

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

MEMORANDUM

TO: Board of Directors

FROM: Scott Duffield, General Manager

DATE: August 22, 2023

SUBJECT: Request to, 1) receive the draft procurement document for the packaged-Membrane Bioreactor equipment and direct staff to finalize the document and advertise for bids once USDA's review is complete, and 2) receive and file the 30% design for the Water Resource Recovery Facility Upgrade project.

Recommendation

It is recommended that the Board of Directors:

1. Receive the draft procurement document for the packaged-Membrane Bioreactor equipment and direct staff to finalize the document and advertise for bids once USDA's review is complete; and
2. Receive and file the 30% design for the Water Resource Recovery Facility Upgrade project.

Background

At the July 20, 2023 meeting, your Board had a discussion on site layout considerations for the Water Resource Recovery Facility Upgrade project, as well as the process for procuring the packaged-Membrane Bioreactor equipment. Staff was directed to distribute the draft documents and schedule this Board Special Meeting for additional consideration and direction.

Discussion

The draft MBR procurement documents were previously distributed electronically to your Board for review and comment as requested.

The package consists of the following components:

1. Procurement and Contract Documents. These start with 00 from the Instructions to Bidders to the Supplementary Conditions and require careful legal review.
2. Division 1 Specifications. These contain primarily administrative instructions for the Seller and the Special Services they require.

3. Technical Specifications: These outline the requirements of the Goods the Seller will be responsible for furnishing and the minimal level of quality required for those Goods.
4. Misc drawings and attachments – Information to the Seller to help them understand the scope of supply and intended use of their Goods and Services.

Below are a few notes on the content of these draft documents:

- We have left some sections of these documents in yellow highlights, they will need to be updated or checked after the review, but otherwise do not have any special significance.
- We have added notes to the margins and left the guidance text in place where we need significant input or information back from the District, e.g., Insurance and arbitration language preferences. Please review the margin notes and as needed we can schedule calls or meetings to work through the content.
- Because of how these are compiled, there can be italicized text or text in a different font. These generally do not carry any significance.
- WSC also sent the technical specifications for Vendor review. We will submit the entire document for USDA review once we have incorporated District and Vendor comments as appropriate.

Staff recommends that your Board direct staff to finalize the document and advertise for bids once USDA's review is complete. The draft 30% design drawings for the WRRF are also attached to receive and file.

Fiscal Considerations

The FY 2023/24 Budget includes budget for design phase services. It does not include any budget for the construction phase, including procurement of the MBR equipment. Your Board will need to initiate a rate study and a Proposition 218 process, or other financial plan, to obtain funding for the construction phase.

Results

Approval of the recommended action will initiate advertising the MBR equipment for bids. The completion of this package is a significant milestone for the project, and we are excited to be at this point.

Attachments: Draft Advertisement and Instructions to Bidders for the MBR
(Clerk's File) Remainder of Draft Contract Documents
Draft 30% Drawings for the WRRF

File: Projects_WRRF

ADVERTISEMENT FOR BIDS

**Heritage Ranch Community Service District
Paso Robles, California
Membrane Bioreactor Equipment Package Procurement**

General Notice

Heritage Ranch Community Services District (Owner) is requesting Bids for the construction of the following Project:

Membrane Bioreactor Equipment Package Procurement

[Project Number]

Bids for the construction of the Project will be received at the **[name of location]** located at **[location where Bids will be received]**, until **[day], [date]** at **[time for receipt of Bids]** local time. At that time the Bids received will be publicly opened and read.

