES CONNECTING TO W- AND WT- SHAPES SHALL CONFORM TO ASTM A572 GRADE 50. HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500 GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53 TYPE E OR S.
- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERRECTED BY AN AISC CERTIFIED FABRICATOR IN CONFORMANCE WITH THE LATEST AISC SPECIFICATION PARTS 1 THRU 4 AND THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
- CONNECTIONS AND BOLTS SHALL CONFORM TO THE AISC ALLOWABLE STRESS DESIGN SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. CONNECTIONS SHALL USE ASTM A325-X BOLTS UNLESS NOTED OTHERWISE. PROVIDE WASHERS AT ALL CONNECTIONS WITH OVERSIZE OR SHORT SLOTTED HOLES.
- WELD ELECTRODES SHALL CONFORM TO AWS A5.1 OR A5.5 E70XX ELECTRODES. WELDING SHALL BE DONE BY CERTIFIED WELDERS. WELDING SHALL USE ONLY APPROVED ELECTRODES. WELDING SHALL CONFORM TO THE PROVISIONS OF THE LATEST STRUCTURAL WELDING CODE (AWS D1.1).
- UNLESS NOTED OTHERWISE, STRUCTURAL STEEL COMPONENTS AND CONNECTIONS SHALL BE PAINTED OR PROTECTIVE COATED IN ACCORDANCE WITH THE SPECIFICATIONS.

REINFORCING STEEL

- REINFORCING BARS SHALL BE ASTM A615-GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- ARRANGEMENT AND DETAILING OF REINFORCING STEEL, INCLUDING BAR SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE LATEST ACI 315 DETAILING MANUAL.
- REINFORCING SHALL LAP A MINIMUM OF 1.3 L_d AT SPLICES UNLESS OTHERWISE SHOWN. WHERE L_d IS THE TENSION DEVELOPMENT LENGTH. WHEN BARS OF DIFFERENT SIZE LAP TO EACH OTHER, SPLICE LENGTH FOR THE SMALLER BAR CAN BE USED. DOWELS SHALL HAVE THE SAME SIZE AND SPACING AS THAT OF THE REINFORCING STEEL THEY ARE SPLICED AND SHALL HAVE A MINIMUM LAP AS NOTED ABOVE. BAR SPLICES SHALL BE STAGGERED.
- HOOK BARS AT OPENINGS.
- NO WELDING OF REINFORCING BARS SHALL BE PERMITTED, UNLESS APPROVAL IN WRITING IS OBTAINED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- DIMENSIONS TO REINFORCING ARE TO BAR CENTERLINES, UNLESS NOTED OTHERWISE. BAR COVER IS CLEAR DISTANCE BETWEEN THE BAR AND THE CONCRETE SURFACE. UNLESS NOTED OR SHOWN OTHERWISE BAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND BASE SLABS:

FORMED SURFACES AND BOTTOMS ON CONCRETE WORK MAT 2-INCH
BOTTOMS AND SIDES IN CONTACT WITH EARTH 3-INCH

BEAMS AND COLUMNS:

DRY CONDITIONS:
STIRRUPS, SPIRALS AND TIES 1 1/2-INCH
PRINCIPAL REINFORCEMENT 2-INCH
EXPOSED TO EARTH, WATER OR WEATHER:
STIRRUPS, SPIRALS AND TIES 2-INCH
PRINCIPAL REINFORCEMENT 2 1/2-INCH

WALLS:

LESS THAN 12-INCHES THICK 1 1/2-INCH
12 INCHES OR OVER IN THICKNESS 2 1/2-INCH

CONCRETE

- CEMENT SHALL BE ASTM C150 TYPE II FOR ALL STRUCTURES. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH AS NOTED IN THE TABLE BELOW AND AS FURTHER DEFINED IN THE SPECIFICATIONS:

CONCRETE STRENGTH (PSI)		
TYPE	STRENGTH	LOCATION
A	3,500	NOT USED
B	4,500	NOT USED
C	4,000	BLDG BASIC CONC - SLABS, EQUIPMENT PADS, & WALLS
D	4,500	NOT USED
E	3,000	MISCELLANEOUS STRUCTURES & SITEWORK
F	5,000	ARCHITECTURAL FENCE POSTS

- CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 (LATEST EDITION) INCLUDING BAR BENDS AND HOOKS, UNLESS DETAILED OTHERWISE.
- SUBMIT CONCRETE AND MASONRY LIFT DRAWINGS SHOWING THE LOCATION OF CONSTRUCTION JOINTS, WATERSTOPS AND OTHER TYPES OF JOINTS OTHER THAN SPECIFIED OR SHOWN ON THE DRAWINGS FOR FAVORABLE REVIEW BY THE ENGINEER BEFORE START OF WORK ON FORMS, REINFORCING STEEL OR PLACING CONCRETE. ANY ADDITIONAL VERTICAL OR HORIZONTAL CONSTRUCTION JOINTS SHALL HAVE A STANDARD KEYWAY AND SHALL BE FAVORABLY REVIEWED BY THE ENGINEER. REFER TO SPECIFICATIONS AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION. CONSTRUCTION JOINTS SHALL BE ROUGHENED TO 1/4-INCH AMPLITUDE.
- OPENINGS, PIPE SLEEVES, CONDUITS, INSERTS AND OTHER EMBEDDED ITEMS SHALL BE IN PLACE BEFORE CONCRETE IS PLACED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, LANDSCAPING, HVAC, PLUMBING, INSTRUMENTATION AND OTHER PLANS FOR ITEMS REQUIRING SLEEVES AND EMBEDMENTS IN CONCRETE WHICH ARE NOT INDICATED OR SHOWN ON STRUCTURAL DRAWINGS. NO PIPES OR SLEEVES SHALL PASS THROUGH STRUCTURAL MEMBERS (UNLESS SHOWN ON STRUCTURAL DRAWINGS). COORDINATE WITH EQUIPMENT MANUFACTURERS DRAWINGS FOR ANCHORING DEVICES.
- UNLESS OTHERWISE NOTED, ALL EXPOSED EDGES AND CORNERS SHALL BE CHAMFERED 3/4-INCH. INTERIOR FLOOR SLABS AND EXTERIOR SIDEWALKS SHALL HAVE TOOLED 3/8-INCH RADIUS CONSTRUCTION JOINT.
- EACH FACE CONCRETE SHALL BE REINFORCED A MINIMUM OF NO. 5 BARS AT 12-INCHES EACH WAY.
- CONCRETE ENCASE ALL PIPES AND CONDUITS UNDER CONCRETE SLABS AND FOOTINGS.

MASONRY

- CONCRETE MASONRY UNITS: BLOCKS SHALL HAVE A LIGHTWEIGHT CLASSIFICATION AND CONFORM TO ASTM C90, LATEST EDITION. MINIMUM COMPRESSIVE STRENGTH OF UNITS OF 1,900 PSI WHEN AIR CURED FOR 28-DAYS. MINIMUM COMPRESSIVE STRENGTH OF 1,500 PSI OF MASONRY WALL ASSEMBLAGE AT 28-DAYS.
- MORTAR: PROPORTION MORTAR TO CONFORM TO THE REQUIREMENTS OF UBC TABLE 21-A (ASTM C270) FOR TYPE S MORTAR. DO NOT USE MASONRY CEMENT. RETEMPER MORTAR ONLY BY ADDING WATER INTO THE MORTAR AND THEN WORKING WATER INTO THE MORTAR. RETEMPERING MORTAR BY DASHING WATER OVER THE MORTAR IS NOT PERMITTED. ANY MORTAR UNUSED WITHIN 2 1/2 HOURS OR GROUT THAT IS UNUSED WITHIN 1 1/2 HOURS AFTER INITIAL MIXING SHALL BE REMOVED FROM THE WORK.
- GROUT: MINIMUM GROUT STRENGTH OF 2,500 PSI. INCREASE CEMENT CONTENT OF THE GROUT, AS NECESSARY TO ACHIEVE THE SPECIFIED MASONRY ASSEMBLY STRENGTH (f_m) AND ADEQUATE WORKABILITY. GROUT COMPRESSIVE STRENGTH WHEN TESTED PER UBC STANDARD NO. 21-18 SHALL BE EQUAL OR EXCEED THE CONCRETE MASONRY UNIT STRENGTH. GROUT SHALL HAVE A SLUMP BETWEEN 9 AND 10-INCHES AT THE TIME OF PLACEMENT. ALL CELLS SHALL BE FILLED SOLIDLY WITH GROUT. ALL GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION.
- ADMIXTURES: ADMIXTURES ARE NOT PERMITTED IN MORTAR OR GROUT UNLESS FAVORABLY REVIEWED BY THE ENGINEER.
- AGGREGATES: SAND FOR MORTAR SHALL CONFORM TO ASTM C144 EXCEPT NOT LESS THAN 3% OF THE SAND SHALL PASS THE NUMBER 100 SIEVE. SAND AND PEA GRAVEL FOR GROUT SHALL CONFORM TO ASTM C404, TABLE 1, COARSE AGGREGATE, EXCEPT WHEN OTHER GRADINGS ARE SPECIFICALLY APPROVED BY THE ENGINEER.

- WATER: WATER USED FOR MORTAR AND GROUT SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNTS OF ACIDS, SALTS, ALKALI, AND ORGANIC MATERIALS.
- REINFORCEMENT: REINFORCING SHALL BE ASTM A615-GRADE 60. REINFORCEMENT SHALL BE FULLY EMBEDDED IN GROUT. EMBEDDED ITEMS SHALL BE SECURED IN PLACE PRIOR TO GROUTING. PROVIDE A MINIMUM OF 1-INCH GROUT AROUND BOLTS IN MASONRY. PLACE HORIZONTAL REINFORCING IN BOND BEAM UNITS. VERTICAL REINFORCING SHALL BE HELD IN PLACE AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS. UTILIZE REBAR POSITIONERS TO ACHIEVE VERTICAL REINFORCING PLACEMENT. HORIZONTAL REINFORCING SHALL BE PLACED IN BOND BEAM UNITS, EXCEPT LINTEL UNITS SHALL BE USED OVER OPENINGS.
- BEFORE PLACING BLOCK ON CONCRETE, CLEAN CONCRETE, ROUGHEN CONCRETE SO THAT AGGREGATE IS EXPOSED TO 1/4-INCH AMPLITUDE AND APPLY BONDING AGENT.
- LAY ALL MASONRY WITH COMMON OR RUNNING BOND. CONSTRUCT ALL MASONRY TO MAINTAIN AN UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED. THE VERTICAL ALIGNMENT SHALL BE SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED VERTICAL FLUE CONFORMING TO THE REQUIREMENTS IN UBC TABLE 21-C.
- CONSTRUCTION JOINTS: WHEN GROUTING IS STOPPED FOR A PERIOD OF 1 HOUR OR LONGER, FORM HORIZONTAL CONSTRUCTION JOINTS BY STOPPING THE GROUT POUR 1 1/2 INCHES MINIMUM BELOW THE UPPER-MOST UNIT, EXCEPT AT THE TOP OF WALLS.
- CONTROL JOINTS: LOCATE CONTROL JOINTS AS SHOWN ON PLANS OR AT 20'-0" MAXIMUM SPACING WHERE NOT SHOWN BUT NOT LESS THAN 2'-0" FROM A JAMB OR OPENING. PLACE LEDGER, LINTEL, OR TOP OF WALL BEAM REINFORCING CONTINUOUS THROUGH EXPANSION AND CONTROL JOINTS, WRAPPING BARS WITH 1/8-INCH THICK BOND BREAKING TAPE 2'-0" BOTH SIDES OF JOINT. DO NOT SPLICE BOND BEAM REINFORCING WITHIN 6'-0" OF AN EXPANSION OR CONTROL JOINT.
- SPECIAL INSPECTION: WHERE THE BUILDING, STRUCTURE OR STRUCTURAL ELEMENT REQUIRES SPECIAL INSPECTION AS NOTED ON THE PLANS AND THE REINFORCING SCHEDULE BELOW, PROVIDE SPECIAL INSPECTION IN ACCORDANCE WITH UBC SECTION 1701.7.
- INSPECTION: ALL WORK SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE OR THE BUILDING OFFICIAL. THE CONTRACTOR SHALL MAINTAIN ALL WORK ACCESSIBLE AND EXPOSED FOR INSPECTION. INSPECTION SHALL INCLUDE BUT NOT BE LIMITED TO CHECKING CELLS FOR DEBRIS PRIOR TO GROUTING AND SIZE AND PLACEMENT OF REINFORCEMENT, ANCHORS, AND OTHER IMBEDDED ITEMS.
- REINFORCEMENT TOLERANCES: UNLESS NOTED OTHERWISE ALL VERTICAL WALL REINFORCEMENT PLACED IN A DIRECTION PERPENDICULAR TO THE WALL PLANE SHALL BE PLACED WITHIN A TOLERANCE OF ±1/2 INCH AND ALL LONGITUDINAL REINFORCEMENT SHALL BE PLACED WITHIN A TOLERANCE OF ±2 INCHES.

STRUCTURAL STEEL ROOF DECK:

- SEE SPECIFICATION SECTION 05310 FOR ADDITIONAL STRUCTURAL STEEL ROOF DECK MATERIAL AND INSTALLATION REQUIREMENTS. STRUCTURAL QUALITY STEEL SHEETS WITH SHEAR STRENGTHENING ELEMENTS SHALL BE ASTM A446, GRADE A, HOT-DIP GALVANIZED TO ASTM A525, G90.
- FORM DECK UNITS TO SPAN 3 OR MORE SUPPORTS WITH 2-INCH END LAPS.
- DO NOT USE DECK UNITS FOR STORAGE OR WORKING PLATFORMS. CONSTRUCTION LOADS MUST NOT EXCEED CARRYING CAPACITY OF DECK.
- THE DECK OVER THE CHEMICAL STORAGE BUILDING AND THE AMMONIA STORAGE SHELTER SHALL BE TYPE 1.5818 MANUFACTURED BY VULCORAF CO., VERCO, OR APPROVED EQUAL.
- STEEL ROOF DECK PROPERTIES FOR TYPE 1.5818:
 - GAGE: 18
 - WIDE RIB DECK DEPTH: 1-1/2" INCHES
 - MOMENT OF INERTIA, I: 0.292 IN⁴
 - SECTION MODULUS, +S: 0.318 IN³
 - SECTION MODULUS, -S: 0.327 IN³
 - GALVANIZING: ZINC COATED PER ASTM A525 G90
 - FACTORY PRIME PAINT: DOUBLE WHITE (INTERIOR UNDERSIDE ONLY)

- PROVIDE #12 TEK SCREWS TO CONNECT STEEL DECK TO SUPPORTS AS FOLLOWS:
- 7-#12 TEK SCREWS AT ENDS OF EACH 36-INCH WIDE PANEL AND AT INTERMEDIATE SUPPORTS.
 - 11-#10 TEK SCREWS SIDELAP FASTENERS PER EACH 4'-0" SPAN
 - DECK ENDS BEARING 2-INCHES ON SUPPORTING MEMBERS OR INTERIOR END LAPS

SPECIAL INSPECTION AND TESTING SCHEDULE

- CONCRETE
 - CONTINUOUS PLACEMENT INSPECTION
 - EXCEPTIONS: 2,500 PSI OR TYPE E CONCRETE
 - 4 CYLINDERS PER 100 CUBIC YARDS*
 - TEST: 2 @ 7 DAYS, 2 @ 28 DAYS.
 - * EACH MIX PLACED, EACH DAY PLACED
- BOLTS INSTALLED IN CONCRETE
 - ALL BOLTS
 - LOCATION: _____
- SPECIAL MOMENT-RESISTING CONCRETE FRAME NOT USED
- REINFORCING STEEL AND PRESTRESSING TENDONS
 - PLACEMENT INSPECTION
 - STRESSING AND GROUTING OF TENDONS
- STRUCTURAL WELDING
 - PERIODIC VISUAL INSPECTION:
 - SINGLE PASS FILLET WELDS < 5/16"
 - STEEL DECK
 - WELDED STUDS
 - COLD FORMED STUDS AND JOINTS
 - STAIR AND RAILING SYSTEMS
 - CONTINUOUS VISUAL INSPECTION
 - ALL OTHER WELDING
 - REINFORCING STEEL
 - OTHER _____
- HIGH STRENGTH BOLTING
 - SNUG TIGHT: ALL, AS INDICATED
 - FULL PRETENSION: ALL, AS INDICATED
- STRUCTURAL MASONRY
 - f_m=1,500 psi FULL STRESSES
 - VERIFICATION OF f_m: PRISM TESTS, PRISM TEST RECORD, UNIT STRENGTH
 - CONTINUOUS INSPECTION
 - PERIODIC INSPECTION
 - TEST:

TEST	BEFORE	DURING
PRISMS	<input type="checkbox"/>	<input checked="" type="checkbox"/> 3/5,000 sf
UNITS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
GROUT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 3/WEEK
MORTAR	<input type="checkbox"/>	<input checked="" type="checkbox"/> 3/WEEK
- SPECIAL GRADING, EXCAVATION, AND FILLING
 - PERIODIC INSPECTION
 - INSTALLATION INSPECTION
 - PROOF LOAD TEST TO TWICE ALLOWABLE TENSION VALUE: (SUBMIT TEST LOADS TO ENGINEER PRIOR TO TEST)
 - 10% OF ANCHORS FOR DOWELS
 - 10% OF ANCHORS FOR SILL PLATE BOLTS
 - 50% OF ANCHORS FOR EQUIP ANCHORAGE
 - 100% OF ANCHORS FOR HOLD-DOWN BOLTS
 - 100% FOR ALL OTHER ANCHORS
 - NOTE: POST-INSTALLED FASTENERS ARE ONLY TO BE INSTALLED WHERE SPECIFICALLY INDICATED.
- EXCAVATION SUPPORT/SHORING
- UNDERPINNING

STRUCTURAL ABBREVIATIONS

&	AND	JT	JOINT
@	AT		
#	NUMBER	KIP	1,000 POUNDS
Ø	DIAMETER	KSI	KIPS PER SQUARE INCH
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS	L/L	ANGLE
AB	ANCHOR BOLT	LB/SF	POUND(S) PER SQUARE FOOT
LH	LONG LEG AGGREGATE BASE	LL	LIVE LOAD
ACI	AMERICAN CONCRETE INSTITUTE	LVV	LONG LEG HORIZONTAL
ADDIT	ADDITIONAL	LBB	LONG LEG BACK-TO-BACK
ADJ	ADJACENT, ADJUSTABLE	LONGIT	LONGITUDINAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LT	LIGHT
		LW	LIGHT WEIGHT
AISI	AMERICAN IRON AND STEEL INSTITUTE	MATL	MATERIAL
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	MAX	MAXIMUM
ALUM	ALUMINUM	MB	MACHINE BOLT
ALT	ALTERNATE	MC	MOISTURE CONTENT
APA	AMERICAN PLYWOOD ASSOCIATION	MC	MISCELLANEOUS CHANNEL
		MFR	MECHANICAL MANUFACTURER
APPROX	APPROXIMATE	MIN	MINIMUM
ARCH	ARCHITECTURAL	MISC	MISCELLANEOUS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MTL	METAL
		(N)	NEW
AWS	AMERICAN WELDING SOCIETY	NDT	NON-DESTRUCTIVE TEST(ING)
		NIC	NOT IN CONTRACT
B/	BOTTOM OF	NO.	NUMBER
BLKG	BLOCKING	NOM	NOMINAL
BLDG	BUILDING	NS	NEAR SIDE
BM	BEAM	NSG	NON-SHRINK GROUT
BM-1	BEAM MEMBER 1	NTS	NOT TO SCALE
BN	BOUNDARY NAILING		
BOT	BOTTOM	OC	ON CENTERS
BP	BASE PLATE	OD	OUTSIDE DIAMETER
BS	BOTH SIDES	OH	OPPOSITE HAND, OVERHEAD
BTWN	BETWEEN	OPN(S)	OPENING(S)
		OPP	OPPOSITE
C	CHANNEL	PL	PLATE
CALC'S	CALCULATIONS	PLF	POUND PER LINEAL FOOT
CC,C/C	CENTER-TO-CENTER	PP	PARTIAL PENETRATION
CJ	CONSTRUCTION JOINT	PPF	POUND PER SQUARE FOOT
CJP	COMPLETE JOINT PENETRATION	PSI	POUND PER SQUARE INCH
C	CLEAR	PT(S)	POINT(S)
CLR	CLEAR	PT(S)	POINT(S)
CNJ	CONTROL JOINT	R, RAD	RADIUS
COL	COLUMN	RECT	RECTANGULAR
CONC	CONCRETE	REIN	REINFORCING, -MENT
CONST	CONSTRUCTION	REQ'D	REQUIRED
CONT	CONTINUOUS		
DBL	DOUBLE	SCH	SCHEDULE
DIA	DIAMETER	SQ	SQUARE FOOT
DIM	DIMENSION	SHT	SHEET
DL	DEAD LOAD	SIM	SIMILAR
DN	DOWN	SLBB	SHORT LEGS BACK-TO-BACK
DWG(S)	DRAWING(S)	SLH	SHORT LEG HORIZONTAL
		SLV	SHORT LEG VERTICAL
(E)	EXISTING	SPC(S)	SPECIFICATION(S)
EA	EACH	SQ	SQUARE
EF	EACH FACE	SS	STAINLESS STEEL
EL	ELEVATION	SSD	SATURATED SURFACE DRY
EMBED	EMBEDMENT	STAG	STAGGER
EN	EDGE NAILING	STD	STANDARD
EQ	EQUAL	STIFF	STIFFENER
EQUIP	EQUIPMENT	STL	STEEL
ES	EACH SIDE	STRUC	STRUCTURE, -AL
EW	EACH WAY	SYM	SYMMETRICAL
EXP	EXPANSION	T/	TOP OF
EXT	EXTERIOR	T&B	TOP AND BOTTOM
(F)	FUTURE	TS	STRUCTURAL TUBING
FD	FLOOR DRAIN	TYP	TYPICAL
FF	FINISH FLOOR		
FIN	FINISH	UBC	UNIFORM BUILDING CODE
FLR	FLOOR	UON	UNLESS OTHERWISE NOTED
FN	FIELD NAILING	UT	ULTRASONIC TESTING
FRP	FIBERGLASS REINFORCED PLASTIC		
FT	FOOT, FEET	VERT	VERTICAL
FTG	FOOTING	VIF	VERIFY IN FIELD
GA	GAGE, GAUGE	W/	WITH
GALV	GALVANIZED	W/O	WITHOUT
GLB	GLULAM BEAM	WF	WIDE FLANGE
		WP	WORK POINT
HORIZ	HORIZONTAL	WT	WEIGHT, STRUCTURAL TEE
HSS	HOLLOW STRUCTURAL SECTION	WTF	WALL THICKNESS
HT	HEIGHT	YD	WELDED WIRE FABRIC
HWL	HIGH WATER LEVEL		YARD
IN	INCH		
INT	INTERIOR		

RECORD DRAWINGS

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NO.	REVISION	DATE	BY
		JULY 2010	JTD

SCALES

0 1" = 25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED	JKC
DRAWN	JKC
CHECKED	DLB

CASTAIC LAKE WATER AGENCY

LOS ANGELES COUNTY, CALIFORNIA

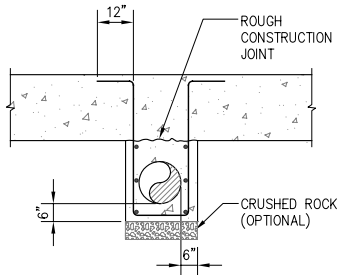
Kennedy/Jenks Consultants

1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

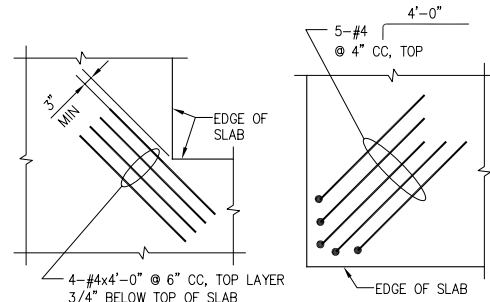
SPLICE LENGTH FOR REINFORCING BARS IN WALLS & SLABS (INCHES)^{1,2,3,5}

BAR SIZE	CONC COVER=1.00 IN.		CONC COVER=1.50 IN.		CONC COVER=2.00 IN.		
	SOFT INCH	TOP ⁴	OTHER	TOP ⁴	OTHER	TOP ⁴	OTHER
#10	#3	17	16	17	16	17	16
#13	#4	23	17	23	17	23	17
#16	#5	33	26	28	22	28	22
#19	#6	46	35	34	26	34	26
#22	#7	74	57	55	43	49	38
#25	#8	93	72	70	54	56	43
#29	#9	113	87	86	66	69	53
#32	#10	137	106	105	81	85	66
#36	#11	162	125	125	97	102	79

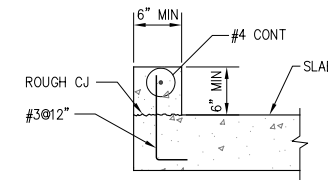
- NOTES:**
- LAP SPLICE LENGTHS ARE DEPENDENT ON THE FOLLOWING CRITERIA AND ARE IN CONFORMANCE WITH ACI 318-02. NOTIFY THE DESIGN ENGINEER IF THERE ARE ANY DIFFERENCES THAN THE FOLLOWING CRITERIA FOR APPLICABLE CHANGES IN LAP SPLICE LENGTH.
 - LAP SPLICE LENGTHS ARE IN INCHES FOR GRADE 60 REINFORCING IN NORMAL-WEIGHT CONCRETE WITH f_c GREATER THAN OR EQUAL TO 3,000 PSI.
 - CENTER-TO-CENTER SPACING OF REINFORCING SHALL BE GREATER THAN TWICE THE CONCRETE COVER PLUS ONE BAR DIAMETER.
 - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 IN. OF CONCRETE CAST BELOW BARS.
 - FOR EPOXY-COATED REINFORCING OR LIGHTWEIGHT AGGREGATE CONCRETE CONSULT THE DESIGN ENGINEER FOR LAP SPLICE LENGTHS.



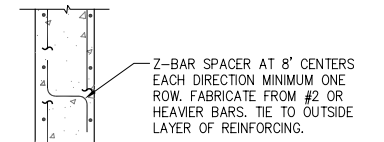
- NOTES:**
- ALL REINFORCEMENT SHOWN SHALL BE #4 @ 12".



INTERIOR CORNERS EXTERIOR CORNERS



- NOTES:**
- FOR LOCATION AND SIZE, SEE ARCH AND MECHANICAL DRAWINGS.



- Z-BAR SPACER AT 8" CENTERS EACH DIRECTION MINIMUM ONE ROW. FABRICATE FROM #2 OR HEAVIER BARS. TIE TO OUTSIDE LAYER OF REINFORCING.

CONCRETE REINFORCEMENT SPLICE TABLE

NTS

11

TYPICAL PIPE AND CONDUIT ENCASEMENT

NTS

8

TYPICAL ADDITIONAL REINFORCING FOR SLAB CORNERS

NTS

7

TYPICAL CONCRETE CURB

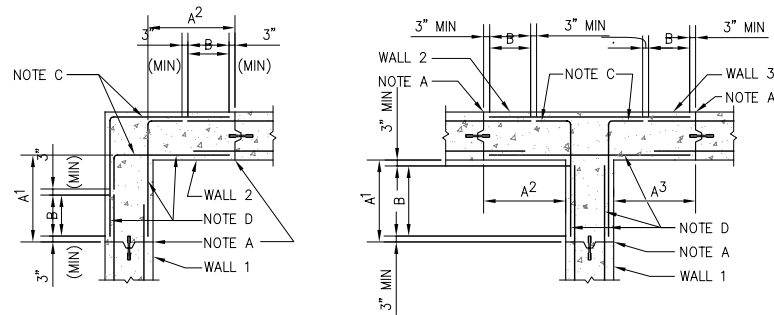
NTS

4

SPACER FOR WALL REINFORCEMENT

NTS

1



- A = VERTICAL CONSTRUCTION JOINT WITH WATERSTOP NEAREST TO WALL CORNER.
 A^x = DISTANCE FROM INSIDE CORNER FACE TO NEAREST VERTICAL CONSTRUCTION JOINT IN SIMILARLY NUMBERED WALL. "A" SHALL NOT BE LESS THAN DIMENSIONS INDICATED BY THESE DETAILS; NOR GREATER THAN INDICATED ON PLAN DRAWINGS; BUT IN ANY CASE SHALL NOT EXCEED 30 FEET.
 B = OPTIONAL SPLICE LOCATION UNLESS SPECIFICALLY NOTED ON PLAN DRAWINGS. SPLICE LENGTH SHALL NOT BE LESS THAN THAT AS SHOWN IN THE CONCRETE REINFORCEMENT SPLICE TABLE. USE SPLICE LENGTH FOR THE SMALLER OF THE TWO BARS BEING SPLICED.
 C = STANDARD HOOK.
 D = TYPICAL CORNER REINFORCEMENT. SIZE SHALL MATCH LARGEST ADJACENT WALL HORIZONTAL REINFORCEMENT; SPACING SHALL MATCH MINIMUM ADJACENT WALL HORIZONTAL REINFORCEMENT SPACING.

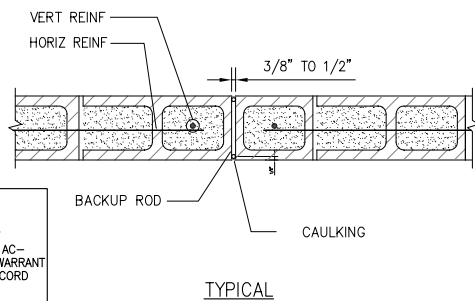
MAIN REINFORCEMENT FOR ALL STRUCTURES

- NOTES:**
- VERTICAL REINFORCING NOT SHOWN.
 - THESE DETAILS SHALL BE APPLICABLE TO ALL WALL CORNERS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

TYPICAL HORIZONTAL CORNER REINFORCING

NTS

12



TYPICAL CONTROL JOINT PLAN

NTS

13

TYPICAL GRATING SUPPORT

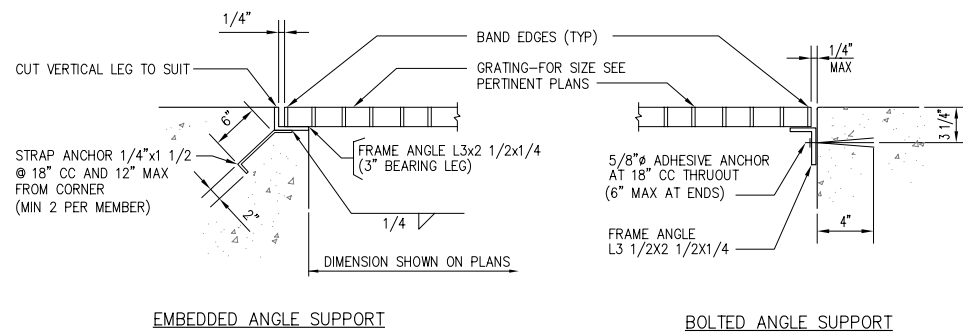
NTS

10

TYPICAL CONTROL JOINTS

NTS

6



MATERIAL SCHEDULE			
GRATING	FRAME ANGLE	ANCHOR STRAPS	ADHESIVE ANCHOR
GALV STEEL	GALV STEEL	STEEL	GALV STEEL
S S	S S	STEEL	S S
FIBERGLASS	S S	STEEL	S S

CONSTRUCTION JOINT WITHOUT WATERSTOP

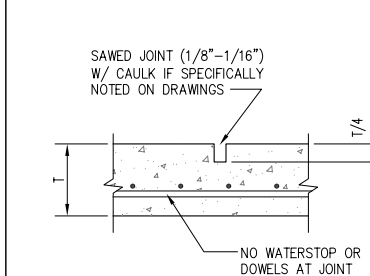
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5

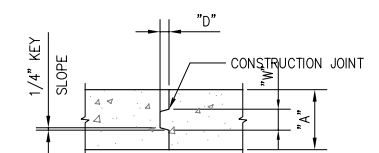
CONSTRUCTION JOINT WITH WATERSTOP

NTS

2



- NOTES:**
- IF SINGLE LAYER REINFORCEMENT, EVERY OTHER BAR IS DISCONTINUOUS AT JOINT.
 - IF 2 LAYER REINFORCEMENT, TOP LAYER IS COMPLETELY DISCONTINUOUS AT JOINT.
 - JOINT FORMED WITH TOOL OR INSERT STRIP MAY BE SUBSTITUTED FOR SAWED TYPE ONLY WITH PRIOR ACCEPTANCE BY THE ENGINEER.
 - SAWED JOINT MUST BE CONSTRUCTED WITHIN 12 HOURS OF CONCRETE PLACEMENT.



- NOTES:**
- KEYS ARE REQUIRED FOR HORIZ CONSTRUCTION JOINTS.
 - FOR SUSPENDED SLABS, PROVIDE A KEY FOR AT LEAST 50% OF THE CONSTRUCTION JOINT LENGTH.

THICKNESS OF SLAB OR WALL "A"	NOMINAL KEY SIZE D x W
LESS THAN 8"	2x3
9" TO 12"	2x4
13" TO 18"	2x6
19" TO 24"	2x8
MORE THAN 24"	2x12

TYPICAL LONGITUDINAL KEYS

NTS

3

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1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 1" = 25mm
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DESIGNED: JKC
 DRAWN: JKC
 CHECKED: DLB

CASTAIC LAKE WATER AGENCY

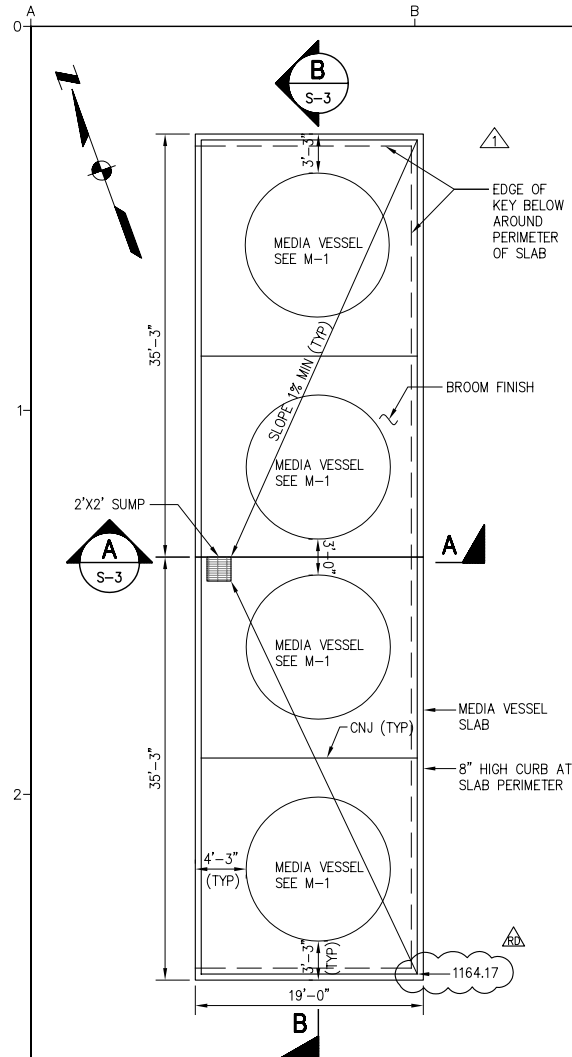
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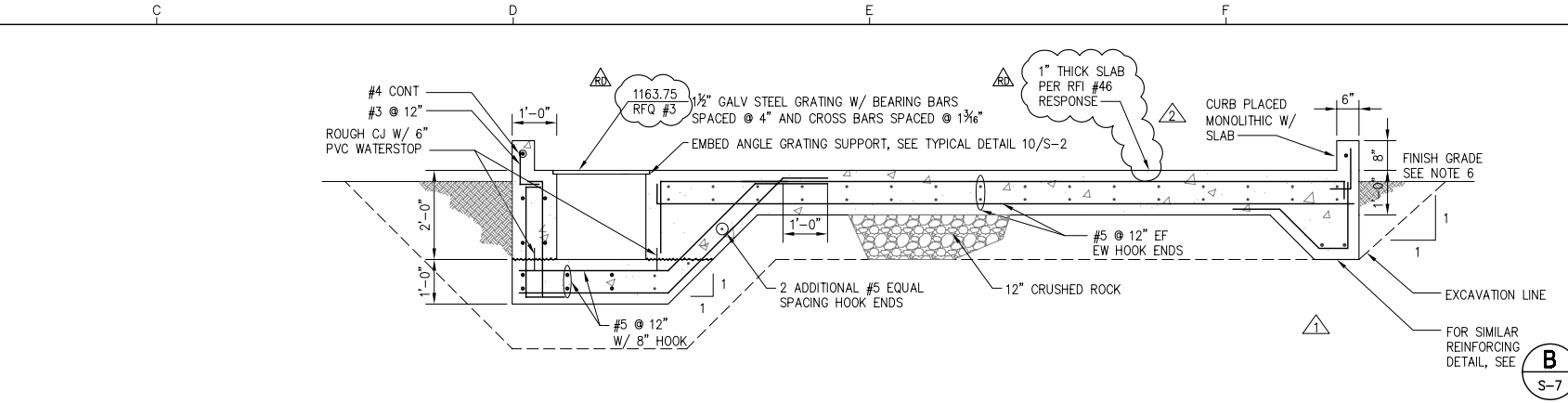
PERCHLORATE TREATMENT

TYPICAL STRUCTURAL DETAILS

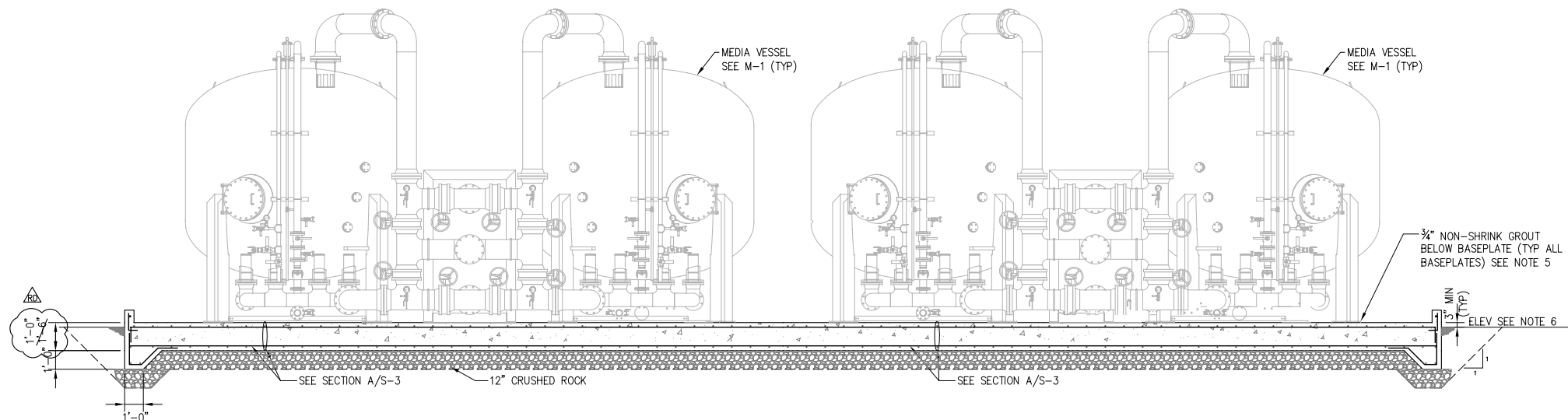
CLWA NO. CL-118A
 JOB NO. 0589017
 DATE JUNE 2007
 SHEET OF S-2



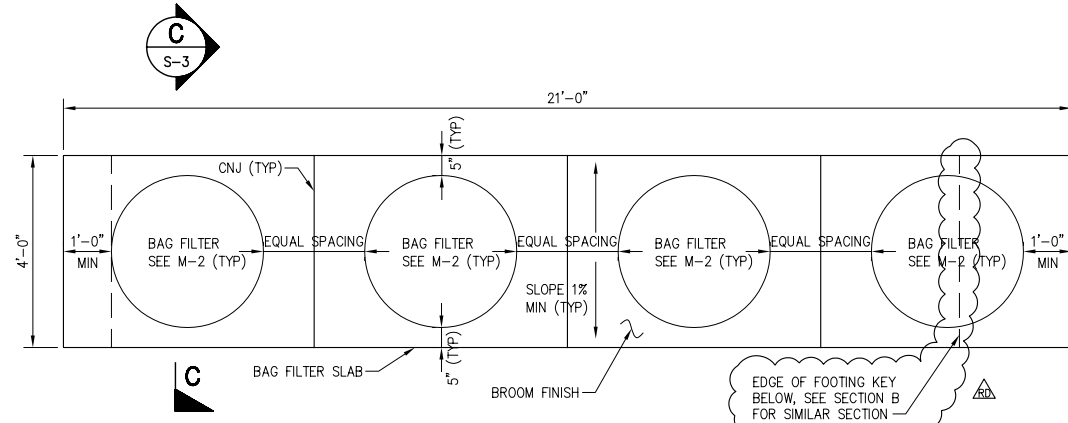
MEDIA VESSELS FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



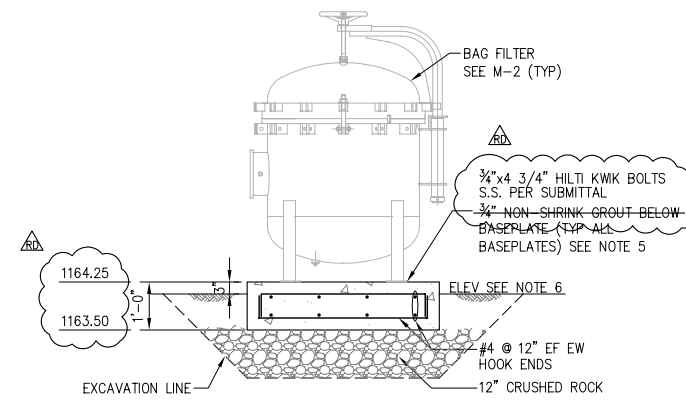
SECTION A
SCALE: 1/2" = 1'-0"
S-3



SECTION B
SCALE: 1/4" = 1'-0"
S-3



BAG FILTER FOUNDATION PLAN
SCALE: 1/2" = 1'-0" (TOP OF SLAB 1164.50)



SECTION C
SCALE: 1/2" = 1'-0"
S-3

RECORD DRAWINGS

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- NOTES:**
- SEE SHEETS S-1 AND S-2 FOR ADDITIONAL NOTES AND DETAILS
 - VERIFY EQUIPMENT SIZES AND LOCATIONS
 - SEE MECHANICAL SHEETS FOR PIPE AND EQUIPMENT LAYOUT
 - STRUCTURAL STEEL TO BE HOT DIP GALVANIZED
 - SUBMIT CALCULATIONS AND DRAWINGS FOR ANCHORAGE OF MEDIA VESSELS AND BAG FILTERS IN ACCORDANCE WITH SPECIFICATION SECTION 01040 PARAGRAPH 1.12.B.2
 - SEE CIVIL DRAWINGS FOR GRADE ELEVATIONS

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USE OF DOCUMENTS

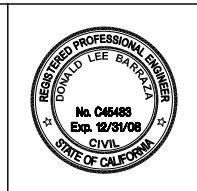
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NO.	REVISION	DATE	BY
2	RECORD DRAWINGS	JULY 2010	JTD
1	CLARIFICATION NO. 3	01/03/2007	DL
1	RFQ NO. 003	01/02/2007	DL

SCALES

0 — 1"
0 — 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: JKC
DRAWN: JKC
CHECKED: DLB

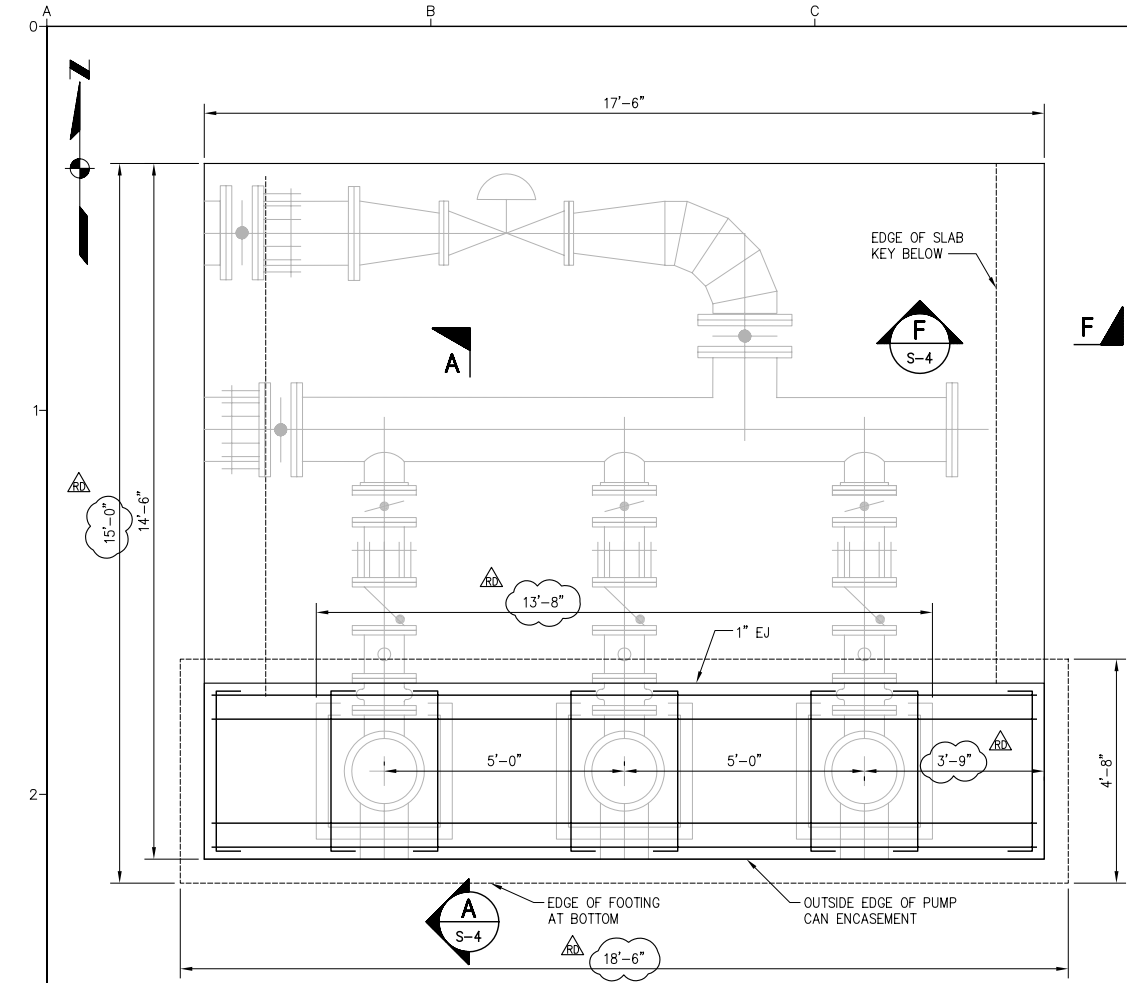
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

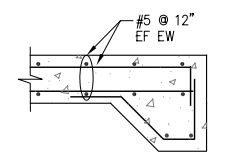
PERCHLORATE TREATMENT

MEDIA VESSELS & BAG FILTERS FOUNDATION PLANS & SECTIONS

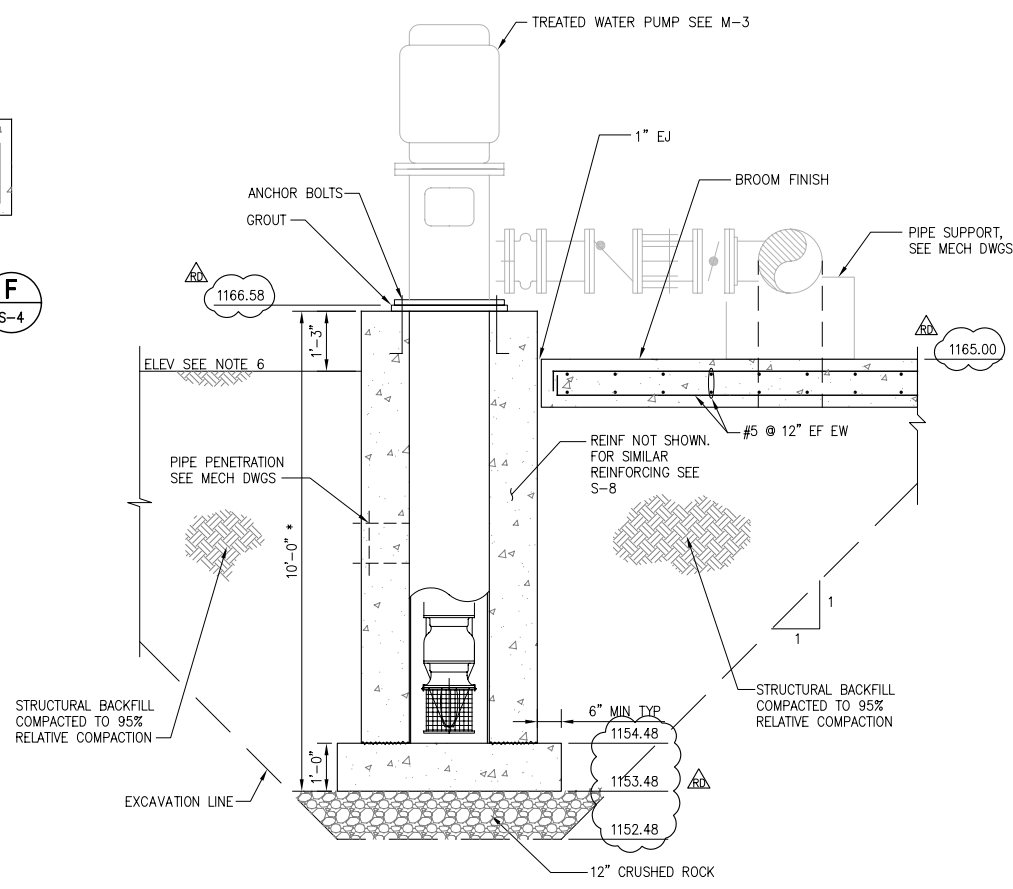
CLWA NO. CL-118A
JOB NO. 0589017
DATE JUNE 2007
SHEET S-3 OF



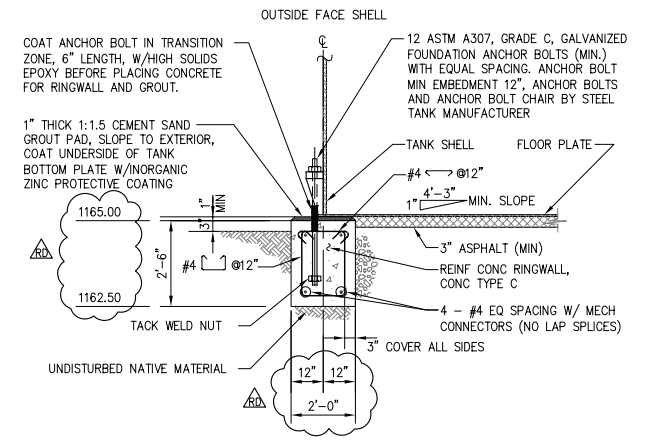
TREATED WATER PUMPS FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



SECTION F
SCALE: 1/2" = 1'-0" S-4

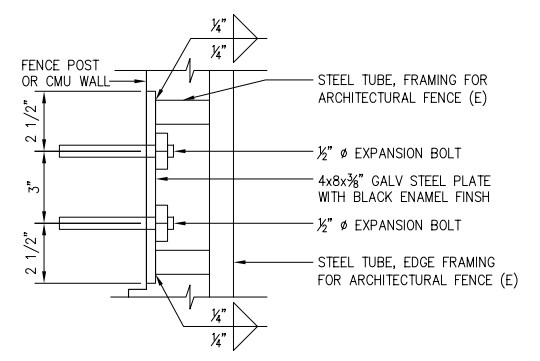


SECTION A
SCALE: 1/2" = 1'-0" S-4



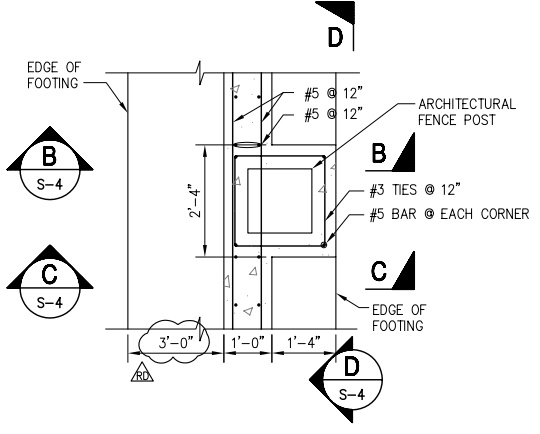
- NOTES:
- TOP OF CONCRETE RING WALL SHALL BE LEVEL WITHIN $\pm 1/8$ -INCH IN ANY 30 FEET OF CIRCUMFERENCE AND WITHIN $\pm 1/4$ -INCH IN TOTAL CIRCUMFERENCE MEASURED FROM THE AVERAGE ELEVATION AFTER INSTALLATION OF TOPPING GROUT.
 - SEE SPECIFICATION SECTION 13212 FOR INFORMATION ABOUT BOLTED STEEL TANK DESIGN
 - COORDINATE ANCHOR BOLT LOCATIONS WITH BOLTED STEEL TANK MANUFACTURER