The Project includes the following Work:

Design, fabricate, deliver and install an approximately 240,000 gallon per day Packaged Membrane Bioreactor. Tasks included in the deliver of the Goods and Services of this project are generally described as:

1. Preparation of signed and sealed packaged MBR plant design including controls.
2. Preparation of and submittal to the Buyer and Engineer detailed packaged MBR plant design submittals.
3. Coordination with the Buyer and Engineer on the MBR plant electrical design including furnishing MBR Plant power requirements and conduit locations.
4. Coordination with the Buyer and Engineer on the MBR plant structural slab and anchorage requirements.
5. Packaged MBR anchorage design.
6. Fabrication of a packaged MBR plant including all control systems, conveyance systems, mechanical and structural components.
7. Factory Performance testing of the MBR plant.
8. Inspection of the site and work of others for compatibility with Seller's requirements.
9. Delivery of the MBR plant to the site.
10. Installation of the MBR plant at the site.
11. Packaged MBR Control System design, programming, and customization.
12. Coordination with the Buyer to start and stop flows to the packaged MBR plant for testing purposes.
13. Testing and Commissioning of the MBR plant.
14. Operator Training
15. Final Cleaning
16. Demobilization

17. All other efforts required to provide a complete and functional MBR system from the Buyer provided influent piping, WAS piping, and permeate piping.

Bids are requested for the following Contract: **Membrane Bioreactor Equipment Package Procurement**
Insert Project Number if used.

Owner anticipates that the Project's total bid price will be approximately **\$3, 500,000**. The Project has an expected duration of **[insert number]** days.

Obtaining the Bidding Documents

Information and Bidding Documents for the Project can be found at the following designated website:

[URL for designated document website]

Bidding Documents may be downloaded from the designated website. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

The Issuing Office for the Bidding Documents is:

Water Systems Consulting

[Address where documents are available for viewing]

Prospective Bidders may examine the Bidding Documents at the Issuing Office on Monday through Friday between the hours of **[insert hours]**, and may obtain copies of the Bidding Documents from the **xxxx**. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

Bidding Documents may xxx

Pre-bid Conference

A pre-bid conference for the Project will be held on **[day, date]** at **[time]** at **[name of venue]** **[street address of venue]** **[city, state, zip code]**. Attendance at the pre-bid conference is encouraged but not required.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

This Advertisement is issued by:

Owner: **Heritage Ranch Community Services District**

By: **Scott Duffield**

Title: **General Manager**

Date: **[Date of initial publication of advertisement]**

INSTRUCTIONS TO BIDDERS FOR PROCUREMENT CONTRACTS

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INSTRUCTIONS TO BIDDERS FOR PROCUREMENT CONTRACT

ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below.
- A. *Agency* – The Project is financed in whole or in part by USDA Rural Utilities Service pursuant to the Consolidated Farm and Rural Development Act (7 USC Section 1921 et seq.). The Rural Utilities Service programs are administered through the USDA Rural Development offices; therefore, the Agency for these documents is USDA Rural Development.
 - B. *Buyer* – Heritage Ranch Community Services District.
 - C. *Issuing Office*—The office from which the Procurement Bidding Documents are to be issued and where the bidding procedures are to be administered. The Issuing Office is:
Water Systems Consulting
805 Aerovista Place, Suite 201
San Luis Obispo, CA 93401
(805) 457-8833 ext. 111

ARTICLE 2—PROCUREMENT BIDDING DOCUMENTS

Guidance Notes—

- 2.01 The Bidding Documents may be examined by registering online with ASAP Reprographics at <http://www.projectsasap.com/jobs/public>. Viewing documents is free. Registering as a plan holder and downloading the bid documents has a cost of \$XX dollars. Printed materials are available from ASAP Reprographics at the cost of printing. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Buyer nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.
- 2.02 Bidder must use a complete set of the Procurement Bidding Documents in preparing the Bid; neither Buyer nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Procurement Bidding Documents.

- 2.03 Buyer and Engineer make copies of Procurement Bidding Documents available on the above terms only for obtaining Bids for furnishing Goods and Special Services, and do not authorize or confer a license for any other use.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 Buyer may at any time conduct such investigations as Buyer deems necessary to establish the responsibility, qualifications, and financial ability of Bidder, and after the opening of Bids may require a Bidder to submit documentation of its qualifications, including but not limited to financial data and documentation of previous experience providing goods and services comparable to the specified Goods and Special Services.
- 3.02 Bidder is to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.
- 3.03 Bidder shall have the minimum qualifications:
- A. The Bidder must have at least ...

ARTICLE 4—SITE VISIT; PRE-BID CONFERENCE

- 4.01 Buyer recommends that Bidder visit the Point of Destination and the site where the Goods are to be installed and Special Services will be provided, taking into account observable local and site conditions that may affect the delivery, cost, progress, and furnishing of the Goods and Special Services. Arrangements for such a visit may be made through Engineer.
- 4.02 A non-mandatory pre-bid conference will be held at the time and location indicated in the advertisement or invitation to bid.
- 4.03 Interpretations or clarifications considered necessary by Engineer in response to questions arising at the pre-bid conference will be issued by Addenda delivered to all parties recorded by Engineer as having received the Procurement Bidding Documents. Only answers in the Addenda will be binding. Oral statements, interpretations, and clarifications may not be relied upon in the preparation of a Bid and will not be binding or legally effective.

ARTICLE 5—INTERPRETATIONS AND ADDENDA

Guidance Notes—

- 5.01 All questions about the meaning or intent of the Procurement Bidding Documents are to be submitted to Engineer via email at:
- 5.02 mrodrigues@wsc-inc.com Interpretations or clarifications considered necessary by Engineer in response to such written questions will be issued by Addenda delivered to all parties recorded as having received the Procurement Bidding Documents. Questions received less than 10 days prior to the date for opening of Bids will not be answered. Only answers in the Addenda will be binding.

Oral statements, interpretations, and clarifications may not be relied upon in the preparation of a Bid, and will not be binding or legally effective.

- 5.03 Addenda may be issued to clarify, correct, or change the Procurement Bidding Documents as deemed advisable by Buyer or Engineer.

ARTICLE 6—BID SECURITY

- 6.01 A Bid must be accompanied by Bid security made payable to Buyer in an amount of 10 percent of Bidder’s maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 5.01 of the General Conditions. Such Bid bond will be issued in the form included in the Procurement Bidding Documents.
- 6.02 The Bid security of the apparent Successful Bidder will be retained until Buyer (Project Owner) awards the Procurement Contract to such Bidder, and such Bidder has executed the Procurement Contract, furnished the required contract security, and met the other conditions of the Contract Documents, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Procurement Contract and furnish the required contract security within 15 days after the signing of the Agreement, Buyer (Project Owner) may consider Bidder to be in default and annul the Agreement, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Buyer’s damages in the case of a damages-form bond. Such forfeiture will be Buyer’s exclusive remedy if Bidder defaults.
- 6.03 The Bid security of other Bidders that Buyer believes to have a reasonable chance of receiving the award may be retained by Buyer until the earlier of 7 days after the Effective Date of the Procurement Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released upon request.
- 6.04 Bid security of other Bidders that Buyer believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening upon request.

ARTICLE 7—PROCUREMENT CONTRACT TIMES

- 7.01 See applicable provisions in the Procurement Agreement.

ARTICLE 8—LIQUIDATED DAMAGES

- 8.01 Any provisions for liquidated damages, such as those for Seller’s failure to attain a specified Milestone such as the delivery of the Goods, are set forth in the Procurement Agreement.

ARTICLE 9—CONFIDENTIALITY OF BID INFORMATION- RESERVED

ARTICLE 10—“OR-EQUAL” ITEMS

Guidance Notes

1. As set forth in Paragraph 10.01, the EJCDC presumptive practice is that no “or-equal” materials or equipment will be considered until after the Effective Date of the Procurement Contract. See P-700, Paragraph 7.04, and P-001, Commentary on the EJCDC Procurement Documents (2019).

2. Some practitioners do conduct, and some Laws and Regulations require, evaluations of "or equals" during the bidding period, and issuance of an Addendum when such an item is accepted as an equal. Paragraph 10.02 provides for this situation. When establishing the cut-off point for receipt of requests, carefully consider the amount of time necessary to properly review an "or equal" and, if found acceptable, to prepare the required Addenda.