SECTION E
SCALE: 1/2" = 1'-0" M-4

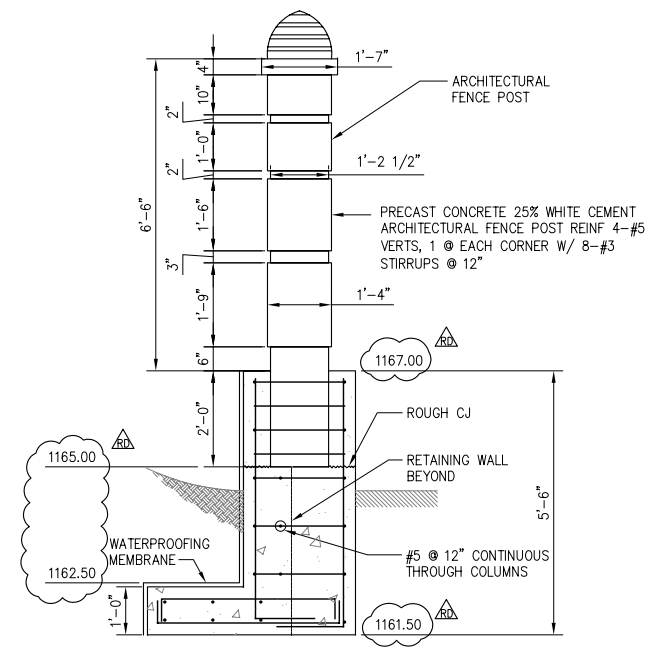


- NOTES: VERIFY DIMENSIONS OF EXISTING COMPONENTS PRIOR TO FABRICATION OF MOUNTING CLIPS

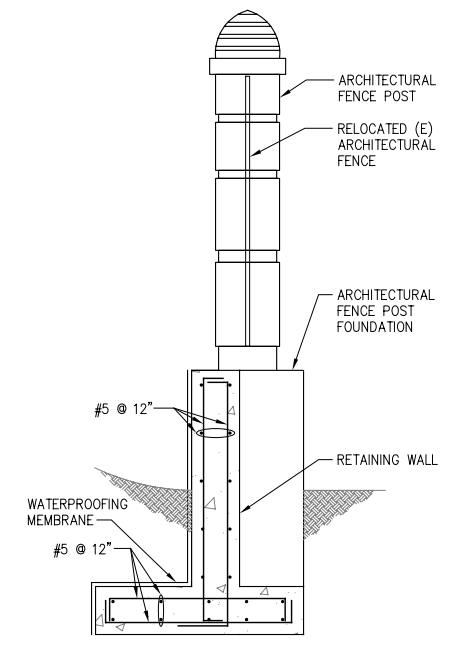
DETAIL 2
SCALE: 3" = 1'-0" S-4



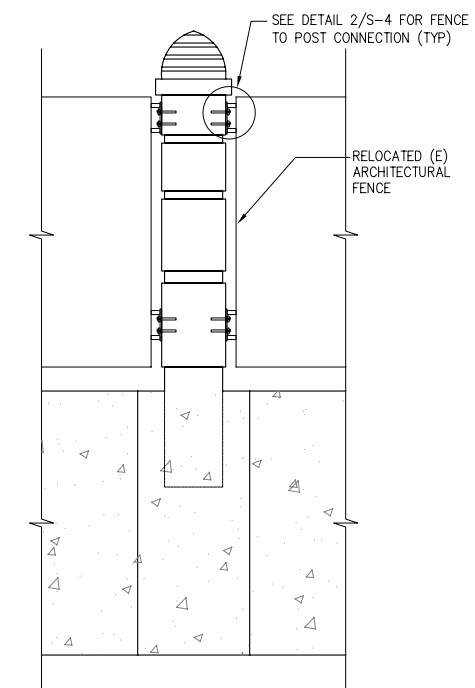
DETAIL 1
SCALE: 1/2" = 1'-0" S-5



SECTION B
SCALE: 1/2" = 1'-0" S-4



SECTION C
SCALE: 1/2" = 1'-0" S-4



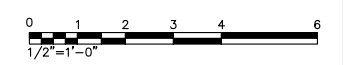
SECTION D
SCALE: 1/2" = 1'-0" S-4

- NOTES:
- SEE SHEETS S-1 AND S-2 FOR ADDITIONAL NOTES AND DETAILS
 - VERIFY EQUIPMENT SIZES AND LOCATIONS
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 - STRUCTURAL STEEL TO BE HOT DIP GALVANIZED
 - SUBMIT CALCULATIONS AND DRAWINGS FOR ANCHORAGE OF TREATED WATER PUMPS IN ACCORDANCE WITH SPECIFICATION SECTION 01040 PARAGRAPH 1.12.B.2
 - SEE CIVIL DRAWINGS FOR GRADE ELEVATIONS

RECORD DRAWINGS

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USE OF DOCUMENTS

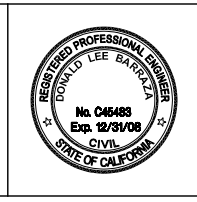
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NO.	REVISION	DATE	BY
1		JULY 2010	JTD

SCALES

0 — 1"
0 — 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: JKC
DRAWN: JKC
CHECKED: DLB

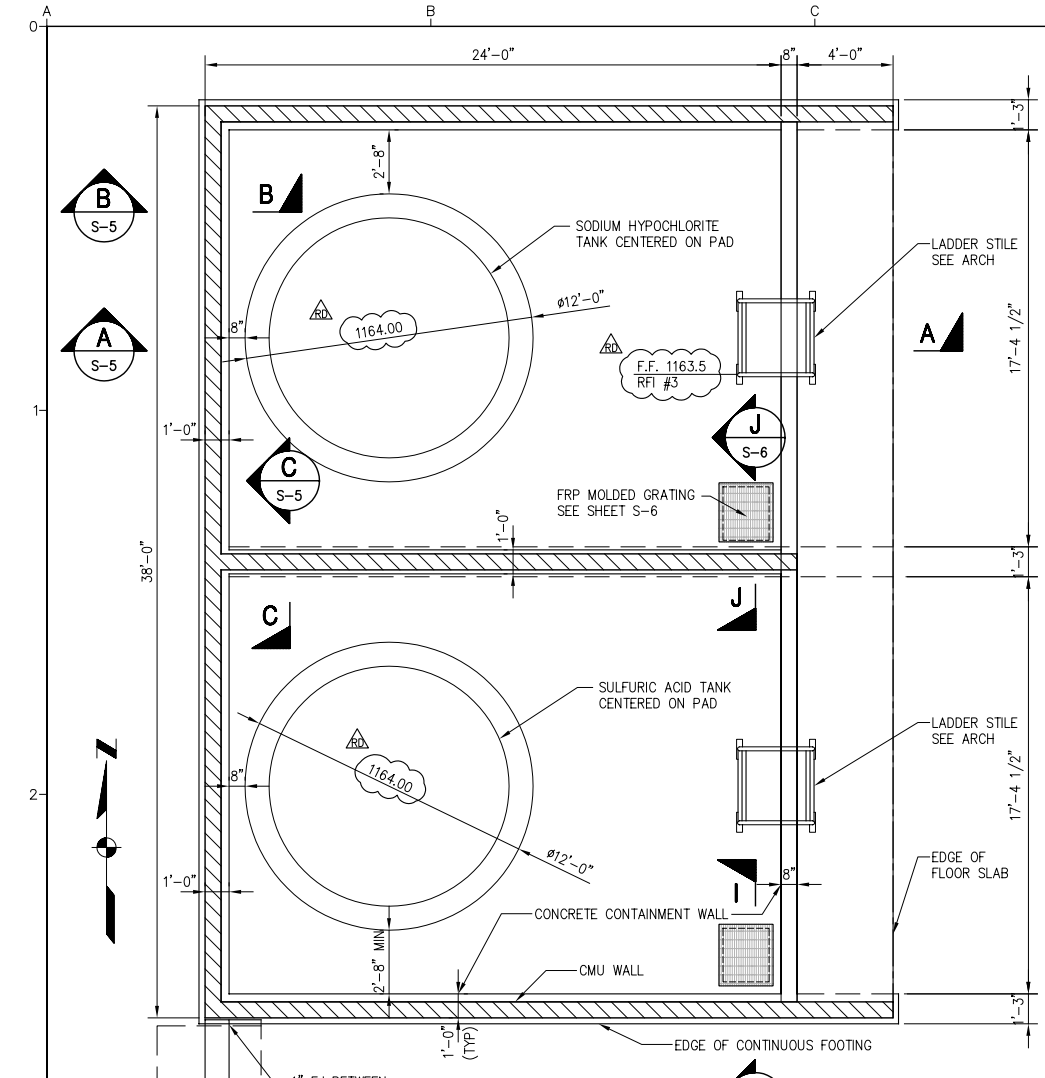
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

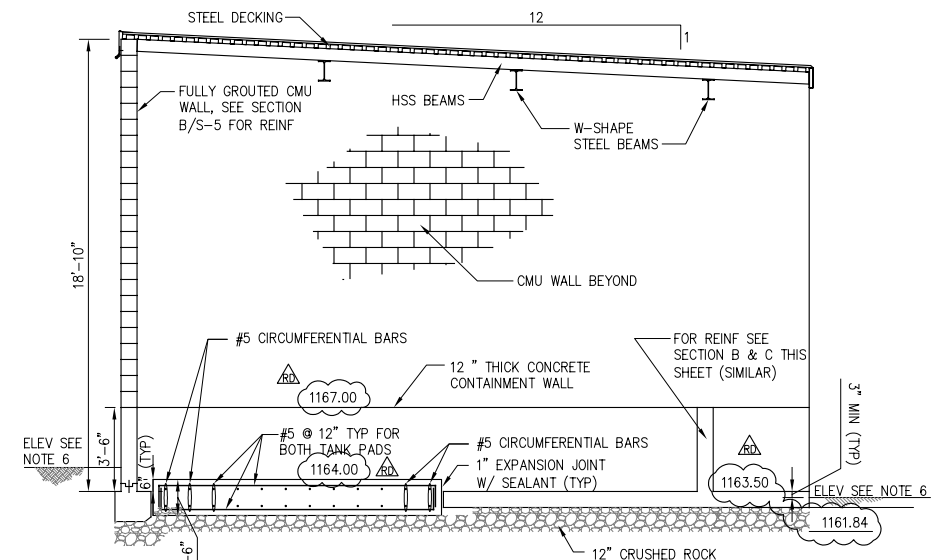
PERCHLORATE TREATMENT

TREATED WATER PUMPS, ARCHITECTURAL FENCE & RINGWALL FOUNDATION PLANS, SECTIONS & DETAILS

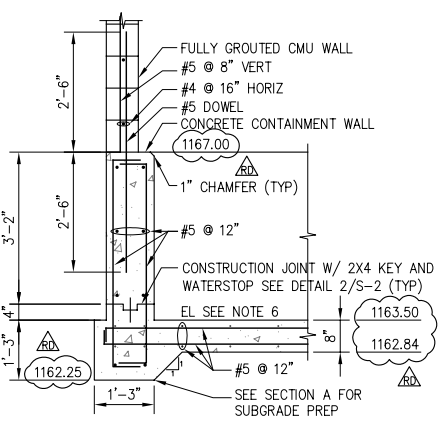
CLWA NO. CL-118A
JOB NO. 0589017
DATE JUNE 2007
SHEET OF S-4



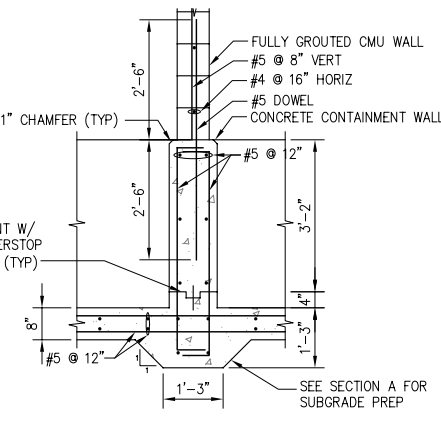
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



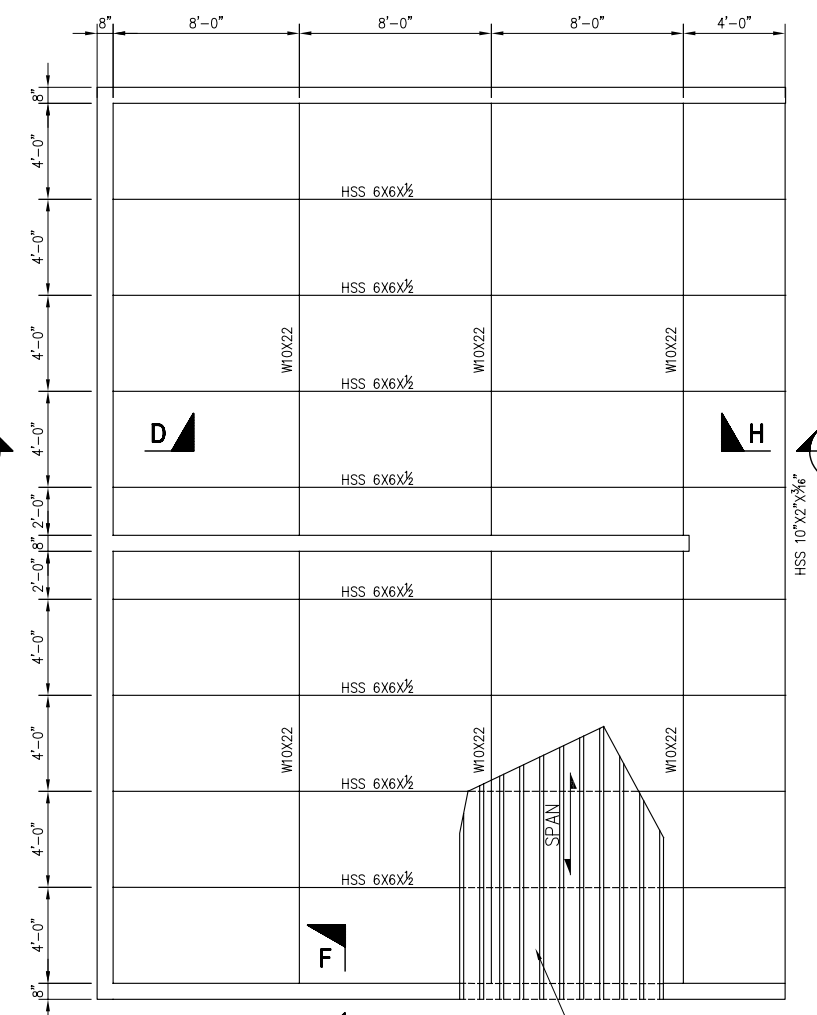
SECTION A
SCALE: 1/4" = 1'-0"



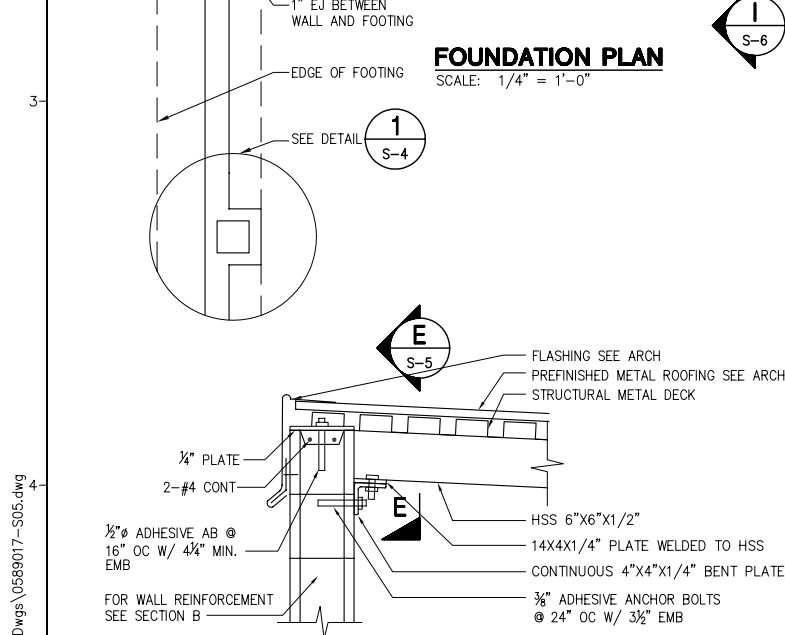
SECTION B
SCALE: 1/2" = 1'-0"



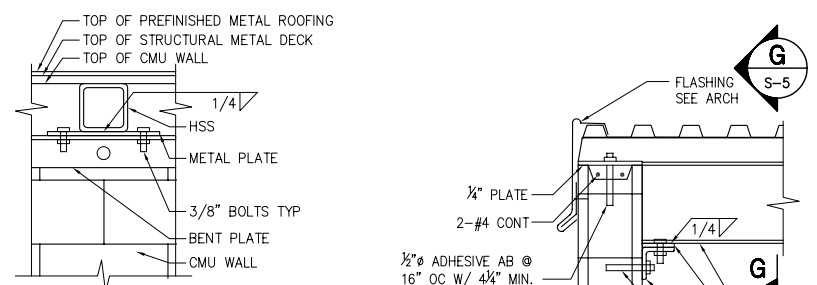
SECTION C
SCALE: 1/2" = 1'-0"



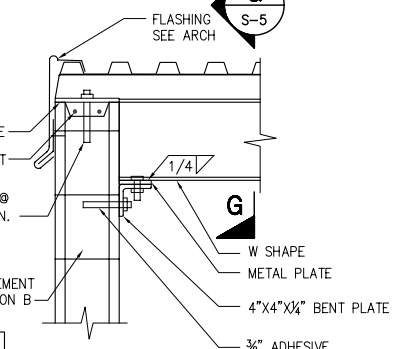
ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



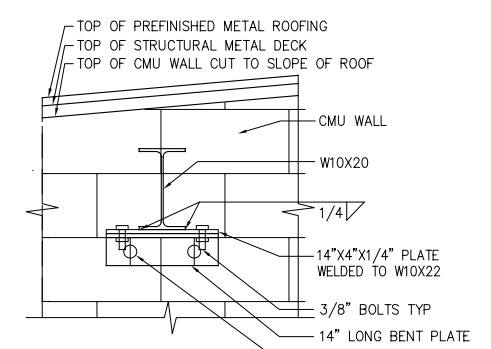
SECTION D
SCALE: 1" = 1'-0"



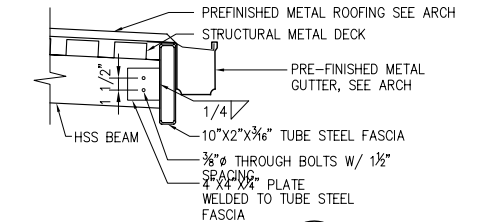
SECTION E
SCALE: 1" = 1'-0"



SECTION F
SCALE: 1" = 1'-0"



SECTION G
SCALE: 1" = 1'-0"



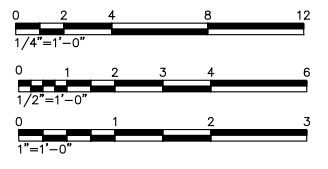
SECTION H
SCALE: 1" = 1'-0"

RECORD DRAWINGS

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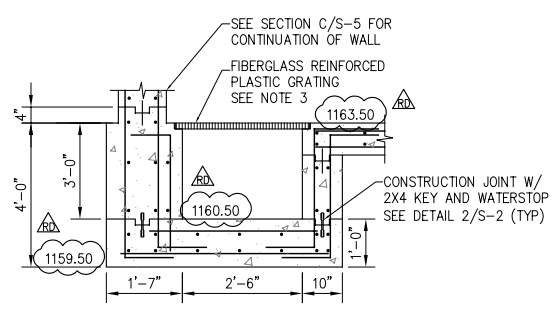
- NOTES:**
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 - SEE CIVIL DRAWINGS FOR GRADE ELEVATIONS & BOLLARD LOCATIONS



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PRINT DATE: Jan 19, 2011 9:24am

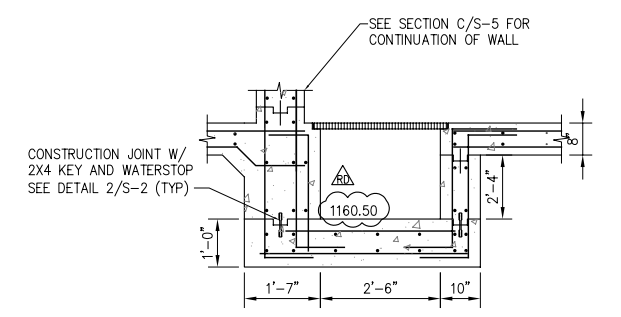
<p>USE OF DOCUMENTS</p> <p>THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.</p>	<p>DESIGNED JKC</p> <p>DRAWN JKC</p> <p>CHECKED DLB</p>				<p>CASTAIC LAKE WATER AGENCY LOS ANGELES COUNTY, CALIFORNIA</p> <p>Kennedy/Jenks Consultants 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003</p>		<p>PERCHLORATE TREATMENT</p> <p>CHEMICAL STORAGE BUILDING FOUNDATION PLAN, ROOF PLAN & SECTIONS</p>		<p>CLWA NO. CL-118A</p>							
	<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>JULY 2010</td> <td>JTD</td> </tr> </tbody> </table>	NO.	REVISION	DATE	BY	1		JULY 2010	JTD	<p>SCALES</p> <p>0 — 1" = 25mm</p> <p>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</p>		<p>REGISTERED PROFESSIONAL ENGINEER DONALD LEE BARRAZA No. C45483 Exp. 12/31/08 CIVIL STATE OF CALIFORNIA</p>		<p>JOB NO. 0589017</p> <p>DATE JUNE 2007</p> <p>SHEET 5 OF 5</p>		<p>AD 6-30</p>
NO.	REVISION	DATE	BY													
1		JULY 2010	JTD													

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 PRINT DATE: Jan 19, 2011 9:23am



NOTE:
 1. REINFORCING SHOWN SHALL BE #5@12" EF EW

SECTION I
 SCALE: 1/2" = 1'-0" S-5



NOTE:
 1. REINFORCING SHOWN SHALL BE #5@12" EF EW

SECTION J
 SCALE: 1/2" = 1'-0" S-5

- NOTES:
- SEE SHEETS S-1 AND S-2 FOR ADDITIONAL NOTES AND DETAILS
 - STRUCTURAL STEEL TO BE HOT DIP GALVANIZED
 - 2" DEEP MOLDED FRP GRATING W/ 2"x2" MESH BY FIBERGRATE COMPANY W/ FIBERGRATE VI-CORR RESINS OR EQUIVALENT. FOR ANCHORAGE, SEE TYPICAL GRATING SUPPORT DETAIL ON S-2



RECORD DRAWINGS

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USE OF DOCUMENTS

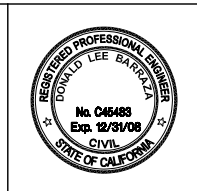
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 — 1"
 0 — 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: JKC
 DRAWN: JKC
 CHECKED: DLB

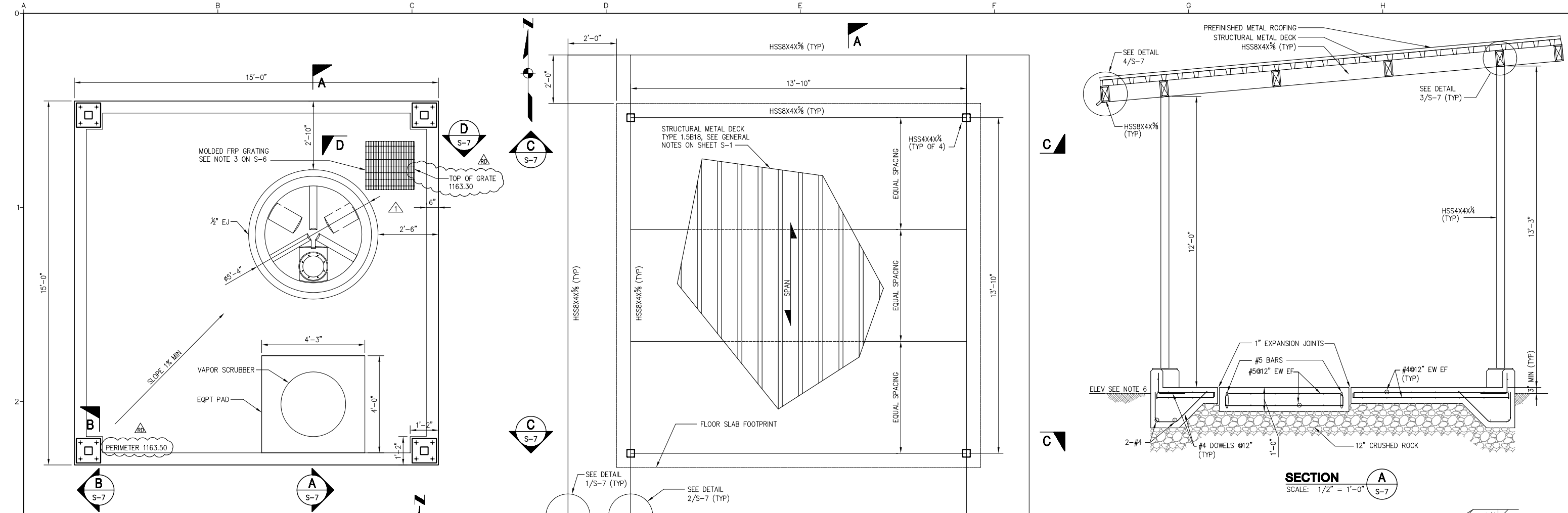
CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

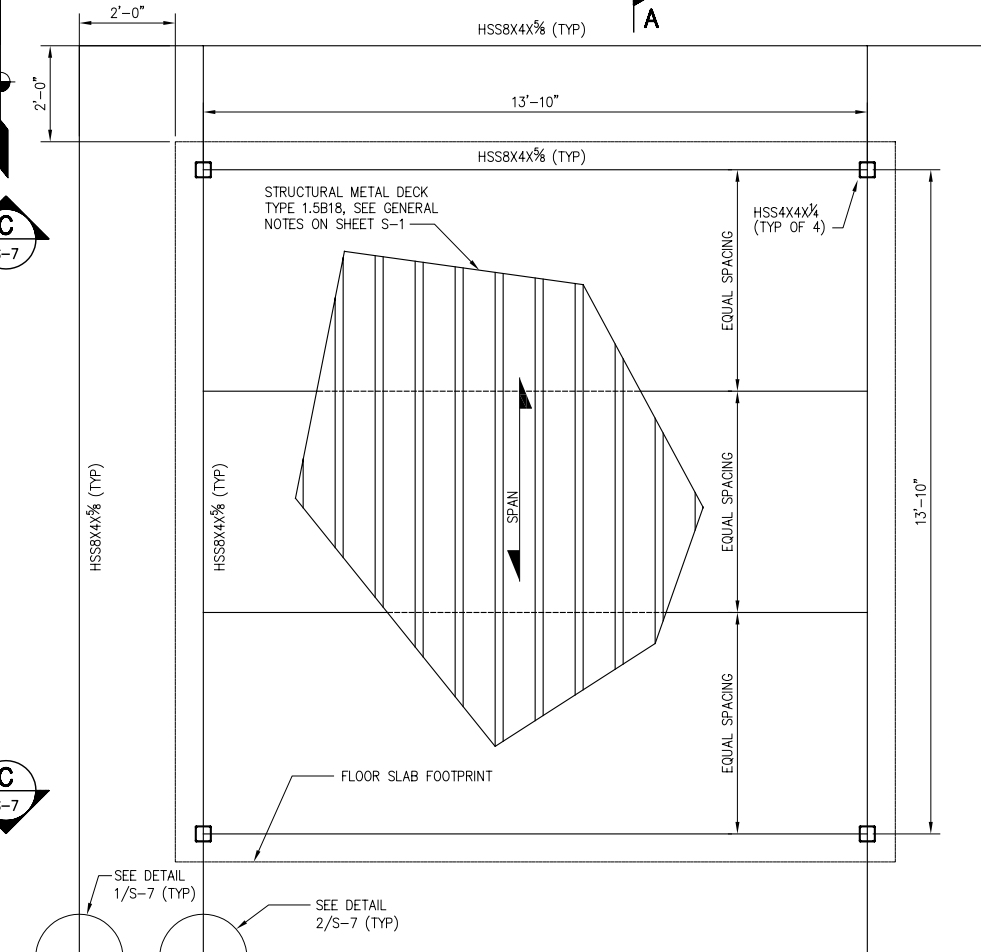
PERCHLORATE TREATMENT

CHEMICAL STORAGE BUILDING SECTIONS

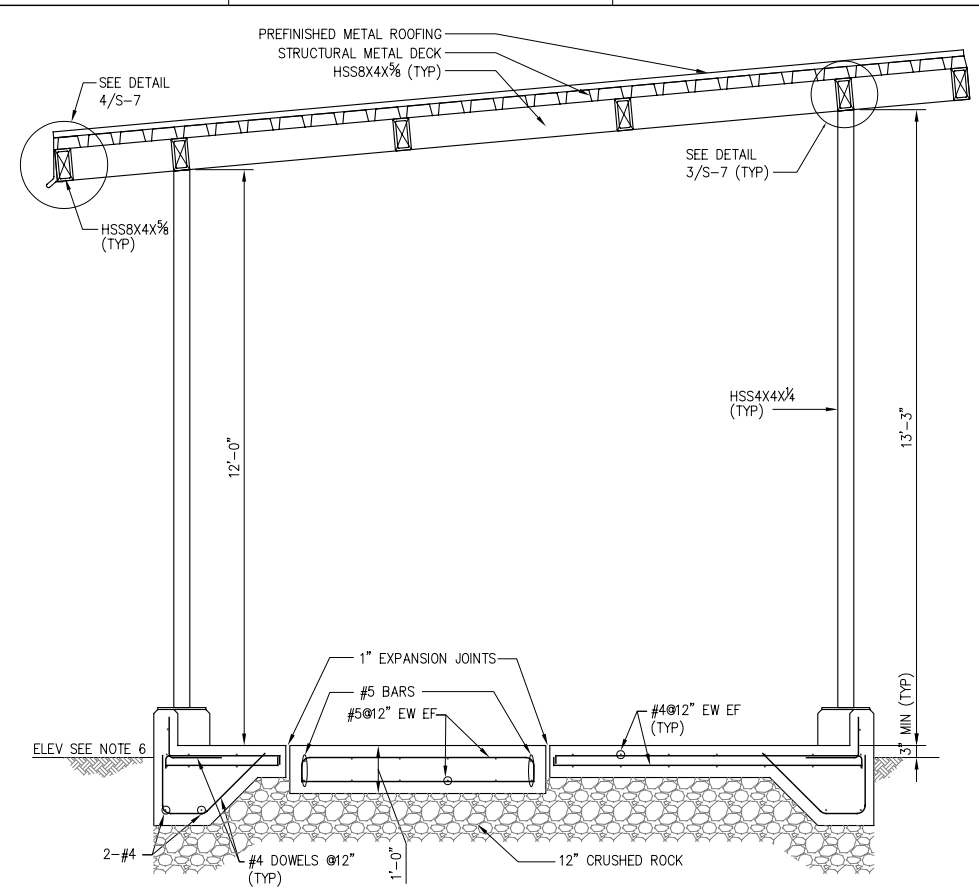
CLWA NO. CL-118A
 JOB NO. 0589017
 DATE JUNE 2007
 SHEET OF **S-6**



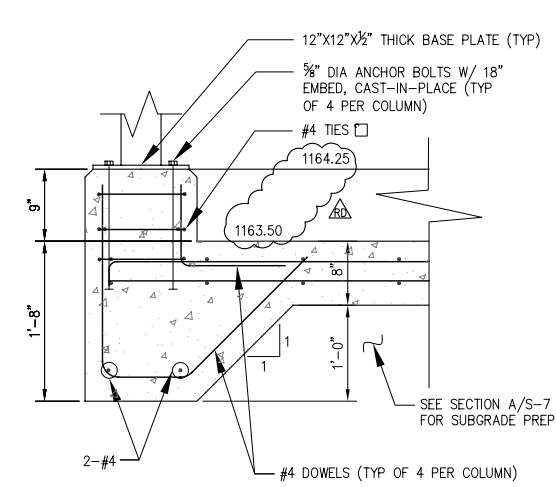
AMMONIA STORAGE AREA FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



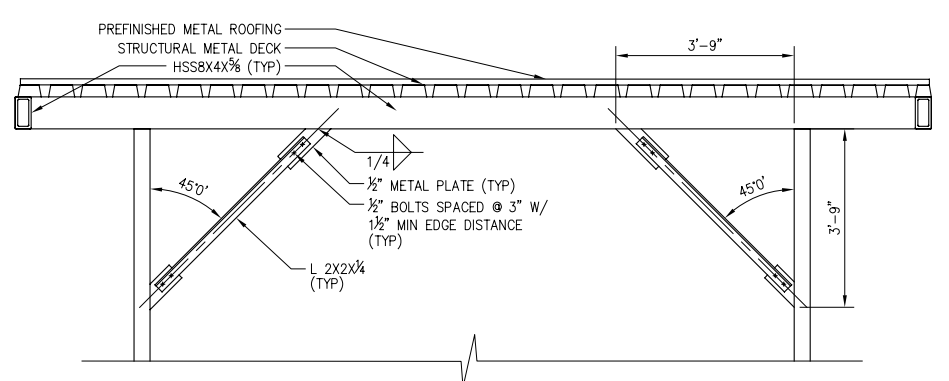
ROOF FRAMING PLAN
SCALE: 1/2" = 1'-0"



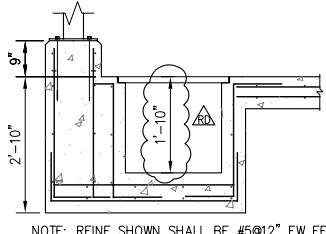
SECTION A-A
SCALE: 1/2" = 1'-0"



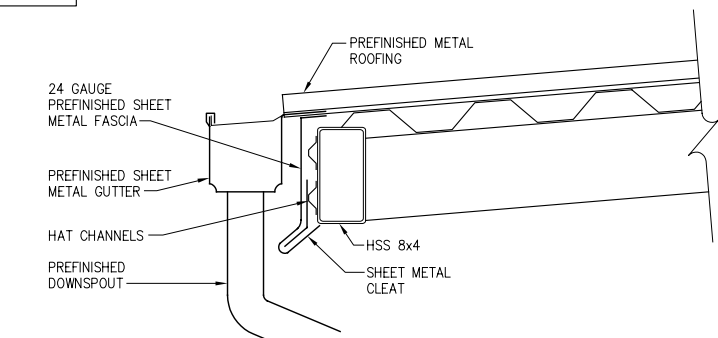
SECTION B-B
SCALE: 1" = 1'-0"



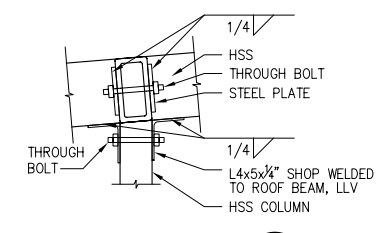
SECTION C-C
SCALE: 1/2" = 1'-0"



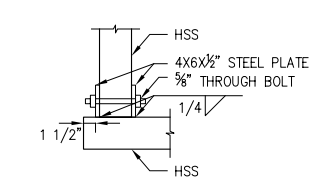
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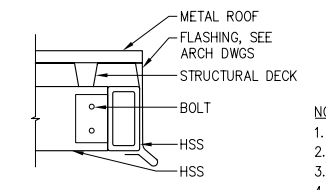
AMMONIA SHELTER EAVE DETAIL 4
SCALE: 1 1/2" = 1'-0"



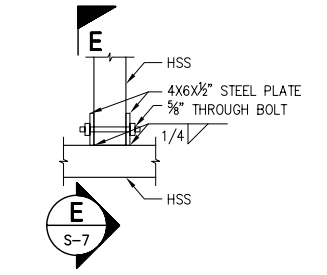
DETAIL 3
SCALE: 1" = 1'-0"



DETAIL 1
SCALE: 1" = 1'-0"



SECTION E-E
SCALE: 1" = 1'-0"



DETAIL 2
SCALE: 1" = 1'-0"

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 - SEE CIVIL DRAWINGS FOR GRADE ELEVATIONS

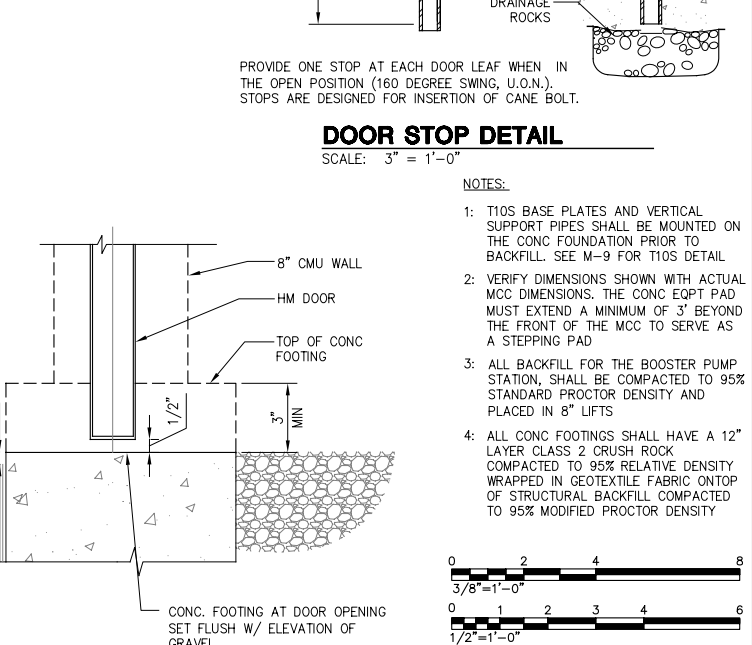
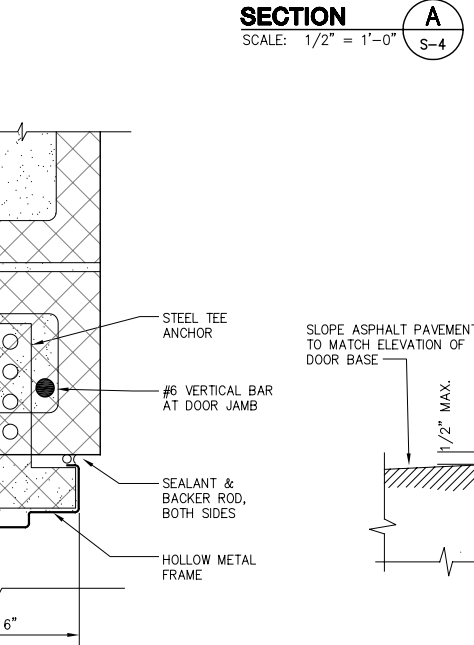
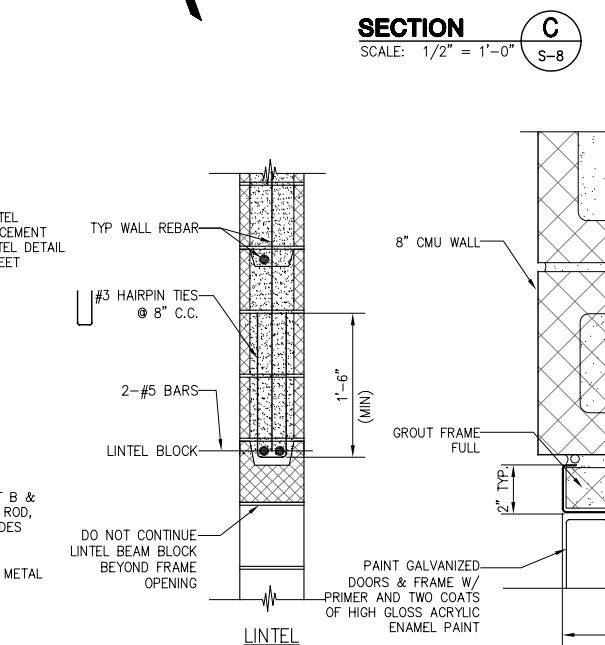
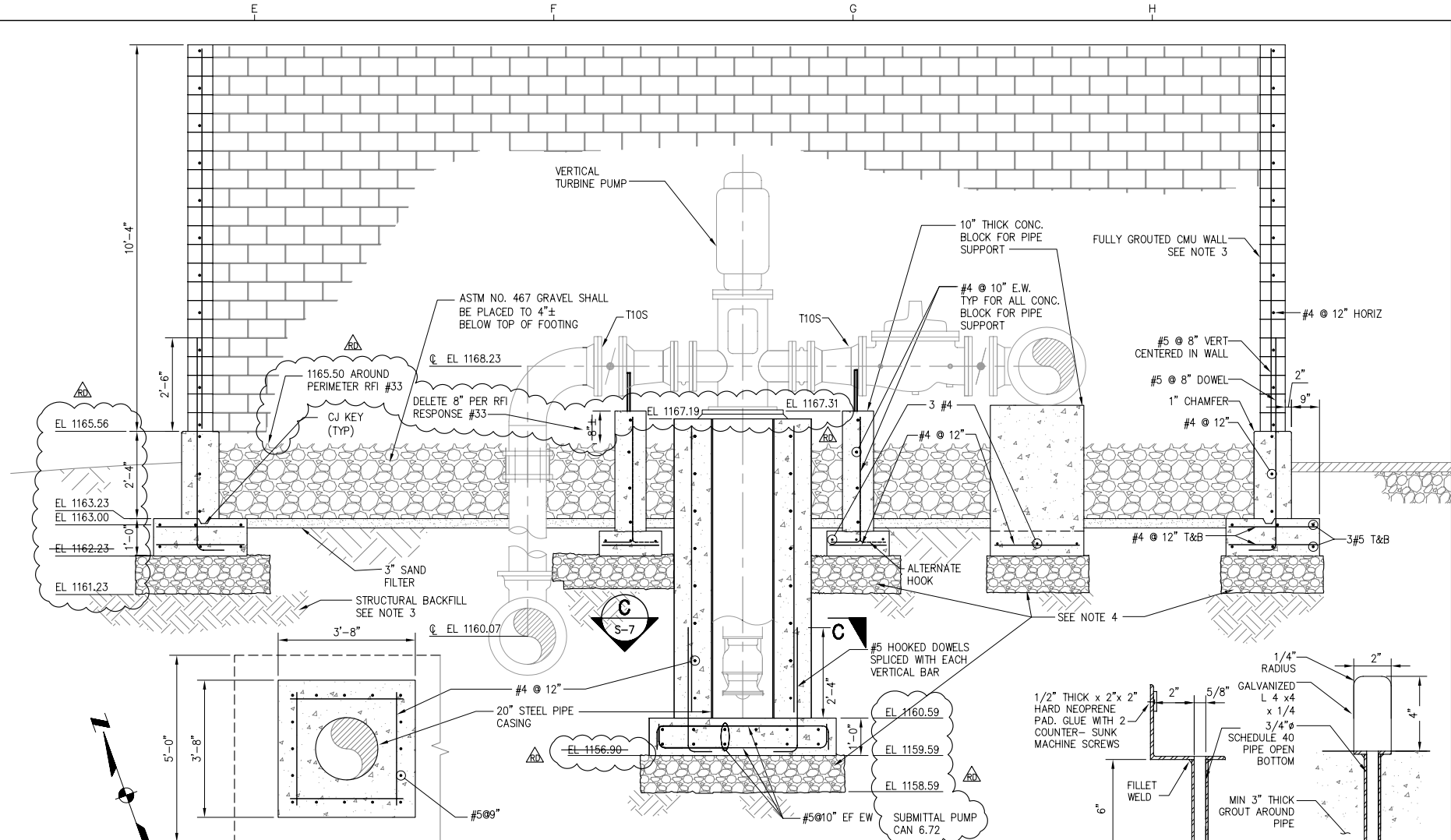
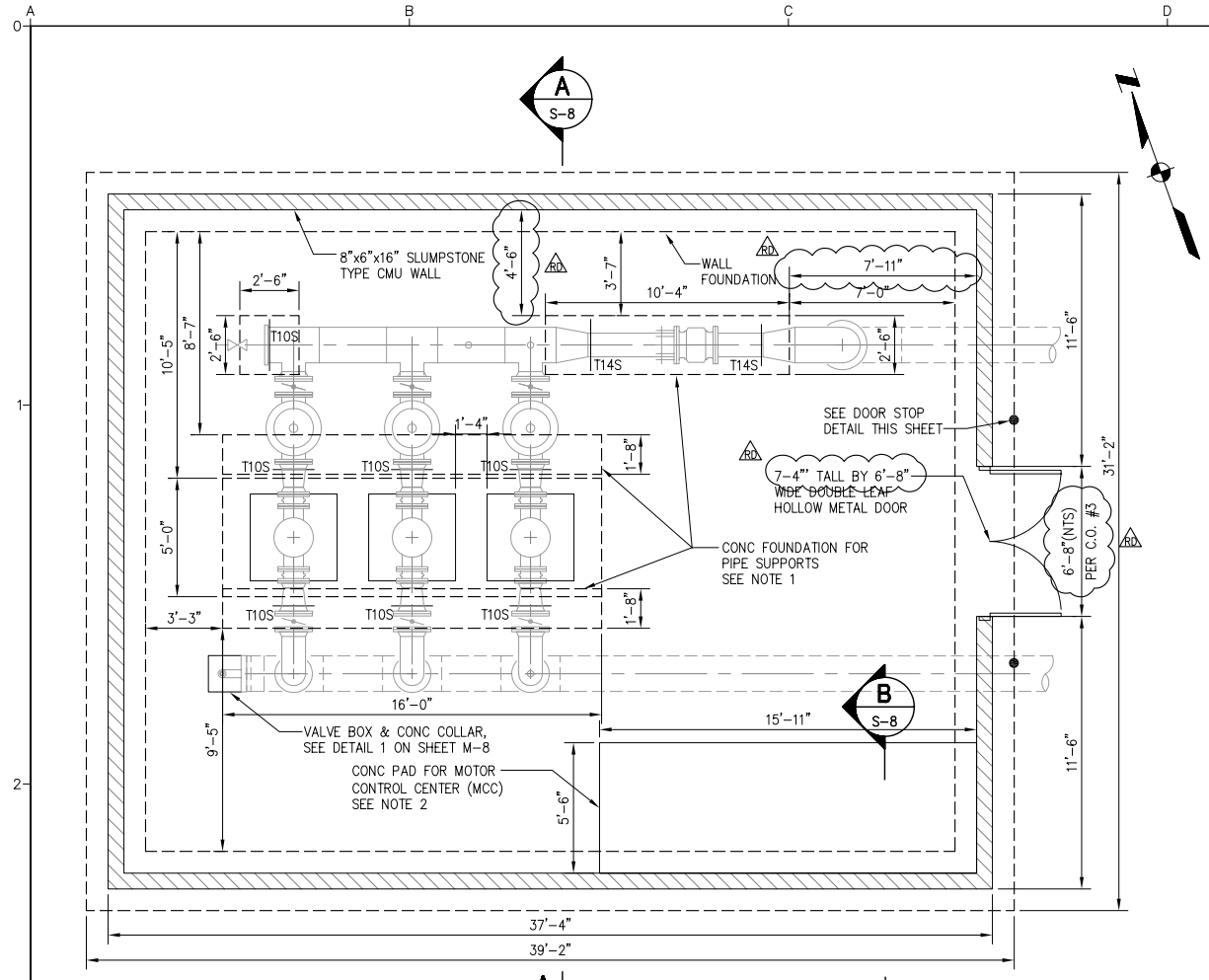
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	RFQ NO. 001	01/02/2007	DL			DRAWN	JKC			JOB NO.	0789064
NO.	REVISION	DATE	BY	CHECKED	DLB	DATE	JAN. 2008			SHEET	OF

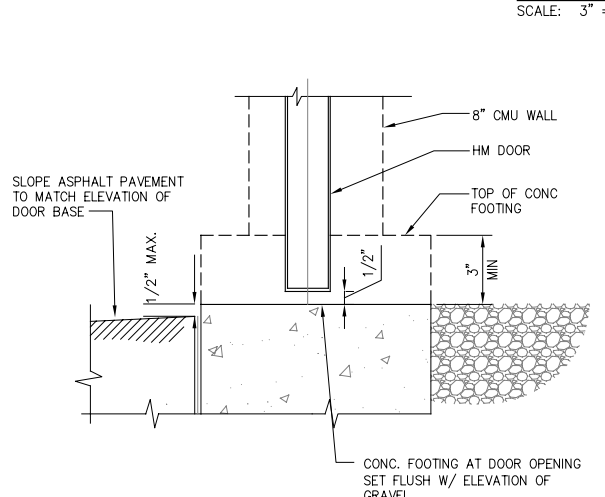
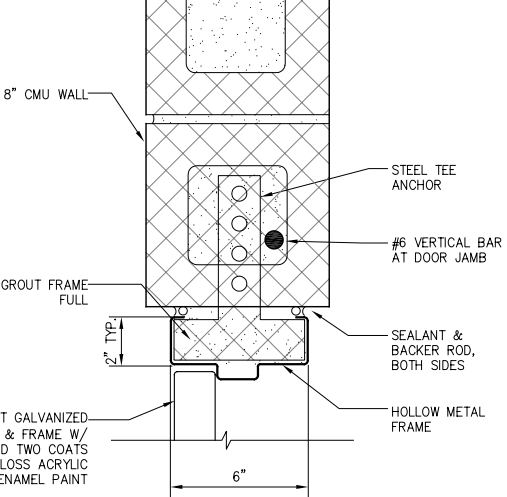
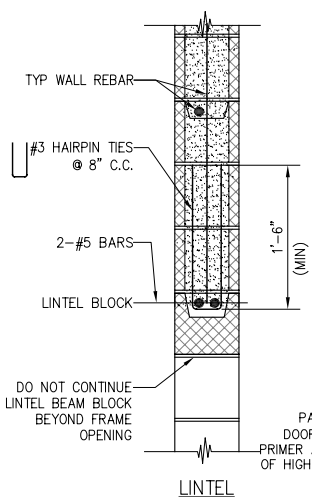
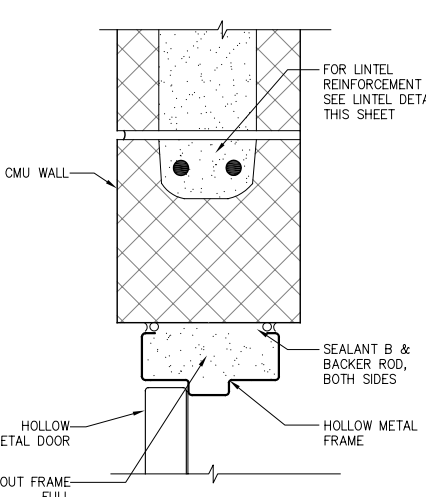
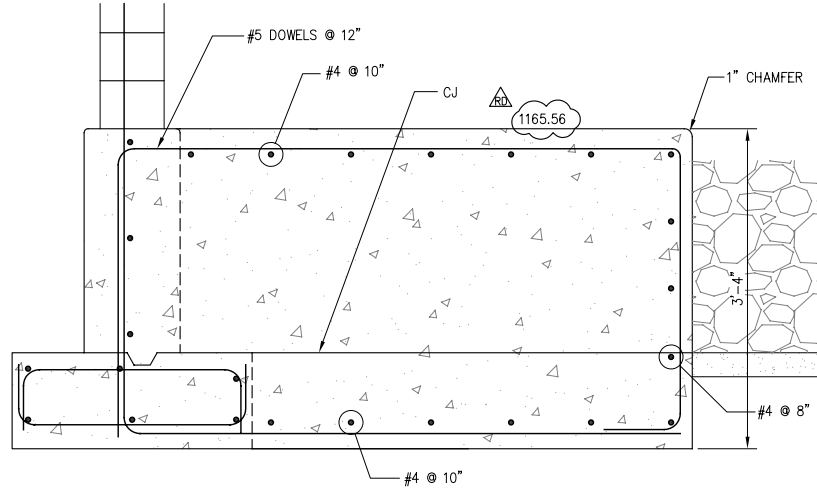


RECORD DRAWINGS

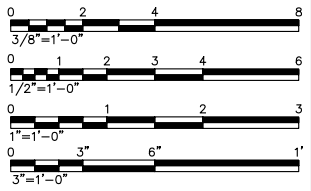
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BOOSTER PUMP STATION PLAN



- NOTES:**
- 1: T10S BASE PLATES AND VERTICAL SUPPORT PIPES SHALL BE MOUNTED ON THE CONC FOUNDATION PRIOR TO BACKFILL. SEE M-9 FOR T10S DETAIL.
 - 2: VERIFY DIMENSIONS SHOWN WITH ACTUAL MCC DIMENSIONS. THE CONC EQPT PAD MUST EXTEND A MINIMUM OF 3' BEYOND THE FRONT OF THE MCC TO SERVE AS A STEPPING PAD.
 - 3: ALL BACKFILL FOR THE BOOSTER PUMP STATION, SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY AND PLACED IN 8" LIFTS.
 - 4: ALL CONC FOOTINGS SHALL HAVE A 12" LAYER CLASS 2 CRUSH ROCK COMPACTED TO 95% RELATIVE DENSITY WRAPPED IN GEOTEXTILE FABRIC ON TOP OF STRUCTURAL BACKFILL COMPACTED TO 95% MODIFIED PROCTOR DENSITY.



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SCALES

0 — 1"
0 — 25mm

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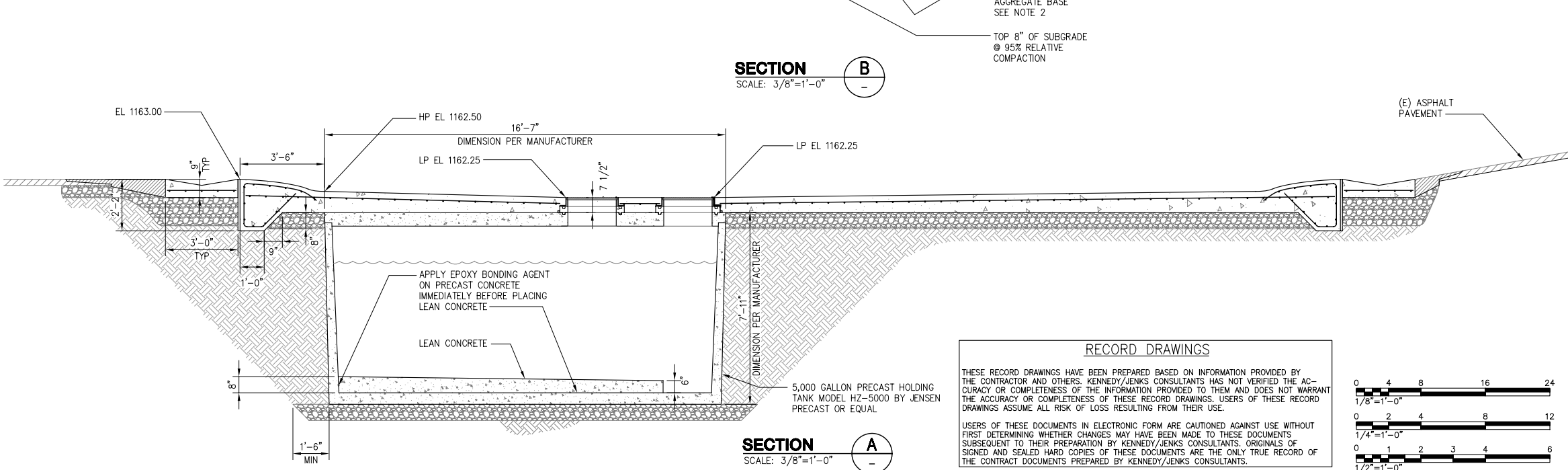
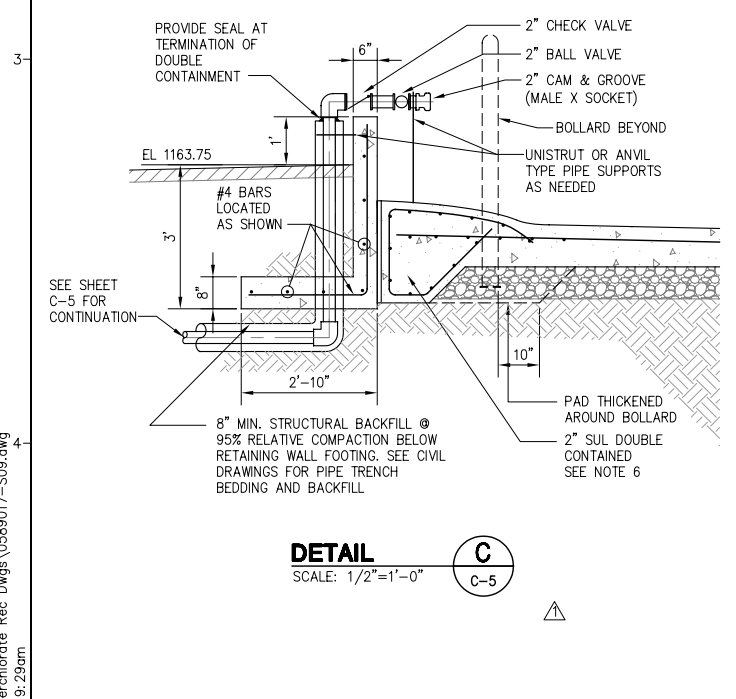
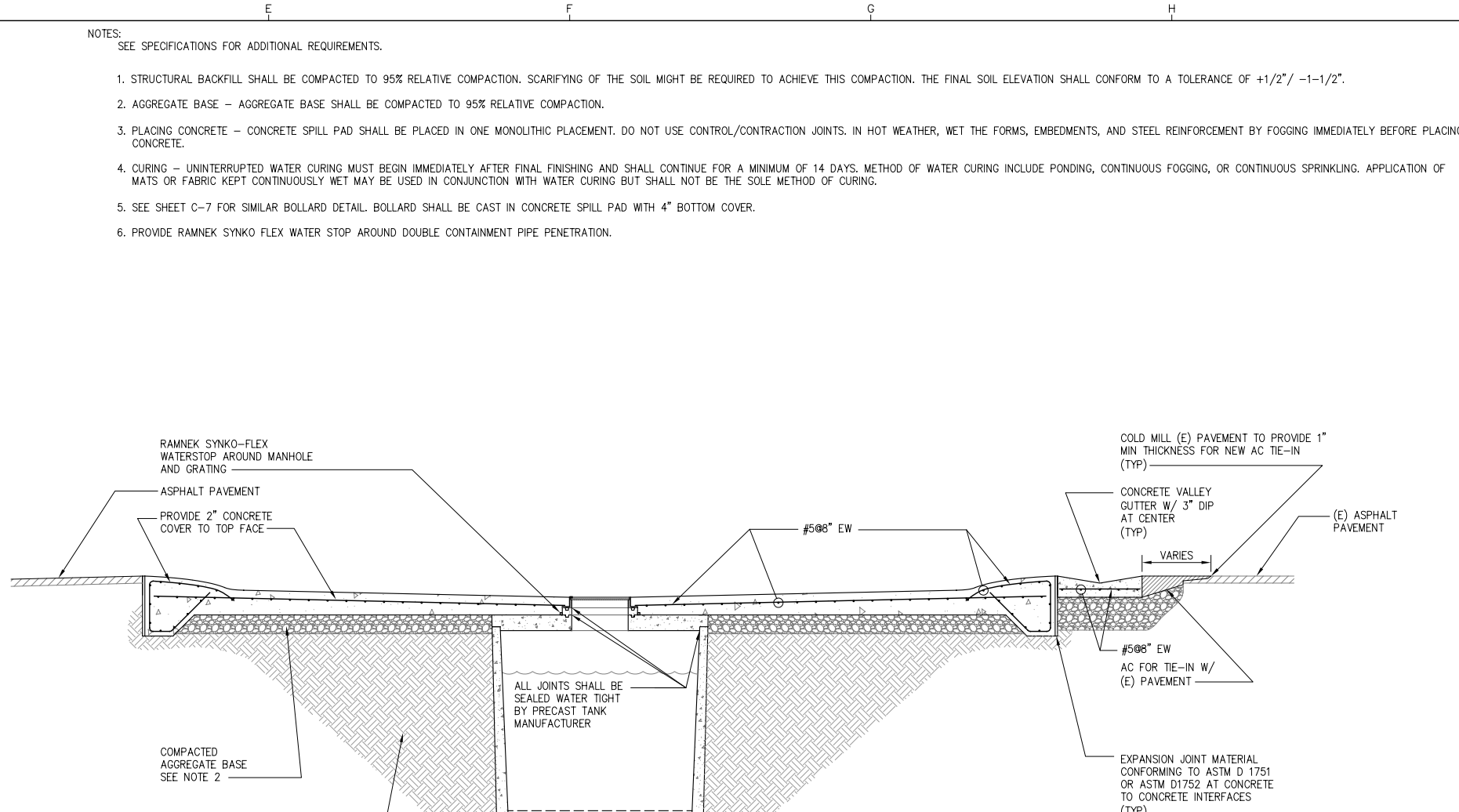
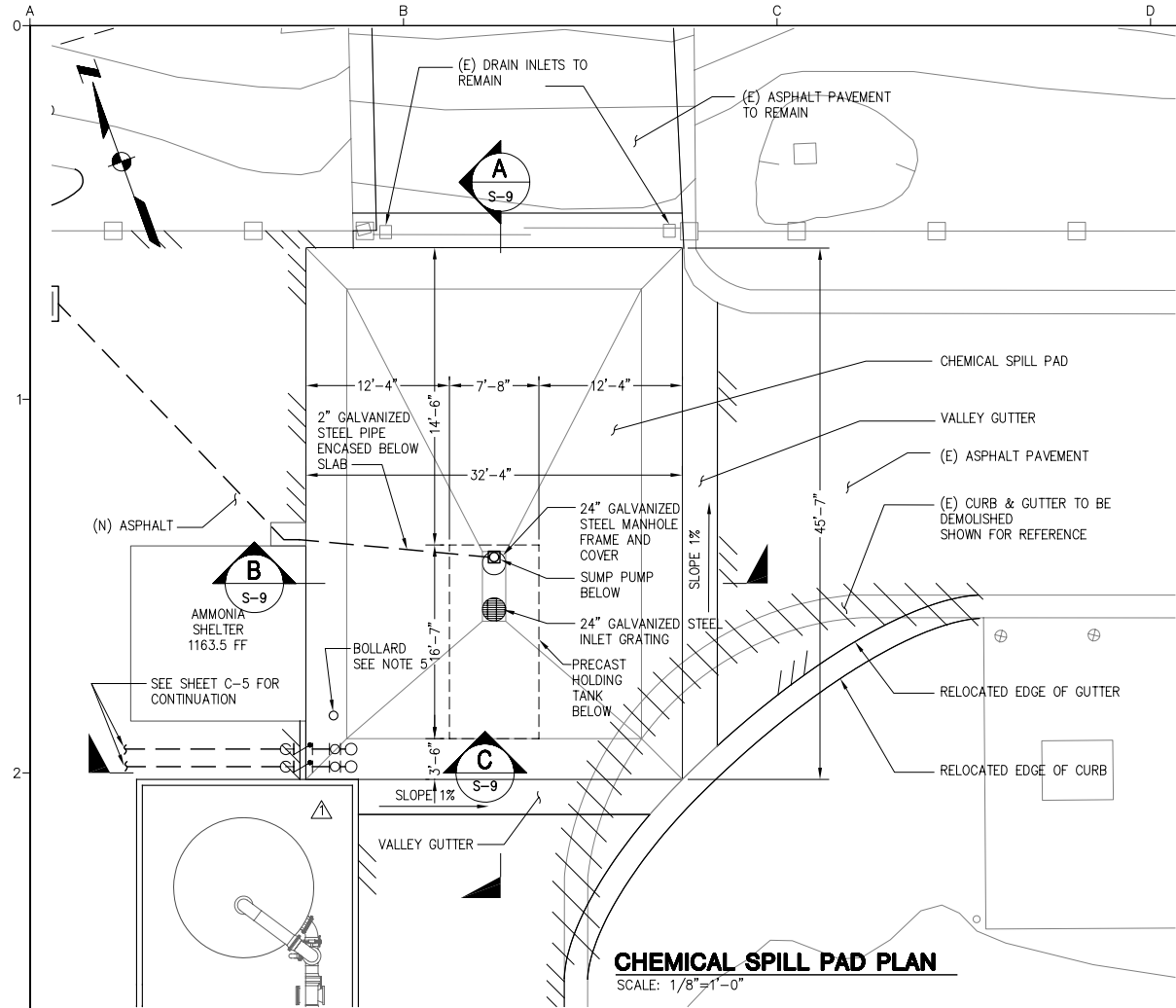
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SANTA CLARITA BOOSTER PUMP STATION
PLANS, SECTIONS & DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
S-8

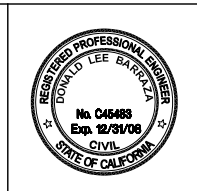


- NOTES:
SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- STRUCTURAL BACKFILL SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. SCARIFYING OF THE SOIL MIGHT BE REQUIRED TO ACHIEVE THIS COMPACTION. THE FINAL SOIL ELEVATION SHALL CONFORM TO A TOLERANCE OF +1/2" / -1-1/2".
 - AGGREGATE BASE - AGGREGATE BASE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
 - PLACING CONCRETE - CONCRETE SPILL PAD SHALL BE PLACED IN ONE MONOLITHIC PLACEMENT. DO NOT USE CONTROL/CONTRACTION JOINTS. IN HOT WEATHER, WET THE FORMS, EMBEDMENTS, AND STEEL REINFORCEMENT BY FOGGING IMMEDIATELY BEFORE PLACING CONCRETE.
 - CURING - UNINTERRUPTED WATER CURING MUST BEGIN IMMEDIATELY AFTER FINAL FINISHING AND SHALL CONTINUE FOR A MINIMUM OF 14 DAYS. METHOD OF WATER CURING INCLUDE PONDING, CONTINUOUS FOGGING, OR CONTINUOUS SPRINKLING. APPLICATION OF MATS OR FABRIC KEPT CONTINUOUSLY WET MAY BE USED IN CONJUNCTION WITH WATER CURING BUT SHALL NOT BE THE SOLE METHOD OF CURING.
 - SEE SHEET C-7 FOR SIMILAR BOLLARD DETAIL. BOLLARD SHALL BE CAST IN CONCRETE SPILL PAD WITH 4" BOTTOM COVER.
 - PROVIDE RAMNEK SYNKO FLEX WATER STOP AROUND DOUBLE CONTAINMENT PIPE PENETRATION.

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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD
2	RFQ NO. 003 REV. 1	2/10/08	JSA

SCALES
0 1" = 25mm
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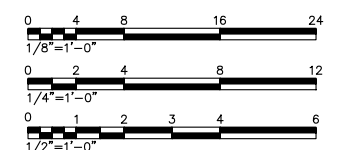


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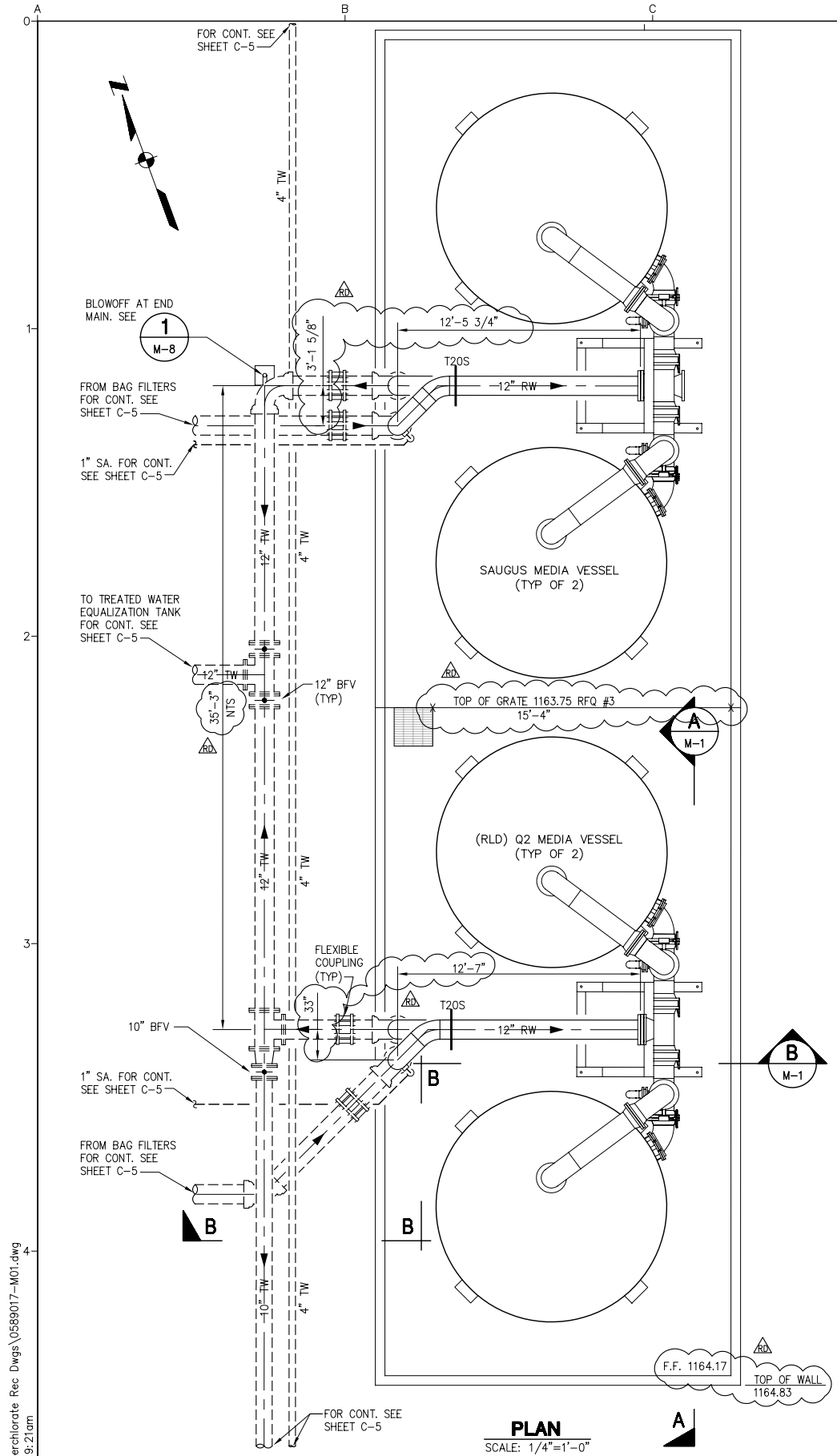
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LOS ANGELES COUNTY, CALIFORNIA
Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT
CHEMICAL SPILL PAD PLAN AND SECTIONS
CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET S-9 OF

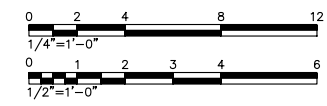
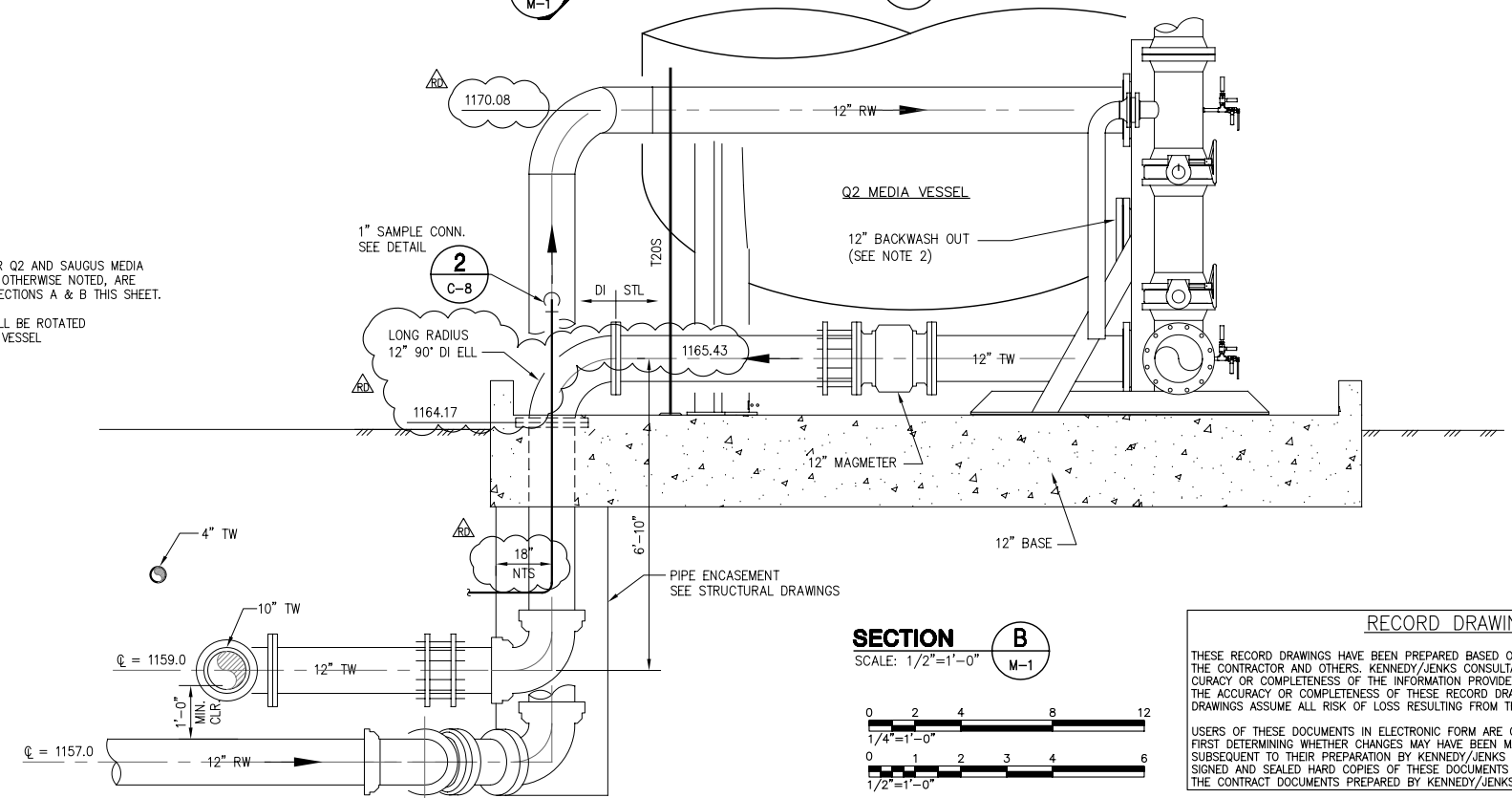
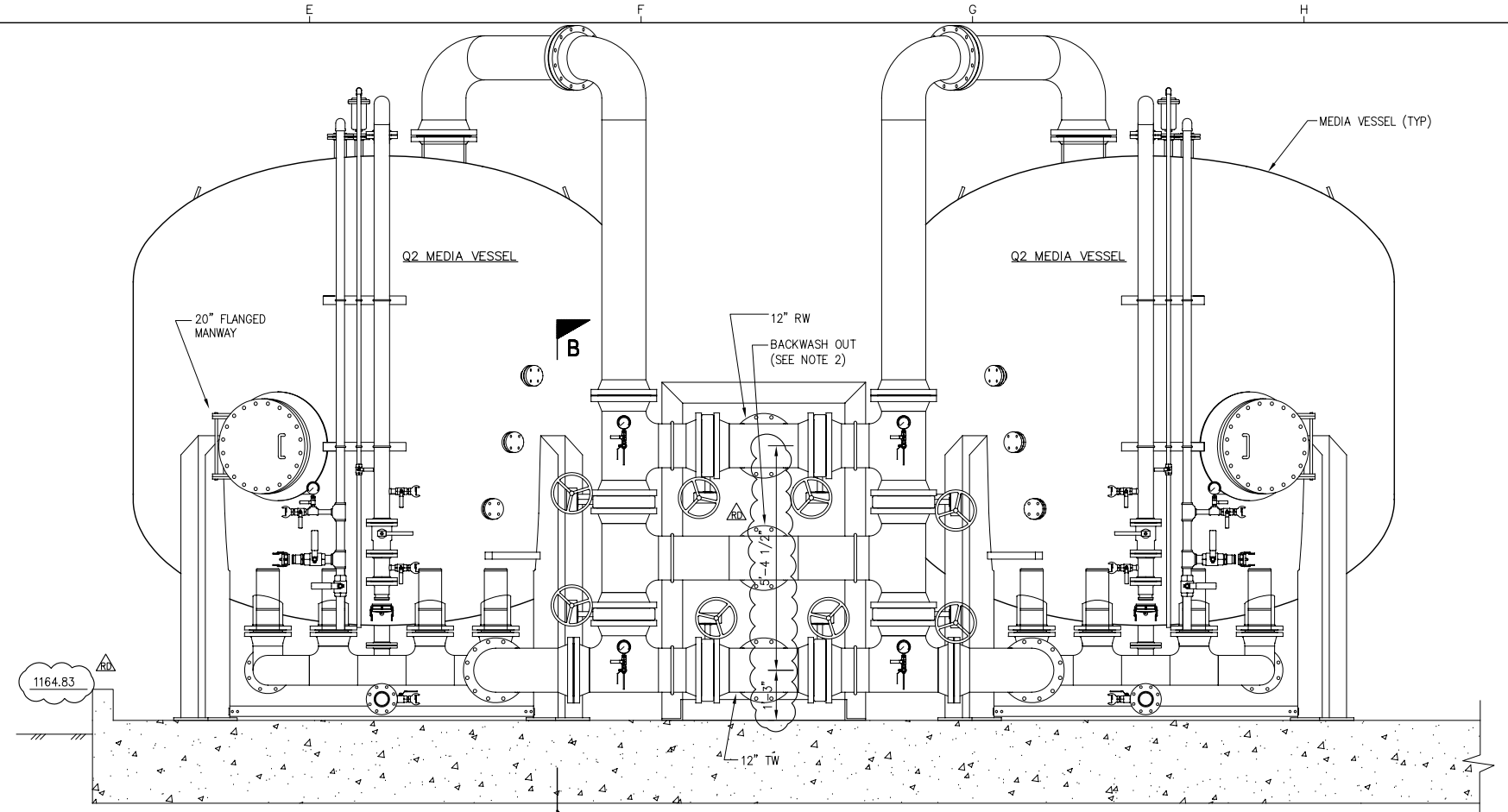
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- NOTES:**
1. ABOVE GRADE PIPING FOR Q2 AND SAUGUS MEDIA FILTER VESSELS, UNLESS OTHERWISE NOTED, ARE SIMILAR AS SHOWN ON SECTIONS A & B THIS SHEET.
 2. BACKWASH OUT TEE SHALL BE ROTATED 180° FOR SAUGUS MEDIA VESSEL.



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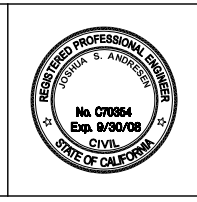
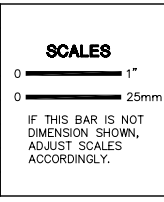
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LOS ANGELES COUNTY, CALIFORNIA

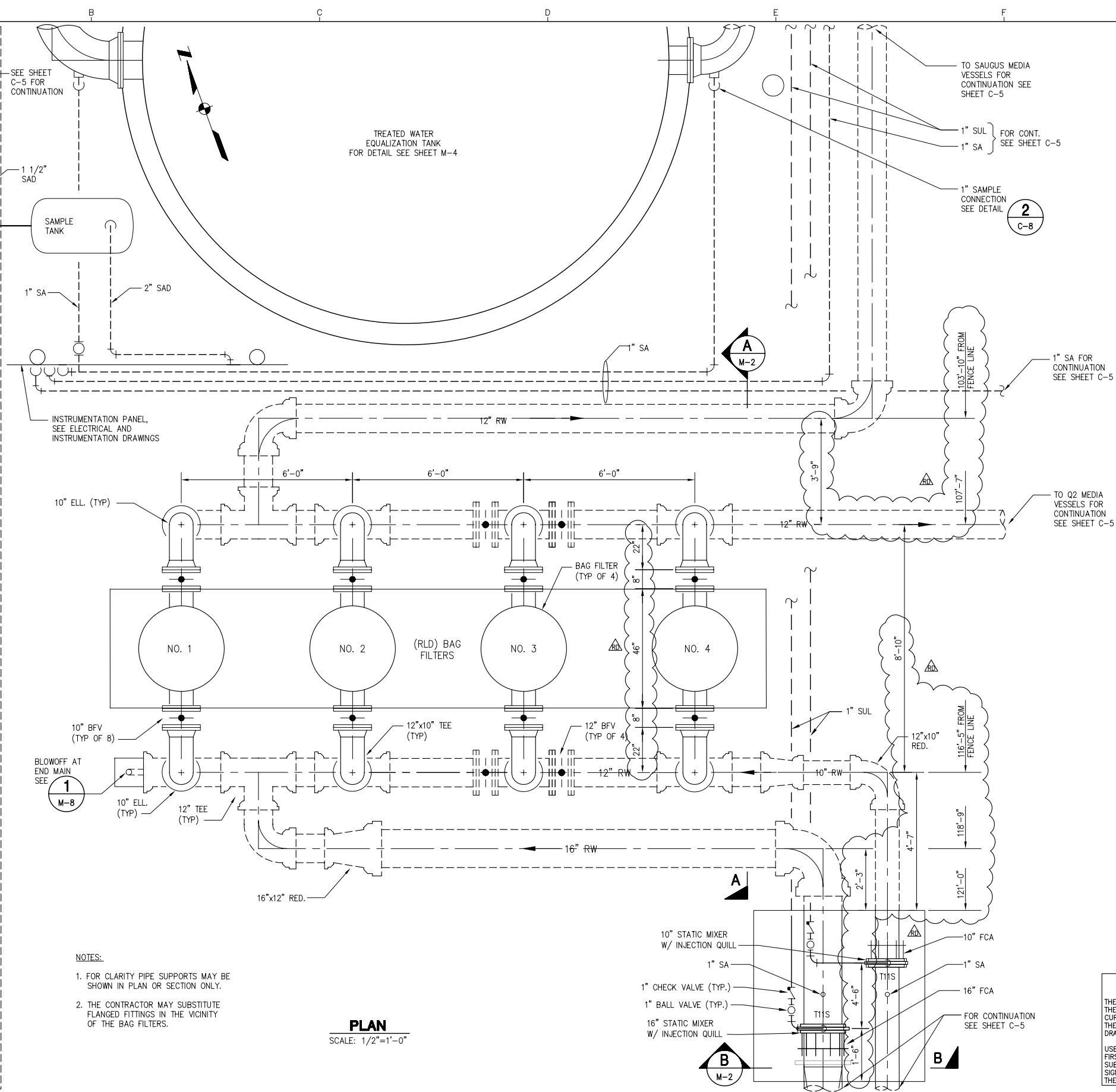
Kennedy/Jenks Consultants
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PERCHLORATE TREATMENT

MEDIA VESSELS
PLAN AND SECTIONS

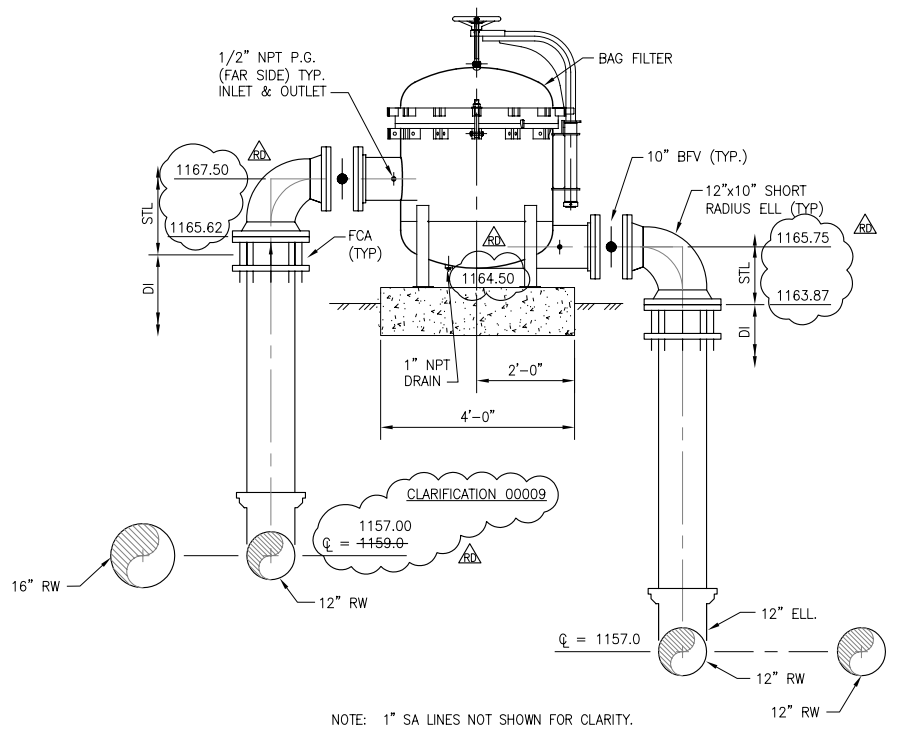
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JOB NO. 0789064
DATE JAN. 2008
SHEET OF **M-1**

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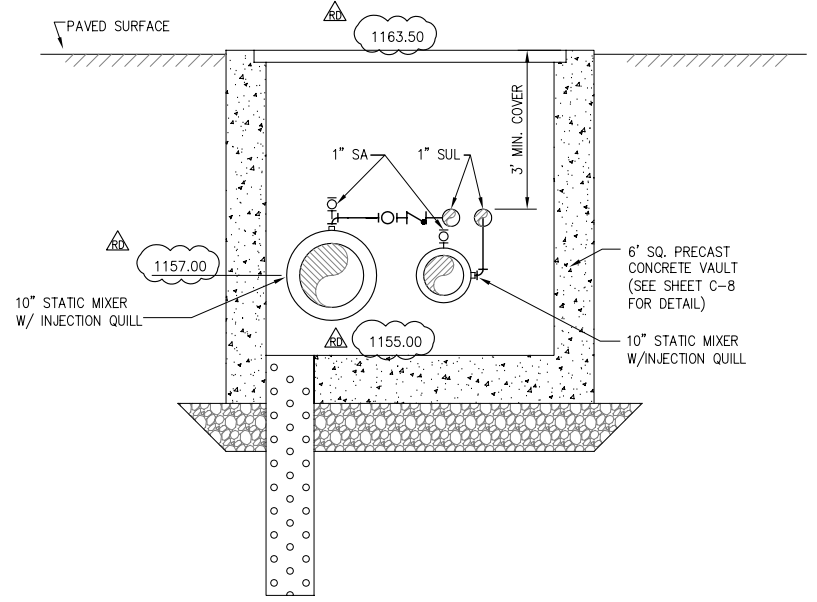


- NOTES:**
- FOR CLARITY PIPE SUPPORTS MAY BE SHOWN IN PLAN OR SECTION ONLY.
 - THE CONTRACTOR MAY SUBSTITUTE FLANGED FITTINGS IN THE VICINITY OF THE BAG FILTERS.

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



SECTION A
 SCALE: 1/2"=1'-0"



INJECTION VAULT SECTION B
 SCALE: 1/2"=1'-0"

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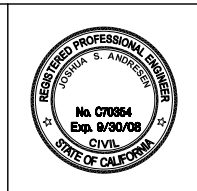
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NO.	REVISION	DATE	BY
1		JULY 2010	JTD

SCALES

0 — 1"
 0 — 25mm

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 CHECKED: AdB

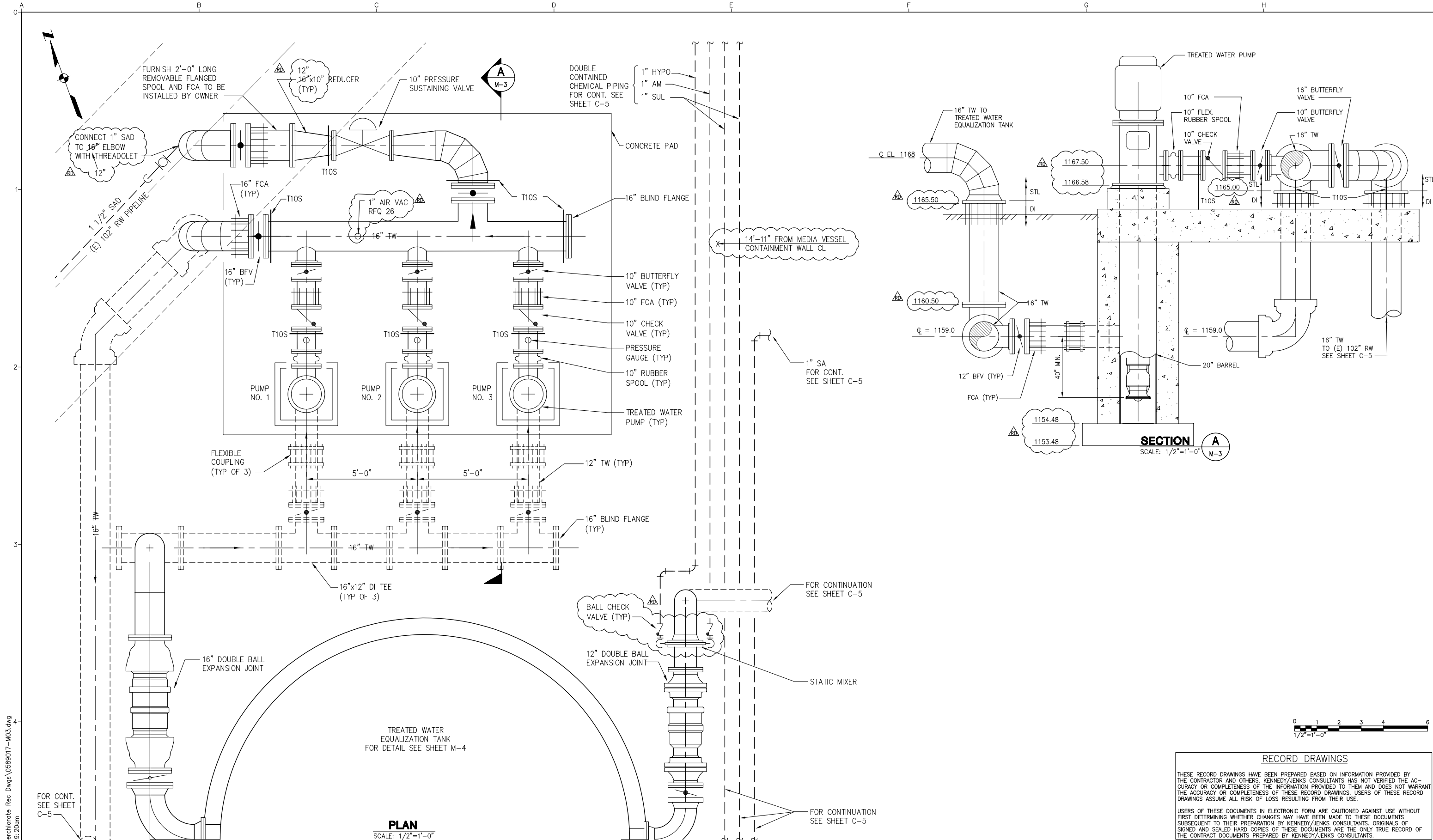
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 LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

BAG FILTERS
PLAN AND SECTIONS

CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET OF **M-2**

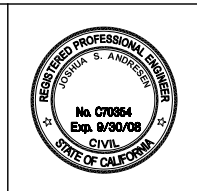


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SCALES
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 0 — 25mm
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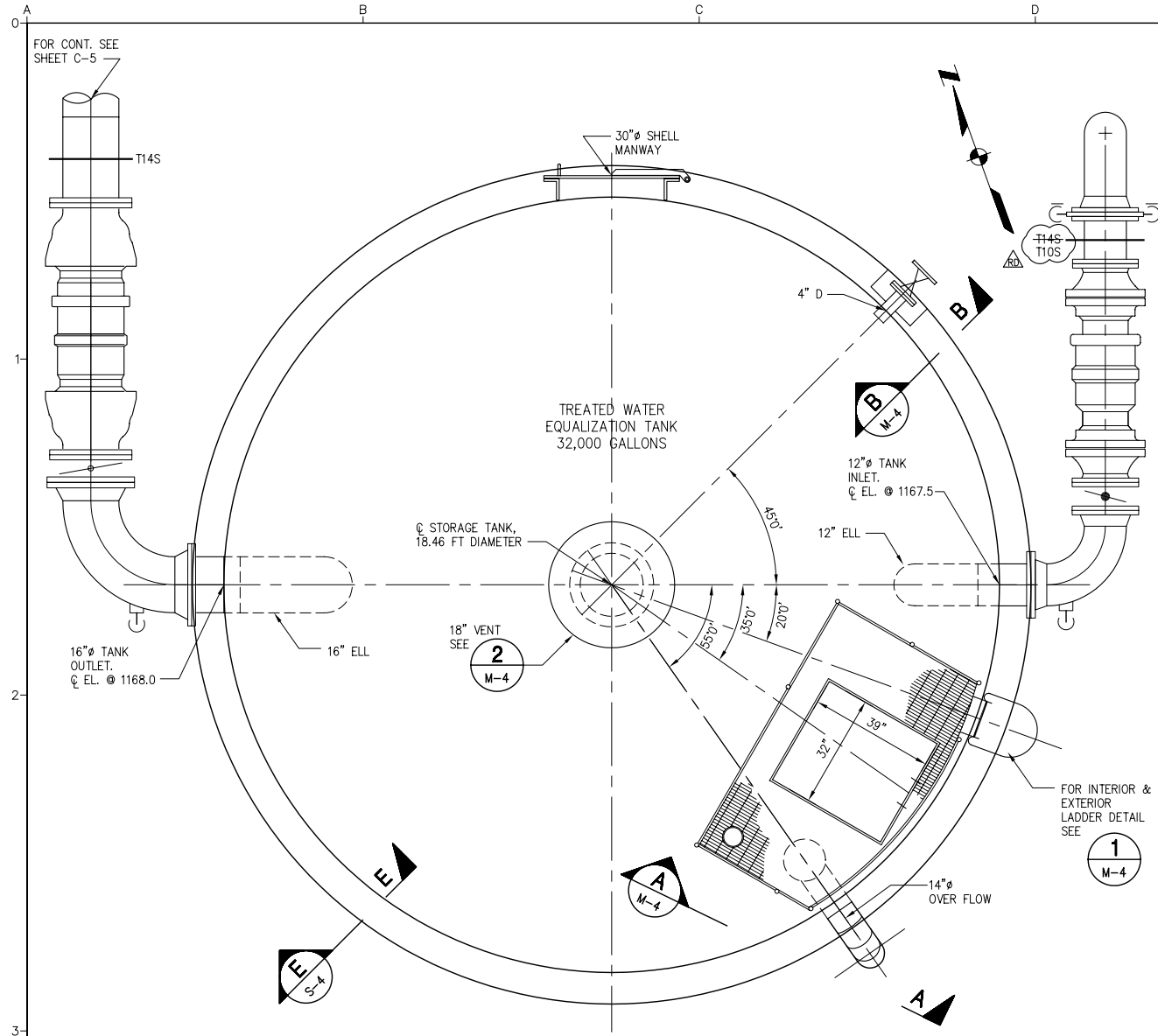


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 Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

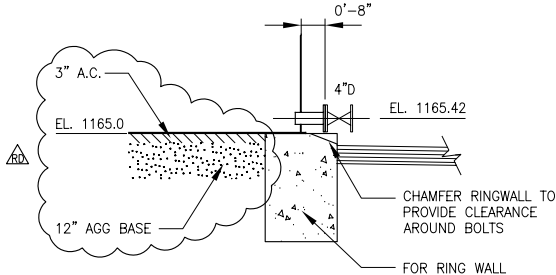
PERCHLORATE TREATMENT		CLWA NO. CL-118A
TREATED WATER PUMPS PLAN AND SECTION		JOB NO. 0789064
		DATE JAN. 2008
		SHEET M-3 OF

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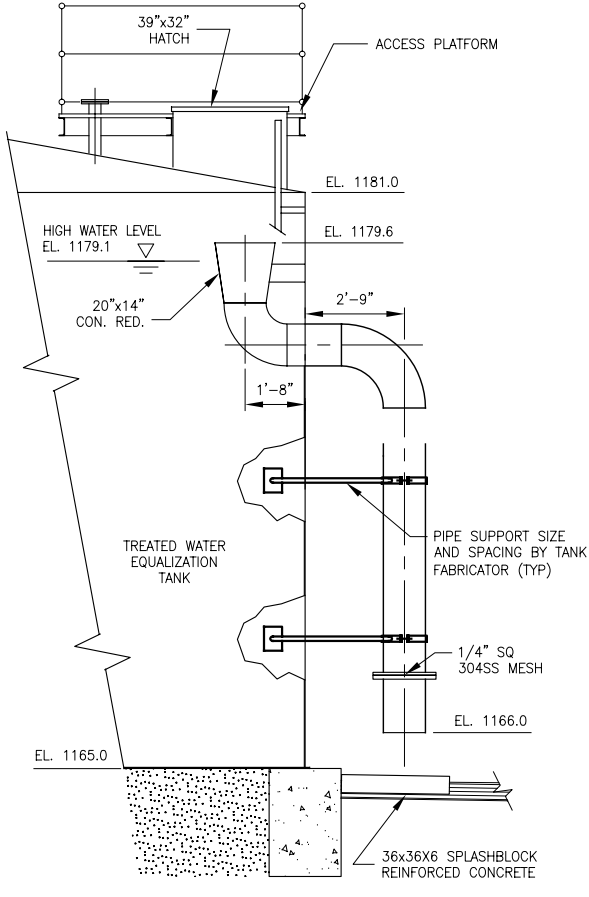


BOLTED STEEL TANK PLAN
SCALE: 1/2" = 1'-0"

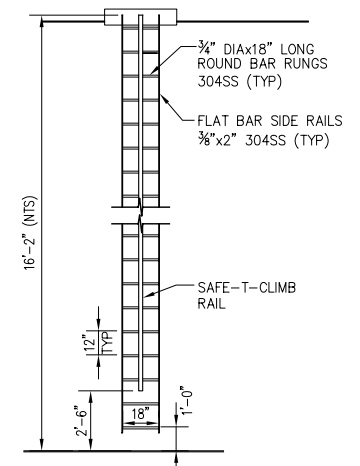
- NOTES:
- TANK CAPACITY SHALL BE 32,000 (MINIMUM). THE MAXIMUM DIAMETER AND HEIGHT SHALL BE 18'-6" AND 16'-2", RESPECTIVELY.



4" DRAIN - SECTION B
SCALE: 3/8" = 1'-0"

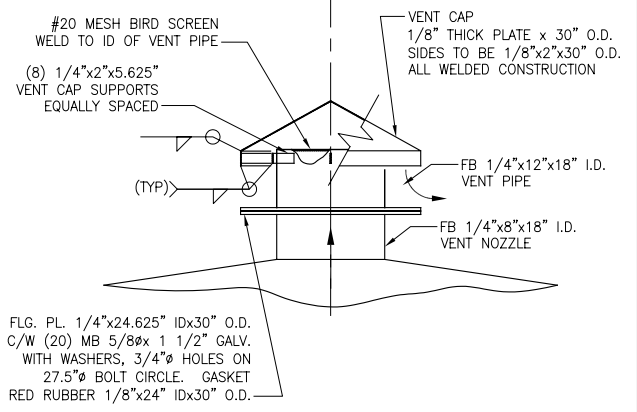


14" OVERFLOW - DETAIL A
SCALE: 3/8" = 1'-0"

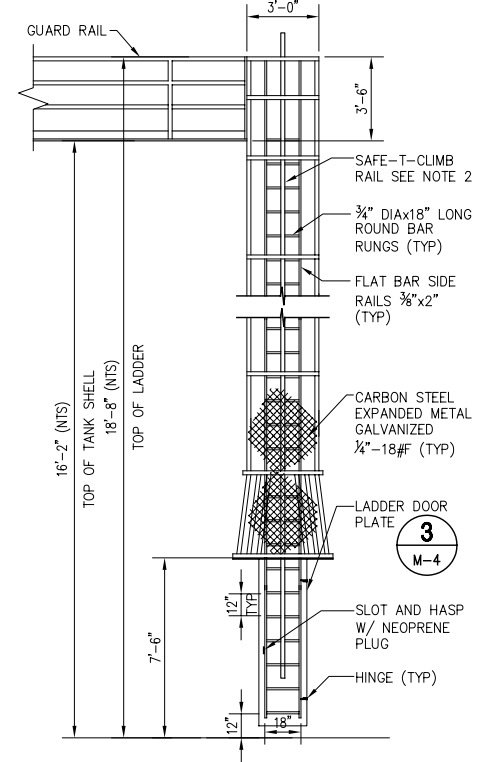


INTERIOR LADDER DETAIL
SCALE: 1/4" = 1'-0"

- NOTES:
- HOT DIP GALVANIZE INTERIOR LADDERS AFTER ASSEMBLY.
 - PROVIDE INSULATING DIELECTRIC CONNECTIONS BETWEEN LADDER AND TANK SHELL.

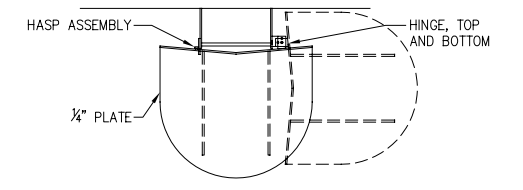


DETAIL 2
SCALE: 3/4" = 1'-0"

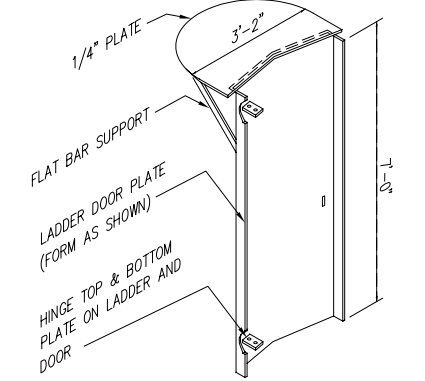


EXTERIOR LADDER DETAIL
SCALE: 1/4" = 1'-0"

- NOTES:
- HOT DIP GALVANIZE EXTERIOR LADDER AND CAGE ASSEMBLIES AFTER ASSEMBLY. COAT GALVANIZED LADDER AND CAGE ASSEMBLIES SAME AS TANK EXTERIOR.
 - PROVIDE TWO BELTS AND TWO SLEEVES FOR SAFE-T-CLIMB RAIL.
 - TOP RUNG OF OUTSIDE LADDER TO BE FLUSH WITH THE TOP OF THE TANK.
 - SAFETY CAGES SHALL BE DETAILED AND SUBMITTED FOR COMPLIANCE WITH OSHA.

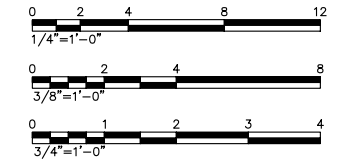


PLAN VIEW WITH PHANTOM VIEW
SCALE: 1/4" = 1'-0"



LADDER DOOR PLATE DETAIL 3
SCALE: NONE

INTERIOR & EXTERIOR LADDER DETAIL 1
SCALE: 1/4" = 1'-0"



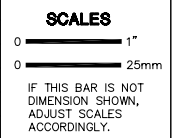
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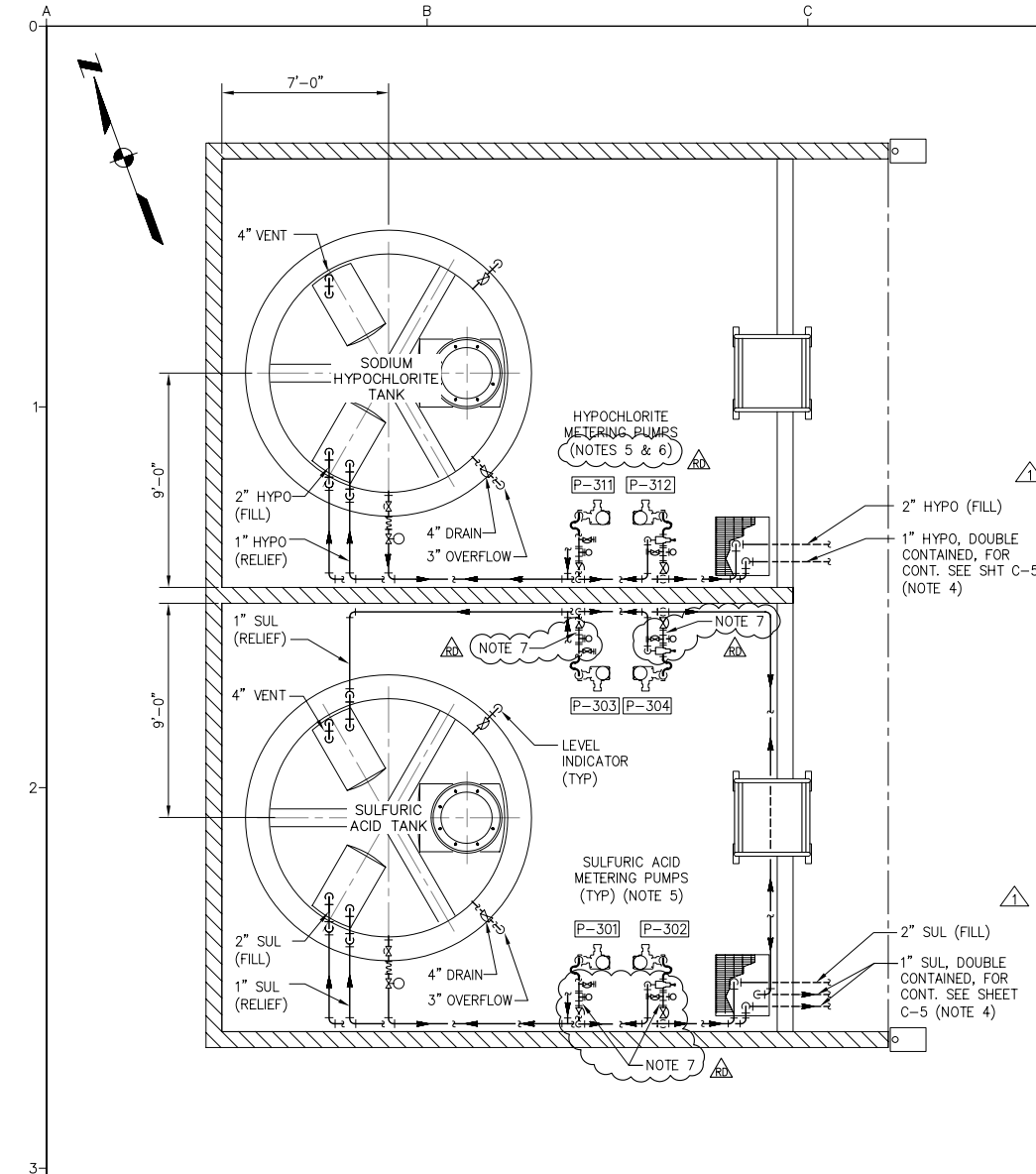
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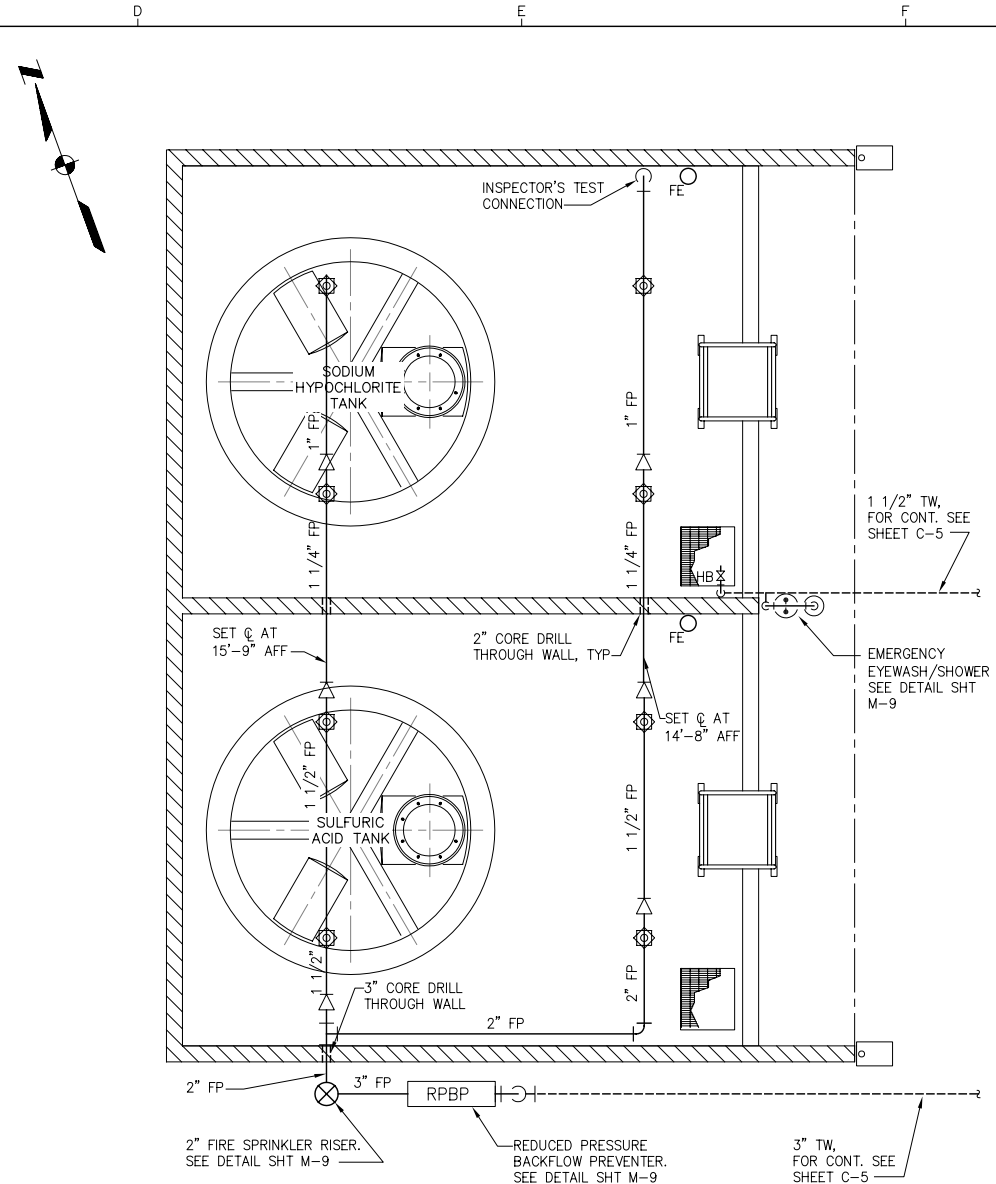
PERCHLORATE TREATMENT

TREATED WATER EQUALIZATION TANK
PLAN, SECTIONS AND DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF M-4

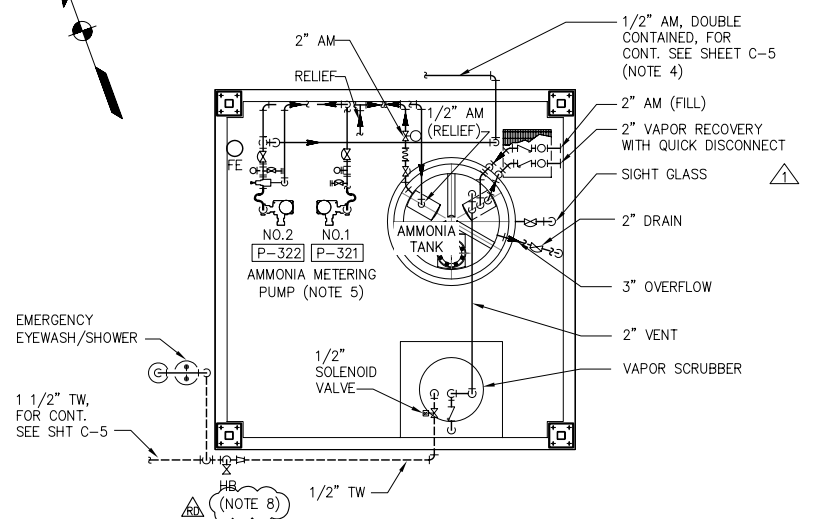


CHEMICAL STORAGE BUILDING - PROCESS PIPING PLAN
SCALE: 1/4"=1'-0"

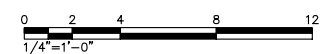


CHEMICAL STORAGE BUILDING - PLUMBING/FIRE PROTECTION PLAN
SCALE: 1/4"=1'-0"

- NOTES:**
1. NOT ALL PIPING VALVES, FITTINGS AND ACCESSORIES ARE SHOWN ON THIS DRAWING. THIS DRAWING SHOWS GENERAL ARRANGEMENT AND LOCATION. PROVIDE ANY ADDITIONAL EQUIPMENT DEVICES AS SHOWN ON THE PROCESS AND INSTRUMENTATION DRAWINGS.
 2. PROVIDE HOSE BIBB WITH VACUUM BREAKER AT OUTLET; WATTS 8A OR EQUAL.
 3. PROVIDE CHEMICAL RESISTANT EPOXY COATING PER SPECIFICATION SECTION 09960 ON FLOOR AND INTERIOR WALL SURFACES OF SULFURIC ACID CONTAINMENT AREAS. THE INTERIOR WALL SURFACE COATING SHALL EXTEND FROM THE FLOOR TO THE HEIGHT OF THE CONTAINMENT WALL.
 4. TERMINATE BURIED DOUBLE CONTAINMENT PIPE INSIDE SUMP.
 5. SEE TYPICAL METERING PUMP ISOMETRIC SHEET M-10.
 6. HYPOCHLORITE SERVICE - PROVIDE MOTORIZED VALVES WITH PVC BODY AND VITON O-RINGS.
 7. PROVIDE FOUR (4) PRESSURE GAUGES WITH A RANGE OF 0 TO 100 PSI DOWNSTREAM OF THE SULFURIC ACID METERING PUMPS. FOR EACH PRESSURE GAUGE PROVIDE AN ISOLATION VALVE, DIAPHRAGM SEAL AND SNUBBER SUITABLE FOR 50% CONCENTRATION SULFURIC ACID SERVICE AS DESCRIBED IN RFI RESPONSE 101-REV 1.
 8. PER M-10, NOTE 2, HOSE RACK DETAIL: LOCATE HOSE RACK AT EACH HOSE BIBB.