Notes to User—Use Paragraph 10.01 when no "or-equal" materials or equipment will be considered until after the Effective Date of the Procurement Contract. Use Paragraph 10.02 if "or equals" will be considered during the Procurement Bidding period in this procurement. Delete the paragraph not used.

- 10.01 The Procurement Contract, if awarded, will be based on material and equipment specified in the Procurement Bidding Documents without consideration of possible "or-equal" items. Whenever it is specified or described in the Procurement Bidding Documents that an "or-equal" item of material or equipment may be furnished or used by Seller if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Procurement Contract. The procedure for submittal of any such application by Seller and consideration by Engineer is set forth in the General Conditions and may be supplemented in the Procurement Specifications.
- 10.02 The Procurement Contract, if awarded, will be based on materials and equipment specified or described in the Procurement Bidding Documents. Bidders may propose "or equal" materials and equipment, which if approved by Engineer will be identified by Addendum. The materials and equipment described in the Procurement Bidding Documents establish a standard of required type, function, and quality to be met by any proposed "or-equal" item. No item of material or equipment will be considered by Engineer as an "or-equal" unless written request for approval has been submitted by Bidder and has been received by Engineer no later than 15 days after the advertisement or invitation to bid is first issued. Each such request shall conform to the requirements of Paragraph 7.04 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item as an equal will be final. Bidders shall not rely upon approvals unless set forth in an Addendum. Send requests to mrodrigues@wsc-inc.com

ARTICLE 11—PREPARATION OF BID

- 11.01 The Bid Form is included with the Procurement Bidding Documents.
- 11.02 All blanks on the Bid Form must be completed and the Bid Form must be signed by an individual authorized to act on behalf of the Bidder. Alterations must be initialed by an individual authorized to act on behalf of the Bidder. A Bid price must be indicated for each item in the Bid Form. In the case of optional alternates, the words "No Bid" may be entered.
- 11.03 Bidder must acknowledge all Addenda by filling in the number and date of each Addendum in the Bid Form and sign where indicated to verify that the Addenda were received. A Bid that does not acknowledge receipt of all Addenda may be considered non-responsive.
- 11.04 Bidder shall:
 - A. Sign the Bid Form as indicated in the Bid Form.
 - B. Include evidence of authority to sign.

- C. Provide information on the individual to be contacted for any communications regarding the Bid.
 - D. Provide evidence of the Bidder's authority and qualification to do business in the locality of the Project, to the extent required, or indicate the ability to obtain such authority and qualification prior to award of the Procurement Contract.
- 11.05 The responsibilities of each Bidder submitting a Bid are described in the Bidder's representations and certifications set forth in Article 6 of the Bid Form.

ARTICLE 12—BASIS OF BID; COMPARISON OF BIDS

Guidance Notes

1. Article 12 gives frequently used alternatives for defining the basis and determination of Bid prices for purposes of comparison of Bids. For a specific procurement, a unique set of paragraphs for "Basis of Bids; Comparison of Bids" may be necessary. The user should carefully review Article 12, as revised for the specific procurement, and compare it to the final Bid Form (as revised for the specific procurement) for clarity and consistency.
2. Many factors not included in this Article as written may be important to consider in comparing Bids for a procurement, and it will often be necessary to amend or supplement language in this Article. When factors in addition to price will be significant in comparing Bids and determining the apparent low Bidder, the precise way comparisons will be made should be fully described in this Article.
3. In the event a major item of equipment is included in the Goods and Special Services, it may be appropriate to consider differences in operating efficiency and support facilities. For example, criteria may be stated such as:

"The comparison of Bidders' data on **[date]** submitted **[upon request prior to the Notice of Award] [with the Bid]** will include an evaluation of the operating expense during the anticipated useful life of the equipment. Costs related to efficiency will be calculated as follows:

Anticipated useful life **[number]** years.