AMMONIA SHELTER - PIPING PLAN
SCALE: 1/4"=1'-0"



RECORD DRAWINGS

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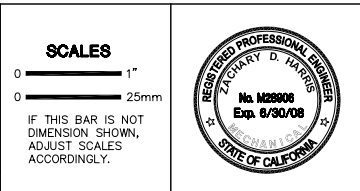
N:\2009\0989066.00 CLWA_Perchlorate Rec Drawg\0589017-M05.dwg
PRINT DATE: Jan 19, 2011 - 9:19am

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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD
2	RFQ NO. 003	01/02/2007	DL

SCALES	
0	1"
0	25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	



DESIGNED
JSA/AdB

DRAWN
ROO/SMA

CHECKED
AdB

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

CHEMICAL STORAGE BUILDING AND AMMONIA SHELTER PLANS

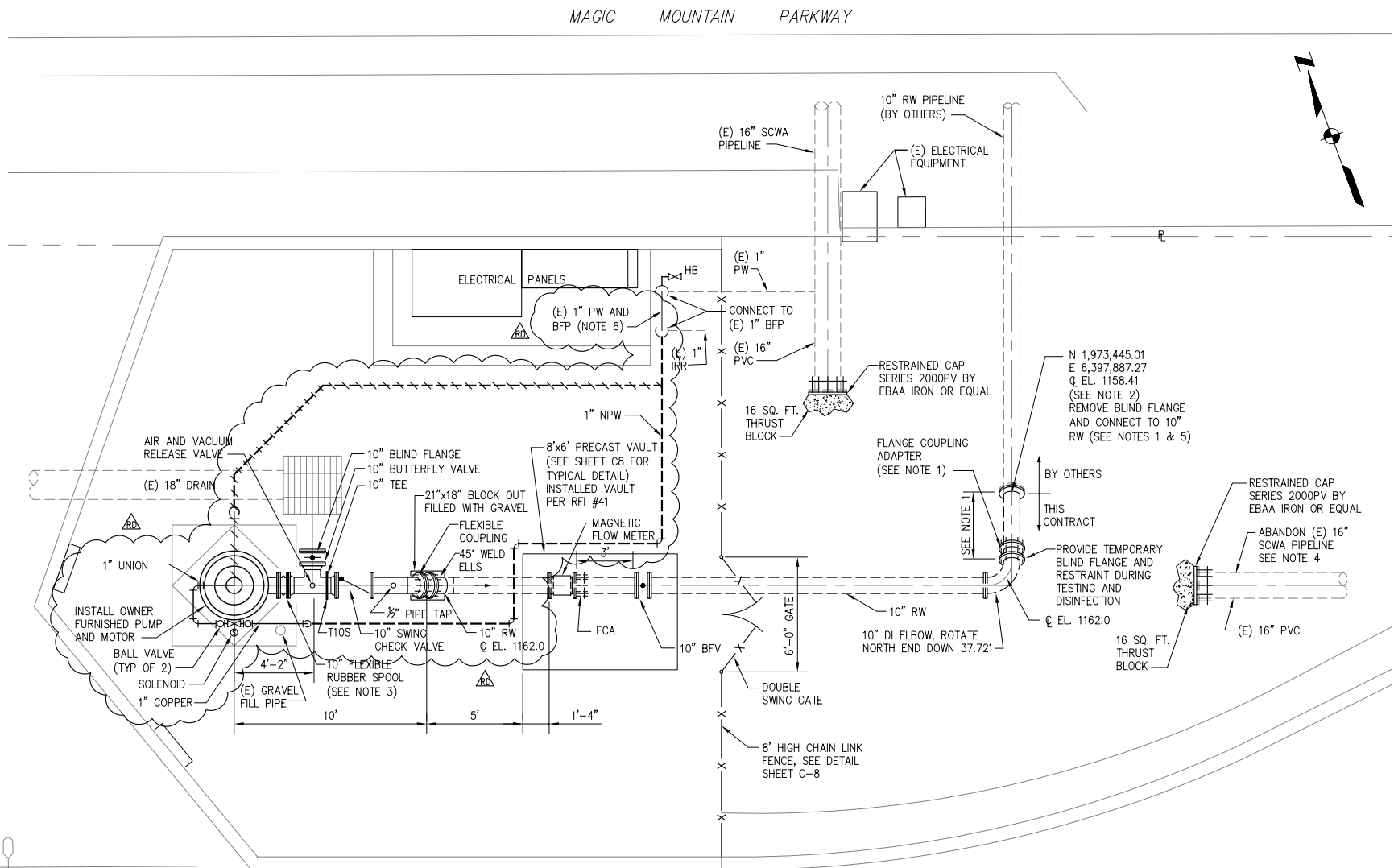
CLWA NO. CL-118A

JOB NO. 0789064

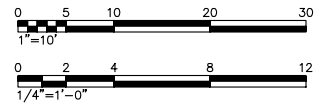
DATE JAN. 2008

SHEET OF **M-5**

- NOTES:**
1. REMOVE BLIND FLANGE AND INSTALL INDICATED ITEMS UPON COMPLETION OF SUCCESSFUL PRESSURE TESTING AND DISINFECTION.
 2. CONTRACTOR TO VERIFY LOCATION OF CONNECTION TO RW PIPE BY OTHERS PRIOR TO FABRICATING PIPE.
 3. SET DISCHARGE ELEVATION TO MATCH OUTLET OF OWNER FURNISHED PUMP.
 4. COORDINATE SHUTDOWN AND ABANDONMENT OF (E) 16" PVC PIPELINE WITH SANTA CLARITA WATER AGENCY PRIOR TO DEMOLITION.
 5. CONTRACTOR SHALL COORDINATE ISOLATION AND DEWATER OF EXISTING PIPELINES WITH CLWA BEFORE MAKING CONNECTIONS. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR DEWATERING AND BE RESPONSIBLE FOR DISPOSAL IN ACCORDANCE WITH SECTION 01400.
 6. PROVIDE A GRAINGER BRONZE 1" BFP MODEL NO. 009-MI-QTS.

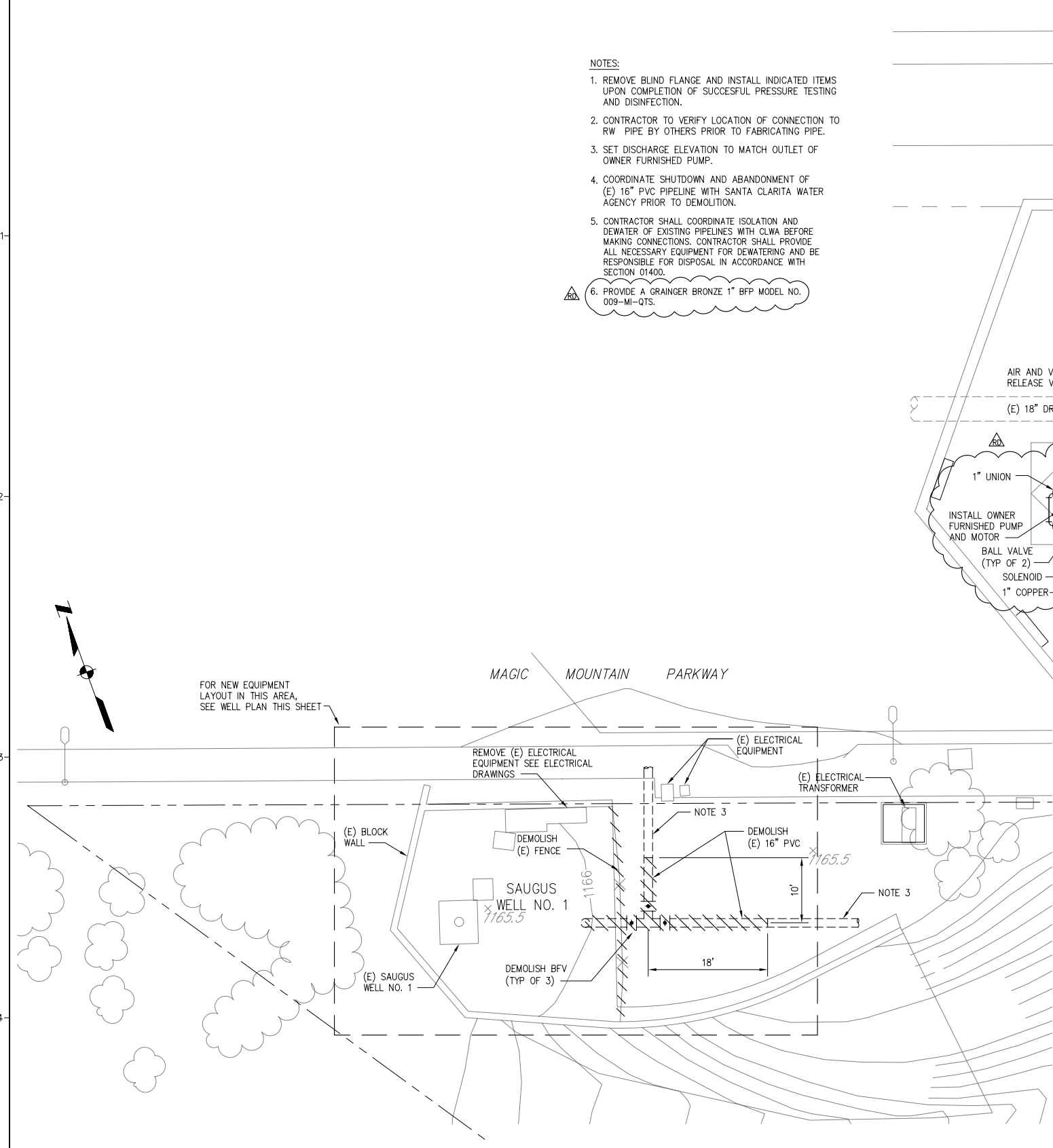


WELL PLAN
SCALE: 1/4"=1'-0"



NOTE:
GENERAL INFORMATION FOR THE OWNER FURNISHED PUMP AND MOTOR FOR SAUGUS WELL NO. 1 AND NO. 2 ARE INCLUDED IN APPENDIX F. OWNER FURNISHED EQUIPMENT IS CURRENTLY LOCATED AT THE RIO VISTA WATER TREATMENT PLANT AT 27234 BOUQUET CANYON ROAD, SANTA CLARITA, CA 91350. CONTRACTOR SHALL DELIVER OWNER FURNISHED EQUIPMENT TO THE PROJECT SITE. THE CONTRACTOR SHALL INSTALL THE OWNER FURNISHED PUMP AND MOTOR IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CONTRACTOR SHALL FIELD TEST EACH PUMP IN ACCORDANCE WITH SECTION 11001. THE OWNER WILL PROVIDE AN AUTHORIZED FACTORY-TRAINED REPRESENTATIVE TO ASSIST THE CONTRACTOR WITH INSTALLATION STARTUP AND TESTING OF THE SAUGUS WELL PUMPS.

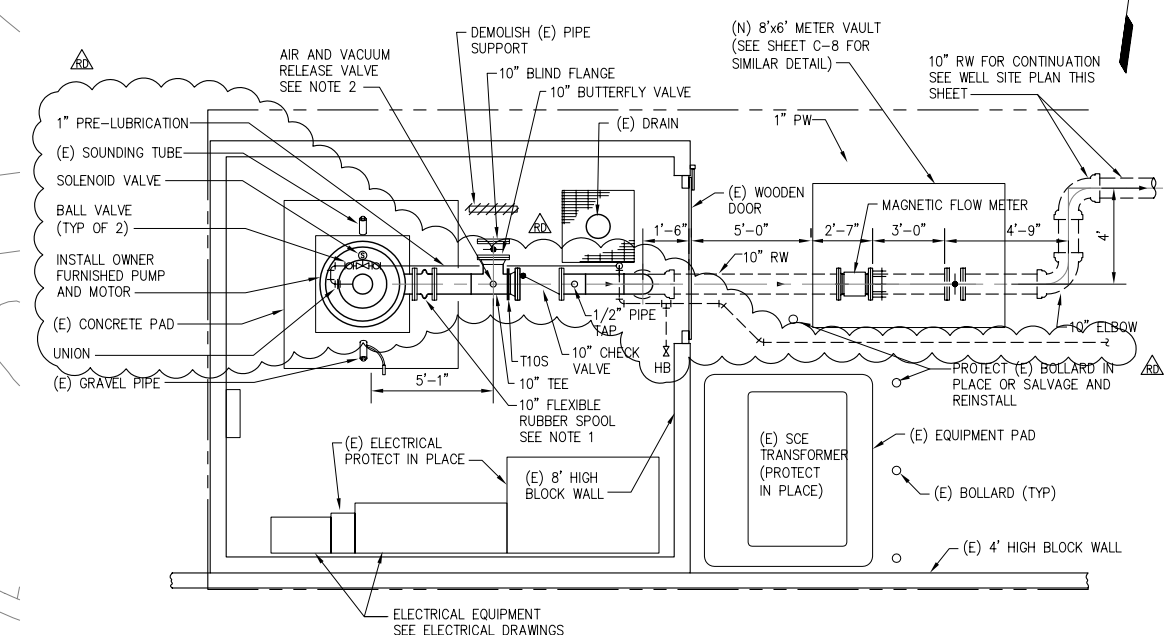
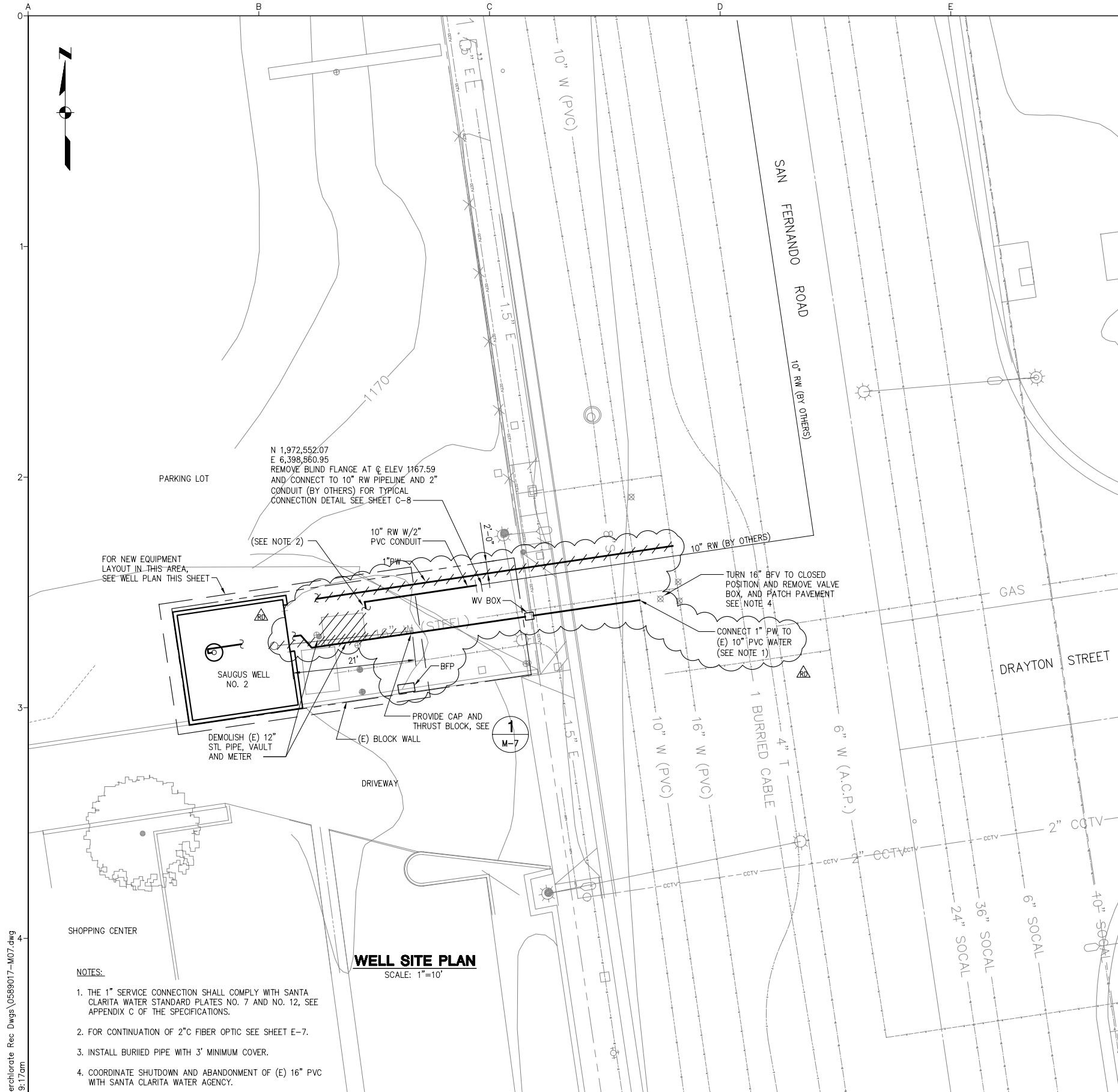
RECORD DRAWINGS
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WELL SITE DEMOLITION PLAN
SCALE: 1"=10'

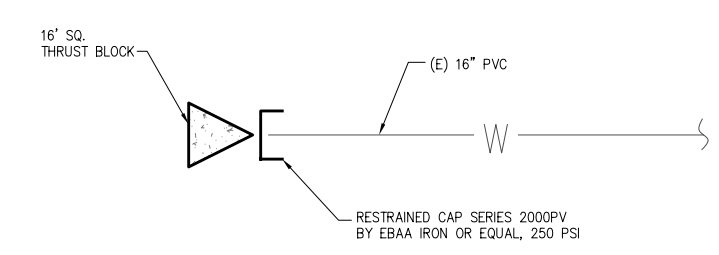
N:\2009\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-M06.dwg
PRINT DATE: Jan 19, 2011 9:18am

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	CONFORMED PER ADDENDUM NO. 3	11/5/07	JSA			DRAWN	ROO		SAUGUS WELL NO. 1 PLANS	JOB NO. 0789064
NO. REVISION	DATE	BY	CHECKED	AdB		DATE	JAN. 2008		SHEET	OF

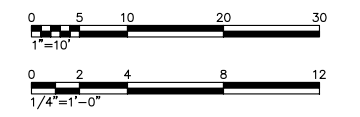


WELL PLAN
SCALE: 1/4"=1'-0"

- NOTES:**
1. SET DISCHARGE ELEVATION TO MATCH OUTLET OF OWNER FURNISHED PUMP.
 2. PROVIDE APCO MODEL 142DWT AIR AND VACUUM VALVE (1-INCH CONNECTION), VALMATIC MODEL 1010WS, OR EQUAL FOR AIR AND VACUUM RELEASE VALVES SHOWN ON M-5 AND M-6.



DETAIL 1
NO SCALE



NOTE:

GENERAL INFORMATION FOR THE OWNER FURNISHED PUMP AND MOTOR FOR SAUGUS WELL NO. 1 AND NO. 2 ARE INCLUDED IN APPENDIX F. OWNER FURNISHED EQUIPMENT IS CURRENTLY LOCATED AT THE RIO VISTA WATER TREATMENT PLANT AT 27234 BOUQUET CANYON ROAD, SANTA CLARITA, CA 91350. CONTRACTOR SHALL DELIVER OWNER FURNISHED EQUIPMENT TO THE PROJECT SITE. THE CONTRACTOR SHALL INSTALL THE OWNER FURNISHED PUMP AND MOTOR IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CONTRACTOR SHALL FIELD TEST EACH PUMP IN ACCORDANCE WITH SECTION 11001. THE OWNER WILL PROVIDE AN AUTHORIZED FACTORY-TRAINED REPRESENTATIVE TO ASSIST THE CONTRACTOR WITH INSTALLATION STARTUP AND TESTING OF THE SAUGUS WELL PUMPS.

RECORD DRAWINGS

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- NOTES:**
1. THE 1" SERVICE CONNECTION SHALL COMPLY WITH SANTA CLARITA WATER STANDARD PLATES NO. 7 AND NO. 12, SEE APPENDIX C OF THE SPECIFICATIONS.
 2. FOR CONTINUATION OF 2" FIBER OPTIC SEE SHEET E-7.
 3. INSTALL BURIED PIPE WITH 3' MINIMUM COVER.
 4. COORDINATE SHUTDOWN AND ABANDONMENT OF (E) 16" PVC WITH SANTA CLARITA WATER AGENCY.

WELL SITE PLAN
SCALE: 1"=10'

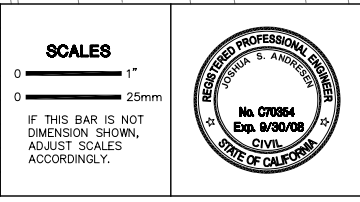
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD
2	CONFORMED PER ADDENDUM NO. 3	11/5/07	JSA

SCALES	
0	1"
0	25mm
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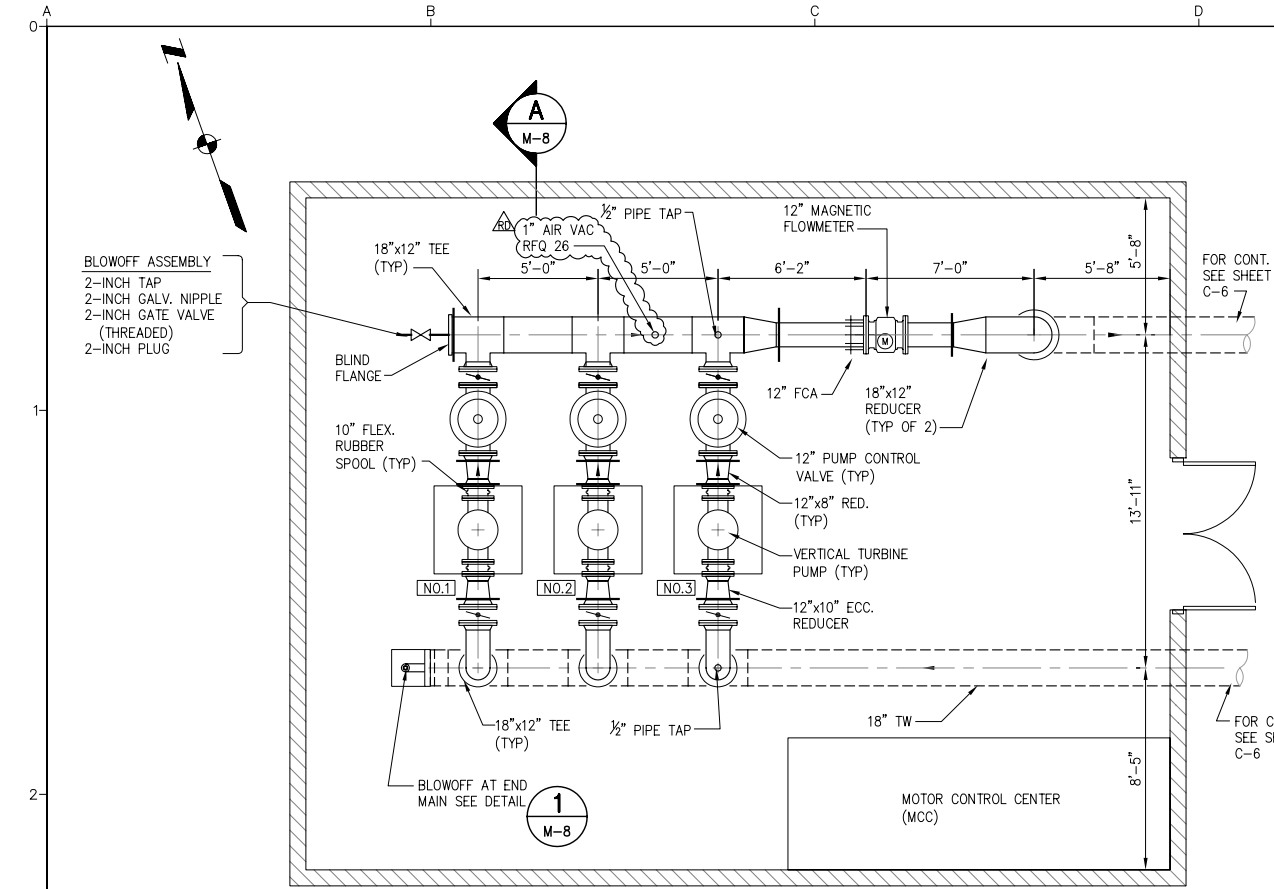


DESIGNED	JSA
DRAWN	ROO
CHECKED	AdB

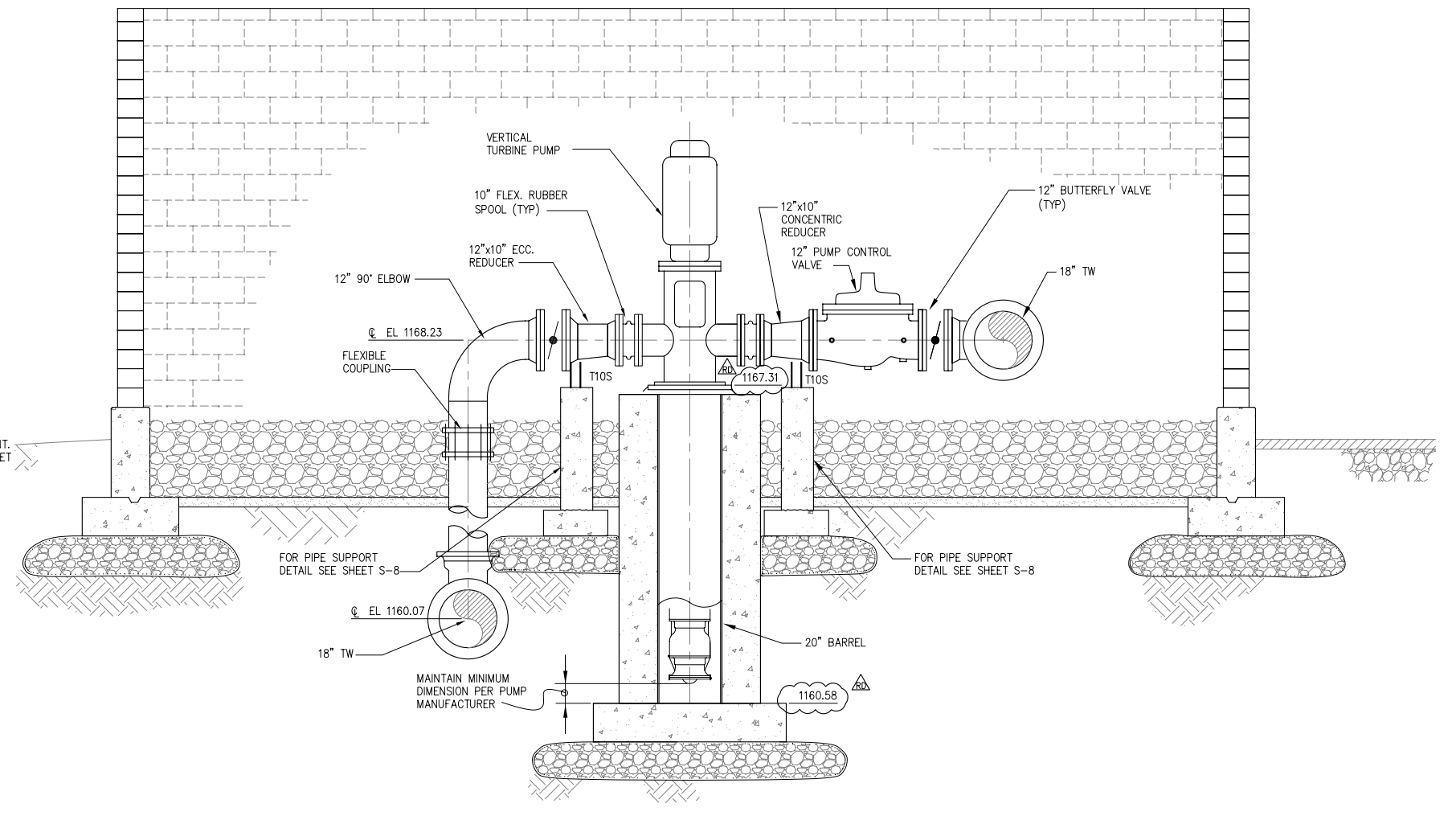
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

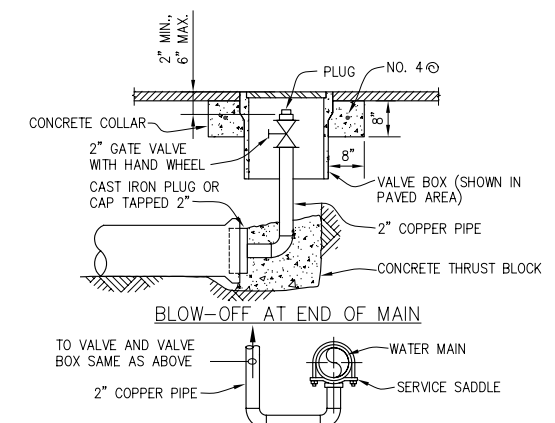
PERCHLORATE TREATMENT		CLWA NO.	CL-118A
SAUGUS WELL NO. 2 PLANS AND DETAIL		JOB NO.	0789064
		DATE	JAN. 2008
		SHEET	OF
			M-7



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



SECTION A
SCALE: 1/2" = 1'-0"



BLOW-OFF DETAIL 1
N.T.S.

NOTE:
IF THE VALVE BOX IS IN THE TRAVELLED ROADWAY OR DRIVEWAY, THE TOP OF THE BOX SHALL BE FLUSH WITH THE TRAVELLED SURFACE, THE COVER SHALL BE CAST IRON, AND A CONCRETE SUPPORT SHALL BE POURED AROUND THE TOP OF THE VALVE BOX BELOW THE PAVEMENT AS SHOWN. OUTSIDE ROADWAYS THE TOP OF THE BOX SHALL BE 2" ABOVE FINISHED GRADE.

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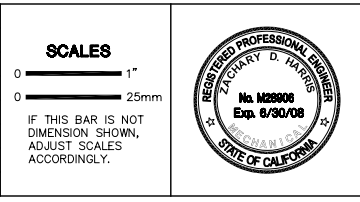
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1	RECORD DRAWINGS	JULY 2010	JTD

SCALES	
0	1"
0	25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	



DESIGNED: ZDH
DRAWN: ROO
CHECKED: AdB

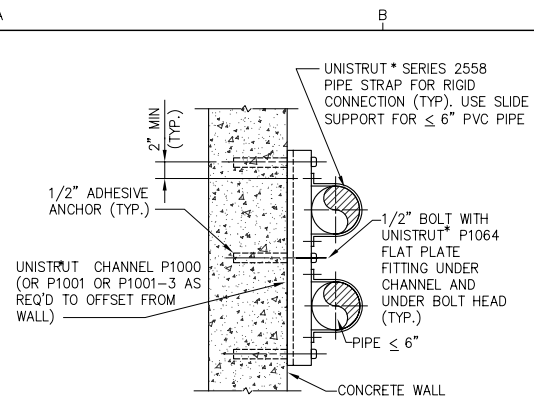
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SANTA CLARITA BOOSTER PUMP STATION
PLAN, SECTION AND DETAIL

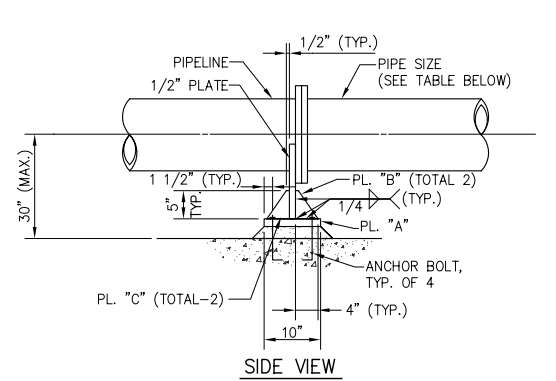
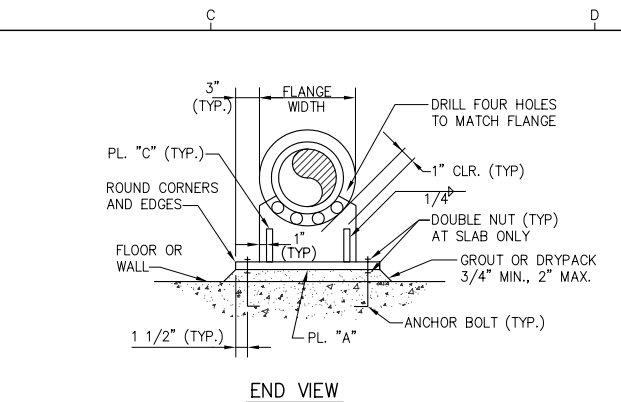
CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
M-8



NOTE:
1. ADD ADDITIONAL ADHESIVE ANCHOR FOR EACH ADDITIONAL PIPE.

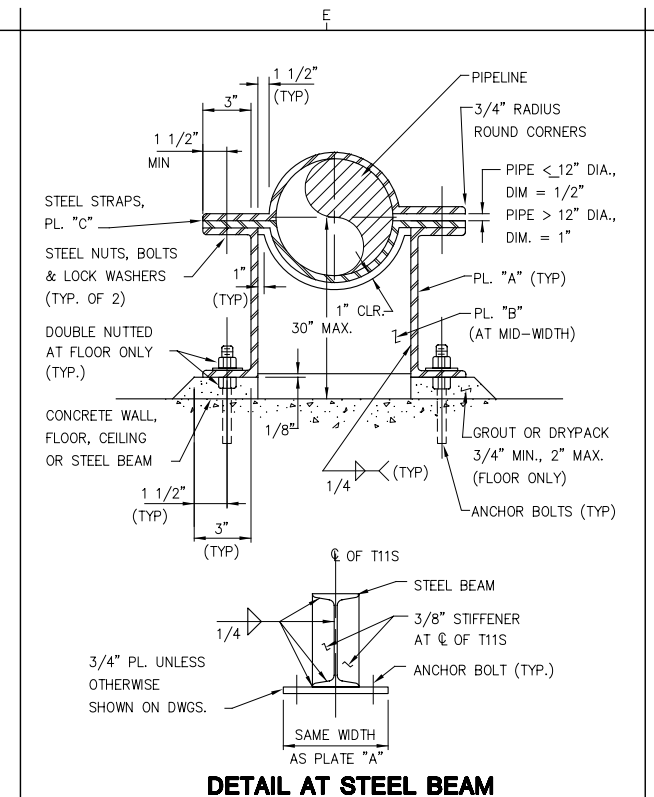
* OR KIN-LINE INC., OR EQUAL.

TYPE 3 SUPPORT (T3S)
SCALE: NONE (SEISMIC RESTRAINT)



PIPE SIZE	MEMBERS			ANCHOR BOLT	REMARKS
	PL. "A"	PL. "B"	PL. "C"		
≤12"	1/2"	-	-	3/4"	PL. "B" & "C" NOT REQ'D.
>12" ≤ 16"	1/2"	3/8"	-	3/4"	PL. "C" NOT REQ'D.
>16" ≤ 24"	3/4"	3/8"	3/8"	7/8"	-

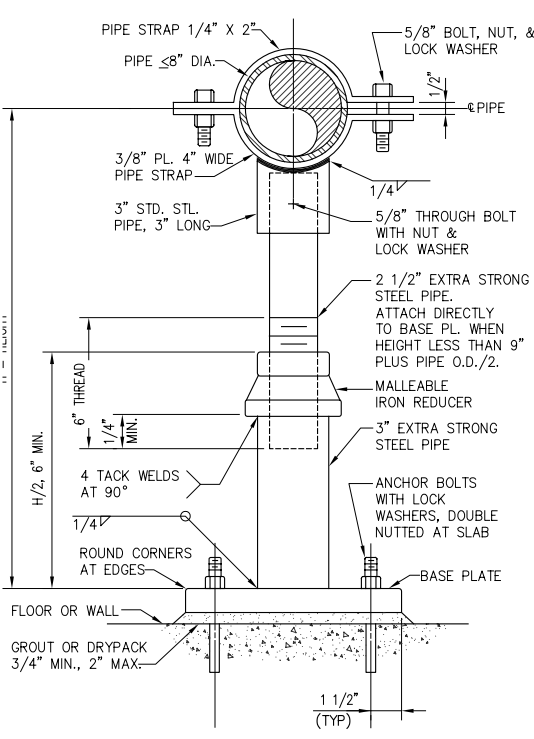
TYPE 10 SUPPORT (T10S)
SCALE: NONE (SEISMIC RESTRAINT)



SUPPORT T11S			PIPE SIZE	ANCHOR BOLTS NUMBER & SIZE	STRAP BOLTS
MEMBERS					
PL. "A"	PL. "B"	PL. "C"			
3/8" X 6"	1/4"	3/8" X 6"	<12"	2-5/8"	1"
3/8" X 12"	3/8"	3/8" X 12"	>12" <20"	4-3/4"	1 3/8"
3/4" X 12"	1/2"	1/2" X 12"	>20" <30"	4-3/4" @ FLOOR 4-7/8" @ WALL & CEILING	1 5/8"

NOTES:
1. WHEN BOLTED TO STEEL BEAM SEE DETAIL ABOVE.

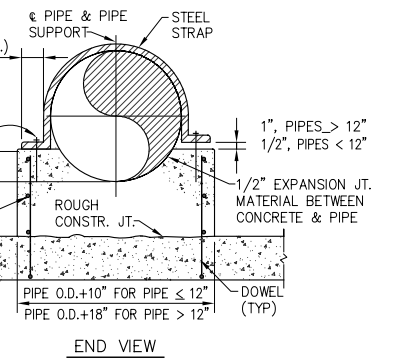
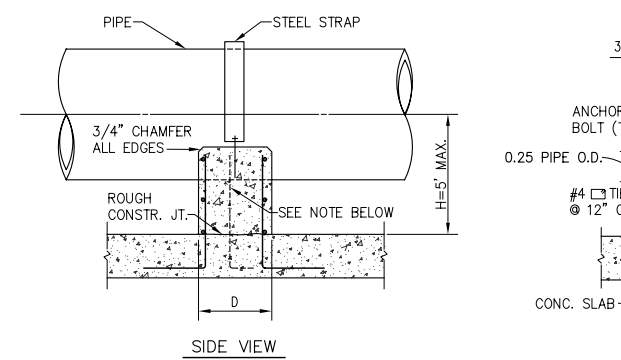
TYPE 11 SUPPORT (T11S)
(SEISMIC RESTRAINT)
SCALE: NONE



LOCATION	H (MAX.)	MEMBER	
		BASE PLATE	ANCHOR BOLT
FLOOR	3'-0"	3/8 X 9 X 9	4-5/8"
WALL	1'-6"	5/8 X 9 X 9	4-3/4"

NOTES:
1. AS AN ALTERNATE, IF ADJUSTMENT IS NOT NECESSARY, DELETE PIPE AND REDUCER AND WELD 3" STEEL PIPE DIRECTLY TO BOTTOM PIPE STRAP.
2. DO NOT CUT OR WELD AFTER GALVANIZING.
3. PIPE SUPPORT MAY BE ORIENTATED IN ANY DIRECTION.

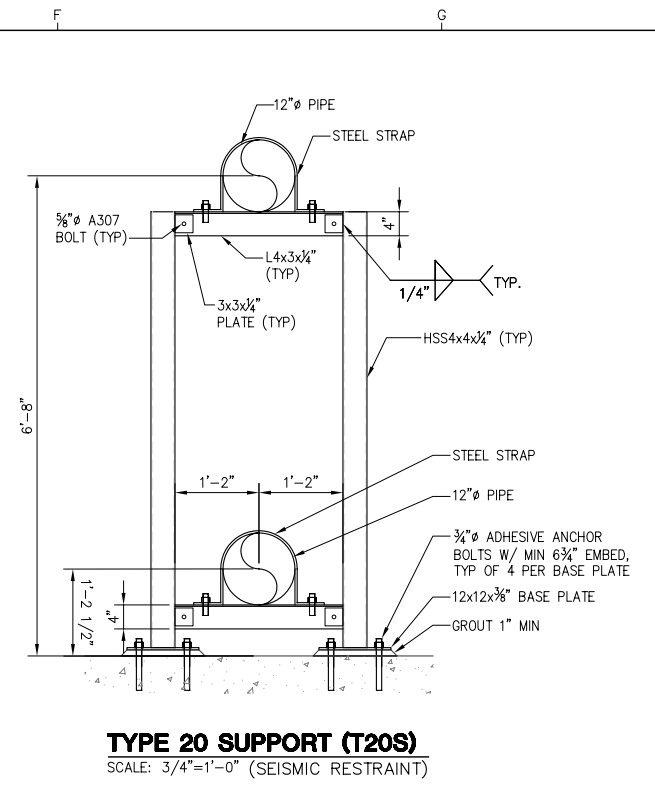
TYPE 8 SUPPORT (T8S)
SCALE: NONE (SEISMIC RESTRAINT)



PIPE SIZE	"D"	DOWELS	EXPANSION ANCHOR BOLT SIZE	STEEL STRAP
>6" ≤ 12"	1'-0"	#4 @12"	5/8"	3/8" x 2"
>12" ≤ 30"	1'-6"	#5 @12"	3/4"	3/8" x 2"
36"	2'-0"	#6 @12"	1"	1/2" x 3"

NOTE: PROVIDE DOWELS AND TIES ONLY AT MID-WIDTH FOR PIPE SIZE ≤ 6".

TYPE 14 SUPPORT (T14S)
SCALE: NONE (SEISMIC RESTRAINT)



TYPE 20 SUPPORT (T20S)
SCALE: 3/4"=1'-0" (SEISMIC RESTRAINT)

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PRINT DATE: Jan 19, 2011 9:27am

USE OF DOCUMENTS

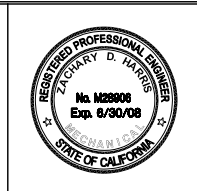
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NO.	REVISION	DATE	BY
		JULY 2010	JTD

SCALES

0 1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: JSA
DRAWN: ROO
CHECKED: AdB

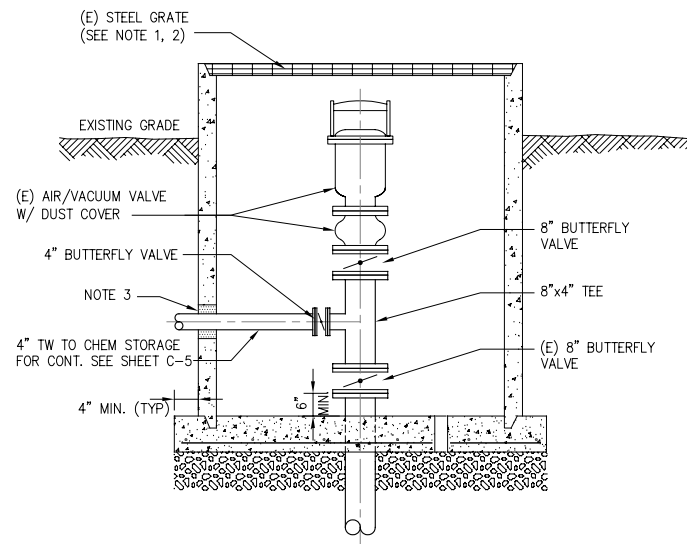
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

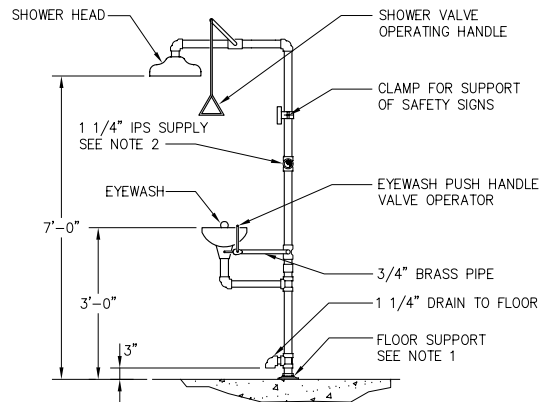
PIPE SUPPORT AND MISCELLANEOUS DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
M-9



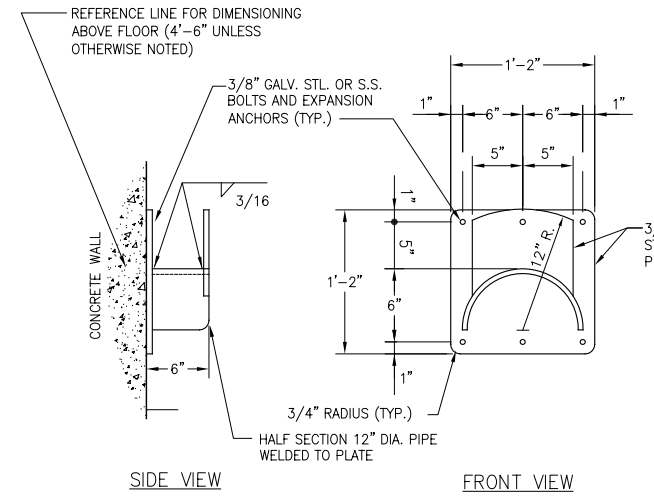
- NOTES:
- CUT 24-INCH SQ. OPENING IN GRATE TO ALLOW FOR PENETRATION OF AIR/VACUUM VALVE AS NEEDED FOR VERTICAL CLEARANCE.
 - TOUCH-UP DAMAGED GRATING TO REMOVE SHARP EDGES AND TO RESTORE PROTECTIVE COATING.
 - CORE DRILL OPENING FOR PIPE AND SEAL WITH NON-SHRINK GROUT.

BRANCH OUTLET • AIR/VACUUM VALVE VAULT
SCALE: NONE



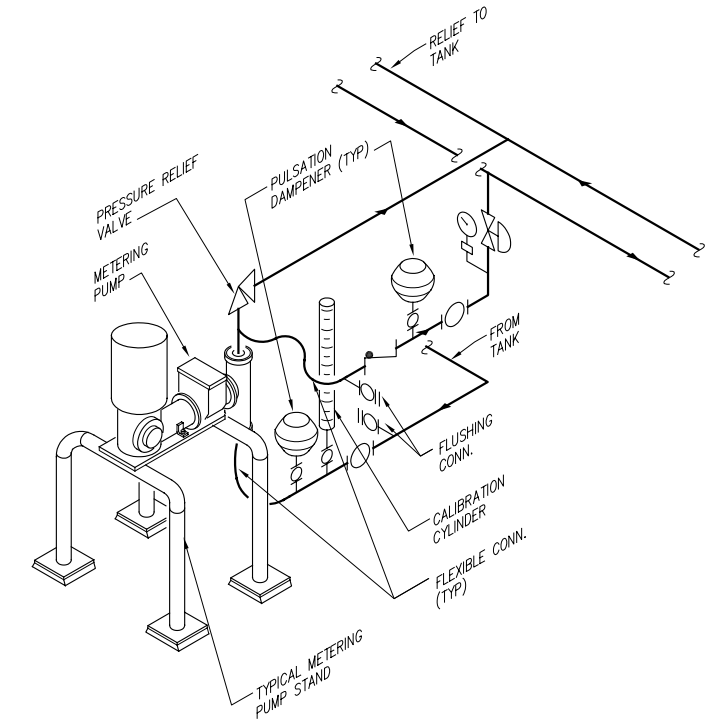
- NOTES:
- ANCHOR FLOOR SUPPORT TO PAVED SURFACE WITH BOLTS SELECTED BY EYEWASH SUPPLIER.
 - PROVIDE ISOLATION VALVE ON EYEWASH SUPPLY BRANCH FROM HEADER. SECURE BRANCH SUPPLY TO BUILDING MEMBERS.

TYPICAL EMERGENCY SHOWER & EYEWASH DETAIL
SCALE: NONE

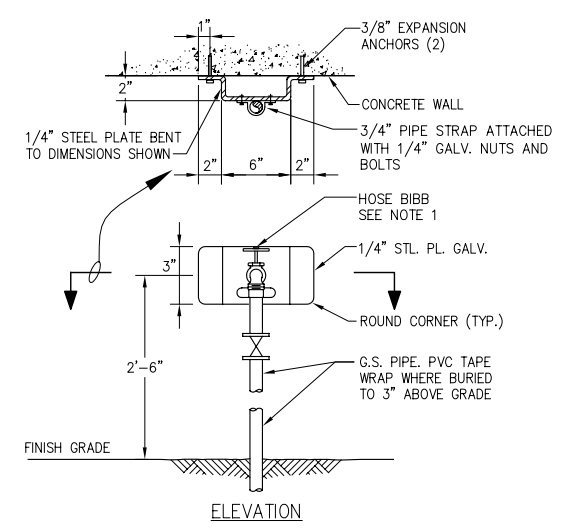


- NOTES:
- HOT-DIP GALV. AFTER FABRICATION.
 - LOCATE HOSE RACK AT EACH HOSE BIBB.

TYPICAL HOSE RACK DETAIL
SCALE: NONE

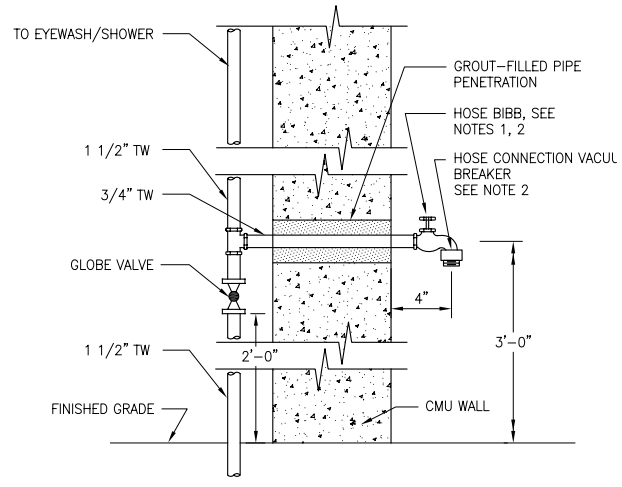


TYPICAL METERING PUMP ISOMETRIC LAYOUT
SCALE: NONE



- NOTES:
- PROVIDE HOSE BIBB VACUUM BREAKER AT OUTLET. WATTS 8A, OR EQUAL.
 - PROVIDE HOSE RACK AT EACH H.B. LOCATION. SEE HOSE RACK INSTALLATION DETAIL THIS SHEET.

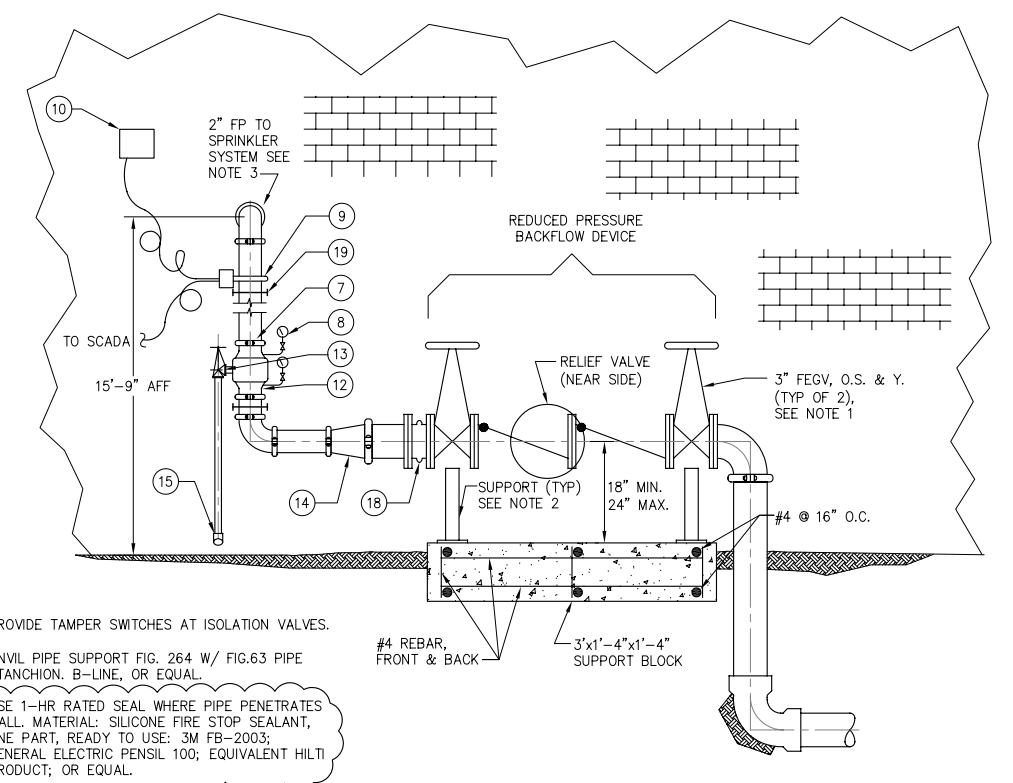
TYPICAL HOSE BIBB ATTACHED TO WALL DETAIL
SCALE: NONE



- NOTES:
- INSTALL HOSE RACK ON EXTERIOR WALL NEAR HOSE BIBB AT LOCATION DIRECTED BY OWNER. SEE HOSE RACK INSTALLATION DETAIL THIS SHEET.
 - PROVIDE HOSE CONNECTION VACUUM BREAKER AT EACH HOSE BIBB.

TYPICAL HOSE BIBB AT WALL PENETRATION DETAIL
SCALE: NONE

ITEM	DESCRIPTION
1	NOT USED
2	NOT USED
3	NOT USED
4	NOT USED
5	NOT USED
6	NOT USED
7	MECHANICAL GROOVE COUPLING
8	WATER GAUGE (2 REQUIRED)
9	VANE-TYPE FLOW SWITCH
10	ALARM BELL
11	NOT USED
12	WET PIPE ALARM CHECK VALVE
13	MAIN DRAIN VALVE
14	3"x2" CONC. REDUCER
15	MAIN DRAIN (TO SPLASHBLOCK)
16	VALVE TAMPER SWITCH
17	SYSTEM CONTROL VALVE (O.S.&Y)
18	FLEXIBLE CONNECTOR
19	PIPE SUPPORT SIMILAR TO T8S
20	RISER FROM MAIN WATER SUPPLY



- NOTES:
- PROVIDE TAMPER SWITCHES AT ISOLATION VALVES.
 - ANVL PIPE SUPPORT FIG. 264 W/ FIG.63 PIPE STANCHION, B-LINE, OR EQUAL.
 - USE 1-HR RATED SEAL WHERE PIPE PENETRATES WALL. MATERIAL: SILICONE FIRE STOP SEALANT, ONE PART, READY TO USE: 3M FB-2003, GENERAL ELECTRIC PENFIL 100; EQUIVALENT HILTI PRODUCT; OR EQUAL.

FIRE SPRINKLER RISER & REDUCED PRESSURE BACKFLOW PREVENTER
SCALE: NONE

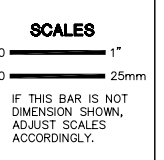


RECORD DRAWINGS

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NO.	REVISION	DATE	BY
1		JULY 2010	JTD



DESIGNED: JSA
DRAWN: SEN
CHECKED: AdB

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

MISCELLANEOUS DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
M-10

INSTRUMENT SYMBOL IDENTIFIERS

J-3	J-4, J-5	J-1: IDENTIFICATION LETTERS (SEE TABLE BELOW)	J-4: FUNCTION BLOCK (SEE TABLE BELOW)
J-1	J-2	J-2: LOOP NUMBER	J-5: PANEL NUMBER
J-2	J-3	J-3: VENDOR DESIGNATOR (NOTE 3)	J-6: HANDSWITCH DESIGNATOR (SEE BELOW)

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSED
D	DENSITY	DIFFERENTIAL	DAMPER		
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			
G	USER'S CHOICE		GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE	MOMENTARY			MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY	SWITCH		
T	TEMPERATURE			TRANSMIT	
U	MULTI VARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, OR LOUVER	
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE, PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

GENERAL INSTRUMENT OR FUNCTION SYMBOLS	FIELD MOUNTED	PRIMARY LOCATION ACCESSIBLE TO OPERATOR	AUXILIARY LOCATION ACCESSIBLE TO OPERATOR	NORMALLY INACCESSIBLE OR BEHIND THE PANEL
DISCRETE INSTRUMENTS				
SHARED DISPLAY, SHARED CONTROL				
COMPUTER FUNCTION				
PROGRAMMABLE LOGIC CONTROL				

J-4 FUNCTION BLOCK DESIGNATORS

	SUMMING		ROOT EXTRACTION
	DIFFERENCE		SQUARE ROOT
	INTEGRAL		EXPONENTIAL
	DERIVATIVE		HIGH SELECTING
	MULTIPLYING		LOW SELECTING
	DIVIDING		BIAS
	CONVERT:		NONLINEAR OR UNSPECIFIED FUNCTION

* E - VOLTAGE
I - CURRENT
P - PNEUMATIC
A - ANALOG
B - BINARY

H - HYDRAULIC
O - ELECTROMAGNETIC, SONIC
R - RESISTANCE (ELECT)
D - DIGITAL

J-6 HANDSWITCH DESIGNATORS

HOA	HAND-OFF-AUTO	LR	LOCAL-REMOTE
HOR	HAND-OFF-REMOTE	OC	OPEN-CLOSE
F-R	FORWARD-REVERSE	OCA	OPEN-CLOSE-AUTO
1-0	ON-OFF		

INSTRUMENT SERVICES

AS	INSTRUMENT AIR SUPPLY (NOTE 4)
ES	120 VAC ELECTRICAL SERVICE (DIFFERENT VOLTAGES ARE SPECIFICALLY NOTED)

PLC INPUT/OUTPUT

	DISCRETE INPUT		ANALOG INPUT
	DISCRETE OUTPUT		ANALOG OUTPUT

FLOW PRIMARY ELEMENTS

	ORIFICE PLATE
	SINGLE PORT PITOT TUBE OR PITOT-VENTURI TUBE
	VENTURI TUBE
	AVERAGING PITOT TUBE
	FLUME
	WEIR
	TURBINE OR PROPELLER-TYPE PRIMARY ELEMENT
	THERMAL MASS FLOWMETER
	POSITIVE DISPLACEMENT TYPE FLOW TOTALIZING INDICATOR
	VORTEX SENSOR
	TARGET TYPE SENSOR
	FLOW NOZZLE
	MAGNETIC FLOWMETER
	SONIC FLOWMETER
	ROTAMETER
	ROTAMETER WITH INTEGRAL VALVE

LINES

	MAIN PROCESS
	SECONDARY PROCESS
	REFERENCES LEAVING SHEET
	LINE CONTINUATION TO DRAWING REFERENCE
	REFERENCES ENTERING SHEET
	FROM DRAWING REFERENCE LINE CONTINUATION
	24" BW
	PIPE SYSTEM
	PIPE SIZE IN INCHES

	ELECTRICAL SIGNAL
	SOFTWARE OR DATALINK
	PNEUMATIC
	HYDRAULIC
	CAPILLARY TUBE
	ELECTROMAGNETIC OR SONIC (GUIDED)

MECHANICAL OR ELECTRICAL CONNECTED

	OR		CONNECTED
			NOT CONNECTED

VALVES

	GATE VALVE
	GLOBE VALVE
	PLUG VALVE
	CHECK VALVE
	PINCH VALVE
	DIAPHRAGM VALVE
	BUTTERFLY VALVE
	BALL VALVE
	NEEDLE VALVE
	PLUG (COCK)
	PRESSURE REDUCING REGULATING VALVE, SELF-CONTAINED
	BACK PRESSURE REGULATING VALVE, SELF-CONTAINED
	PRESSURE REDUCING REGULATOR WITH EXTERNAL PRESSURE TAP
	3-WAY VALVE
	4-WAY VALVE
	ANGLE VALVE
	PRESSURE RELIEF VALVE
	* FC = FAIL CLOSED
	FO = FAIL OPEN
	LC = LOCKED CLOSED
	LO = LOCKED OPEN
	CLOSED DURING NORMAL OPERATION
	SHADING INDICATES PORT TO BE CLOSED DURING NORMAL OPERATION. DOT INDICATES PORT TO BE CLOSED DURING ALTERNATE OPERATION.

VALVE OPERATORS

	DIAPHRAGM		CYLINDER OPERATOR
	DIAPHRAGM PRESSURE BALANCED		SOLENOID
	MOTOR		SOLENOID VALVE

TYPICAL CONNECTION

	IN-LINE DEVICE
	DIRECT CONNECTION TO PROCESS
	TEMPERATURE ELEMENT WITH WELL
	RADIATION OR SONIC SENSING
	FILLED SYSTEM, DIAPHRAGM SEAL CONNECTION

MISCELLANEOUS

	FLANGE
	UNION
	Y STRAINER
	FLOW STRAIGHTENING VANE
	TEE
	SCREWED CAP
	WELDED CAP
	BLIND FLANGE
	REDUCER
	HOSE BIBB CONNECTION
	DIAPHRAGM SEAL
	RUPTURE DISK, PRESSURE
	RUPTURE DISK, VACUUM
	PURGE
	DRAIN
	THERMOMETER WELL
	INTERLOCK. NUMBER IS THE CROSS REFERENCE TO A SPECIFIC ELEMENTARY DIAGRAM OR TO A SPECIFIC CONTROL STRATEGY DESCRIBED IN THE SPECS
	EXPANSION JOINT
	FLEXIBLE COUPLING
	FLANGED COUPLING ADAPTER
	SLUICE GATE OR SLIDE GATE
	* AV - AIR VALVE F - FILTER
	T - TRAP FH - FIRE HYDRANT
	AIR RELIEF VALVE
	AIR VACUUM AND RELEASE VALVE
	LEVEL PROBE
	CHEMICAL DIFFUSER
	STATIC MIXER
	CALIBRATION CYLINDER
	PULSATION DAMPER
	EDUCTOR/INJECTOR

EQUIPMENT

	MIXER
	VERTICAL TURBINE PUMP
	SUBMERSIBLE PUMP
	PUMP BLOWER
	PUMP
	METERING PUMP
	PUMP PROGRESSIVE CAVITY
	ROTARY PUMP
	PRS PUMP

- NOTES:**
- THIS IS A GENERALIZED LEGEND SHEET. THIS CONTRACT MAY NOT USE ALL INFORMATION SHOWN.
 - INFORMATION SHOWN MAY NOT BE ALL INCLUSIVE. SEE ALSO ISA S5.1, S5.3 AND S7.3.
 - INSTRUMENTS MARKED WITH AN ASTERISK ARE FURNISHED WITH THE EQUIPMENT.
 - REFER TO ISA RP7.7 FOR INSTRUMENT AIR QUALITY STANDARDS.

RECORD DRAWINGS

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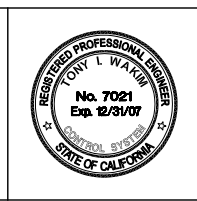
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 1" = 25mm

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DESIGNED: TIW
DRAWN: WL
CHECKED: TIW

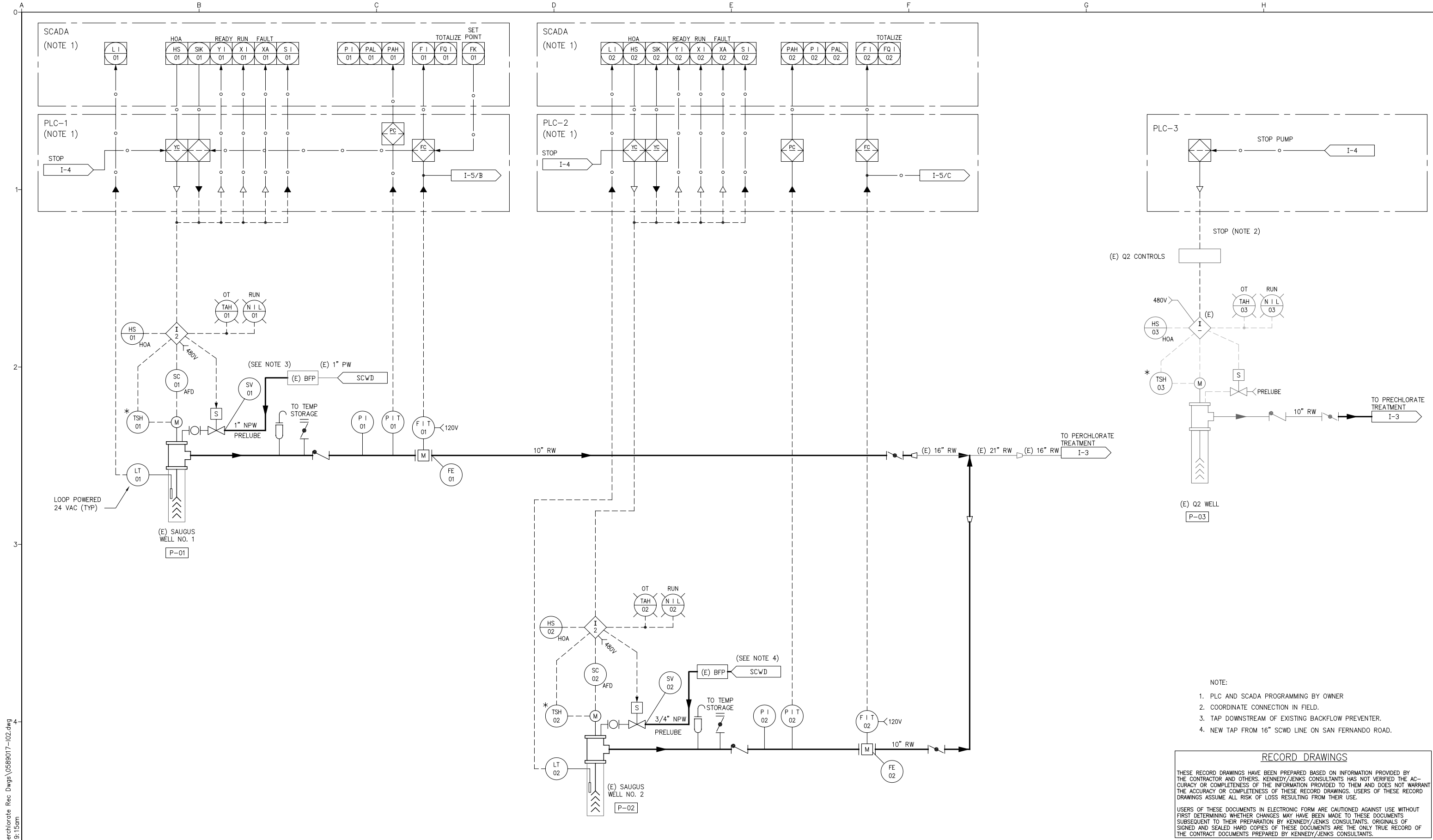
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM
LEGEND AND ABBREVIATIONS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET 1 OF 1



- NOTE:
1. PLC AND SCADA PROGRAMMING BY OWNER
 2. COORDINATE CONNECTION IN FIELD.
 3. TAP DOWNSTREAM OF EXISTING BACKFLOW PREVENTER.
 4. NEW TAP FROM 16" SCWD LINE ON SAN FERNANDO ROAD.

RECORD DRAWINGS

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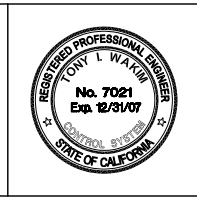
NO.	REVISION	DATE	BY

NO.	REVISION	DATE	BY

SCALES

0 — 1"
0 — 25mm

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AdB/TIW

DRAWN
WL/JL

CHECKED
TIW

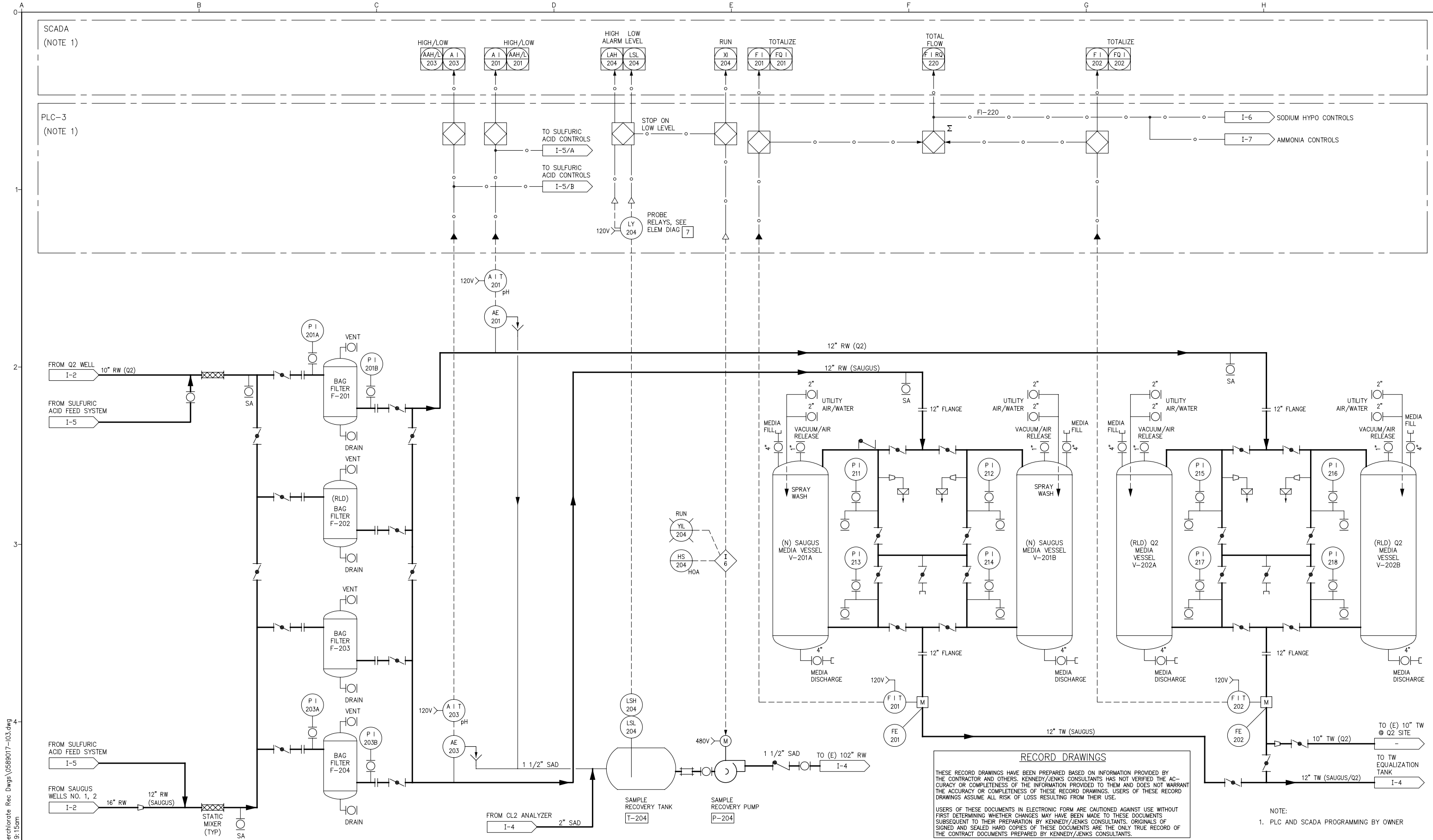
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM
SAUGUS WELLS NO. 1 AND NO. 2
AND Q2 WELL

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
1-2	



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NOTE:
1. PLC AND SCADA PROGRAMMING BY OWNER

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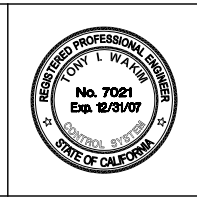
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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM

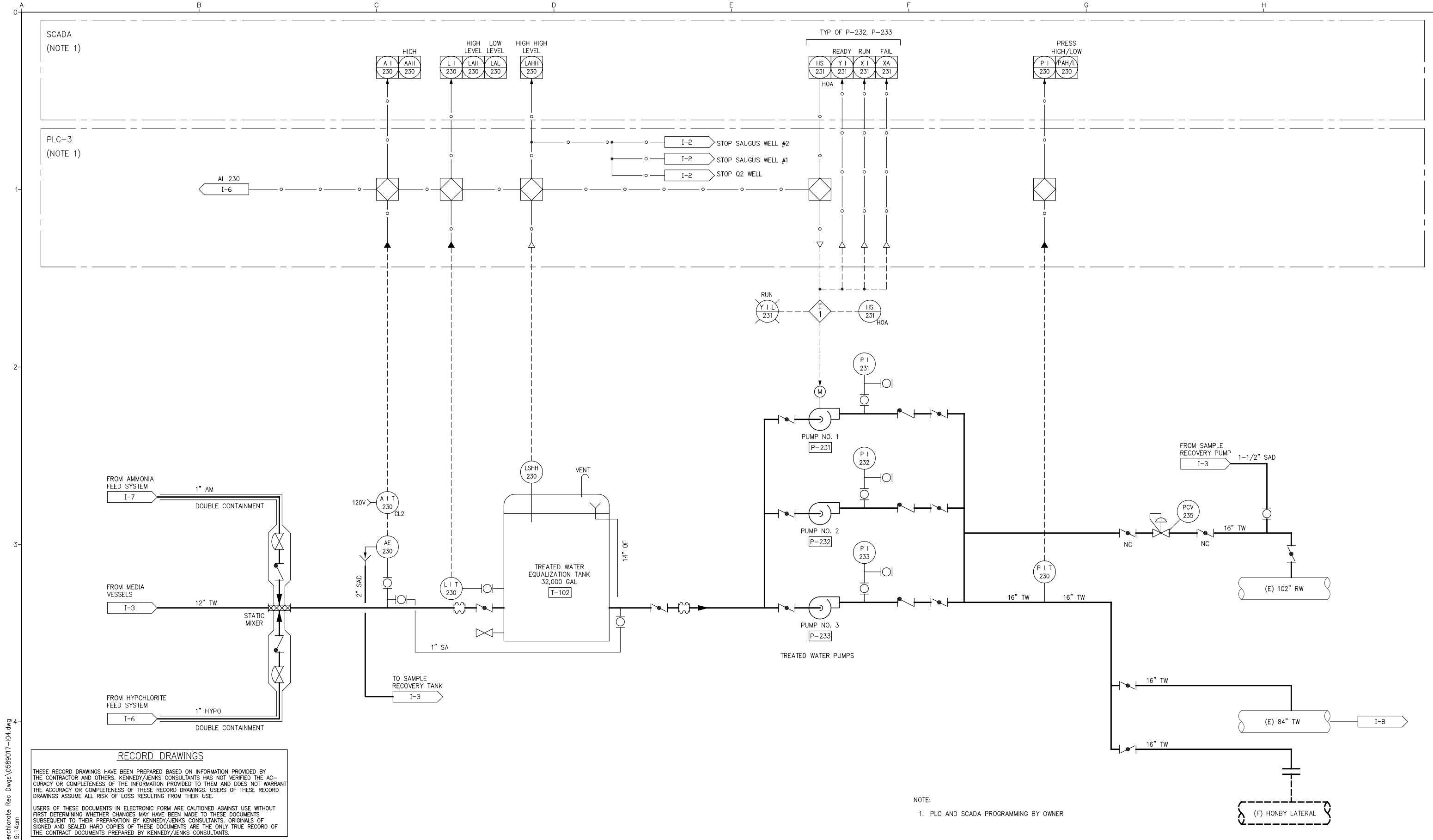
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SHEET 3 OF 3



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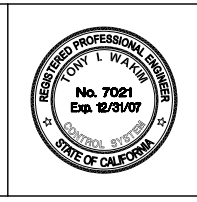
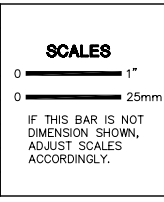
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NOTE:
1. PLC AND SCADA PROGRAMMING BY OWNER

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RECORD DRAWINGS			
NO.	REVISION	DATE	BY
		JULY 2010	JTD



DESIGNED: AdB/TIW
DRAWN: WL/JL
CHECKED: TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

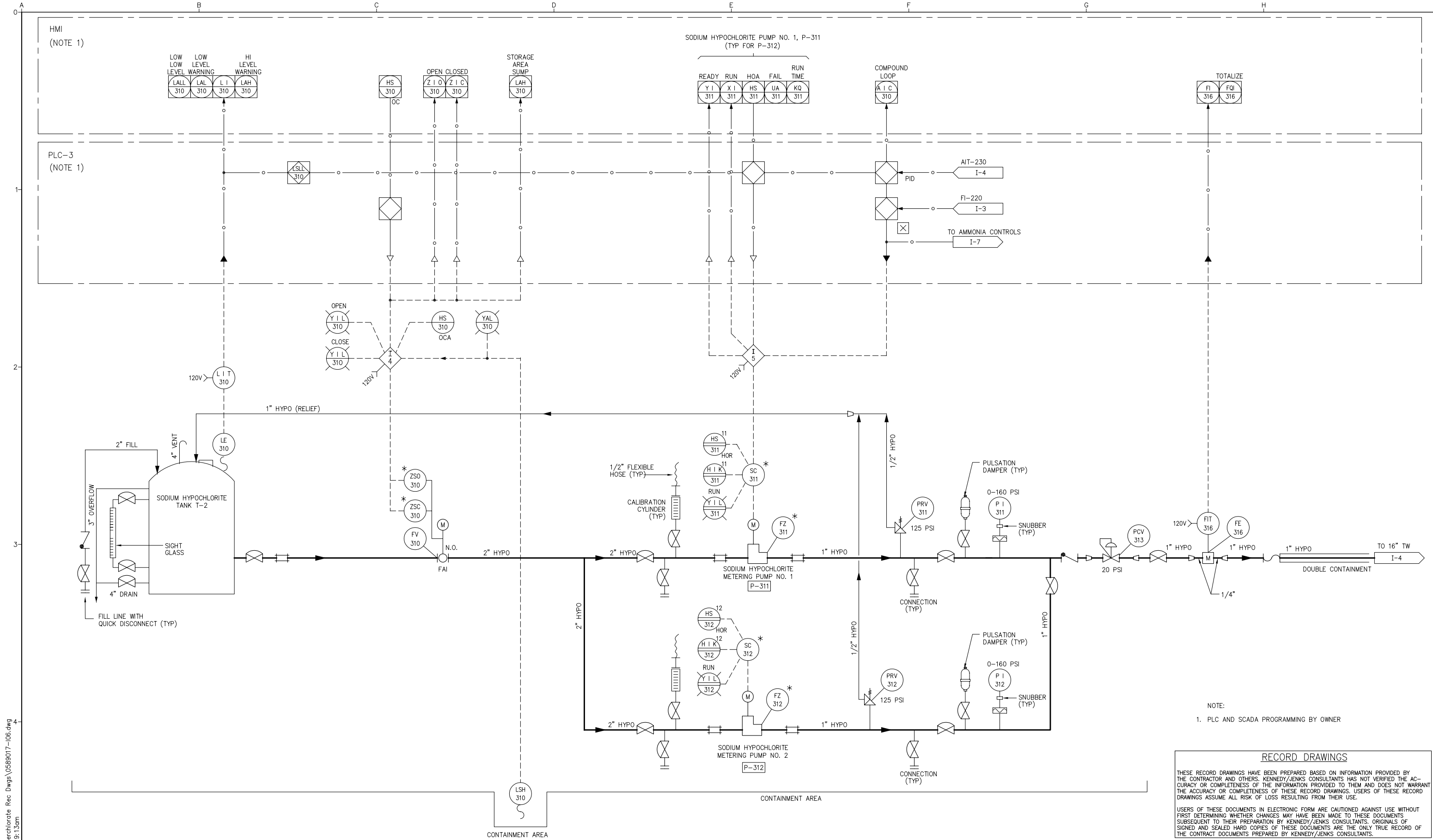
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1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM

TREATED WATER PUMPS

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
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RECORD DRAWINGS

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USE OF DOCUMENTS

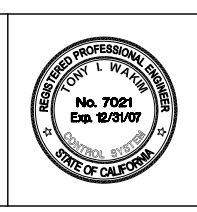
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SCALES

0 1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: AdB/TIW

DRAWN: WL/JL

CHECKED: TIW

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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants

1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM

SODIUM HYPOCHLORITE FEED SYSTEM

CLWA NO. CL-118A

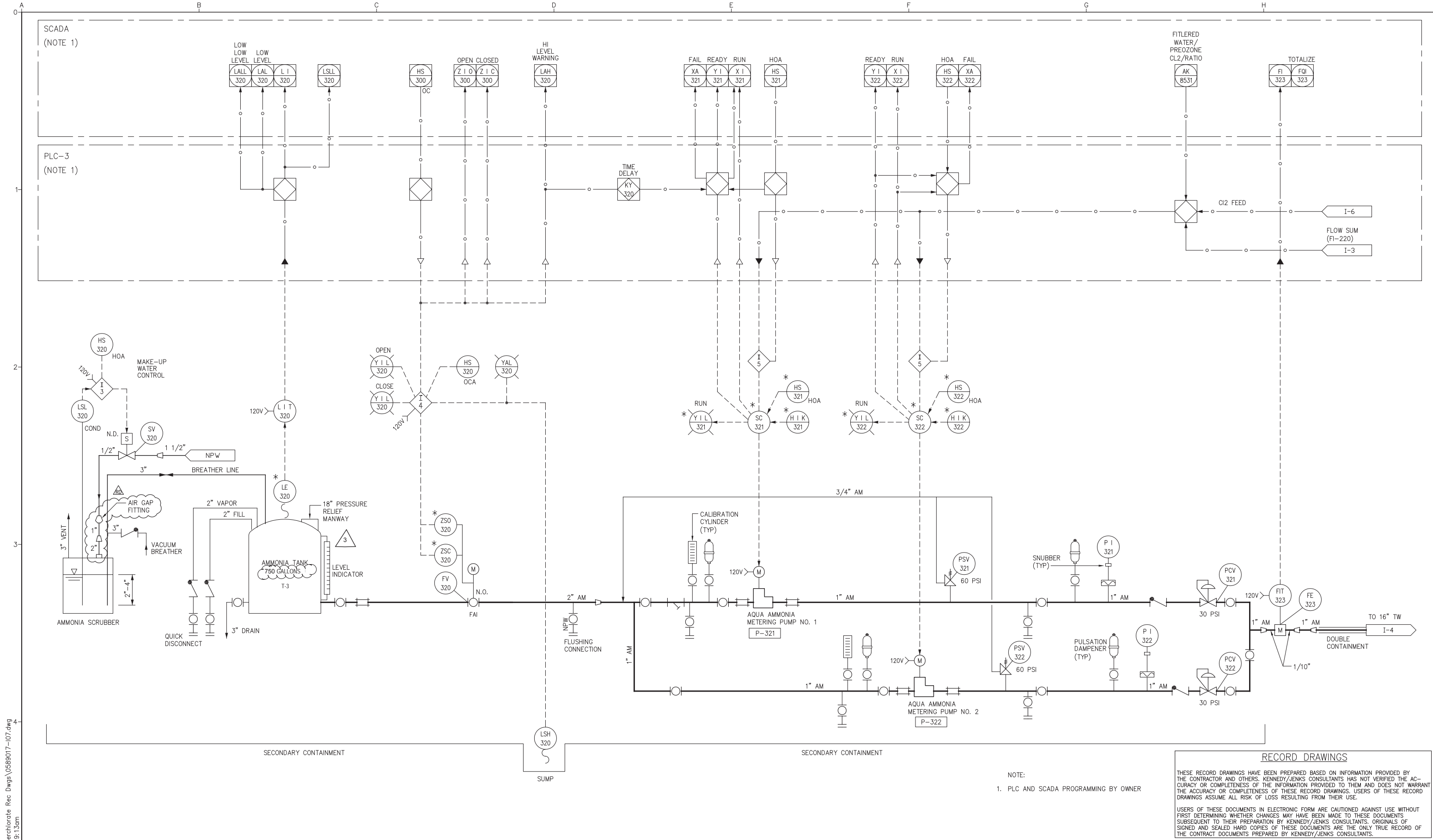
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DATE JAN. 2008

SHEET OF

I-6

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NOTE:
1. PLC AND SCADA PROGRAMMING BY OWNER

RECORD DRAWINGS

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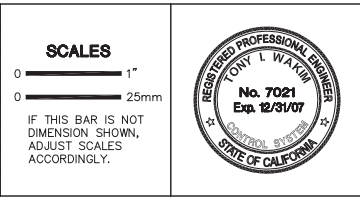
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3	Revised Ammonia Storage Tank Nominal Capacity	MAY 2014	ES
RD	RECORD DRAWINGS	JULY 2010	JTD
NO.	REVISION	DATE	BY

SCALES

0 — 1"
0 — 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED
AdB/TIW

DRAWN
WL/JL

CHECKED
TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

PROCESS AND INSTRUMENTATION DIAGRAM

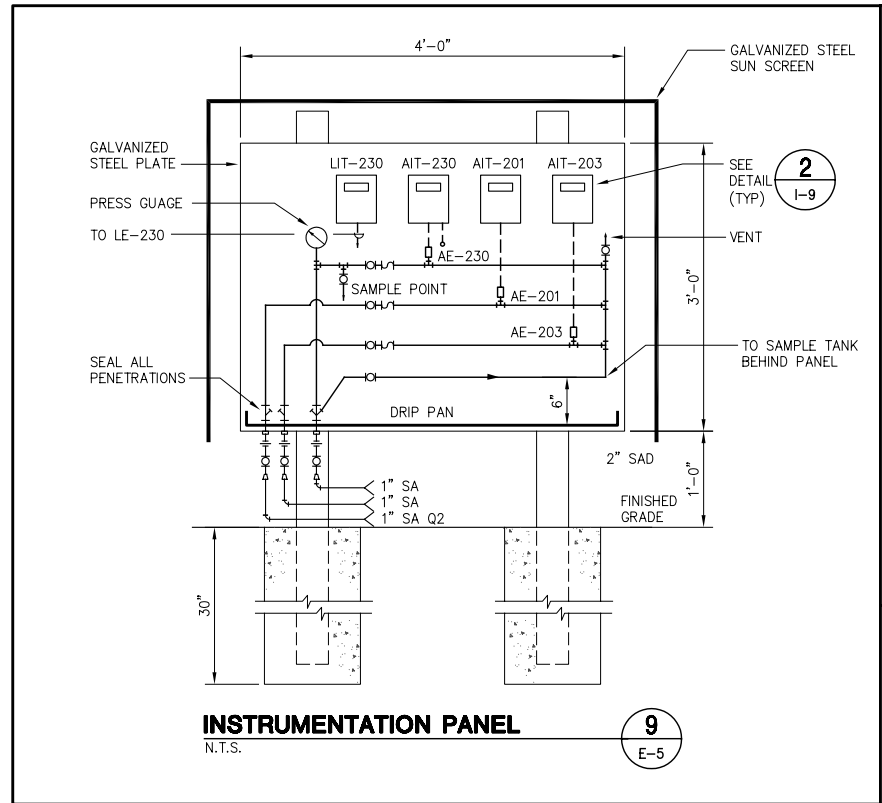
AMMONIA FEED SYSTEM

CLWA NO. CL-118A

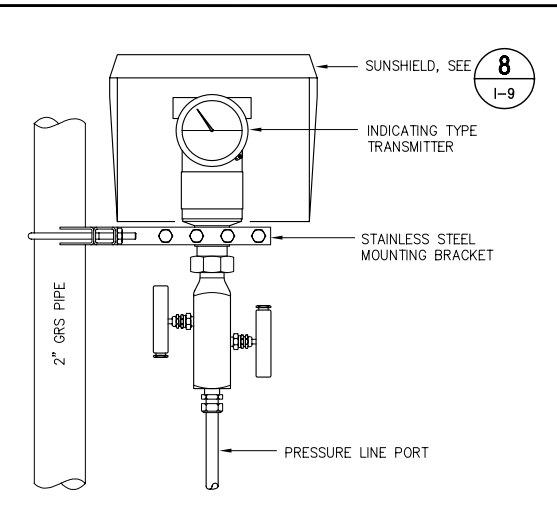
JOB NO. 0789064

DATE JAN. 2008

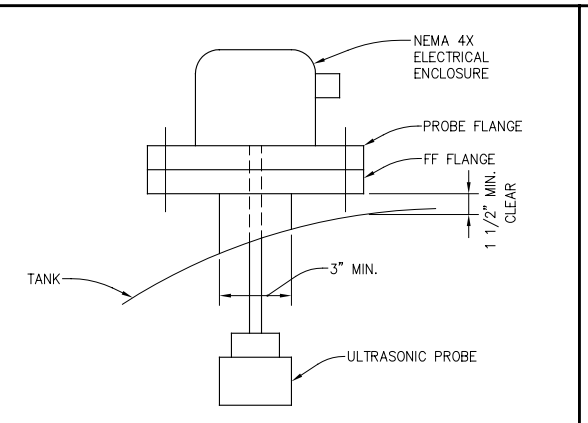
SHEET 7 OF 7



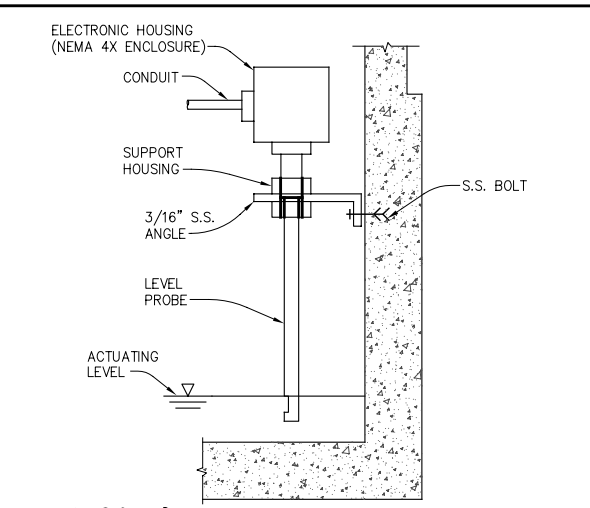
INSTRUMENTATION PANEL
N.T.S. **9**
E-5



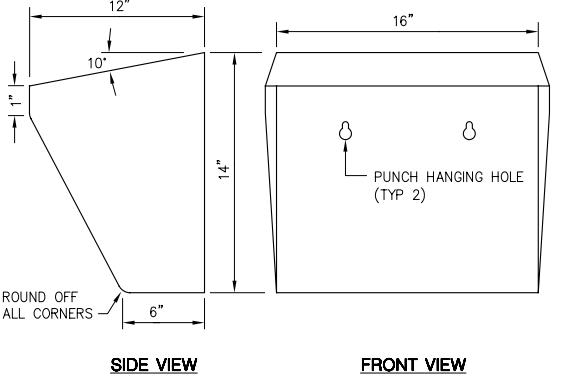
PRESSURE TRANSMITTER
N.T.S. **7**
I-9



ULTRASONIC PROBE DETAIL
N.T.S. (CLOSED TANKS) **4**
I-9



ULTRASONIC LEVEL ALARM SENSOR DETAIL
N.T.S. **1**
I-9

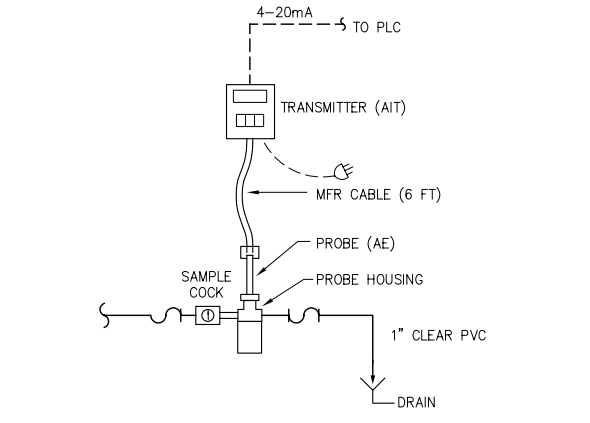


TYPICAL SUNSHIELD INSTALLATION
N.T.S. **8**
I-9

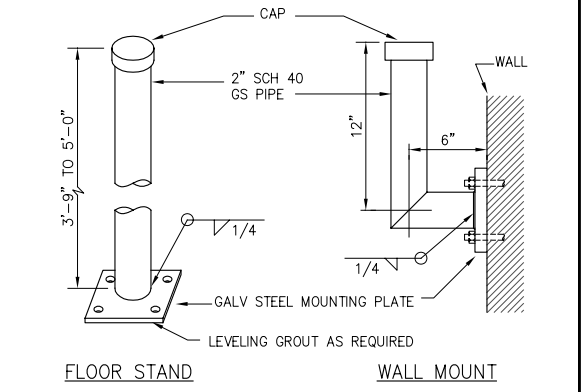
FLOW, PRESS OR D/P	LIQUID	STEAM, VAPOR OR SLURRY	AIR OR GAS
	PREFERRED ALTERNATE	ALTERNATE PREFERRED	PREFERRED ALTERNATE
ANALYSIS	LIQUID OR SLURRY	STEAM, VAPOR, AIR OR GAS	
	ALTERNATE PREFERRED	PREFERRED ALTERNATE	
TEMPERATURE	ALL FLUIDS		
	PREFERRED ALTERNATE		ALTERNATE PREFERRED

NOTE: THIS ORIENTATION FOR TEMPERATURE INSTRUMENTS WILL NOT APPLY IF THE PIPE DIAMETER IS SMALL AND REQUIRES A TEE OR ELBOW TO BE USED.

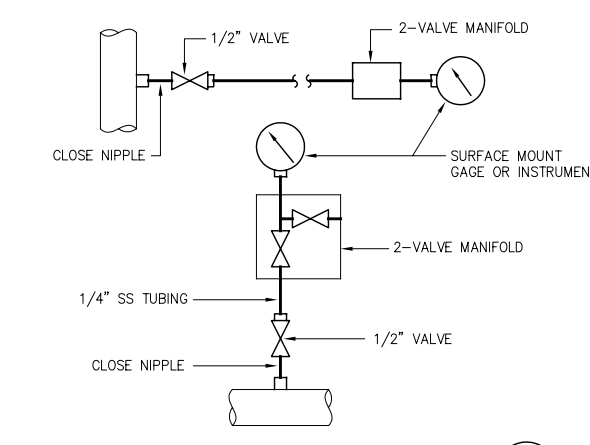
SIGNAL TAP ORIENTATION LEGEND
N.T.S. (CONNECTIONS IN HORIZ. MAIN LINE) **5**
I-9



TYP pH ANALYZER
N.T.S. **2**
I-9



INSTRUMENT MOUNT DETAIL
N.T.S. **6**
I-9



PRESSURE INSTRUMENT SCHEMATIC
N.T.S. **3**
I-9

RECORD DRAWINGS

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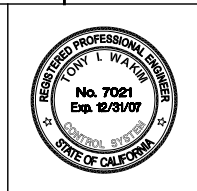
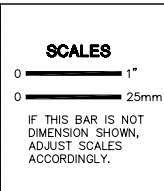
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USE OF DOCUMENTS

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NO.	REVISION	DATE	BY

NO.	REVISION	DATE	BY
		JULY 2010	JTD



DESIGNED	CMD
DRAWN	JL
CHECKED	TIW

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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

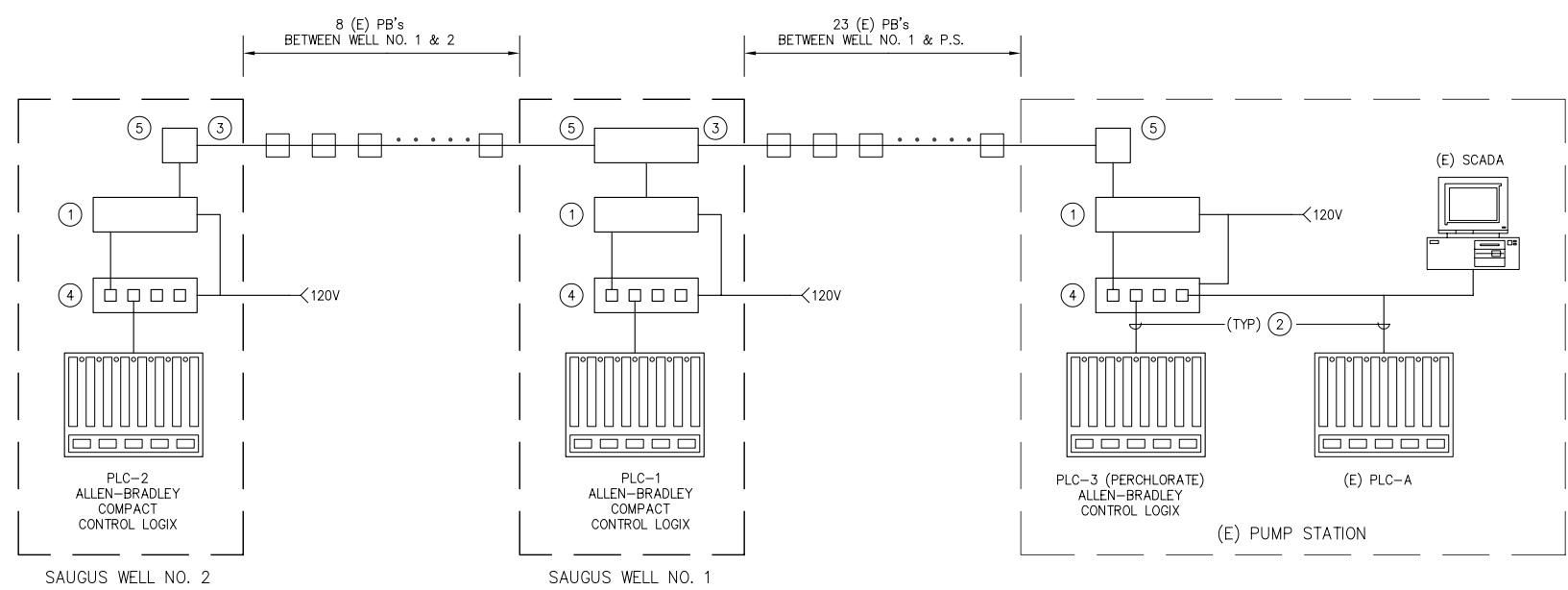
PERCHLORATE TREATMENT

INSTRUMENTATION DETAILS

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF **I-9**

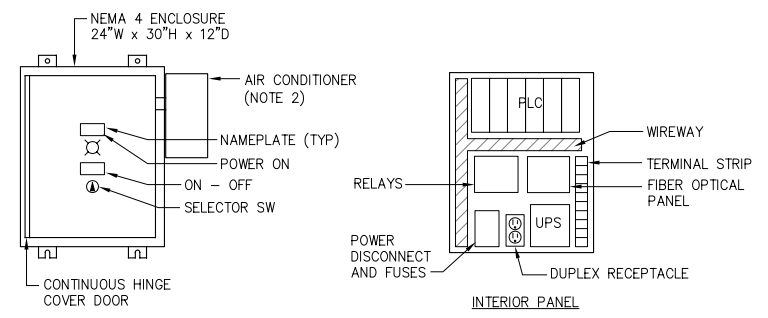
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PRINT DATE: Jan 19, 2011 9:10am

N:\2009\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-110.dwg
 PRINT DATE: Jan 19, 2011 9:10am



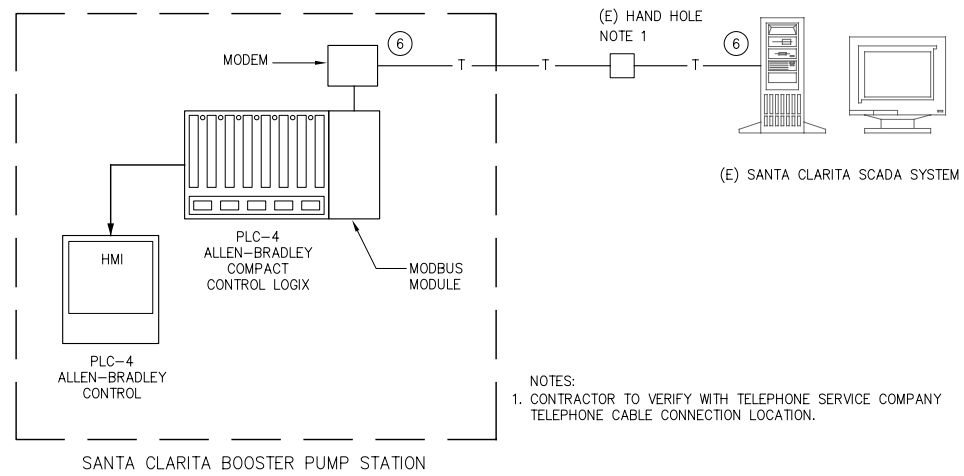
SCADA SYSTEM BLOCK DIAGRAM 3
 N.T.S. I-9

- LEGEND:**
- ① FIBER MODEM (TRANSCIVER)
 - ② CAT 5e OR 6 CABLE
 - ③ FIBER CABLE
 - ④ 4 PORT ETHERNET SWITCH
 - ⑤ FIBER BREAKOUT PANEL
 - ⑥ TELEPHONE CABLE



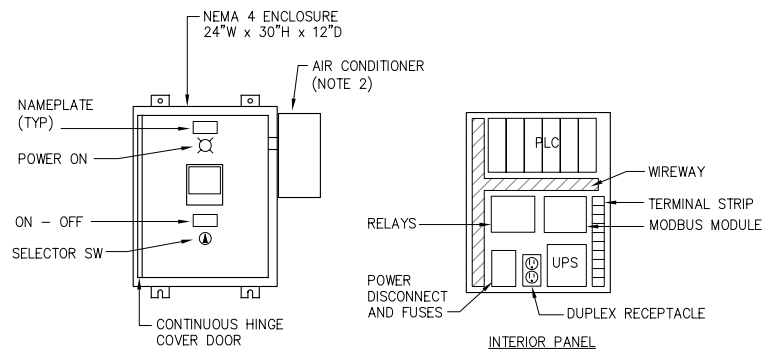
- NOTES:**
1. PROVIDE ETHERNET TO FIBER OPTIC CONVERTER AND FIBER OPTIC PATCH PANEL IN PLC PANEL.
 2. LOCATE A/C AS REQUIRED FOR PROPER PERFORMANCE.

PLC-1 & PLC-2 PANEL
 N.T.S. I-9



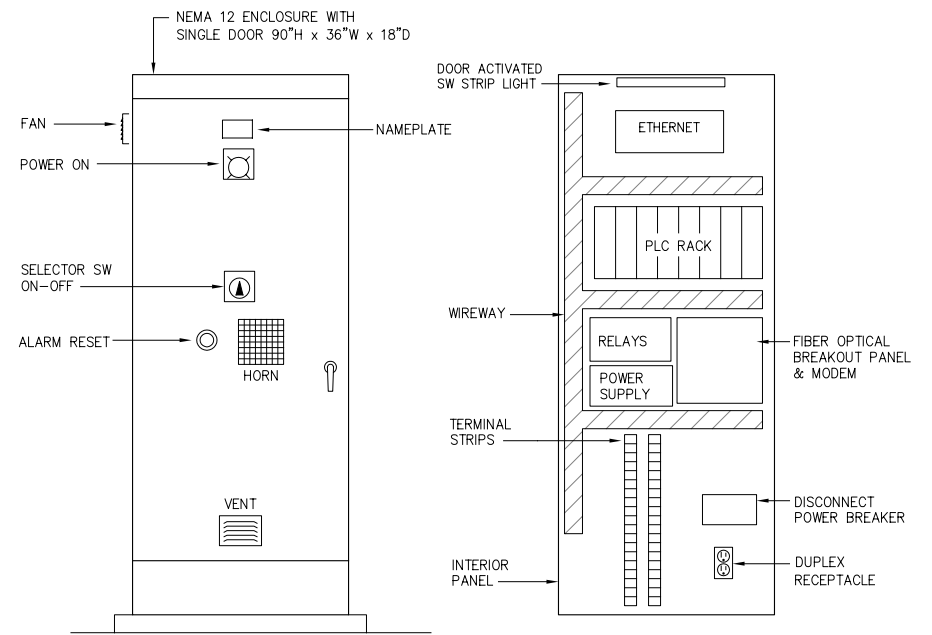
- NOTES:**
1. CONTRACTOR TO VERIFY WITH TELEPHONE SERVICE COMPANY TELEPHONE CABLE CONNECTION LOCATION.

SCADA SYSTEM BLOCK DIAGRAM 5
 N.T.S. I-9



- NOTES:**
1. MODBUS MODULE SHALL CONNECT THROUGH CABLE TO MODEM FOR TELEPHONE LINE CONNECTION.
 2. LOCATE A/C AS REQUIRED FOR PROPER PERFORMANCE.

PLC-4
 N.T.S. I-9



- NOTES:**
1. AT CONTRACTOR'S OPTION, UPS MAY BE PANEL MOUNTED.
 2. PROVIDE ETHERNET TO FIBER OPTIC CONVERTER IN THE PLC PANEL.

PLC-3 PANEL
 N.T.S. I-9

RECORD DRAWINGS

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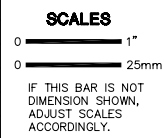
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DESIGNED	CMD
DRAWN	JL
CHECKED	TIW

CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SCADA SYSTEM AND CONTROL PANELS

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF

N:\2009\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-E01.dwg
 PRINT DATE: Jan 19, 2011 8:57am

ABBREVIATIONS

a	CIRCUIT BREAKER AUX. CONTACT, CLOSED WHEN BREAKER IS CLOSED	FF	FINISHED FLOOR	OH	OVERHEAD
A	AMMETER, AMPERES	FLEX	FLEXIBLE	OT	OVER TEMPERATURE
AC	ALTERNATING CURRENT	FLUOR	FLUORESCENT	OL	THERMAL OVERLOAD RELAY
A/D	ANALOG TO DIGITAL	FREQ	FREQUENCY	PB	PULLBOX, PUSHBUTTON
ADJ	ADJUSTABLE	FT	FEET, FOOT	PD	POSITIVE DISPLACEMENT
AF	AMPERE FRAME	FU	FUSE	PE	PHOTOELECTRIC
AFD	ADJUSTABLE FREQUENCY DRIVE	(F)	FUTURE	PEC	PHOTOELECTRIC CELL
AFV	ABOVE FINISHED FLOOR	FVNR	FULL VOLTAGE, NON REVERSING	PF	POWER FACTOR
AIC	AMPERES INTERRUPTING CAPACITY	FVR	FULL VOLTAGE, REVERSING	pH	MEASURE OF ACIDITY OR ALKALINITY
AL	ALUMINUM	FWD	FORWARD	PH	PHASE
ALT	ALTERNATOR	GA	GAUGE	PLC	PROGRAMMABLE LOGIC CONTROLLER
A/M	AUTO/MANUAL CONTROLLER	GALV	GALVANIZED	PNL	PANEL
ANN	ANNUNCIATOR	GEN	GENERATOR	PNLBD	PANELBOARD
APPROX	APPROXIMATE	GFI	GROUND FAULT INTERRUPTER	PRI	PRIMARY
AS	AMMETER SWITCH	GRS	GALVANIZED RIGID STEEL	PS	PRESSURE SWITCH
AT	AMMETER TRIP	H ₂ O ₂	HYDROGEN PEROXIDE	PSI	POUNDS PER SQUARE INCH
ATS	AUTOMATIC TRANSFER SWITCH	HH	HANDHOLE	PVC	POLYVINYL CHLORIDE
AUTO	AUTOMATIC	HMI	HUMAN MACHINE INTERFACE	PWR	POWER
AUX	AUXILIARY	HOA	HAND-OFF-AUTOMATIC	(RL)	RELOCATE
AWG	AMERICAN WIRE GAGE	HOR	HAND-OFF-REMOTE	(RLD)	RELOCATED
b	CIRCUIT BREAKER AUX. CONTACT, CLOSED WHEN BREAKER IS OPEN	HORIZ	HORIZONTAL	RCPT	RECEPTACLE
BCG	BARE COPPER GROUND	HP	HORSEPOWER	RCT	REPEAT CYCLE TIMER
BLDG	BUILDING	HPS	HIGH PRESSURE SODIUM	REQD	REQUIRED
C	CONDUIT, CONTACTOR	HTR	HEATER	RM	ROOM
CAB	CABINET	HV	HIGH VOLTAGE	RPM	REVOLUTIONS PER MINUTE
CAP	CAPACITOR	HZ	HERTZ (CYCLES PER SECOND)	RT	RESET TIMER
CB	CIRCUIT BREAKER	IND LT	INDICATING LIGHT	SCR	SILICON CONTROLLED RECTIFIER
CC	CONTROL CABLE, CLOSING COIL	INCAND	INCANDESCENT	SD	SMOKE DETECTOR
CHH	COMMUNICATION HANDHOLE	INSTR	INSTRUMENT, INSTRUMENTATION	SEC	SECONDS, SECONDARY
CL	CHLORINE	I/O	INPUT/OUTPUT	SECT	SECTION
CKT	CIRCUIT	JB	JUNCTION BOX	SF	SUPPLY FAN
CMH	COMMUNICATION MANHOLE	KA	KILOAMPERES	SHH	SIGNAL HANDHOLE
CO	CONDUIT ONLY	KCMIL	THOUSANDS OF CIRCULAR MILS	SHT	SHEET
COMM	COMMUNICATION	KV	KILOVOLTS	SIG	SIGNAL
COND	CONDUCTOR	KVA	KILOVOLT AMPERES	SN	SOLID NEUTRAL
CONT	CONTINUED, CONTINUATION	KVAR	KILOVOLT AMPERES REACTIVE	SPECS	SPECIFICATIONS
CPT	CONTROL POWER TRANSFORMER	KVARH	KILOVOLT AMPERES REACTIVE HOURS	SPDT	SINGLE POLE, DOUBLE THROW
CP	CONTROL PANEL	KW	KILOWATTS	SS	STAINLESS STEEL, SOLID STATE
CR	CONTROL RELAY	KWH	KILOWATT HOURS	SW	SWITCH
CS	CONTROL SWITCH	LCP	LIGHTING CONTROL PANEL	SWBD	SWITCHBOARD
CT	CURRENT TRANSFORMER	LP	LIGHTING PANEL	SWGR	SWITCHGEAR
CWP	COLD WATER PIPE	LPS	LOW PRESSURE SODIUM	SYNC	SYNCHRONIZING
DC	DIRECT CURRENT	LTG	LIGHTING	TB	TERMINAL BOX, TERMINAL BOARD
DIA	DIAMETER	LOS	LOCK OUT STOP	TC	TELEPHONE CABINET
DIAG	DIAGRAM	(M)	MODIFIED	TEL	TELEPHONE
DISC	DISCONNECT	mA	MILLIAMPERES	TEMP	TEMPERATURE
DISTR	DISTRIBUTION	MAX	MAXIMUM	TSP	TWISTED SHIELDED PAIR
DN	DOWN	MCC	MOTOR CONTROL CENTER	TYP	TYPICAL
DP	DISTRIBUTION PANEL	MCP	MOTOR CIRCUIT PROTECTOR	UG	UNDERGROUND
DPDT	DOUBLE POLE, DOUBLE THROW	MFR	MANUFACTURER	UH	UNIT HEATER
DPST	DOUBLE POLE, SINGLE THROW	MH	MANHOLE	UV	ULTRA VIOLET
DWG	DRAWING	MIN	MINIMUM	V	VOLTS
(E)	EXISTING	MISC	MISCELLANEOUS	VA	VOLT-AMPERES
EA	EACH	MOV	MOTOR OPERATED VALVE	VFD	VARIABLE FREQUENCY DRIVE
EF	EXHAUST FAN	MS	MOTOR STARTER	VAR	VOLT AMPERES REACTIVE
EHH	ELECTRICAL HANDHOLE	MTD	MOUNTED	VERT	VERTICAL
EL, ELEV	ELEVATION	MTG	MOUNTING	VH	VAR-HOUR
ELEC	ELECTRIC, ELECTRICAL	MTS	MANUAL TRANSFER SWITCH	VS	VOLTMETER SWITCH
ELEM	ELEMENTARY	(N)	NEW	W	WIRE, WATTS
EMERG	EMERGENCY	NC	NORMALLY CLOSED	WHM	WATTHOUR METER
ENCL	ENCLOSURE	NEC	NATIONAL ELECTRICAL CODE	WHDM	WATTHOUR DEMAND METER
EFFL	EFFLUENT	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.	WT	WATERTIGHT
EQ	EQUAL	NEUT	NEUTRAL	WTP	WATER TREATMENT PLANT
EQPT	EQUIPMENT	NO	NOT IN CONTRACT	XFMR	TRANSFORMER
ETM	ELAPSED TIME METER	NO	NORMALLY OPEN, NUMBER		
FACP	FIRE ALARM CONTROL PANEL	NTS	NOT TO SCALE		
FDR	FEEDER				

PLAN SYMBOLS

	UNDERGROUND CONDUIT	S*	SINGLE POLE SWITCH
	UNDERGROUND DUCT LINE (CONCRETE ENCASEMENT) NOTE P4	* 2 = 2 POLE, 3 = 3 WAY, 4 = 4 WAY, K = KEY OPERATED	WP = WEATHERPROOF D = DIMMER P = SWITCH WITH PILOT LIGHT
	UNDERGROUND DIRECT BURIAL CONDUITS NOTE P4	S ^{ab}	SINGLE POLE SWITCH (NOTE P2)
	MULTIPLE CONDUIT RUN		FLUORESCENT FIXTURE (NOTE P2)
	CONDUIT CONCEALED IN FLOOR		FLUORESCENT FIXTURE WITH NIGHT LIGHTING (UNSWITCHED) OR FLUORESCENT FIXTURE WITH SELF-CONTAINED EMERGENCY BALLAST/BATTERY
	CONDUIT CONCEALED IN WALL & CEILING		WALL/CEILING MOUNTED FIXTURE
	CONDUIT EXPOSED		WALL/CEILING MOUNTED FIXTURE WITH NIGHT LIGHTING (UNSWITCHED)
	CALLOUT INDICATING CONDUIT SIZE, NUMBER OF WIRES AND WIRE SIZE		POLE MOUNTED FIXTURE
	CALLOUT INDICATING CONDUIT PER SCHEDULE		WALL/CEILING MOUNTED EXIT LIGHT - DIRECTIONAL ARROW WHERE INDICATED, SHADED AREA INDICATES ILLUMINATED FACE
	CONDUIT RUN, HATCH MARKS INDICATE NO. OF #12 CONDUCTORS NO HATCH MARKS IS 2#12 UNLESS OTHERWISE NOTED		EMERGENCY LIGHT WITH SELF CONTAINED BATTERY
	HOME RUN TO PANELBOARD OR AS INDICATED		LIGHT FIXTURE IDENTIFICATION
	FLEXIBLE CONDUIT		SINGLE RECEPTACLE, 120V
	CONDUIT RUN, BROKEN AND CONTINUED ON SAME SHEET OR AS NOTED		SINGLE RECEPTACLE, 208V
	CONDUIT WITH SEAL FITTING		DUPLEX WALL RECEPTACLE, 120V WP = WEATHERPROOF G = GROUNDED IG = ISOLATED GROUND GF = GROUND FAULT INTERRUPTER
	CAP ON CONDUIT STUB		DOUBLE DUPLEX WALL RECEPTACLE 120V
	OPEN CIRCLE DENOTES UPWARD CONDUIT RISER		DUPLEX FLOOR RECEPTACLE, 120V
	SOLID CIRCLE DENOTES DOWNWARD CONDUIT RISER		RECEPTACLE, 480V
	INDICATES REMOVAL		WALL/CEILING MOUNTED JUNCTION BOX
	SURFACE MOUNTED PANELBOARD		FLOOR RECESS MOUNTED JUNCTION BOX
	FLUSH MOUNTED PANELBOARD		THERMOSTAT, WALL MOUNTED
	MOTOR		WALL TELEPHONE OUTLET (+12")
	DISCONNECT SWITCH		
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH		
	MANUAL MOTOR STARTER		
	CONTROL STATION		
	EQUIPMENT MOUNTING STAND		
	GROUND ROD AND BOX		
	INSTRUMENT		
	MANHOLE / ELECTRIC HANDHOLE / SIGNAL HANDHOLE		

SINGLE LINE SYMBOLS

	GROUND CONNECTION
	SWITCH, 3 POLE EXCEPT WHERE NOTED. RATING IN AMPERES AS NOTED
	AUTOMATIC TRANSFER SWITCH 3 POLE, RATING AS NOTED
	SHUNT TRIP
	FUSE
	FUSE CUTOUT
	CIRCUIT BREAKER, 3 POLE EXCEPT WHERE NOTED. RATING IN AMPERES AS NOTED. IF TWO RATINGS APPEAR (EG. 100/625) THEN DEVICE IS MCP; NUMERATOR IS CONTINUOUS CURRENT RATING & DENOMINATOR IS INSTANTANEOUS TRIP SETTING.
	POWER CIRCUIT BREAKER DRAWOUT ABOVE 1500V RATING AS NOTED
	SURGE ARRESTER
	CURRENT TRANSFORMER
	VOLTAGE TRANSFORMER
	POWER OR DISTRIBUTION TRANSFORMER RATING AS NOTED
	MOTOR. NUMBER INDICATES HORSEPOWER
	GENERATOR
	CONTROL PACKAGE PROVIDED WITH THE DRIVEN EQUIPMENT
	BUS STAB ON MCC OR SWITCHGEAR, CORD & PLUG CONNECTION FOR MOTORS
	THERMAL OVERLOAD
	* A - AMMETER V - VOLTMETER WH - WATTHOUR METER GS - GROUND FAULT SENSOR
	AMMETER SWITCH
	VOLTMETER SWITCH
	ELEMENTARY DIAGRAM NUMBER
	KIRK KEY INTERLOCK
	POWER RECEPTACLE FOR PORTABLE EQUIPMENT
	RELAY DEVICE FUNCTION, # PER ANSI NUMBER C37.2
	TERMINATOR / POTHEAD
	SPLICE, TERMINATION
	MOTOR STARTER. NUMBER INDICATES NEMA SIZE
	CAPACITOR - KVAR INDICATED
	* AFD - ADJUSTABLE FREQUENCY DRIVE SS - SOLID STATE STARTER
	* AFD OR SS WITH BYPASS CONTACTOR, CONTACTOR NEMA SIZE AS INDICATED
	* REDUCED VOLTAGE SOLID STATE STARTER WITH BYPASS CONTACTOR, CONTACTOR NEMA SIZE AS INDICATED
	CALLOUT INDICATING CONDUIT PER SCHEDULE
	CALLOUT INDICATING CIRCUIT NUMBER PER SCHEDULE

ELEMENTARY DIAGRAM SYMBOLS

	FUSE. RATING IN AMPERES
	MOTOR
	ELAPSED TIME METER
	CONTROL DEVICE COIL. PREFIX NUMBER, WHEN USED, DISTINGUISHES BETWEEN DEVICES OF THE SAME TYPE.
	ALT - ALTERNATOR
	CR - CONTROL RELAY
	GR - GENERAL RELAY
	ISR - INTRINSICALLY SAFE RELAY
	LR - LATCH RELAY
	SV - SOLENOID VALVE
	PR - PROBE RELAY
	TR - TIMING RELAY
	INDICATING LIGHT
	PUSH-TO-TEST INDICATING LIGHT
	SINGLE POLE SWITCH
	EMERGENCY PUSHBUTTON
	PUSHBUTTON, NORMALLY OPEN / CLOSED
	SWITCH, 1-POLE / 3-POLE
	MULTI-POSITION SELECTOR SWITCH
	HAND-OFF-AUTOMATIC SWITCH X-INDICATES CONTACTS CLOSED
	HAND-OFF-REMOTE SWITCH X-INDICATES CONTACTS CLOSED
	TERMINAL
	CONTROL POWER TRANSFORMER
	MOTOR HEATER
	CIRCUIT BREAKER, 1-POLE / 3-POLE
	GROUND CONNECTION

SENSING SWITCHES			SENSED VARIABLE
CLOSE ON			
RISE	FALL		
			FLOW
			LEVEL
			PRESSURE
			TEMPERATURE
LIMIT SWITCHES			
			CLOSE ON REACHING LIMIT
			CLOSE ON LEAVING LIMIT
TIMED CONTACTS			
SYMBOL	NORMAL	OPEN TO CLOSED	CLOSED TO OPEN
	OPEN	DELAYED	INSTANTANEOUS
	CLOSED	INSTANTANEOUS	DELAYED
	OPEN	INSTANTANEOUS	DELAYED
	CLOSED	DELAYED	INSTANTANEOUS

ELEMENTARY DIAGRAMS			
E1	UNDERLINED WORDS SHOWN AT A PUSHBUTTON, LIGHT, SELECTOR SWITCH, ETC. INDICATE THE LEGEND PLATE REQUIREMENT FOR THAT PARTICULAR DEVICE. ANY ADDITIONAL NAMEPLATES ARE INDICATED ON ELEVATIONS WITH THE REQUIRED NAMEPLATE INSCRIPTIONS.		
E2	"NORMAL" STATUS OF SWITCHES OR CONTACTS IS THE SHELF POSITION.		
E3	NUMBERS AND LETTERS IDENTIFY DEVICE.		

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GENERAL NOTES:

G1. THESE DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS OF ELECTRICAL EQUIPMENT SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. THE INSTALLATION OF ALL EQUIPMENT SHOWN ON THESE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITIONS OF ALL APPLICABLE CODES AND UTILITY COMPANY STANDARDS. CONTACT THE UTILITY COMPANY REPRESENTATIVES AND VERIFY THEIR REQUIREMENTS.

G2. THIS IS A GENERALIZED LEGEND SHEET. THIS CONTRACT MAY NOT USE ALL INFORMATION SHOWN.

G3. NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS IN EQUIPMENT LOCATIONS ARE DISCOVERED OR IF PROBLEMS ARISE DUE TO FIELD CONDITIONS, LACK OF INFORMATION OR ANY OTHER REASON. NO PAYMENT WILL BE MADE FOR CHANGES WHICH HAVE NOT BEEN FAVORABLY REVIEWED BY THE ENGINEER.

G4. INFORMATION SHOWN MAY NOT BE ALL INCLUSIVE. SEE ALSO ANSI C37.2, Y1.1, Y32.2, AND Y32.9.

G5. VERIFY ALL COLOR REQUIREMENTS BEFORE ORDERING MATERIALS.

G6. REFER TO THE MECHANICAL DRAWINGS FOR CERTAIN CONTROL DIAGRAMS AND EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND FOR CERTAIN CONNECTIONS TO BE MADE TO ELECTRICAL CIRCUITS.

PLAN NOTES:

P1. CONDUIT SIZE AND FILL SHALL BE AS INDICATED. WHERE NO SIZE IS SHOWN, THE CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED BY THE AUTHORITY HAVING CODE ENFORCEMENT JURISDICTION. WHERE NO FILL IS INDICATED, THE FILL SHALL BE 2#12. PROVIDE 3/16 INCH NYLON PULL ROPE IN EACH EMPTY CONDUIT.

P2. LOWER CASE LETTERS ADJACENT TO A SWITCH OR LIGHT FIXTURE INDICATE A SWITCHED CIRCUIT. FOR FOUR LAMP FLUORESCENT FIXTURES WIRED IN PAIRS WITHIN EACH FIXTURE, THE "o" SWITCH CONTROLS THE OUTER LAMPS AND THE "b" SWITCH CONTROLS THE INNER LAMPS; WIRE 3 LAMP FIXTURES SIMILARLY.

P3. CONDUIT AND WIRE LAYOUT FOR LIGHTING AND RECEPTACLES NOT SHOWN. PROVIDE PER NEC.

P4. NUMBER OF CIRCLES DOES NOT REPRESENT THE NUMBER OF CONDUITS IN THE ENCASEMENT.

USE OF DOCUMENTS			
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NO.	REVISION	DATE	BY
	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 — 1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

DESIGNED: CMD

DRAWN: CMD/WL

CHECKED: TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

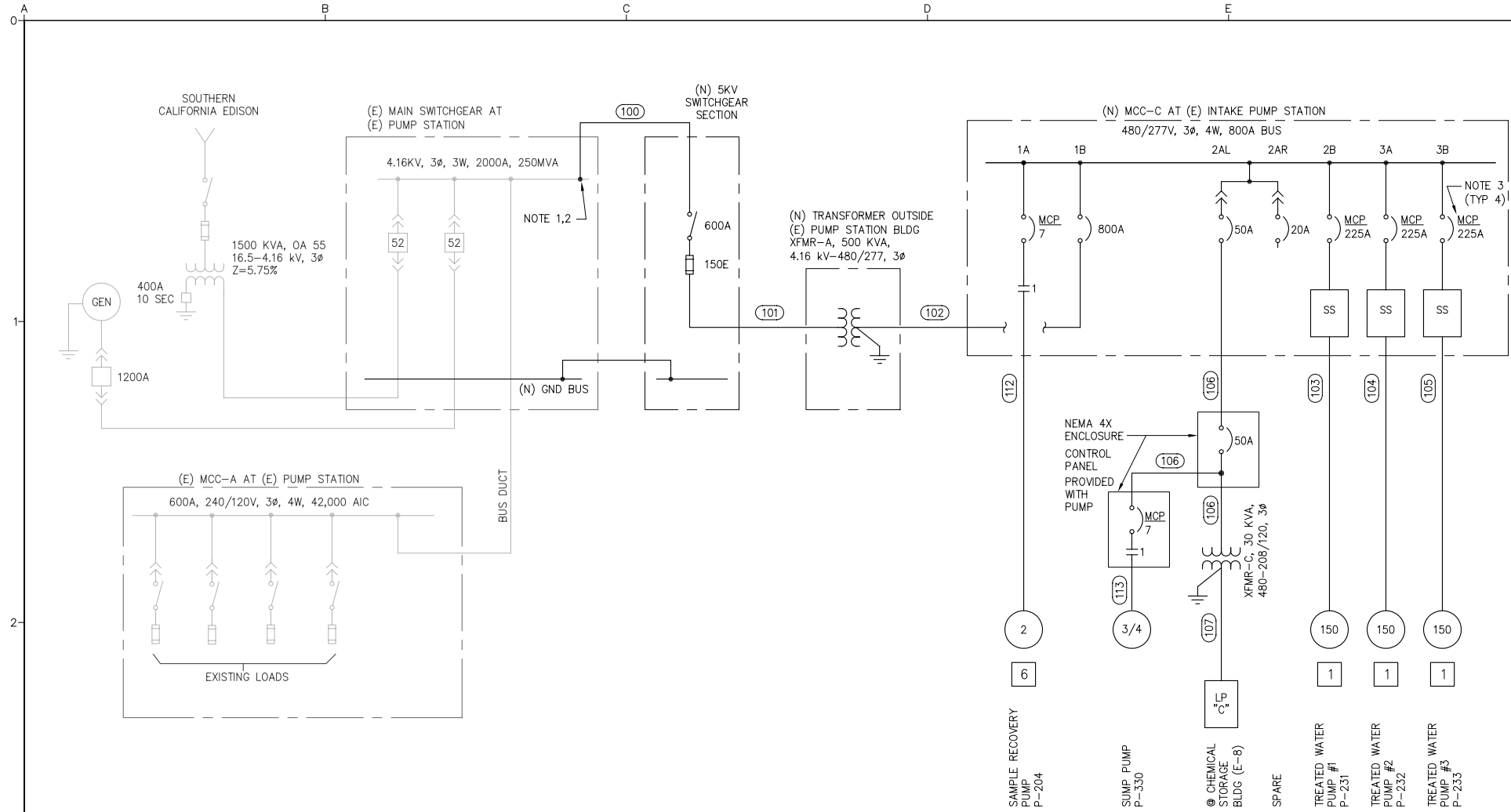
SYMBOLS AND ABBREVIATIONS

CLWA NO. CL-118A

JOB NO. 0789064

DATE JAN. 2008

SHEET OF **E-1**



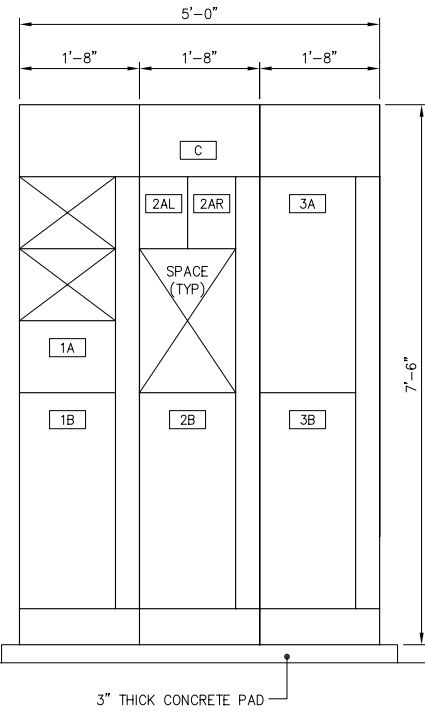
SINGLE LINE DIAGRAM

N.T.S.

- NOTES:**
- CONNECT TO (E) 4.16KV BUS. PROVIDE CABLE TERMINATORS. COORDINATE SHUT DOWN WITH CLWA. REVIEW AVAILABLE SHOP DRAWINGS ON ANY (E) EQUIPMENT IN PLANNING THIS WORK. (E) SWITCHGEAR WAS MANUFACTURED BY TOSHIBA/HOUSTON JOB # BL32115-010 IN 1993.
 - PROVIDE ANY REQUIRED BUS CONNECTIONS, HARDWARE AND INSULATORS AS REQUIRED TO TOP (E) MAIN BUS. INSPECT (E) SWITCHGEAR IN THE FIELD AND COORDINATE ANY SPECIAL REQUIREMENT WITH EQUIPMENT MANUFACTURER.
 - SET MCP TRIP SETTING TO 10 TIMES THE FLA OF THE MOTOR.

PANELBOARD "C" SCHEDULE

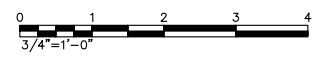
208/120 VOLTS, 3 PHASE, 4 WIRE		100 AMP BUS			100 AMP MAIN			MOUNTING: SURFACE			
CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMPS/POLES	CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			
		A	B	C				A	B	C	
1	AIT-201/AIT-203	500			20/1	2	FIT-201/FIT-202	500			20/1
3	AIT-230/LIT-230/LSH/LSL-204 PROBE		750		20/1	4	LIT-300/LIT-310		500		20/1
5	SUL. ACID METERING PUMP #1			1176	20/1	6	SOD. HYP. METERING PUMP #1			1176	20/1
7	SUL. ACID METERING PUMP #2		1176		20/1	8	SOD. HYP. METERING PUMP #2		1176		20/1
9	SUL. ACID METERING PUMP #3		1176		20/1	10	AQUA AMMONIA METERING PUMP #1		1176		20/1
11	SUL. ACID METERING PUMP #4			1176	20/1	12	AQUA AMMONIA METERING PUMP #2			1176	20/1
13	FV-300	500			20/1	14	RECEPTACLE (AMMONIA SHELTER)	180			20/1
15	FV-310		500		20/1	16	LIT-320/FIT-323		500		20/1
17	FIT-315			250	20/1	18	LTG (AMMONIA SHELTER)			142	20/1
19	LTG (CHEMICAL BUILDING)	284			20/1	20	FV-320	500			20/1
21	RECEPTACLE (CHEMICAL BUILDING)		360		20/1	22	AMMONIA CONTROL PANEL		100		20/1
23	SOD. HYP. LEAK CONTROL PANEL			100	20/1	24	SPARE				20/1
25	SUL. ACID LEAK CONTROL PANEL	100			20/1	26	EXTERIOR LTG (TREATMENT PLANT)	284			20/1
27	FIT-314		250		20/1	28	SPARE				20/1
29	FIT-316			250	20/1	30	SPARE				20/1
31	SPARE				20/1	32	SPARE				20/1
33	SPARE				20/1	34	SPARE				20/1
35	SPARE				20/1	36	SPARE				20/1
37	SPARE				20/1	38	SPARE				20/1
39	SPARE				20/1	40	SPARE				20/1
41	SPARE				20/1	42	SPARE				20/1
SUBTOTALS		2560	3036	2952				2640	2276	2494	
PHASE TOTALS								5200	5312	5446	
TOTAL VOLT-AMPS								15,958			



MOTOR CONTROL CENTER - C FRONT ELEVATION
SCALE: 3/4" = 1'-0"

MCC NAMEPLATE SCHEDULE

Symbol	DESCRIPTION
—	DESCRIPTION
C	MOTOR CONTROL CENTER - C
1A	SAMPLE RECOVERY PUMP P-204
1B	MAIN CIRCUIT BREAKER
2AL	LIGHTING PANEL "C" MAIN CIRCUIT BREAKER
2AR	SPARE
2B	TREATED WATER PUMP NO. 1 P-231
3A	TREATED WATER PUMP NO. 2 P-232
3B	TREATED WATER PUMP NO. 3 P-233



RECORD DRAWINGS

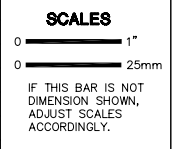
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD
2	RFQ NO. 3	1/10/08	CMD



DESIGNED: CMD
DRAWN: CMD/JL/WL
CHECKED: TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SINGLE LINE DIAGRAM, ELEVATION AND PANELBOARD SCHEDULE

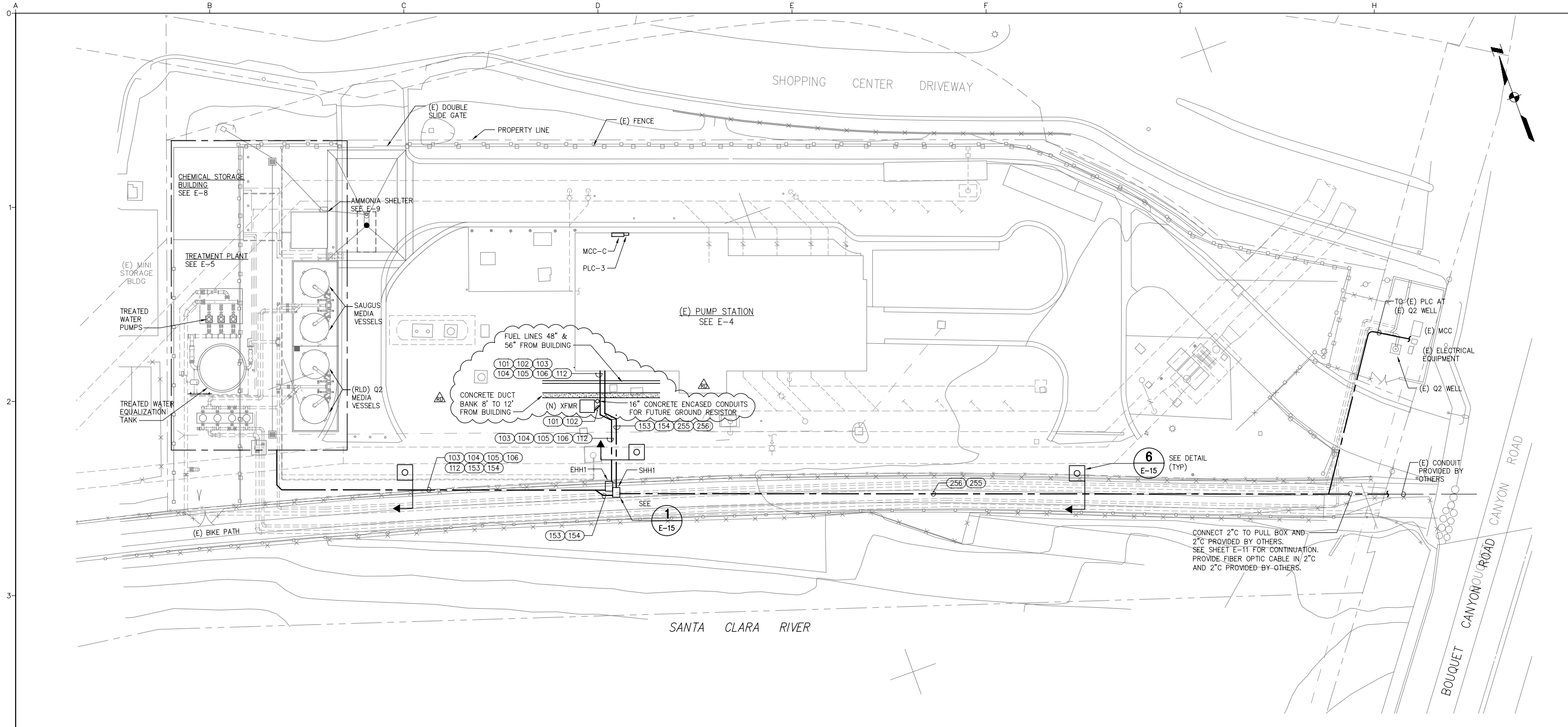
CLWA NO. CL-118A

JOB NO. 0789064

DATE JAN. 2008

SHEET OF **E-2**

N:\2008\0989066.00 CLWA Perchlorate Rec. Dwg\0589017-E02.dwg
PRINT DATE: Jan 19, 2011 8:57am



HANDHOLE SCHEDULE	
SIZES (L x W x D) MIN	NUMBERS
4' x 3' x 3'	EHH1, SHH1
3' x 2' x 3'	EHH2, SHH2



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PRINT DATE: Jan 19, 2011 8:56am

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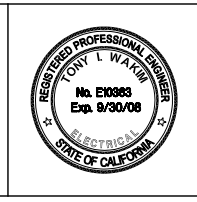
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NO.	REVISION	DATE	BY
1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED: CMD
DRAWN: JL/CMD
CHECKED: TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

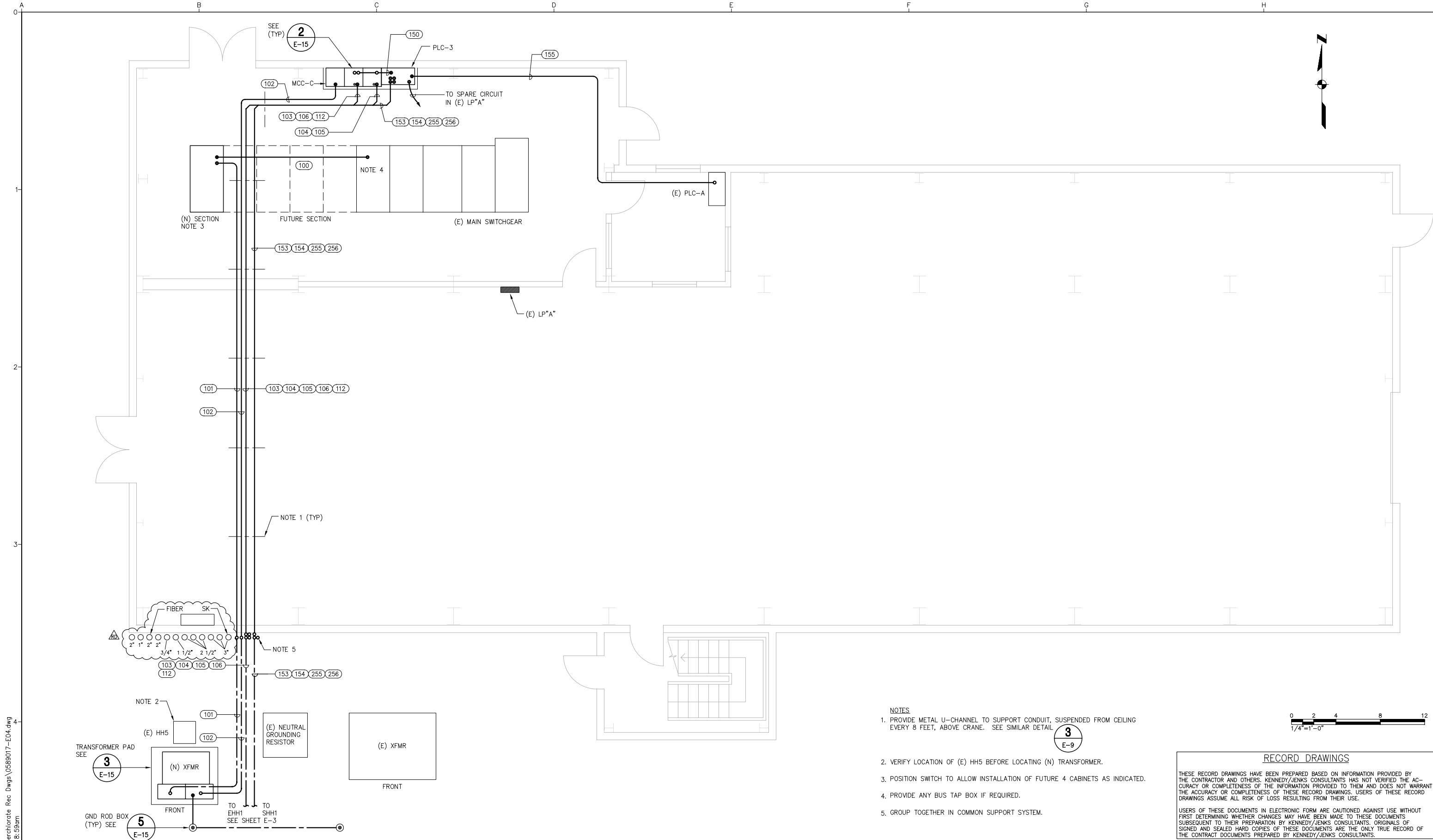
Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

ELECTRICAL SITE PLAN

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
E-3	

AD 6-57



- NOTES**
1. PROVIDE METAL U-CHANNEL TO SUPPORT CONDUIT, SUSPENDED FROM CEILING EVERY 8 FEET, ABOVE CRANE. SEE SIMILAR DETAIL **3** E-9
 2. VERIFY LOCATION OF (E) HH5 BEFORE LOCATING (N) TRANSFORMER.
 3. POSITION SWITCH TO ALLOW INSTALLATION OF FUTURE 4 CABINETS AS INDICATED.
 4. PROVIDE ANY BUS TAP BOX IF REQUIRED.
 5. GROUP TOGETHER IN COMMON SUPPORT SYSTEM.

RECORD DRAWINGS

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PRINT DATE: Jan 19, 2011 8:59am

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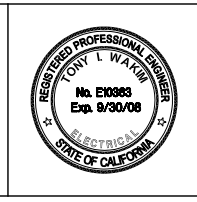
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1	RECORD DRAWINGS	JULY 2010	JTD

SCALES

0 — 1"
0 — 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



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CMD

DRAWN
WL/JL

CHECKED
TIW

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LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

EXISTING PUMP STATION BUILDING
ELECTRICAL PLAN

CLWA NO. CL-118A

JOB NO. 0789064

DATE JAN. 2008

SHEET OF **E-4**

CONDUIT AND WIRE SCHEDULE								
NUMBER	FROM	TO	SIZE X"	POWER	GROUND	CONTROL	SIGNAL	REMARKS
100	(E) MAIN SWITCHGEAR	(N) SWITCHGEAR SECTION	3	3#1/0	1#2			
101	MAIN SWITCHGEAR	XFMR-A	3	3#2	1#2			
102	XFMR-A	MCC-C	2-3	3#500 KCMIL	1#1/0			FILL PER CONDUIT
103	MCC-C	EHH1/EHH2/P-231	2 1/2	3#4/0	1#4	4#14		TREATED WATER PUMP SS, P-231
104	MCC-C	EHH1/EHH2/P-232	2 1/2	3#4/0	1#4	4#14		TREATED WATER PUMP SS, P-232
105	MCC-C	EHH1/EHH2/P-233	2 1/2	3#4/0	1#4	4#14		TREATED WATER PUMP SS, P-233
106	MCC-C	XFMR-C	1 1/2	3#6	1#8			
107	XFMR-C	LP-C	1 1/2	4#1	1#6			
108	LP-C	JB (AMMONIA SHELTER)	1	10#12	1#12			LP"C" (C-4/C-10/C-12/C-16/C-20/C-22)
109	LP-C	EHH2	1					SPARE
110	LP-C	EHH2 (AIT-201/AIT-203)	3/4	4#12	1#12			LP"C" (C-1/C-24)
111	LP-C	EHH2 (FIT-201/FIT-202)	3/4	3#12	1#12			LP"C" (C-2)
112	MCC-C	EHH1/P-204	3/4	3#12	1#12	2#14		SAMPLE RECOVERY PUMP, P-204
113	XFMR-C CB	SUMP PUMP CONTROL PANEL	1 1/2	3#6	1#8			
114	SUMP PUMP CONTROL PANEL	SUMP PUMP P-330	3/4	3#12	1#12			
150	MCC-C	PLC-3	2			28#14		
153	PLC-3	SHH1/SHH2	2			96#14	33	PLUS 12 SPARES
154	PLC-3	SHH1/SHH2	2			23 TSP		PLUS 4 SPARES
155	PLC-3	(E) PLC-A	2			****		CAT 5E CABLE
156	SHH1	JB (AIT-201/AIT-203)	3/4					2 TSP
157	SHH1	JB (FIT-201/FIT-202)	3/4					2 TSP
158	SHH1	JB (AIT-230/LIT-230)	3/4					2 TSP
159	SHH1	JB (LSHH-230/LSH-204/LSL-204)	3/4			6#14		
160	SHH1	PIT-230	3/4					1 TSP
161	SHH1	JB (J1) (AMMONIA STORAGE AREA)	2			30#14		PLUS 4 SPARES (TERMINATES AT J-BOX)
162	SHH1	JB (J2) (AMMONIA STORAGE AREA)	1 1/2					PLUS 1 SPARES (TERMINATES AT J-BOX)
163	SHH1	JB (J1) (CHEMICAL STORAGE AREA)	2			62#14		PLUS 4 SPARES (TERMINATES AT J-BOX)
164	SHH1	JB (J2) (CHEMICAL STORAGE AREA)	2 1/2					PLUS 1 SPARES (TERMINATES AT J-BOX)
165	FIT-201	FE-201	3/4					SPECIAL CABLE BY MFR
166	FIT-203	FE-203	3/4					SPECIAL CABLE BY MFR
167	JB	FIT-203	3/4					1 TSP
168	JB (J1) @ CHEMICAL STORAGE BLDG	SUMP PUMP CONTROL PANEL	3/4			4#14		LSHH-330/LSH-330
169	SUMP PUMP CONTROL PANEL	SUMP	3/4			4#14		LSHH-330/LSH-330
200	SAUGUS WELL #1-(E) ELEC EQPT	SAUGUS WELL PUMP #1, P-01, VFD	4	3#500 KCMIL	1#2	2#14		REUSE (E) CONDUIT AS SHOWN
201	SAUGUS WELL #2-(E) ELEC EQPT	SAUGUS WELL PUMP #2, P-02, VFD	4	3#500 KCMIL	1#2	2#14		REUSE (E) CONDUIT AS SHOWN
250	SAUGUS WELL PUMP #1, P-01, VFD	PLC-1	3/4			8#14		
251	SAUGUS WELL PUMP #1, P-01, VFD	PLC-1	3/4					2 TSP
252	SAUGUS WELL PUMP #2, P-02, VFD	PLC-1	3/4			8#14		
253	SAUGUS WELL PUMP #2, P-02, VFD	PLC-1	3/4					2 TSP
254	PLC-2	PLC-1	2					FIBER OPTIC CABLE
255	PLC-1	PLC-3	2					FIBER OPTIC CABLE
256	PLC-3	(E) PLC AT (E) Q2 WELL	1				2#14	PLUS 4 SPARES

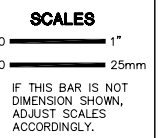
LIGHT FIXTURE SCHEDULE							
FIXTURE TYPE	LAMP		TOTAL WATTS	1 Ø VOLTS	MOUNTING ARRANGEMENT	DESCRIPTION	CATALOG NUMBER
	No.	TYPE/WATTAGE					
A	1	FLUOR 2950 LUMENS F32/T8 4100K	71	120	PENDANT (AMMONIA SHELTER) WALL (CHEM STORAGE)	1x4 INDUSTRIAL FIXTURE IS ENCLOSED INSIDE A GASKETED FIBERGLASS BODY, HIGH IMPACT ACRYLIC LENS SECURED BY SS LATCHES, LOW TEMPERATURE (-0° F) ELECTRONIC BALLAST, UL LISTED FOR WET LOCATION. PROVIDE STAINLESS STEEL (SS) MOUNTING BRACKET.	H.E. WILLIAMS, INC 93-4-232-A-SS LATCH-SSMB-EB2-120
B	1	HPS 9500 LUMENS 100 WATTS LU100/MOGLUL	138	120	14"-0" POST SIDE ARM MTG, ON HINGED BASE	ENCLOSED AND GASKETED ALUMINUM HOUSING, LENS FRAME ASSEMBLY, ALZAK REFLECTOR, HPF BALLAST, LIGHT DISTRIBUTION TYPE 3, MOUNTED ON STRAIGHT ROUND ALUMINUM POLE, DARK BRONZE FINISHED. PROVIDE INTEGRAL PHOTOCELL RECEPTACLE. POLE WITH HINGED BASE, ARROW INDICATES PIVOT DIRECTION FOR EASE OF MAINTENANCE.	KIM 1A/CC17A3/100HPS120/DB-P POLE: PBTS14-6188/A/DB-P/HB

RECORD DRAWINGS

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2	RFQ NO. 3	1/10/08	CMD



DESIGNED: CMD
 DRAWN: JL/CMD/WL
 CHECKED: TIW

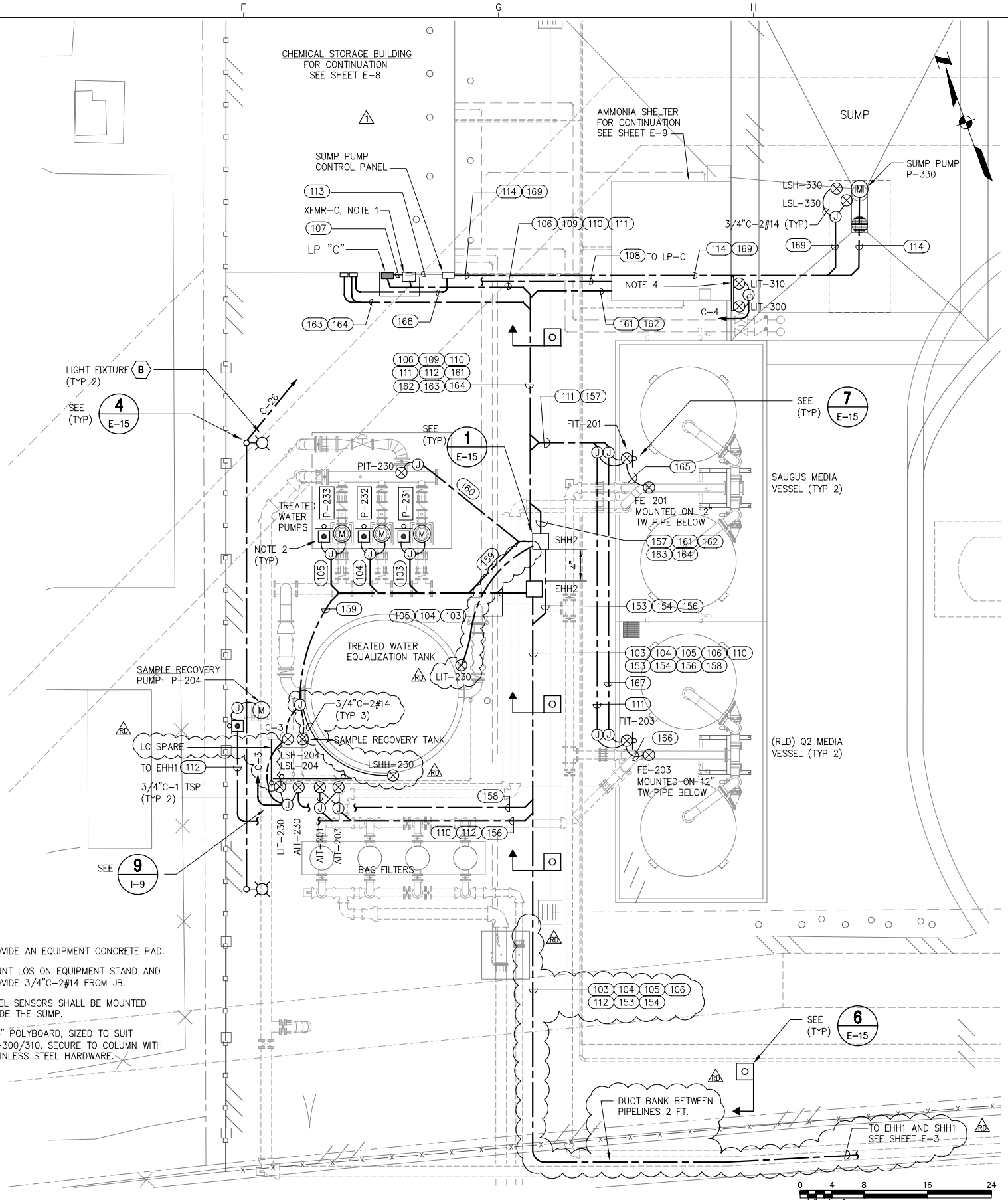
CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

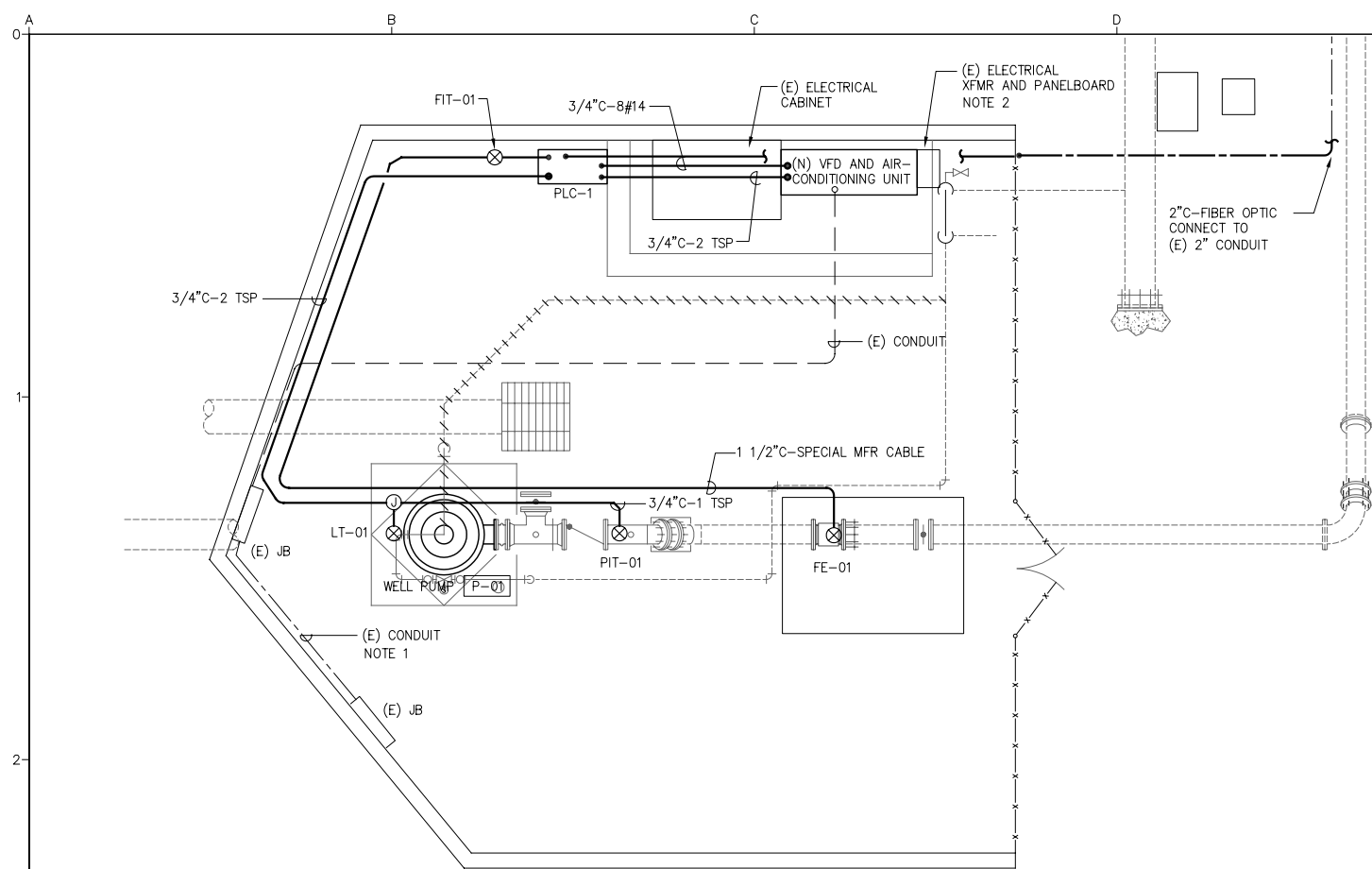
TREATMENT PLANT POWER AND SIGNAL PLAN, CONDUIT/WIRE FIXTURE SCHEDULES

CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET OF **E-5**

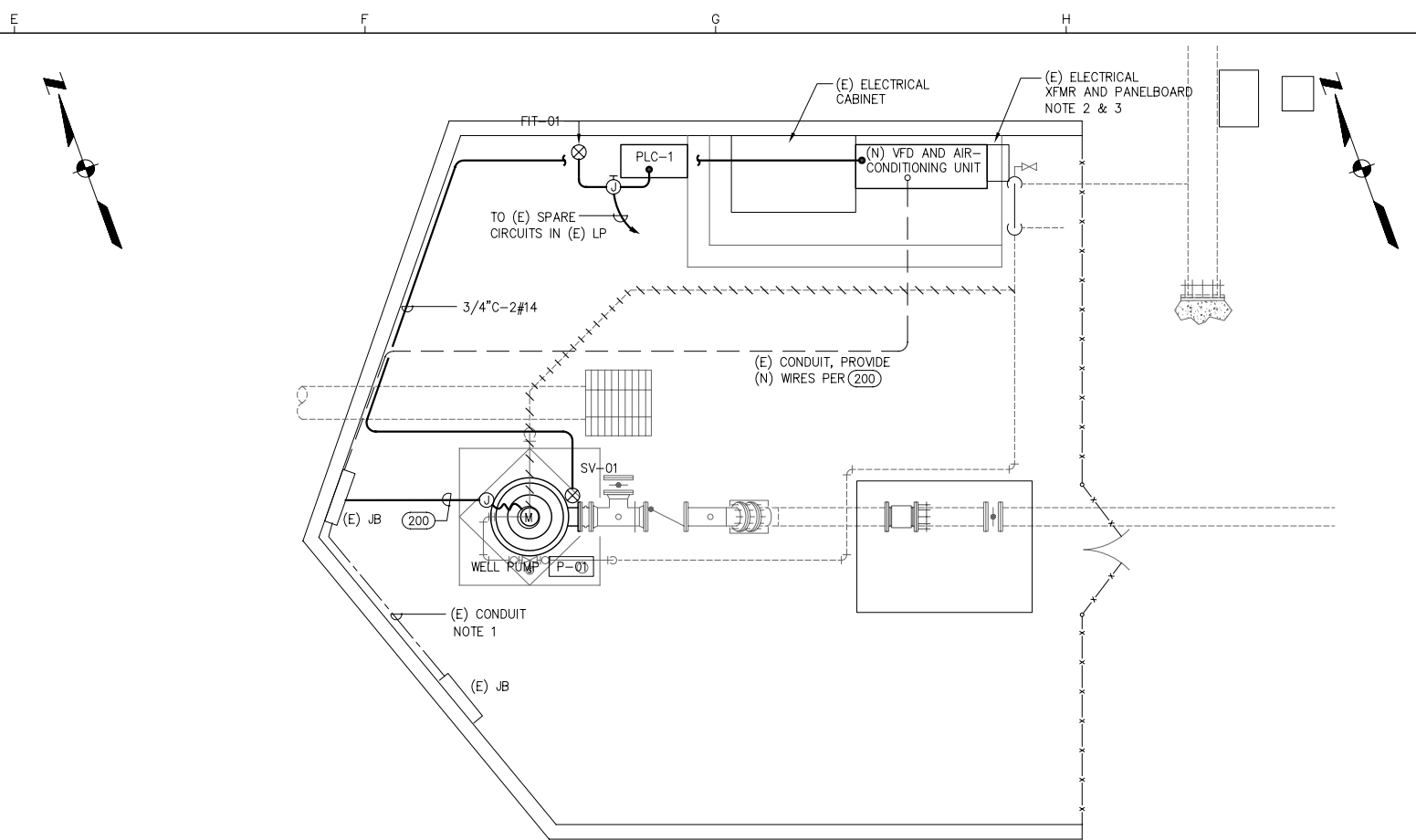


- NOTES:**
- PROVIDE AN EQUIPMENT CONCRETE PAD.
 - MOUNT LOS ON EQUIPMENT STAND AND PROVIDE 3/4"C-2#14 FROM JB.
 - LEVEL SENSORS SHALL BE MOUNTED INSIDE THE SUMP.
 - 3/4" POLYBOARD, SIZED TO SUIT LIT-300/310. SECURE TO COLUMN WITH STAINLESS STEEL HARDWARE.

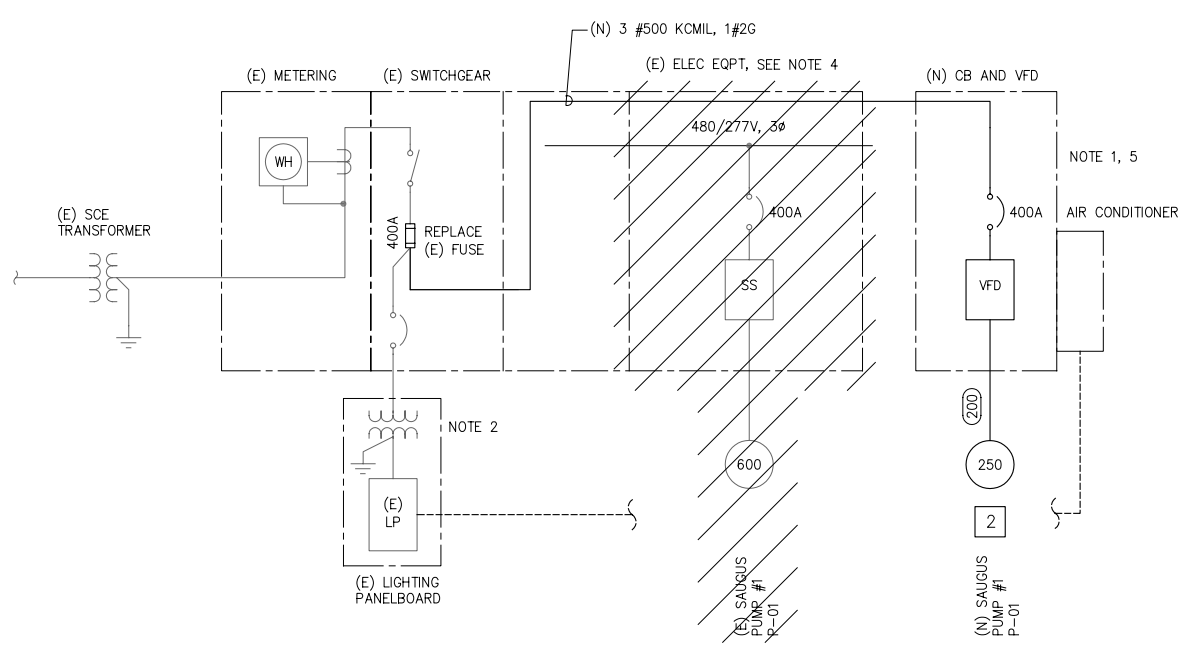
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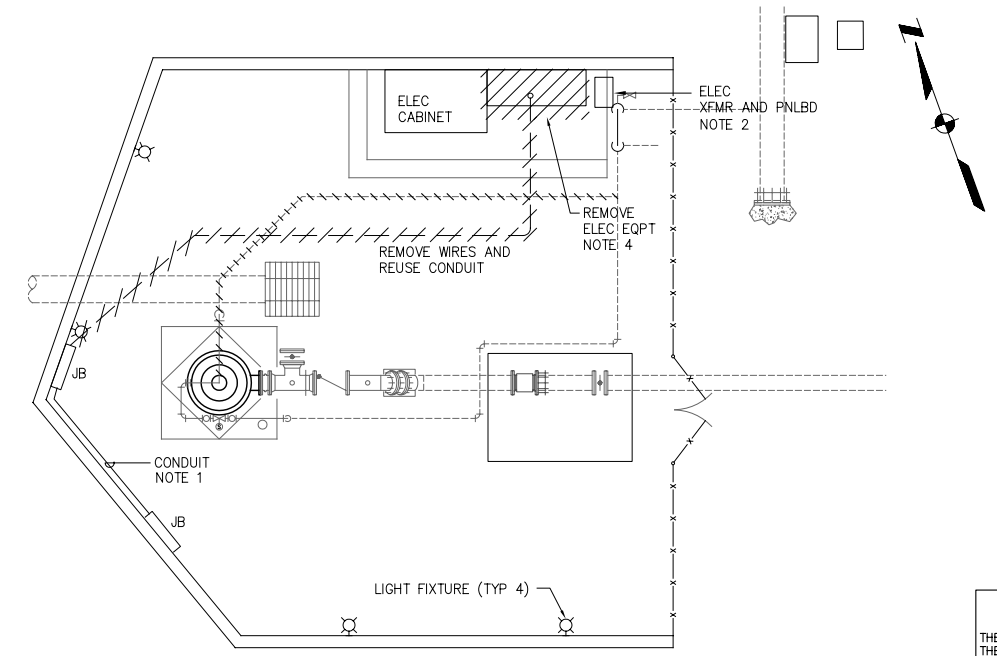
EXISTING SAUGUS WELL NO. 1 - SIGNAL PLAN
SCALE: 1/4"=1'-0"



EXISTING SAUGUS WELL NO. 1 - POWER PLAN
SCALE: 1/4"=1'-0"

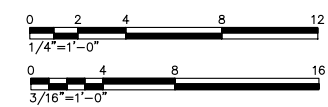


SAUGUS WELL NO. 1 - SINGLE LINE DIAGRAM MODIFICATIONS
N.T.S.



EXISTING SAUGUS WELL NO. 1 - DEMOLITION PLAN
SCALE: 3/16"=1'-0"

- NOTES:**
1. USE (E) CONDUIT AND JB FROM (E) MOTOR.
 2. DISCONNECT (E) ELECTRICAL XFMR AND PANEL FROM (E) ELECTRICAL EQUIPMENT. RECONNECT TO (N) VFD AND (N) AIR CONDITIONING UNIT. RECONNECT TO (E) SWITCHGEAR AND TO (E) LOADS.
 3. VERIFY SPARE CIRCUIT BREAKERS. CONTRACTOR SHALL PROVIDE (N) SPARE CIRCUIT BREAKERS IF NONE ARE AVAILABLE.
 4. REMOVE (E) ELECTRICAL EQUIPMENT AND RETURN TO OWNER.
 5. PROVIDE ACCESSORY AIR CONDITIONER AND FOR VFD USING 120V SERVICE FROM (E) PANEL.



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		JULY 2010	JTD

SCALES

0 1" = 1'-0"

0 25mm = 1'-0"

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

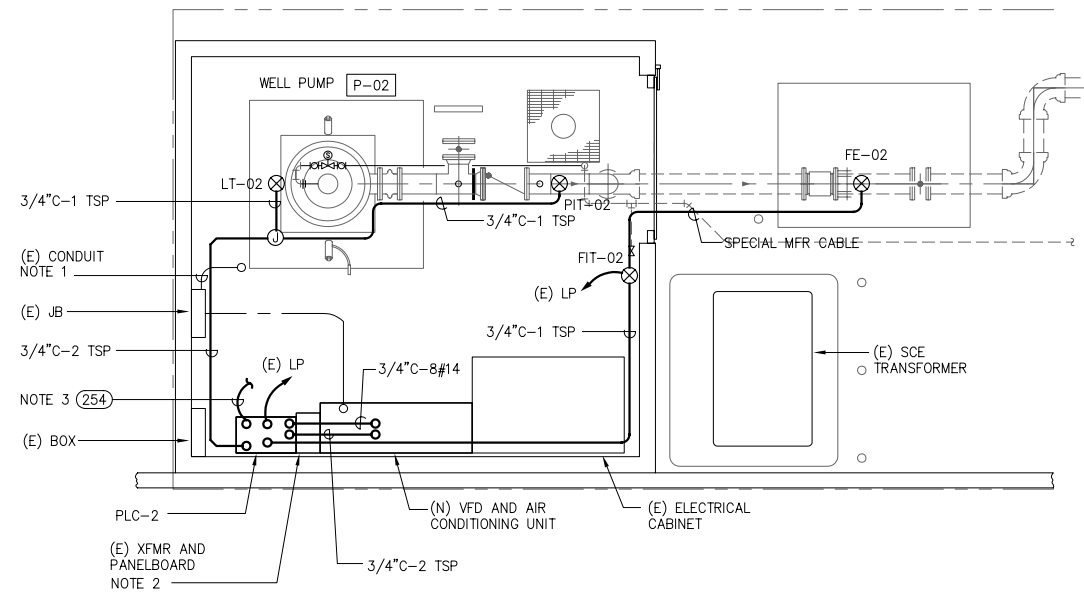


DESIGNED: CMD
DRAWN: CMD/JL/WL
CHECKED: TIW

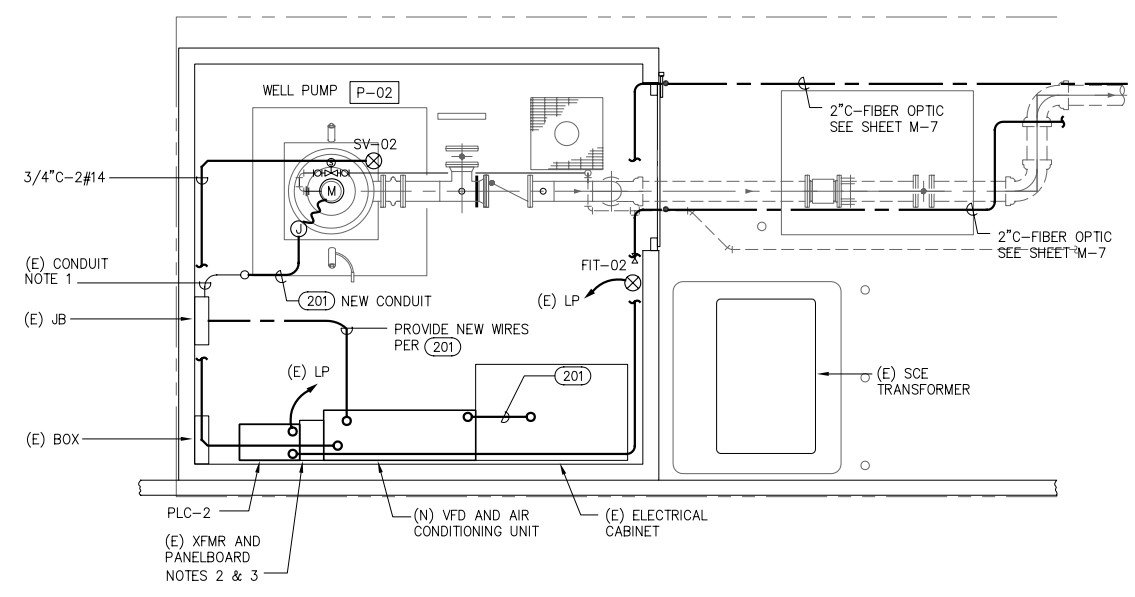
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

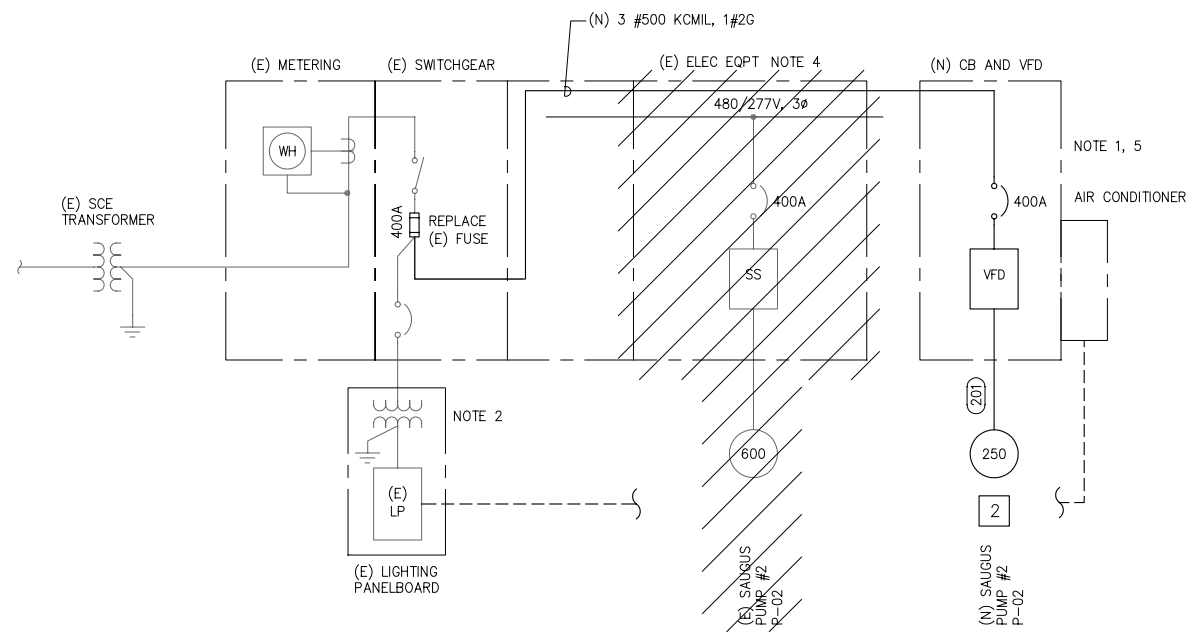
PERCHLORATE TREATMENT		CLWA NO. CL-118A
SAUGUS WELL NO. 1 DEMOLITION PLAN		JOB NO. 0789064
POWER AND SIGNAL PLANS		DATE JAN. 2008
		SHEET OF
		E-6



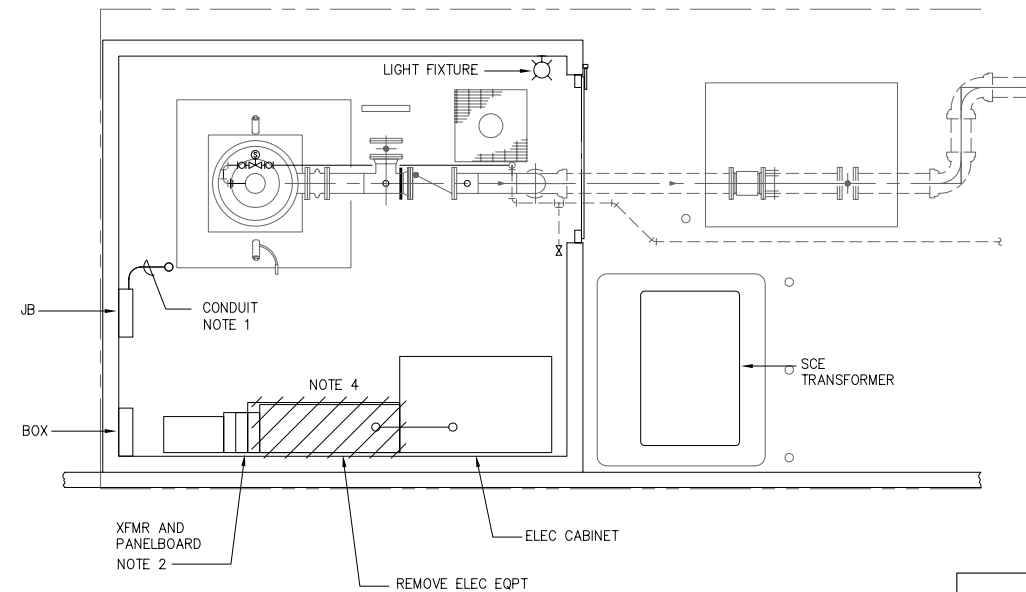
EXISTING SAUGUS WELL NO. 2 - SIGNAL PLAN
SCALE: 1/4"=1'-0"



EXISTING SAUGUS WELL NO. 2 - POWER PLAN
SCALE: 1/4"=1'-0"



SAUGUS WELL NO. 2 - SINGLE LINE DIAGRAM MODIFICATIONS
N.T.S.



EXISTING SAUGUS WELL NO. 2 - DEMOLITION PLAN
SCALE: 1/4"=1'-0"

- NOTES:**
1. USE (E) CONDUIT AND JB FROM (E) MOTOR.
 2. DISCONNECT (E) ELECTRICAL XFMR AND PANEL FROM (E) ELECTRICAL EQUIPMENT. RECONNECT TO (N) VFD AND (N) AIR CONDITIONING UNIT. RECONNECT TO (E) SWITCHGEAR AND TO (E) LOADS.
 3. VERIFY SPARE CIRCUIT BREAKERS. CONTRACTOR TO PROVIDE (N) SPARE CIRCUIT BREAKERS IF NONE ARE AVAILABLE.
 4. REMOVE (E) ELECTRICAL EQUIPMENT AND RETURN TO OWNER.
 5. PROVIDE ACCESSORY AIR CONDITIONER FOR VFD USING 120V SERVICE FROM (E) PANEL.



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NO.	REVISION	DATE	BY
1		JULY 2010	JTD

SCALES

0 1" = 25mm

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LOS ANGELES COUNTY, CALIFORNIA

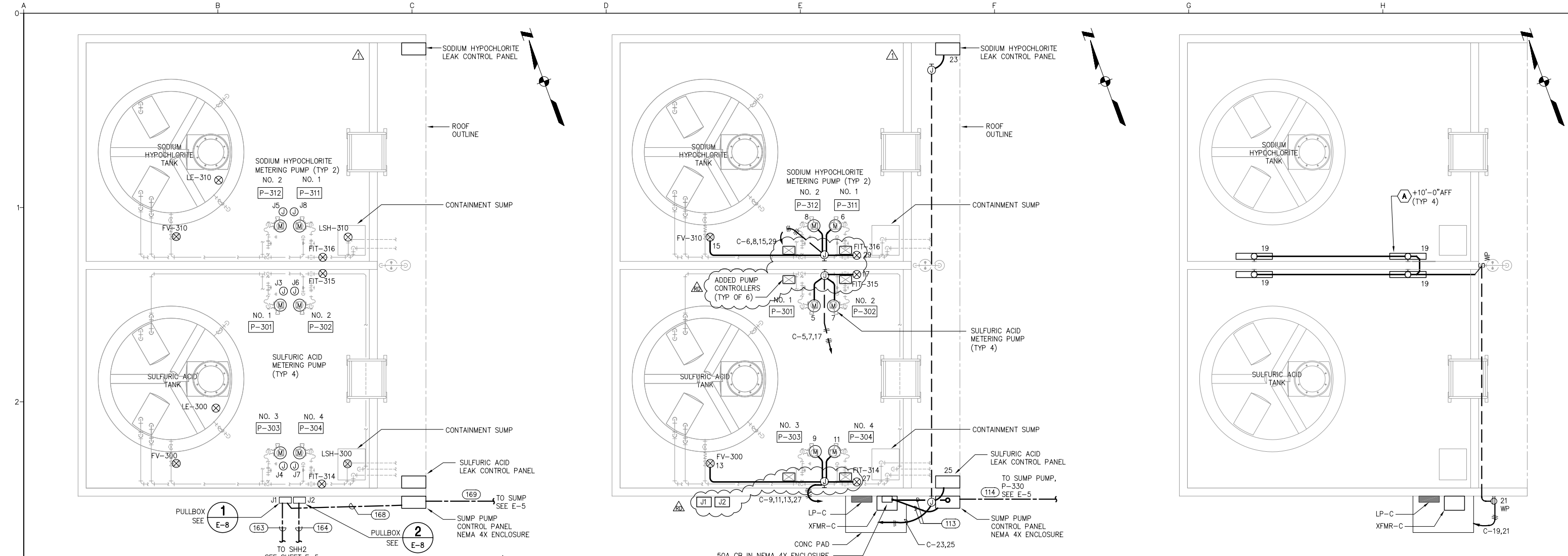
Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SAUGUS WELL NO. 2 DEMOLITION PLAN

POWER AND SIGNAL PLANS

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF



CHEMICAL STORAGE BUILDING - SIGNAL PLAN

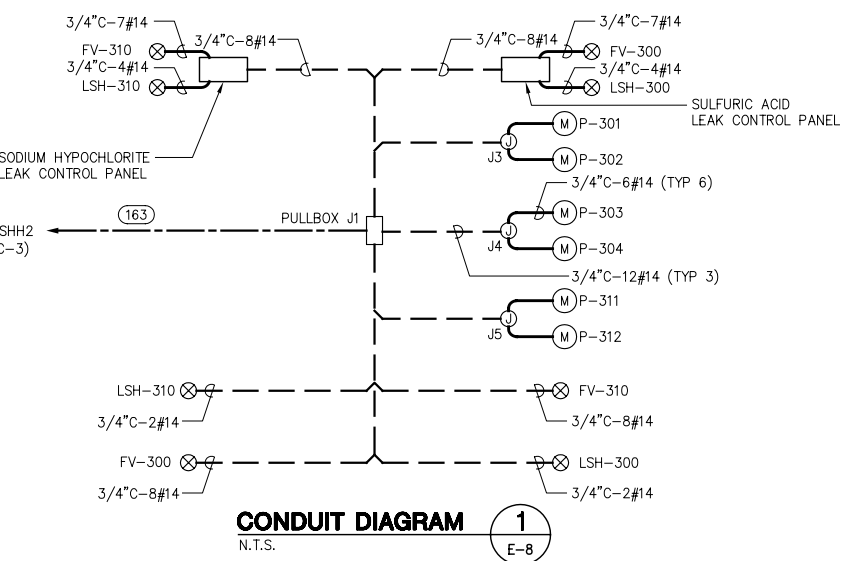
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NOTE: ENTIRE AREA IS A CORROSIVE LOCATION.

CHEMICAL STORAGE BUILDING - POWER PLAN

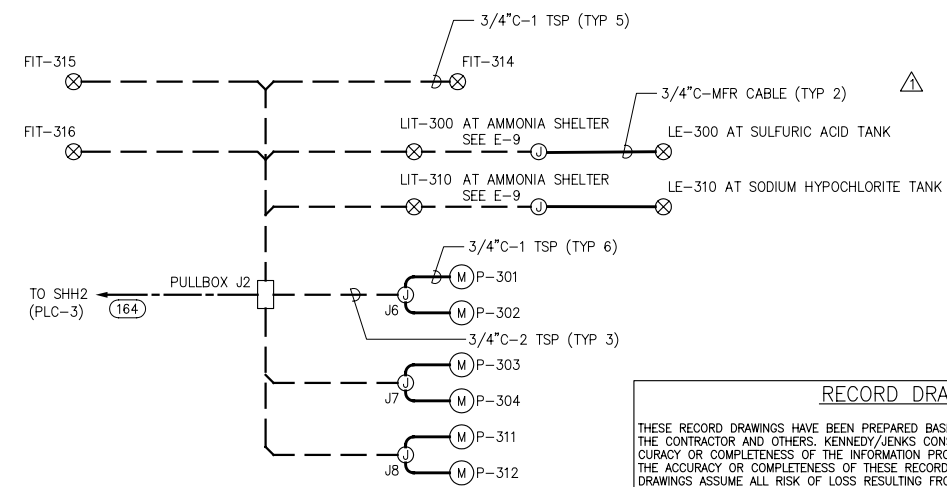
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NOTE: ENTIRE AREA IS A CORROSIVE LOCATION.

CHEMICAL STORAGE BUILDING - LIGHTING PLAN

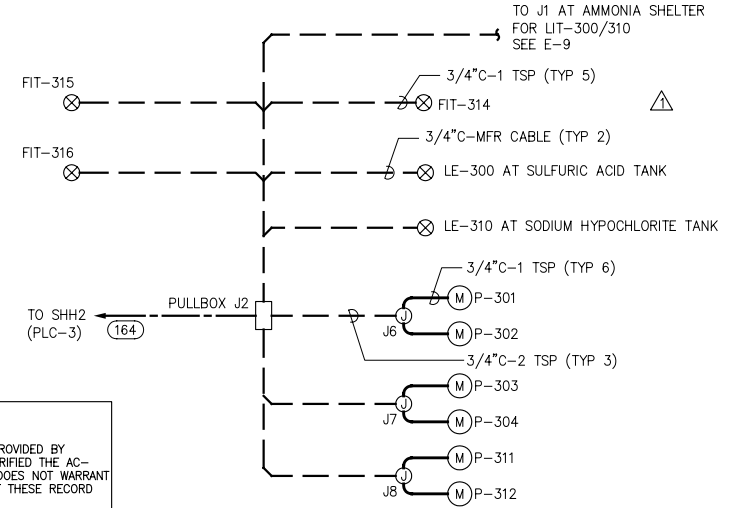
SCALE: 1/4"=1'-0"
NOTE: ENTIRE AREA IS A CORROSIVE LOCATION.



CONDUIT DIAGRAM 1
N.T.S. E-8



CONDUIT DIAGRAM 2
N.T.S. E-8

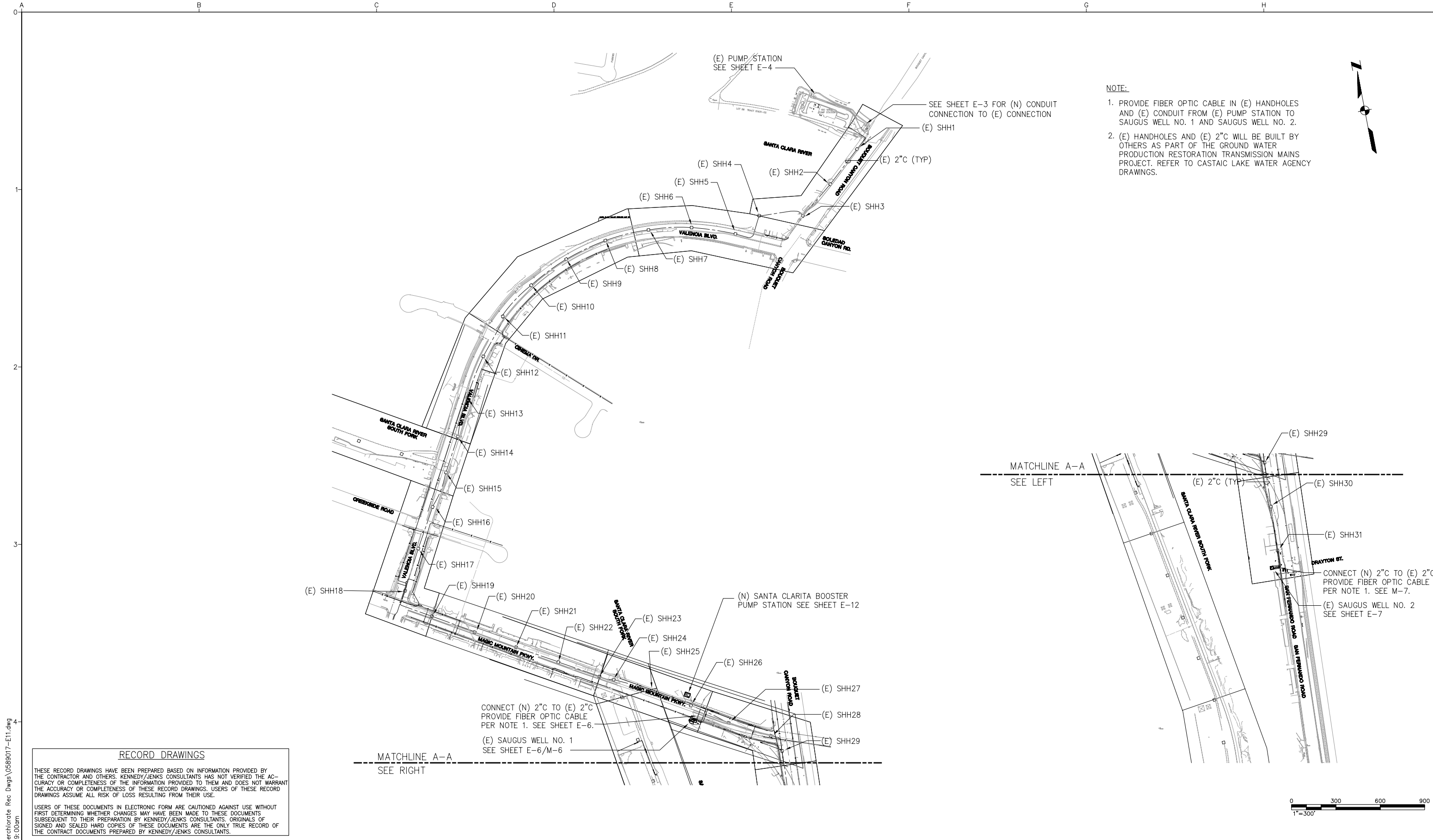


CONDUIT DIAGRAM 2
N.T.S. E-8

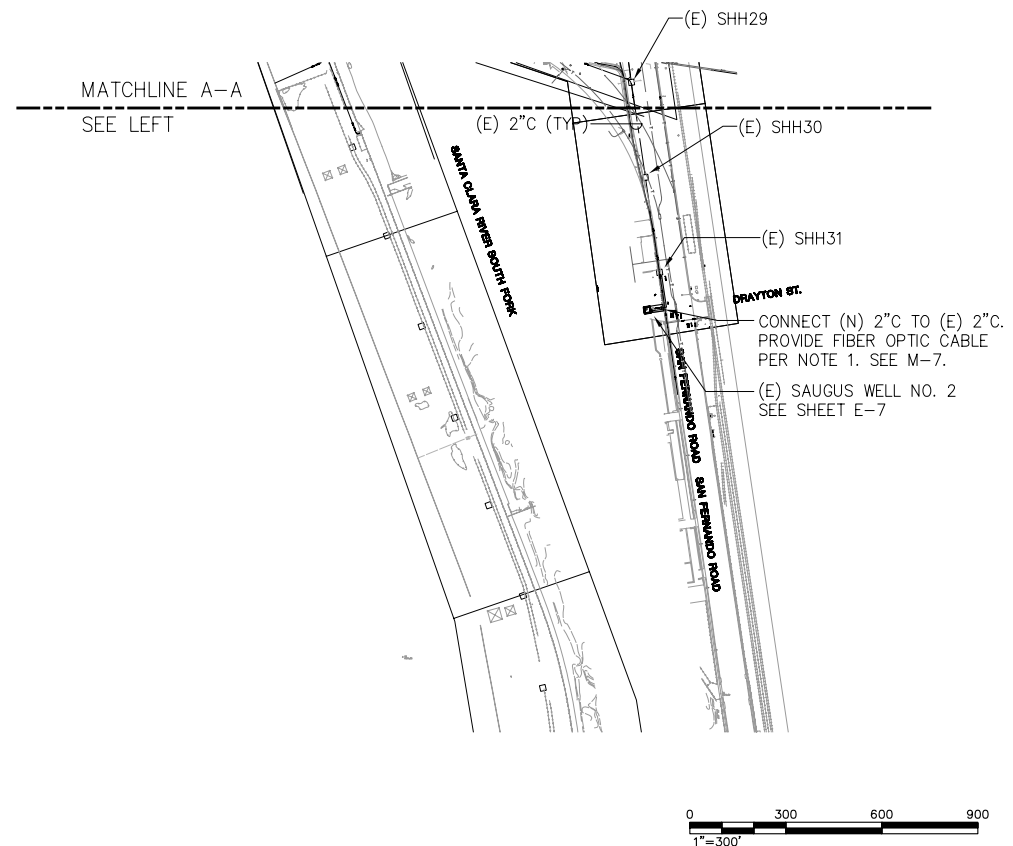
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	RFQ NO. 1	1/10/08	CMD			DRAWN JL/CMD/WL			<p>CHEMICAL STORAGE BUILDING</p> <p>LIGHTING, POWER AND SIGNAL PLANS</p> <p>AND CONDUIT DIAGRAMS</p>
NO.	REVISION	DATE	BY			CHECKED TIW	<p>Kennedy/Jenks Consultants</p> <p>1000 HILL ROAD, SUITE 200, VENTURA, CA 93003</p>	DATE JAN. 2008	SHEET OF



- NOTE:
1. PROVIDE FIBER OPTIC CABLE IN (E) HANDHOLES AND (E) CONDUIT FROM (E) PUMP STATION TO SAUGUS WELL NO. 1 AND SAUGUS WELL NO. 2.
 2. (E) HANDHOLES AND (E) 2" C WILL BE BUILT BY OTHERS AS PART OF THE GROUND WATER PRODUCTION RESTORATION TRANSMISSION MAINS PROJECT. REFER TO CASTAIC LAKE WATER AGENCY DRAWINGS.



RECORD DRAWINGS

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NO.	REVISION	DATE	BY

RECORD DRAWINGS			
		JULY 2010	JTD

SCALES

0 1" = 300'

0 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



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CMD

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JL

CHECKED
TIW

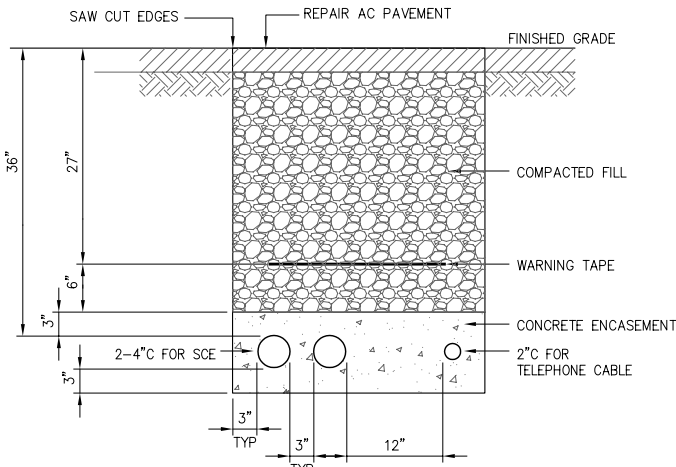
CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

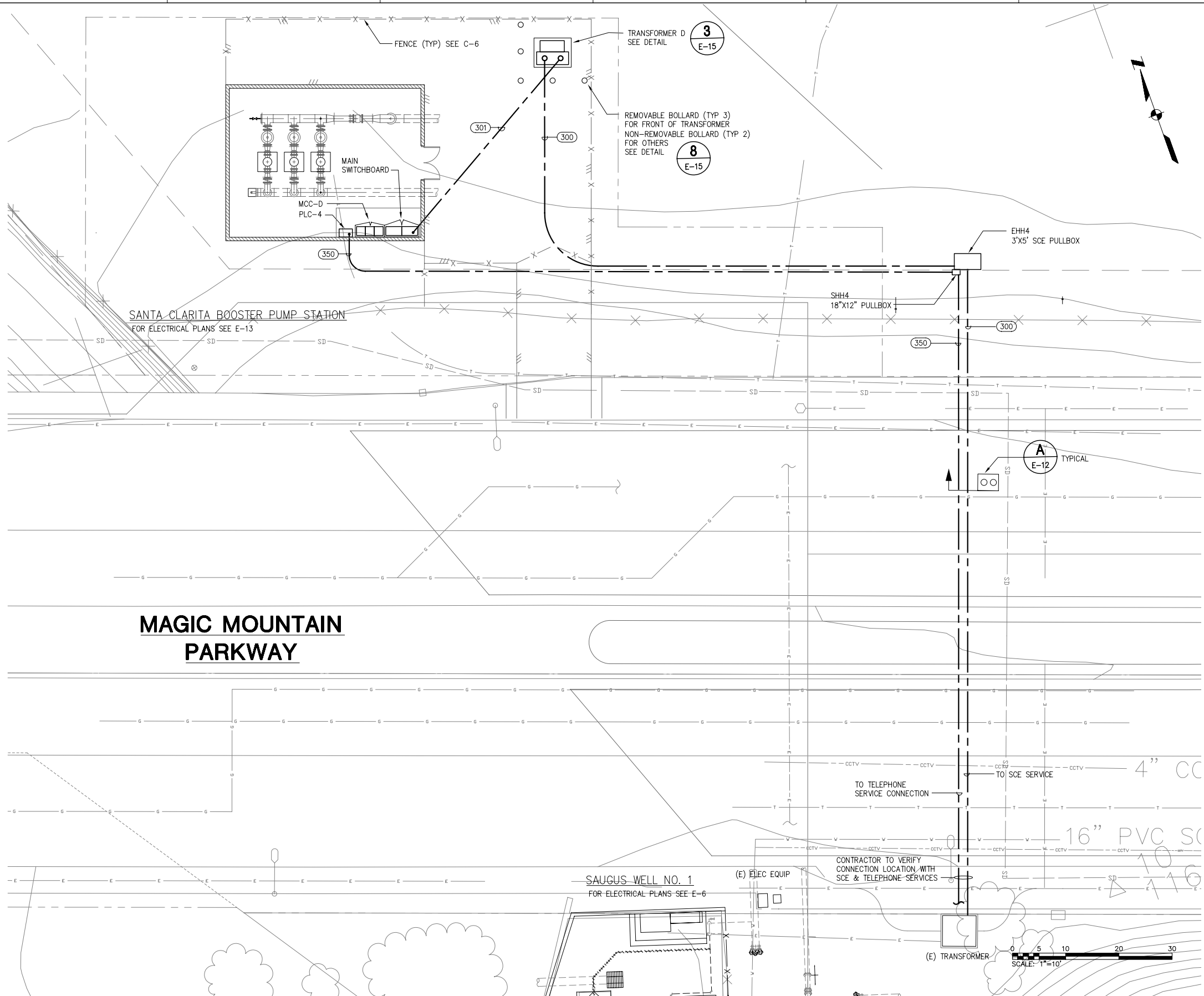
**FIBER OPTICAL CABLE
EXTENDED ELECTRICAL SITE PLAN**

CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
E-11	



NOTE: ALL DIMENSIONS ARE MINIMUMS.

UNDERGROUND CONDUIT SECTION A
N.T.S. E-12



MAGIC MOUNTAIN PARKWAY

RECORD DRAWINGS

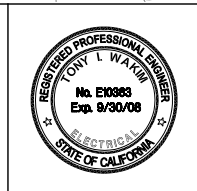
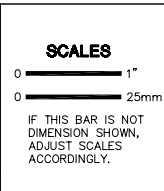
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NO.	REVISION	DATE	BY

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		JULY 2010	JTD



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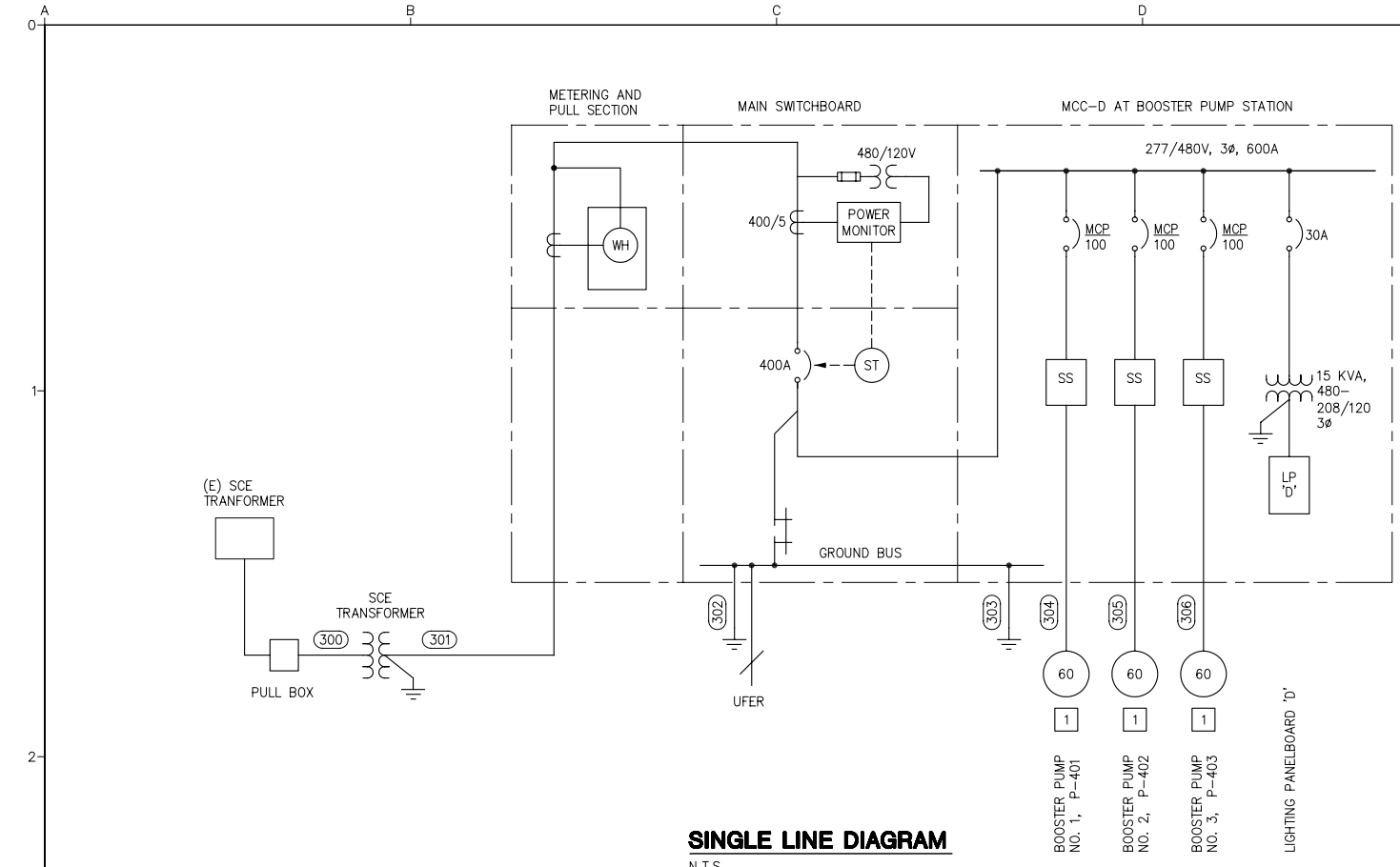
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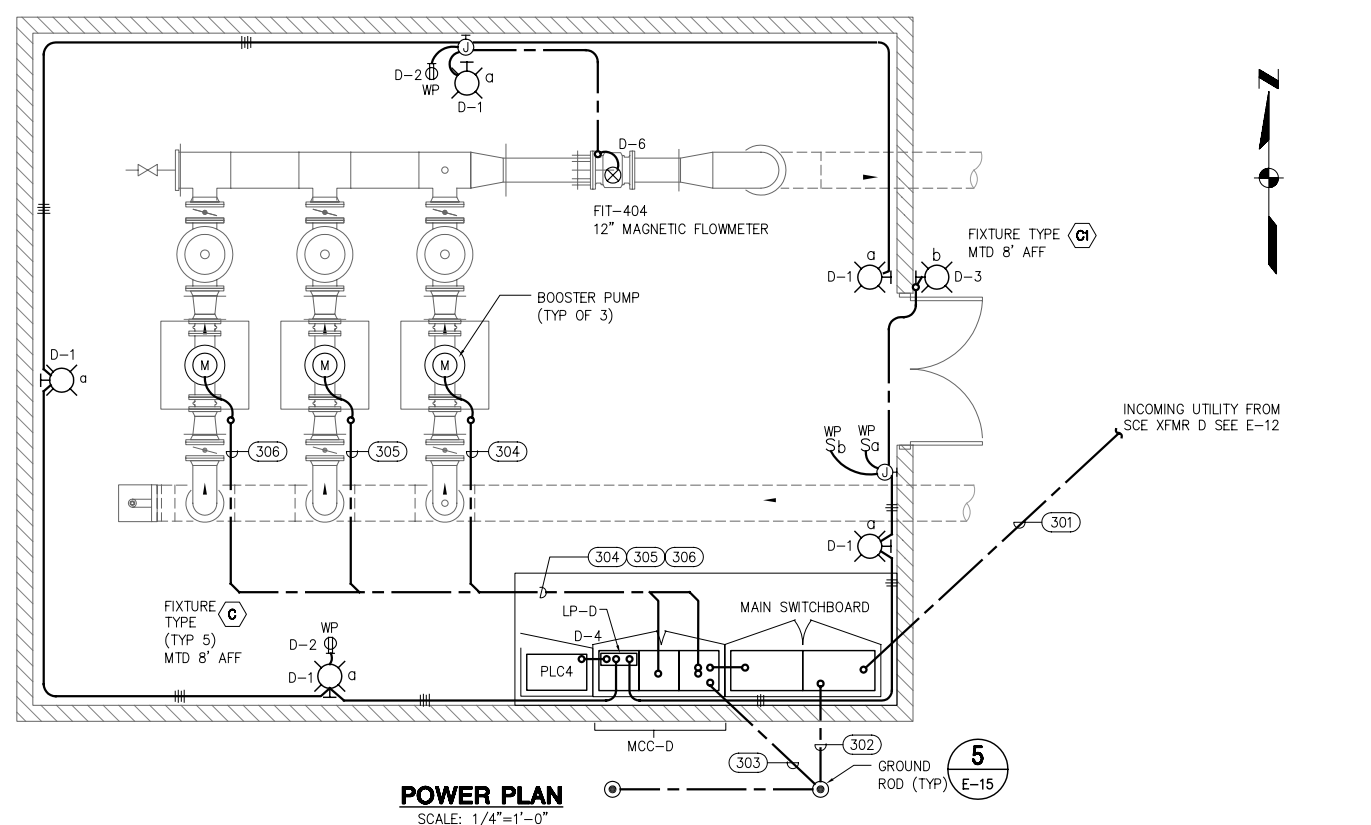
PERCHLORATE TREATMENT

SANTA CLARITA BOOSTER PUMP STATION ELECTRICAL SITE PLAN

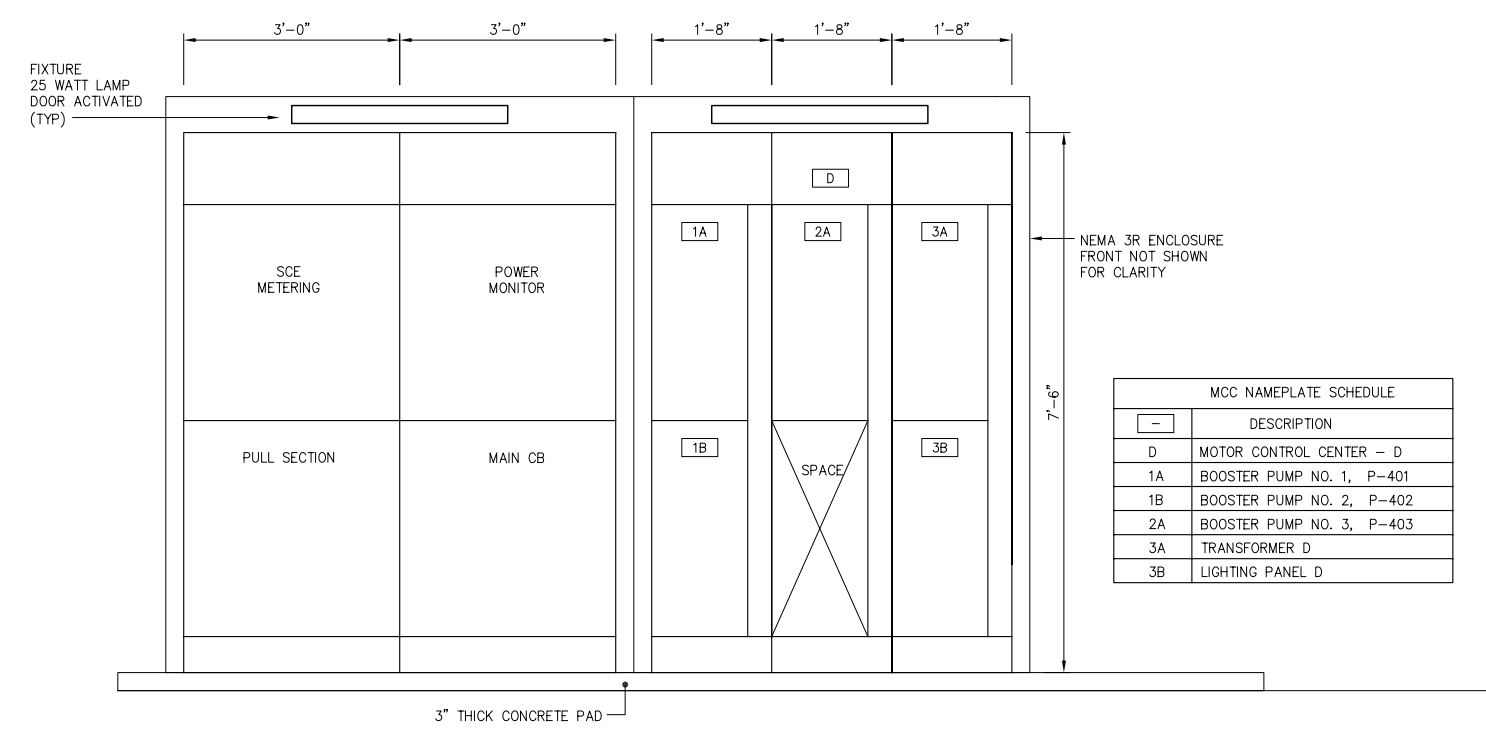
CLWA NO.	CL-118A
JOB NO.	0789064
DATE	JAN. 2008
SHEET	OF
E-12	



SINGLE LINE DIAGRAM
N.T.S.

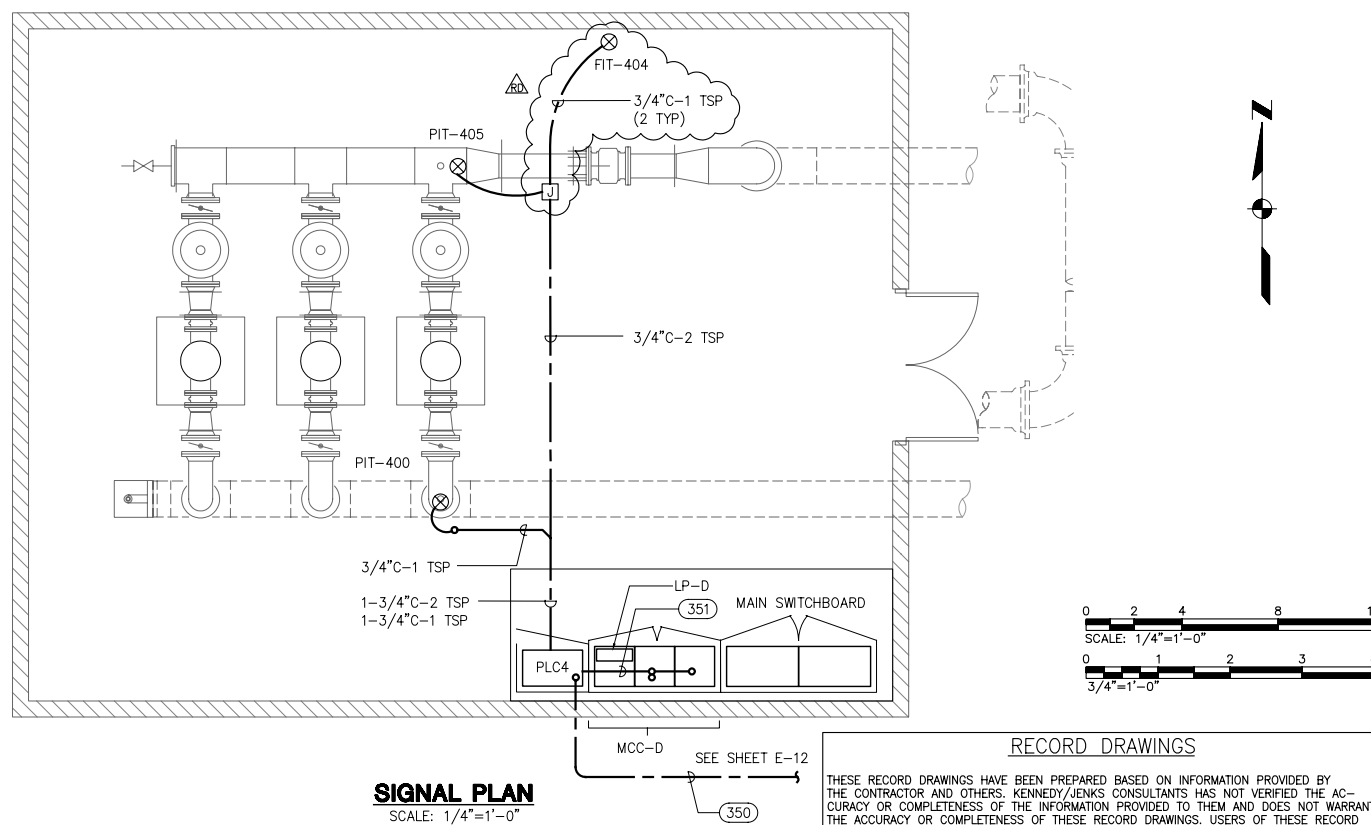


POWER PLAN
SCALE: 1/4"=1'-0"



MAIN SWITCHBOARD AND MOTOR CONTROL CENTER - D FRONT ELEVATION
SCALE: 3/4" = 1'-0"

MCC NAMEPLATE SCHEDULE	
DESCRIPTION	
D	MOTOR CONTROL CENTER - D
1A	BOOSTER PUMP NO. 1, P-401
1B	BOOSTER PUMP NO. 2, P-402
2A	BOOSTER PUMP NO. 3, P-403
3A	TRANSFORMER D
3B	LIGHTING PANEL D



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

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SCALES

0 1" = 25mm

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CHECKED: TIW

CASTAIC LAKE WATER AGENCY
LOS ANGELES COUNTY, CALIFORNIA

Kennedy/Jenks Consultants
1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT

SANTA CLARITA BOOSTER PUMP STATION ELECTRICAL PLANS, SINGLE LINE DIAGRAM AND ELEVATION

CLWA NO. CL-118A
JOB NO. 0789064
DATE JAN. 2008
SHEET OF
E-13

PANELBOARD 'D' SCHEDULE											
208Y/120 VOLTS, 3 PHASE, 4 WIRE				100 AMP BUS			70 AMP MAIN			MOUNTING: MCC	
CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMPS/POLES	CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMPS/POLES
		A	B	C				A	B	C	
1	LTG-BOOSTER PUMP STATION-INTERIOR	235			20/1	2	RCPT-BOOSTER PUMP STATION	540			20/1▲
3	LTG-BOOSTER BUMP STATION-EXTERIOR		128		20/1	4	FIT-404		250		20/1
5	SPARE				20/1	6	PLC-4			500	20/1
7	SPARE				20/1	8	SPARE				20/1
9	SPARE				20/1	10	SPARE				20/1
11	SPACE					12	SPACE				
13						14					
15						16					
17						18					
19						20					
21						22					
23						24					
SUBTOTALS		235	128	0				540	250	500	
PHASE TOTALS								775	378	500	
TOTAL VOLT-AMPS										1653	

TEXT SCREEN

▲ = GFI CIRCUIT BREAKER

CONDUIT SCHEDULE									
NUMBER	FROM	TO	SIZE	POWER	GROUND	CONTROL	SIGNAL	REMARKS	
300	SCE SOURCE	SCE XFMR	2-4"	* *					WIRING BY SCE
301	SCE XFMR	MAIN SWBD	4-4"						WIRING BY SCE
302	MAIN SWBD	GND	1"		1#2				
303	MAIN SWBD	GND	1"		1#2				
304	MCC-D	BOOSTER PUMP NO. 1	2 1/2"	3#1	1#6		2#14		PLUS 2#14 SPARES
305	MCC-D	BOOSTER PUMP NO. 2	2 1/2"	3#1	1#6		2#14		PLUS 2#14 SPARES
306	MCC-D	BOOSTER PUMP NO. 3	2 1/2"	3#1	1#6		2#14		PLUS 2#14 SPARES
307	MCC-D	TRANSFORMER D	3/4"	3#8	1#10				
350	TELEPHONE SOURCE (NOTE 1)	PLC4	2"				***		TELEPHONE CABLE
351	PLC4	MCC-D	1"				24#14		PLUS 6 SPARES

LIGHT FIXTURE SCHEDULE							
FIXTURE TYPE	No.	LAMP		1 Ø VOLTS	MOUNTING ARRANGEMENT	DESCRIPTION	CATALOG NUMBER
		TYPE	WATTS				
C	1	COMPACT FLUOR	47	120	WALL	DEEP SHIELDED FULL FRONT SHROUD TO ELIMINATED GLARE. INJECTION MOLDED ACRYLIC LENS, ALUMINUM DIE-CAST HOUSING IN BRONZE FINISHED, GASKETED, ELECTRONIC BALLAST, BRONZE COLOR SHROUD, SURFACE BOX WITH PHOTOCELL.	RUJD EB242-6L ESB-7-120-P
C1	1	HPS	128	120	WALL	WALLPACK IV, ANODIZED ALUMINUM REFLECTOR, PRISMATIC THERMAL SHOCK RESISTANT BOROSILICATE GLASS REFRACTOR, INTEGRAL HID BALLAST, WEATHER RESISTANT DIE-CAST ALUMINUM HOUSING, UL FOR WET LOCATION, WITH INTEGRAL PHOTOCELL CONTROL.	HOLOPHANE W4-050HP-12-S-G-B

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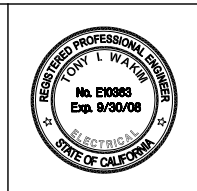
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		JULY 2010	JTD

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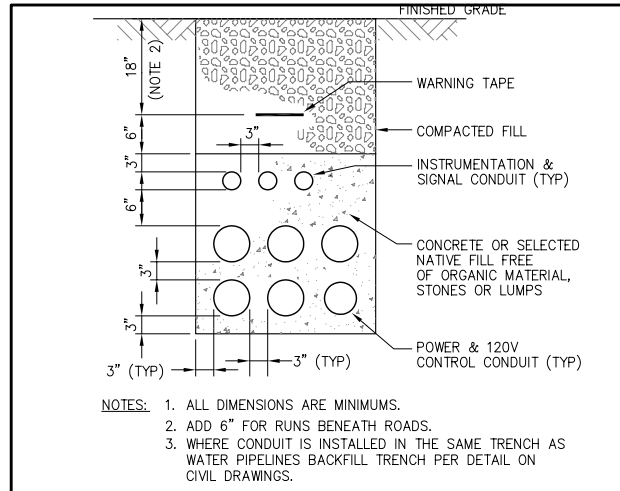


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 DRAWN: JL/CMD
 CHECKED: TIW

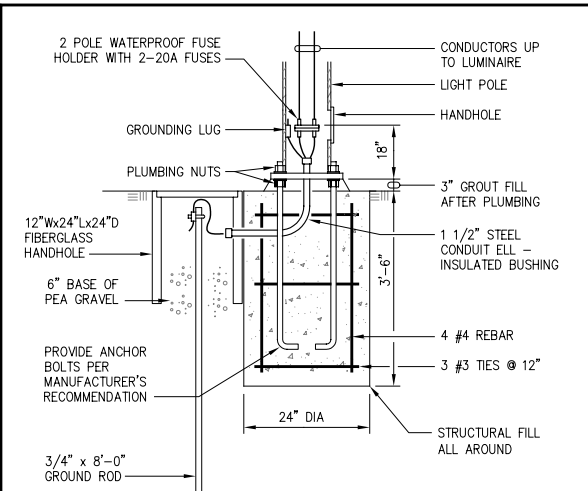
CASTAIC LAKE WATER AGENCY
 LOS ANGELES COUNTY, CALIFORNIA
 Kennedy/Jenks Consultants
 1000 HILL ROAD, SUITE 200, VENTURA, CA 93003

PERCHLORATE TREATMENT
SANTA CLARITA BOOSTER PUMP STATION
ELECTRICAL SCHEDULES

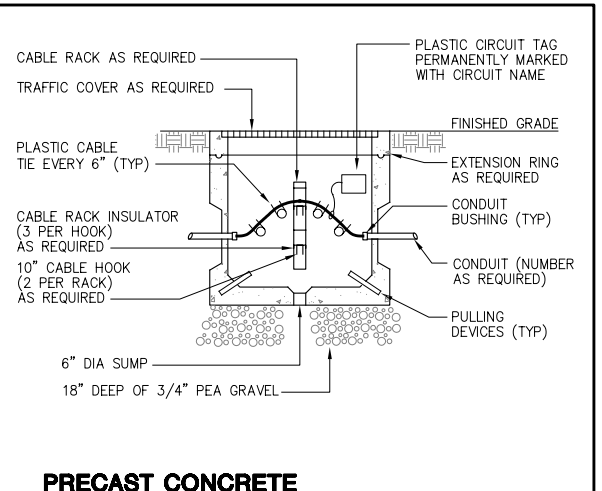
CLWA NO. CL-118A
 JOB NO. 0789064
 DATE JAN. 2008
 SHEET OF
E-14



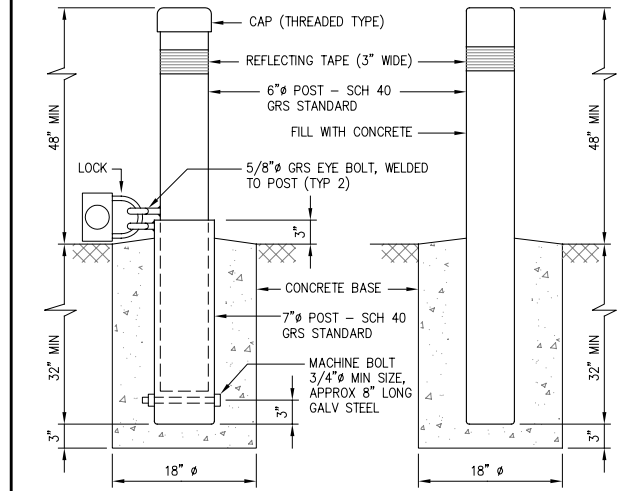
TYPICAL DUCT BANK SECTION 6
N.T.S. E-5, E-3



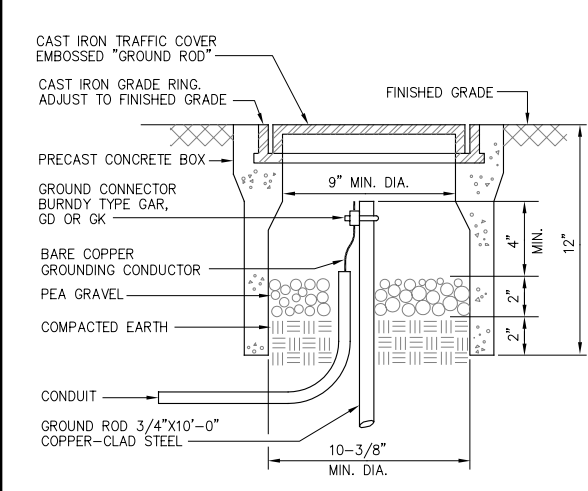
LIGHTING POST BASE 4
N.T.S. E-5



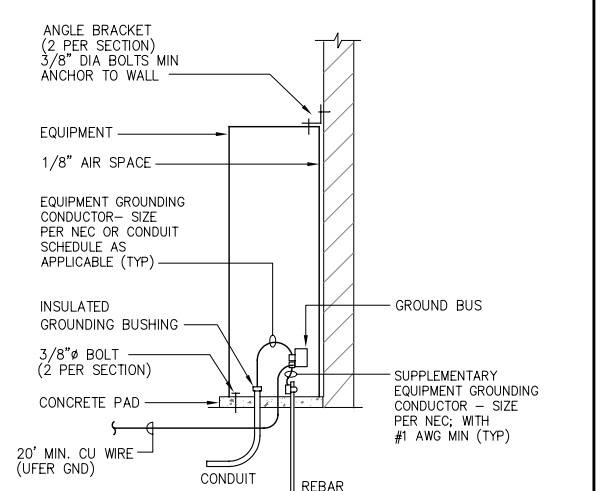
PRECAST CONCRETE HANDHOLE INSTALLATION 1 1
N.T.S. E-5, E-3



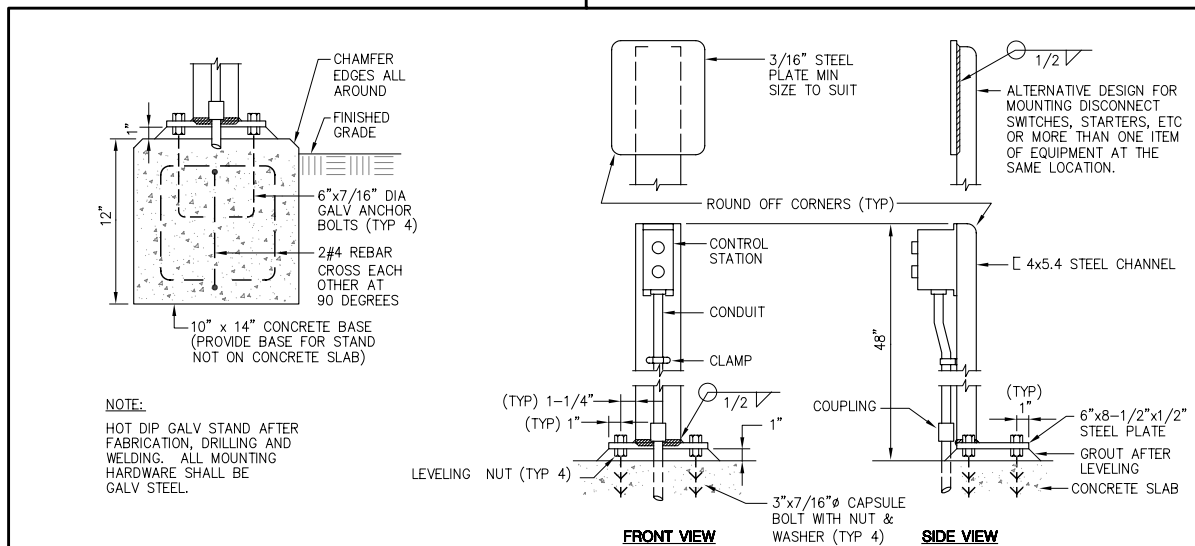
REMOVABLE & NON-REMOVABLE POST 1
N.T.S. E-12



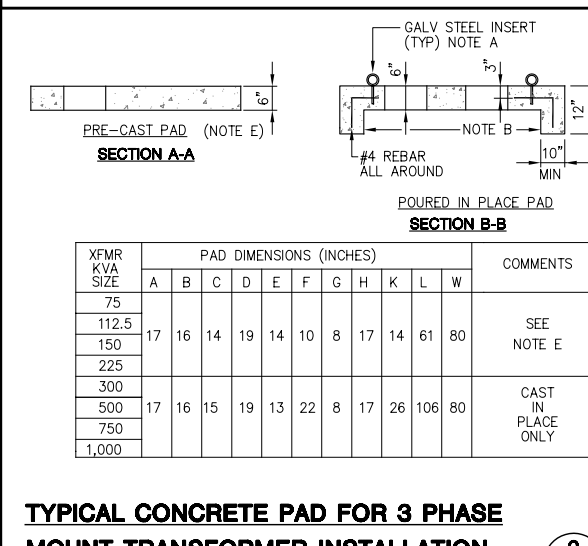
GROUND ROD AND BOX INSTALLATION 5
N.T.S. E-13, E-4



MAJOR EQUIPMENT ANCHORING 2
N.T.S. E-13, E-4



EQUIPMENT MOUNTING STAND 7
N.T.S. E-5



TYPICAL CONCRETE PAD FOR 3 PHASE MOUNT TRANSFORMER INSTALLATION 3
N.T.S. E-12, E-4

RECORD DRAWINGS

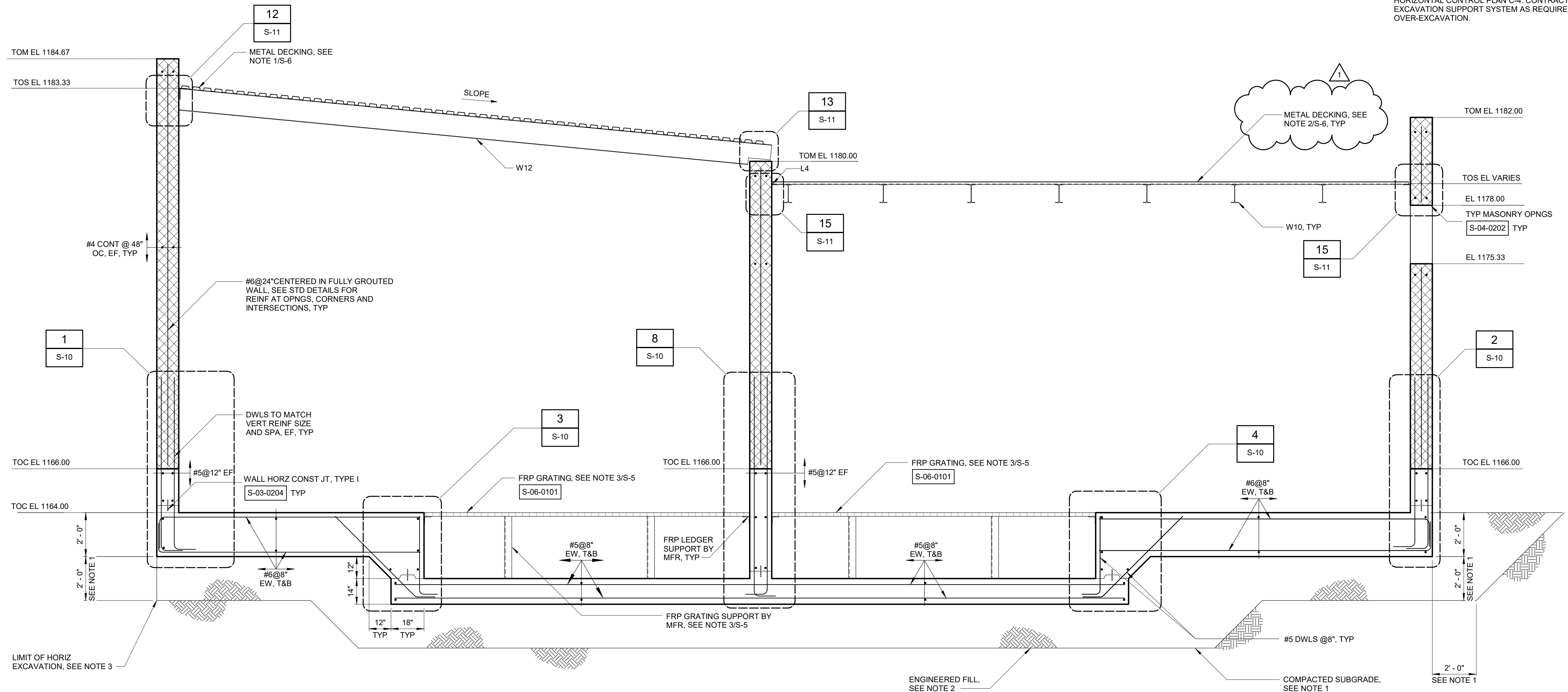
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND OTHERS. KENNEDY/JENKS CONSULTANTS HAS NOT VERIFIED THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED TO THEM AND DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THESE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

USERS OF THESE DOCUMENTS IN ELECTRONIC FORM ARE CAUTIONED AGAINST USE WITHOUT FIRST DETERMINING WHETHER CHANGES MAY HAVE BEEN MADE TO THESE DOCUMENTS SUBSEQUENT TO THEIR PREPARATION BY KENNEDY/JENKS CONSULTANTS. ORIGINALS OF SIGNED AND SEALED HARD COPIES OF THESE DOCUMENTS ARE THE ONLY TRUE RECORD OF THE CONTRACT DOCUMENTS PREPARED BY KENNEDY/JENKS CONSULTANTS.

<p>USE OF DOCUMENTS</p> <p>THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.</p>	<p>SCALES</p> <p>0 — 1" = 25mm</p> <p>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</p>			DESIGNED	<p>CASTAIC LAKE WATER AGENCY</p> <p>LOS ANGELES COUNTY, CALIFORNIA</p>		<p>PERCHLORATE TREATMENT</p>		CLWA NO. CL-118A
	DRAWN	<p>Kennedy/Jenks Consultants</p> <p>1000 HILL ROAD, SUITE 200, VENTURA, CA 93003</p>		<p>MISCELLANEOUS DETAILS</p>		JOB NO. 0789064			
NO.	REVISION	DATE	BY	CHECKED					DATE JAN. 2008
				TIW					SHEET OF

NOTES:

- OVER-EXCAVATION SHALL EXTEND VERTICALLY 2'-0" BELOW SLAB BOTTOM ELEVATION AND Laterally 2'-0" ALL AROUND UNLESS SHOWN OTHERWISE ON THE DRAWING. EXPOSED BOTTOM OF EXCAVATION SHALL BE SCARIFIED A MINIMUM DEPTH OF 6". MOISTURE-CONDITIONED TO WITHIN +/-3% OF OPTIMUM MOISTURE CONTENT FOR COARSE-GRAINED SOILS, AND 0 TO 2% ABOVE OPTIMUM MOISTURE CONTENT FOR FINE-GRAINED SOILS. RECOMPACT SUBGRADE TO AT LEAST 90% RELATIVE COMPACTION. THE BOTTOM OF EXCAVATION SHALL BE OBSERVED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY SUITABILITY OF SUBGRADE PRIOR TO BACKFILLING AND CONSTRUCTION OF CONCRETE FOUNDATION.
- IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION, ENGINEERED FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NO GREATER THAN 8 INCHES IN UNCOMPACTED THICKNESS. ENGINEERED FILL SHALL BE MOISTURE CONDITIONED TO WITHIN 3 PERCENT OF OPTIMUM FOR COARSE SOILS AND 0 TO 2 PERCENT ABOVE OPTIMUM FOR FINE SOILS, AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D1557.
- HORIZONTAL OVER-EXCAVATION AT WEST AND NORTH SIDES OF BUILDING LIMITED BASED ON PROPERTY LINE, SEE CIVIL SITE LAYOUT AND HORIZONTAL CONTROL PLAN C-4. CONTRACTOR SHALL PROVIDE EXCAVATION SUPPORT SYSTEM AS REQUIRED TO FACILITATE VERTICAL OVER-EXCAVATION.



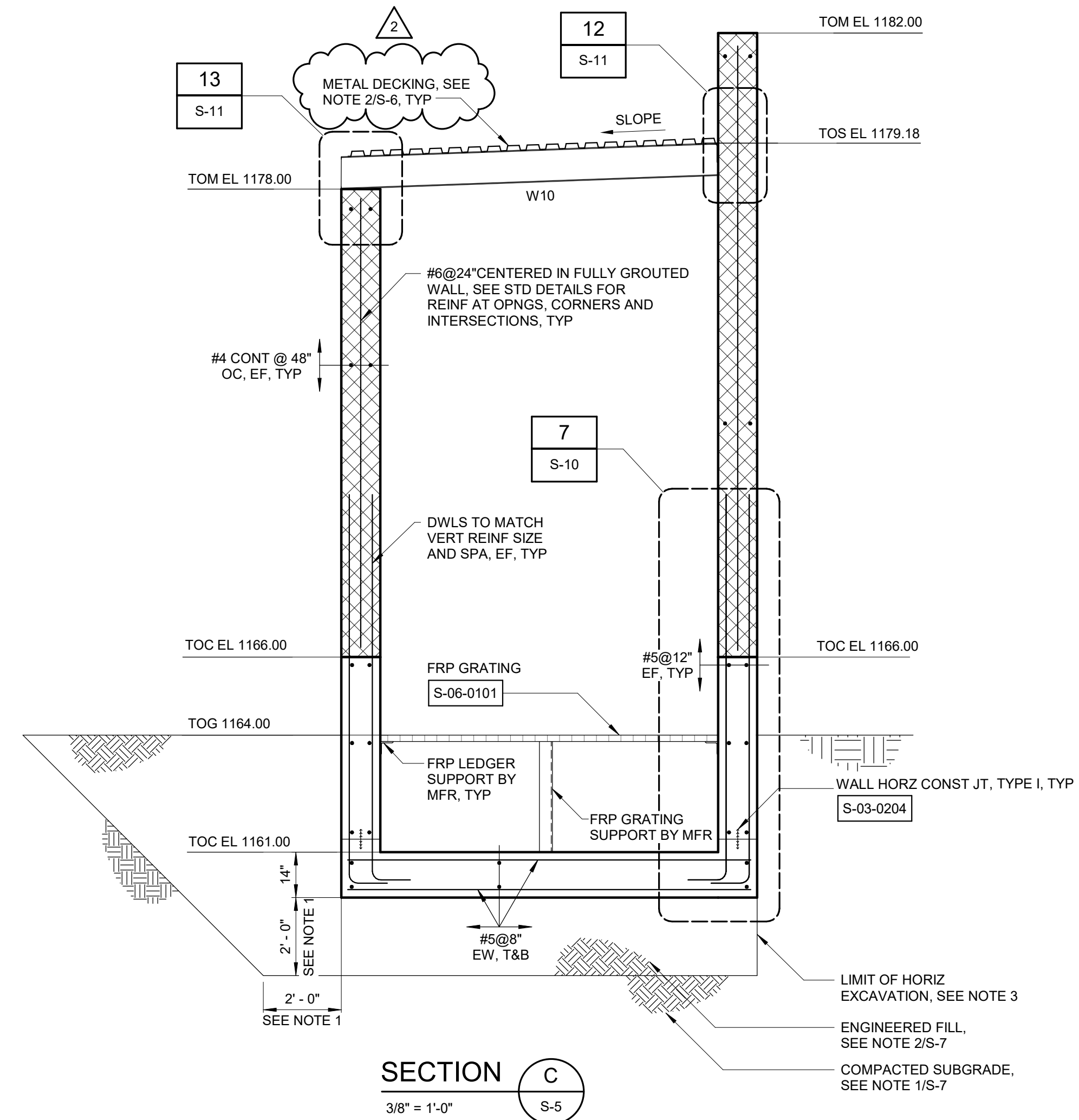
SECTION A
3/8" = 1'-0"

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012-200-CHK-S.rvt
2/21/2024 6:01:18 PM

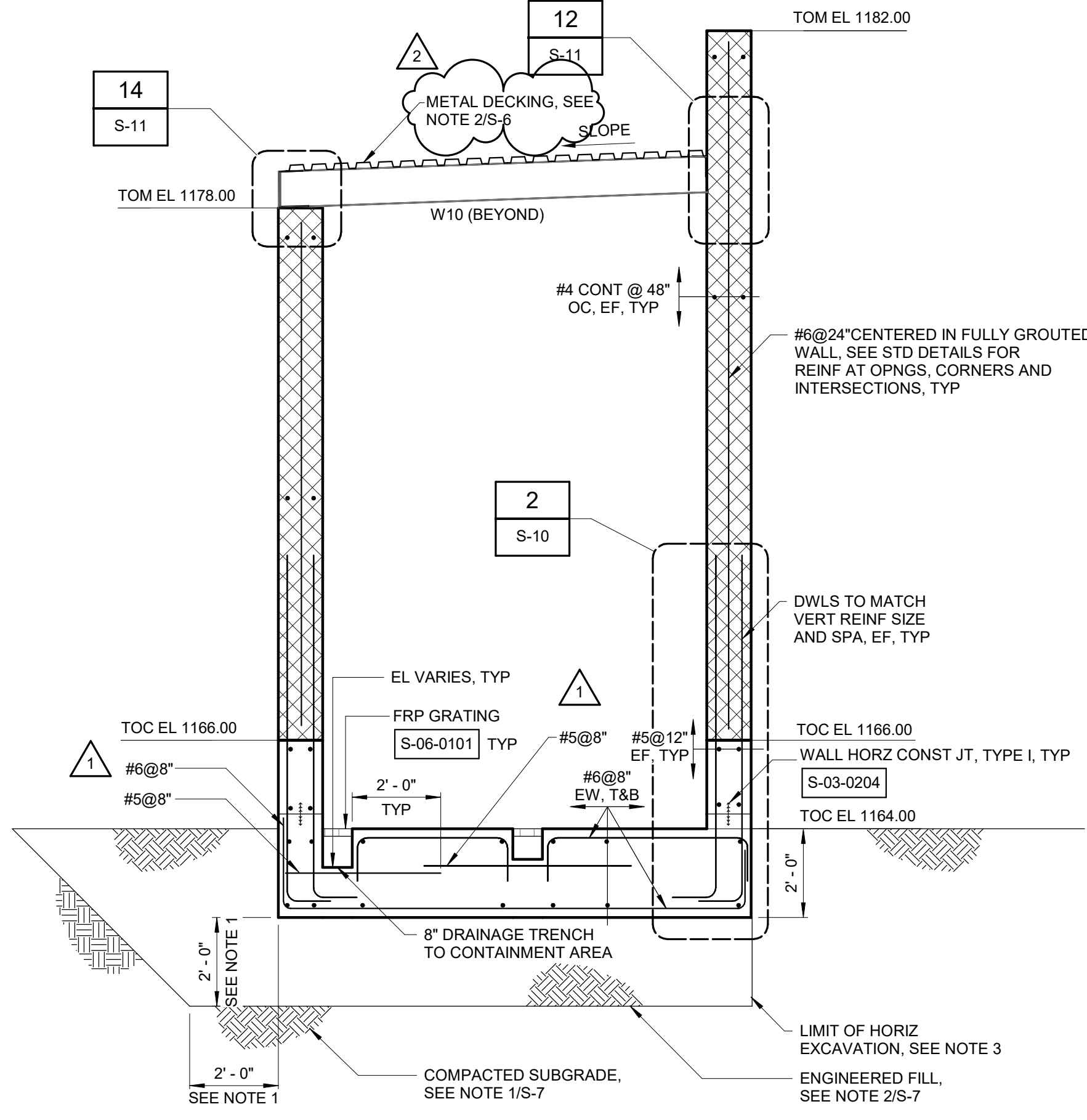
REVISIONS				SCALES	DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA. 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: JANUARY 2024
NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCWVA: 2400420		
1	ADDENDUM NO. 6	02/2024	SPD	1" = 1'-0" 1/4" = 1'-0" 1/8" = 1'-0" IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	DRAWN BY: A. FREDERICK CHECKED BY: W. DRESSLER	STRUCTURAL CHEMICAL BUILDING SECTIONS 1	SHEET: S-7			

NOTES:

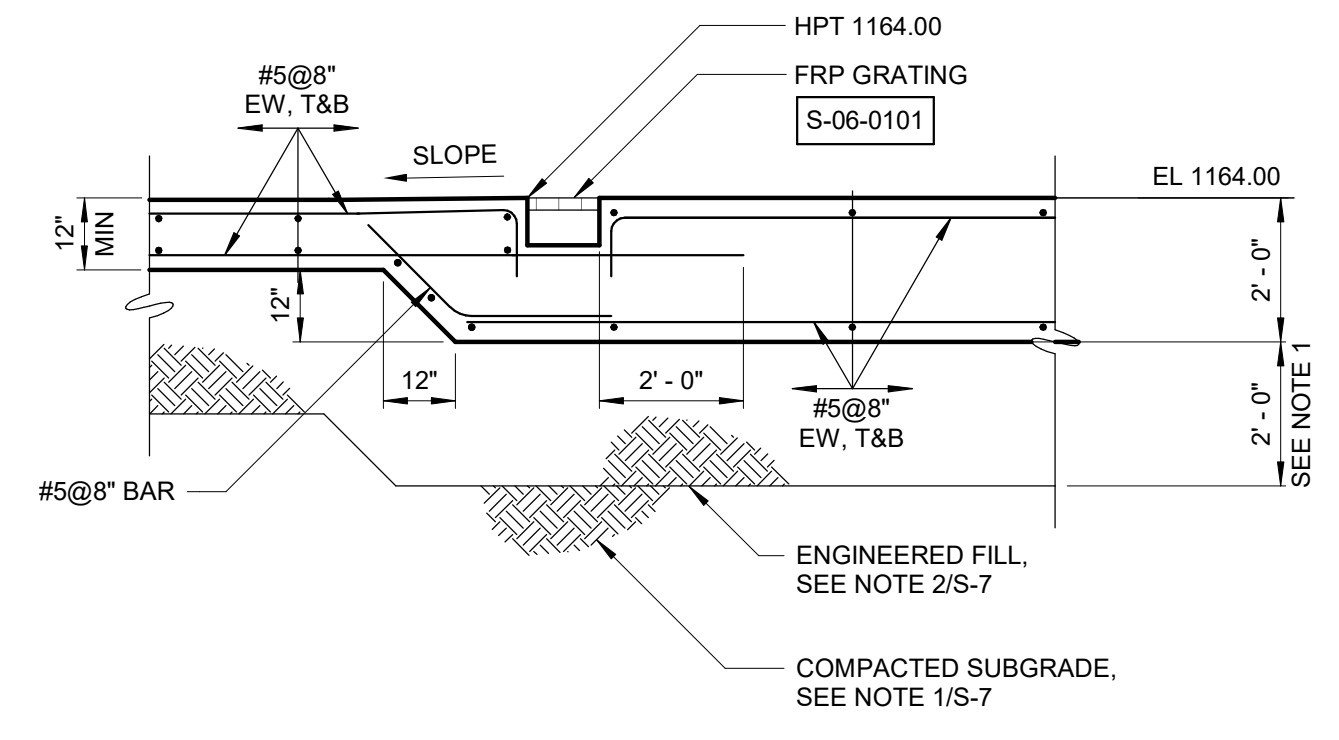
1. REFER TO NOTES ON DRAWING S-7 FOR OVER-EXCAVATION REQUIREMENTS, SUBGRADE PREPARATION AND ENGINEERED FILL.
2. HORIZONTAL OVER-EXCAVATION AT WEST AND NORTH SIDES OF BUILDING LIMITED BASED ON PROPERTY LINE, SEE CIVIL SITE LAYOUT AND HORIZONTAL CONTROL PLAN C-4. CONTRACTOR SHALL PROVIDE EXCAVATION SUPPORT SYSTEM AS REQUIRED TO FACILITATE VERTICAL OVER-EXCAVATION.



SECTION C
3/8" = 1'-0"



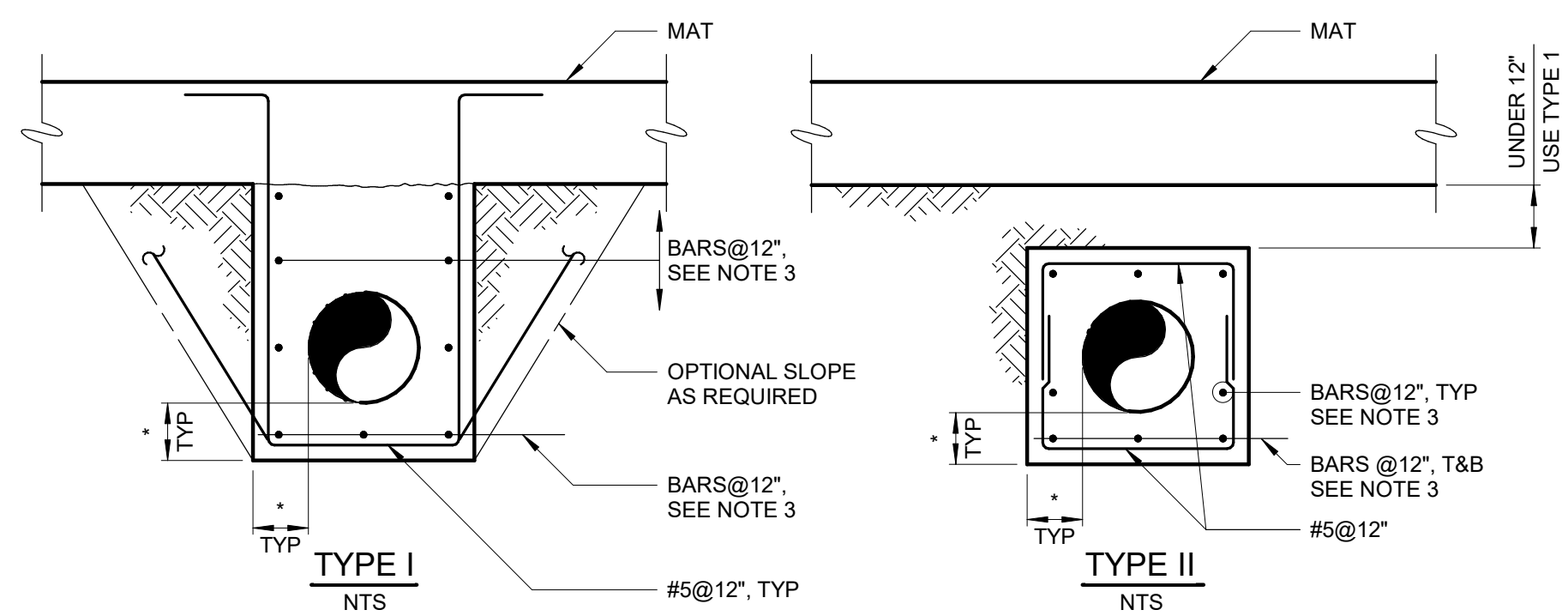
SECTION D
3/8" = 1'-0"



SECTION E
3/8" = 1'-0"

Autodesk Docs/201515-012_T and U Wells PFAS Treatment Saugus/201515-012-200-CHK-S.rvt 2/22/2024 7:20:35 AM

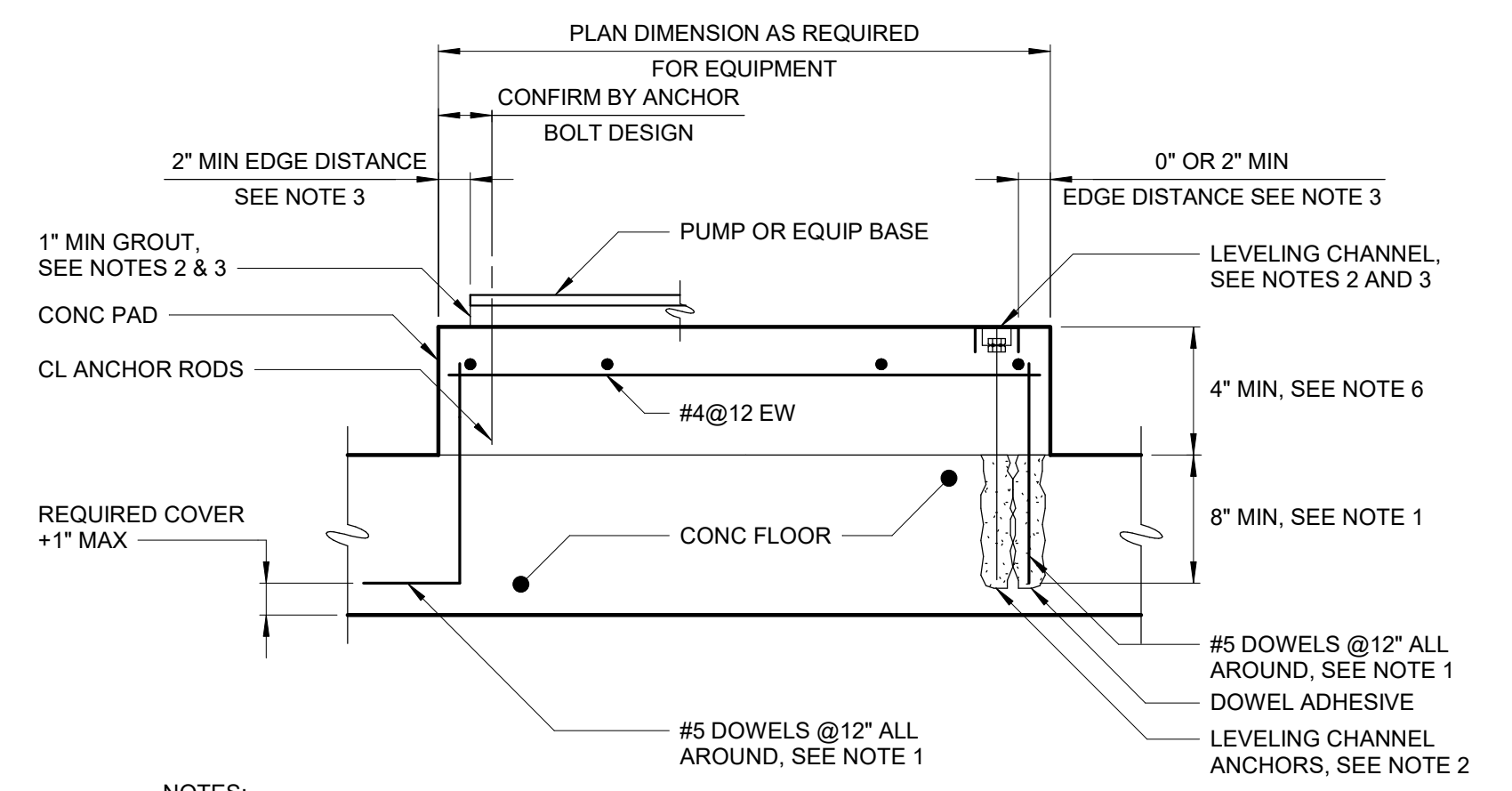
REVISIONS				SCALES	DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen	 SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION 26521 SUMMIT CIRCLE SANTA CLARITA, CA 91350 (661) 259-2737	T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS VOC TREATMENT AND NEW DISINFECTION FACILITY		DATE: JANUARY 2024
NO.	DESCRIPTION	DATE	BY					PROJECT NO. SCVWA: 2400420		
2	ADDENDUM NO. 6	02/2024	SPD	IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	CHECKED BY: W. DRESSLER	HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618	STRUCTURAL CHEMICAL BUILDING SECTION 3		SHEET: S-9	
1	ADDENDUM NO. 2	01/2024	SPD							



- NOTE:
- TIE IN ALL PIPES & CONDUITS BELOW GROUND FLOOR SLAB WHEN PILE FOUNDATION IS UTILIZED. USE TYPE I.
 - * DENOTES 9" FOR PIPES LESS THAN 42", 12" FOR PIPES 42" TO 72" AND 18" FOR PIPES GREATER THAN 84".
 - FOR 9" ENCASEMENTS USE #5 BARS, FOR 12" ENCASEMENTS USE #6 BARS AND FOR 18" ENCASEMENTS USE #7 BARS.

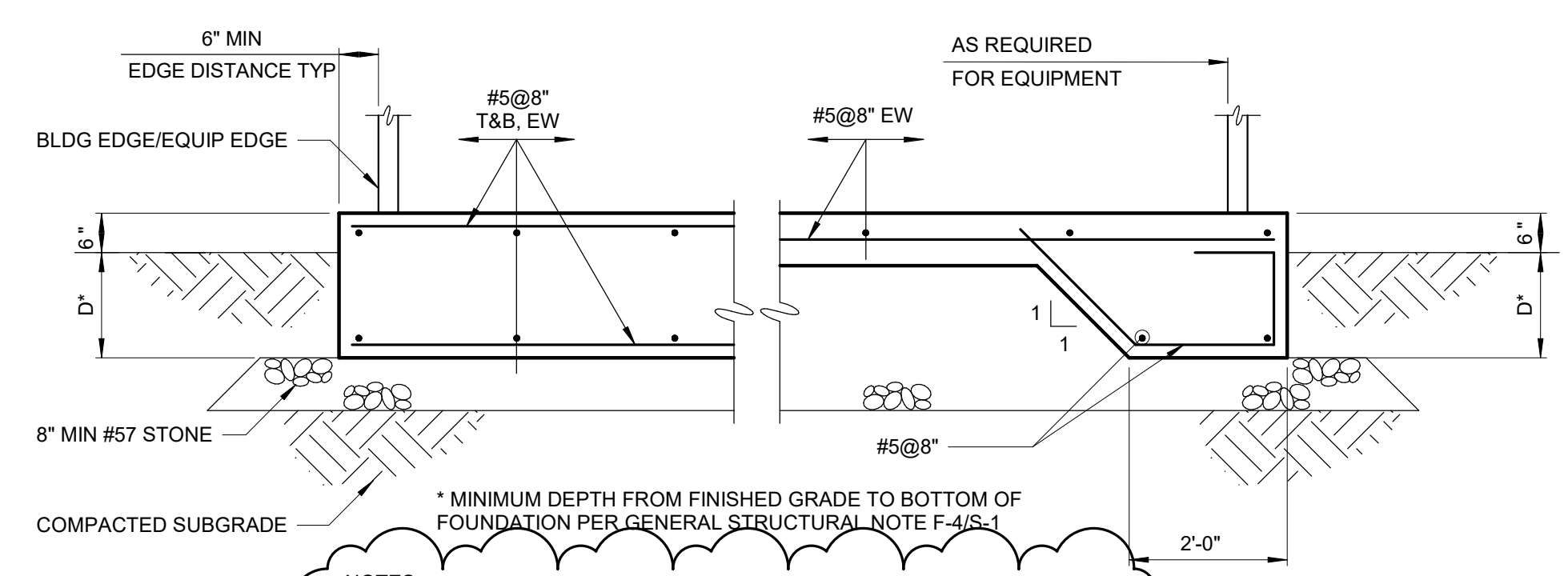
ALL PIPING AND CONDUITS BELOW SLABS ON EARTH TO BE ENCASED BY GENERAL CONTRACTOR UNLESS NOTED OTHERWISE.

PIPE ENCASEMENTS
S-03-0404



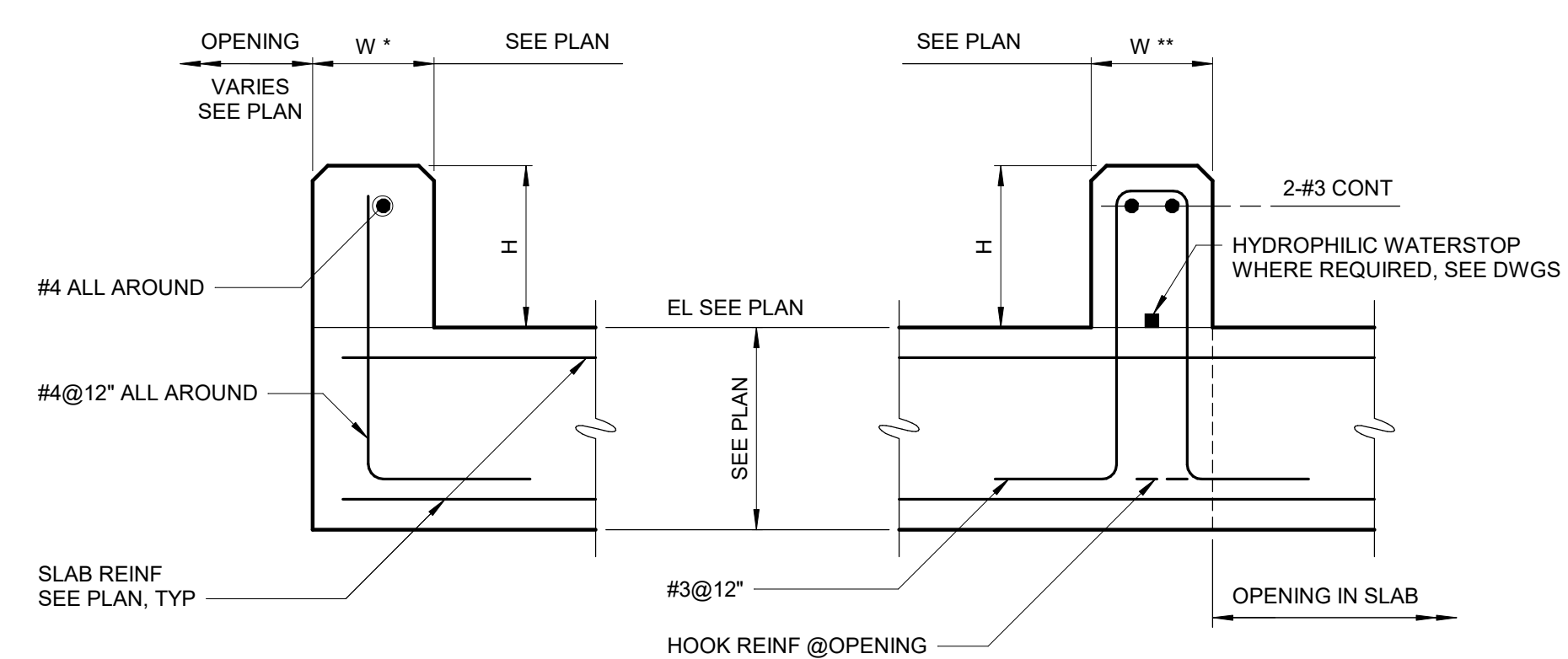
- NOTES:
- DOWELS MAY BE CAST IN WITH 90° HOOK OR ANCHORED WITH DOWEL ADHESIVE AT CONTRACTORS OPTION. WHERE FLOOR IS 8" THICK OR LESS, USE #4 DOWELS EMBEDDED TO WITHIN 2" OF BOTTOM OF FLOOR SLAB.
 - THE CONTRACTOR SHALL PROVIDE LEVELING CHANNELS AND LEVELING CHANNEL ANCHORS FOR SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS, AND SIMILAR EQUIPMENT WHEN REQUIRED TO MEET EQUIPMENT MANUFACTURER'S LEVELING TOLERANCES. THE CONTRACTOR SHALL PROVIDE 1" MINIMUM NON-SHRINK GROUT FOR PUMPS AND SIMILAR EQUIPMENT WHEN REQUIRED TO MEET EQUIPMENT MANUFACTURER'S UNIFORM BEARING AND LEVELING REQUIREMENTS.
 - PRIOR TO PLACING CONCRETE PAD, LEVELING CHANNEL SIZE AND MEANS OF INSTALLATION, ANCHORAGE, GROUT, CONCRETE EDGE DISTANCE, AND CONCRETE BLOCKOUTS REQUIREMENTS SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER.
 - COAT DISSIMILAR MATERIALS PER THE CONTRACT DOCUMENTS.
 - STAGGER CHANNEL ANCHORS AND PAD DOWELS.
 - FOR PADS 24" OR GREATER IN DEPTH, PROVIDE #4@8" HORIZONTAL SKIN REINFORCING AROUND PERIMETER OF PAD.

EQUIPMENT PAD
S-03-0504



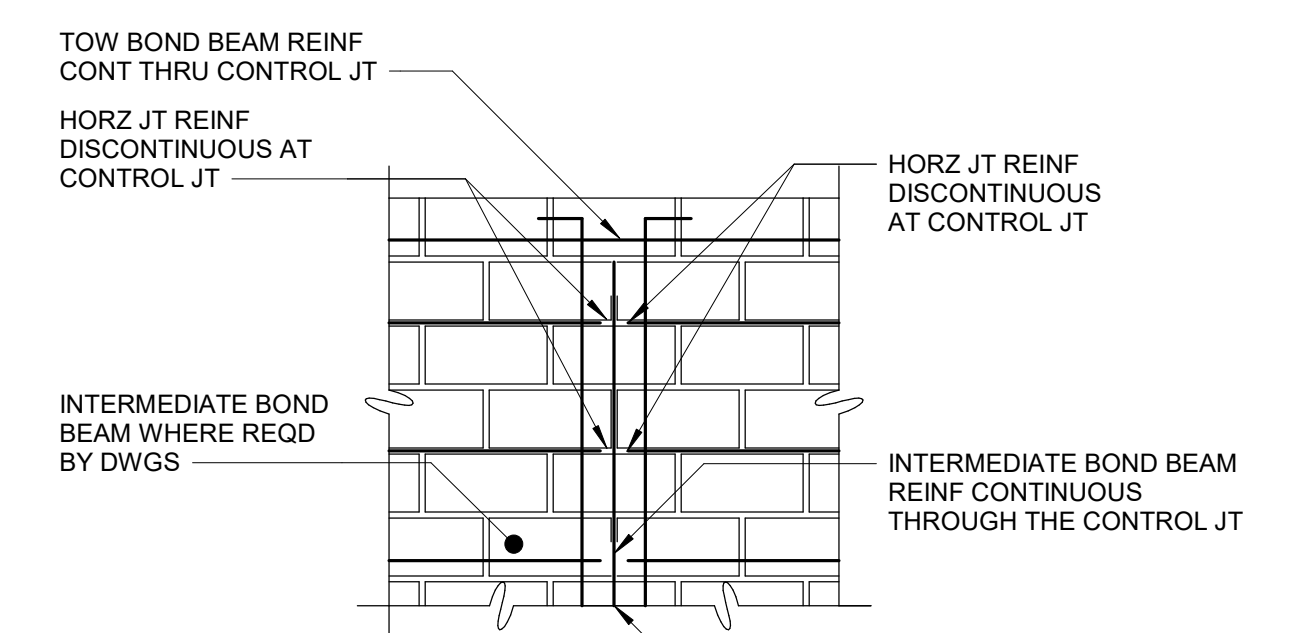
- NOTES:
- UNLESS NOTED OTHERWISE, CONTRACTOR SHALL HAVE THE OPTION OF PLACING EQUIPMENT FOUNDATION WITH A CONSTANT THICKNESS OF D + 6" OR AS AN 8" SLAB WITH THICKENED EDGE AROUND THE FOUNDATION PERIMETER.
 - FOR THE CARTRIDGE FILTER PAD, THE MINIMUM THICKNESS SHALL BE 18" FOR A UNIFORM PAD AND MAINTAIN A MINIMUM 12" OF EMBEDMENT BELOW FINISHED GRADE.

EXTERIOR EQUIPMENT FOUNDATION
S-03-0508



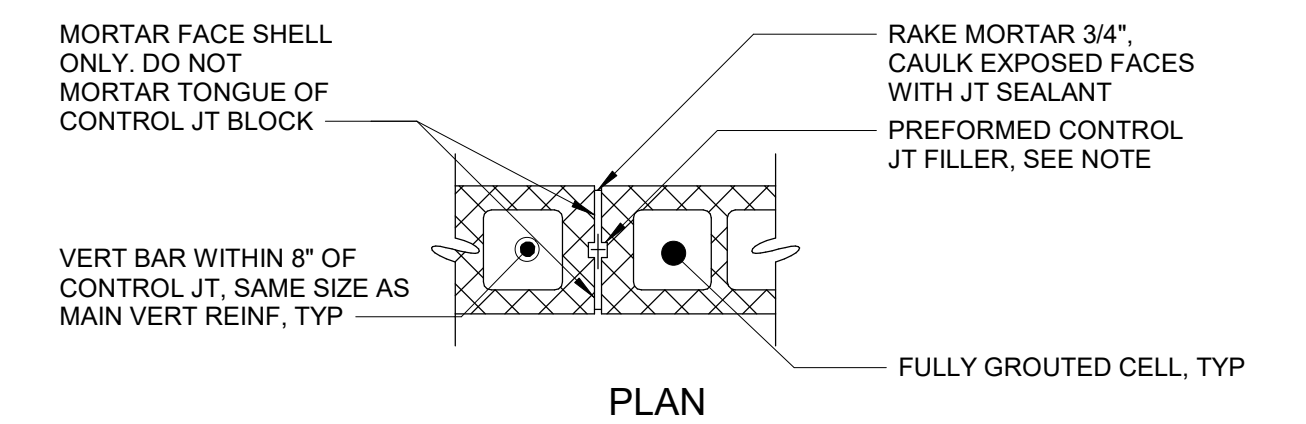
- NOTE:
- W* DENOTES CURBS LESS THAN 8"
 - W** DENOTES CURBS EQUAL TO OR GREATER THAN 8" DOWELS MAY BE CAST IN OR ANCHORED WITH DOWEL ADHESIVE SYSTEM WITH A 6" MINIMUM EMBEDMENT. WHERE FLOOR IS 8" THICK OR LESS, USE DOWELS EMBEDDED TO WITHIN 2" OF BOTTOM OF FLOOR SLAB.

CONCRETE CURB
S-03-0603



- NOTE:
- CONTROL JOINTS MAY BE OFFSET A MAXIMUM DISTANCE OF 8". HORIZONTAL JOINT REINFORCING WITHIN THIS OFFSET SHALL BE CUT.

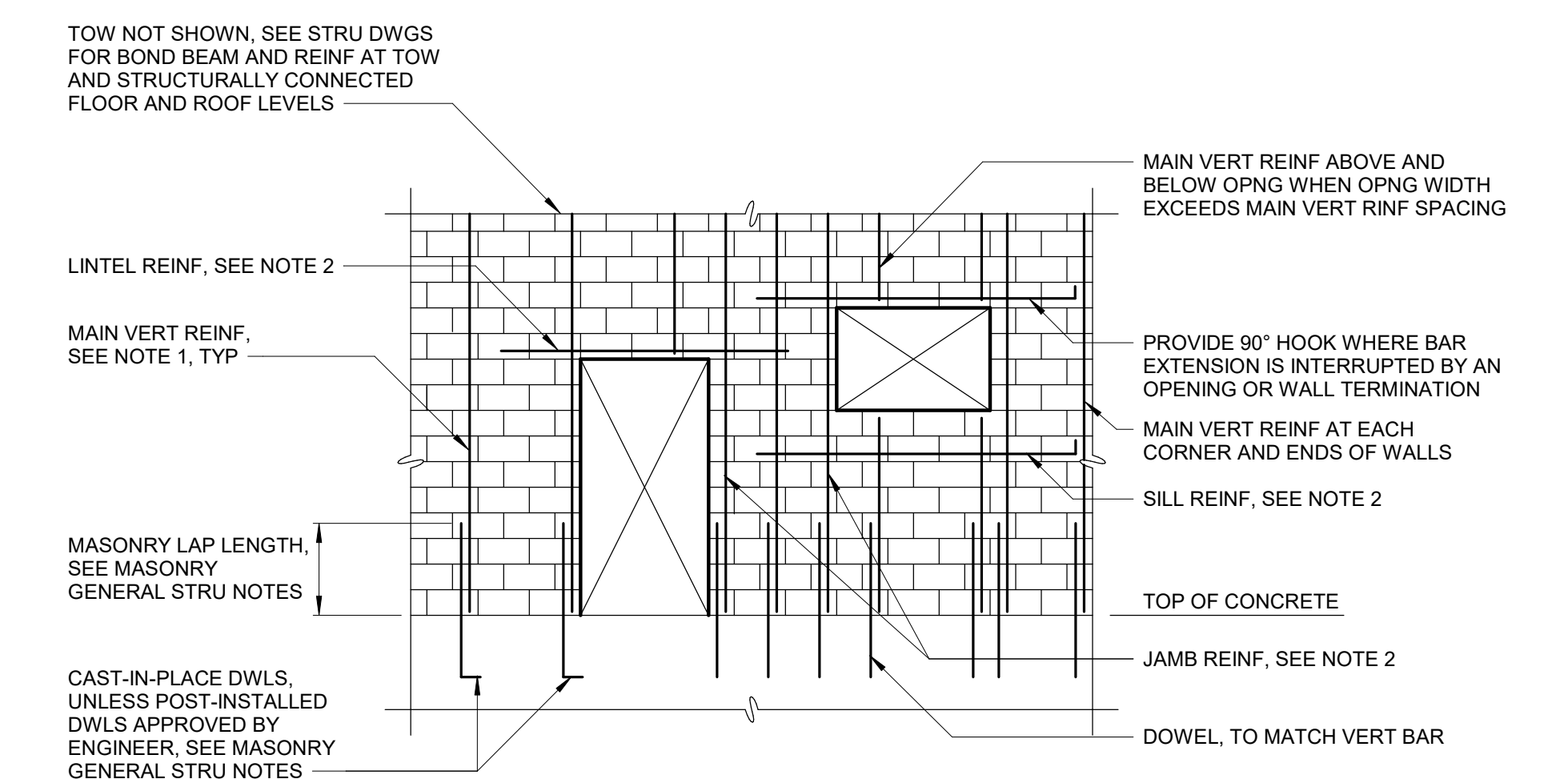
ELEVATION



PLAN

- NOTES:
- WIDE FLANGED PREFORMED CONTROL JOINT FILLER MAY BE USED.
 - LAP LENGTH FOR HORIZONTAL BAR SHALL BE 25" FOR #4 AND 32" FOR #5.

CONTROL JOINT BLOCK
S-04-0105



- NOTES:
- FOR MAIN VERTICAL REINFORCING, SEE STRUCTURAL DRAWINGS. PROVIDE 90 DEGREE HOOK AT TOP OF WALL UNLESS NOTED OTHERWISE.
 - FOR LINTEL AND REINFORCING AT OPENINGS, SEE DETAIL S-04-0202.
 - JOINT REINFORCING NOT SHOWN FOR CLARITY. SEE ARCHITECTURAL DRAWINGS.
 - HORIZONTAL REINFORCING THAT TERMINATES AT AN OPENING OR END OF WALL SHALL HOOK AROUND A VERTICAL BAR FOR SPECIAL REINFORCED MASONRY SHEAR WALLS.

TYPICAL MASONRY REINFORCING ELEVATION
S-04-0201

Autodesk Docs/20155-012_T and U Wells PFAS Treatment Saugus/20155-012_General Structural Notes.rvt 2/21/2024 6:00:09 PM

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO. 6	02/2024	SPD

DESIGNED BY: S. DUPUIS	PLANS PREPARED BY: Hazen
DRAWN BY: A. FREDERICK	SANTA CLARITA VALLEY WATER AGENCY ENGINEERING SERVICES SECTION
CHECKED BY: W. DRESSLER	HAZEN AND SAWYER 7700 IRVINE CENTER DRIVE, SUITE 200 IRVINE, CALIFORNIA 92618

SCV WATER
SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION
26521 SUMMIT CIRCLE
SANTA CLARITA, CA 91350
(661) 259-2737

**T7, U4, U6 WELLS PFAS TREATMENT, SAUGUS 1 AND 2 WELLS
VOC TREATMENT AND NEW DISINFECTION FACILITY**

STRUCTURAL
STANDARD DETAIL 2

DATE: JANUARY 2024
PROJECT NO. SCVWA: 2400420
SHEET: S-13