Annual service **[number]** hours.

Average energy costs at a power cost of **[number]**¢/kwh.

Cost of capital at **[percent]**% annual interest.

This Procurement Contract will be awarded to the responsible Bidder whose Bid is lowest after factoring in all cost information."

12.01 *Series of Lump Sums*

- A. Bidder shall submit a Bid for each lump sum item as set forth on the Bid Form, and shall compute and enter the total of all lump sum items in the space provided on the Bid Form.
- B. The apparent low Bid will be determined on the basis of the total of all lump sum items.
- C. Discrepancies between the indicated sum of any column of figures and the arithmetically correct sum will be resolved in favor of the arithmetically correct sum.

ARTICLE 13—SUBMITTAL OF BID

- 13.01 Bidder shall refer to the advertisement for bids for specific identification of the date, time, and place where Bids are to be submitted.
- 13.02 Bidder must submit one separate unbound copy of the completed Bid Form, and, if required, the Bid Security and the other documents required to be submitted under the terms of Article 4 of the Bid Form.
- 13.03 A Bid must be submitted no later than the date and time prescribed and at the place indicated in the advertisement for bids. Submit the Bid in an envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and the name and address of Bidder. Enclose the Bid security and other documents required to be submitted with the Bid as listed in the Bid Form. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED."

ARTICLE 14—MODIFICATION OR WITHDRAWAL OF BID

- 14.01 A Bid may be modified or withdrawn by a document duly signed in the same manner that a Bid must be signed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 14.02 If, within 24 hours after Bids are opened, any Bidder files a duly signed written notice with Buyer and promptly thereafter demonstrates to the reasonable satisfaction of Buyer that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Bids so withdrawn would preclude Bidder from subsequent Bidding on the project should it be readvertised and rebid.

ARTICLE 15—OPENING OF BIDS

Notes to Userthe procurement and delete the other.

- 15.01 Bids will be publicly opened at the time and place indicated in the advertisement for bids and read aloud, unless obviously non-responsive. An abstract of the amounts of the Base Bids and Alternate

Bids, if any, will be made available to Bidders after Bids have been opened and reviewed by the Buyer.

ARTICLE 16—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

Guidance Notes—

- 16.01 All Bids will remain subject to acceptance for the period stated in the Bid Form, but Buyer may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 17—EVALUATION OF BIDS AND AWARD OF PROCUREMENT CONTRACT

Guidance Notes

- 17.01 Buyer reserves the right to reject any and all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Buyer also reserves the right to waive all informalities not involving price, time, or changes in the Goods and Special Services at the Buyer's sole discretion.
- 17.02 Buyer will reject the Bid of any Bidder that Buyer finds, after reasonable inquiry and evaluation, to not be responsible.
- 17.03 In evaluating Bids, Buyer will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, minimum qualifications, and other data as may be requested in the Bid Form or may be requested from Bidders prior to determining the Successful Bidder.
- 17.04 If Buyer awards the Procurement Contract, such award will be to the responsible Bidder submitting the lowest responsive Bid.

ARTICLE 18—BONDS AND INSURANCE

Guidance Notes—

- 18.01 Article 5 of the General Conditions and Article 5 of the Supplementary Conditions set forth Buyer's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the signed Procurement Agreement to Buyer, it must be accompanied by such bonds and acceptable evidence of insurance.

ARTICLE 19—SIGNING OF PROCUREMENT AGREEMENT

Guidance Notes—

- 19.01 When Buyer determines the Successful Bidder, the Procurement Agreement will be provided and signed by the Buyer along with the other Procurement Contract Documents for Seller's signature. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Procurement Agreement and any bonds and insurance documentation required to be delivered by the Procurement Contract Documents to Buyer. Within 10 days thereafter, Buyer will deliver one fully executed counterpart of the Procurement Agreement to

Successful Bidder, together with printed and electronic copies of the Procurement Contract Documents as stated in Paragraph 2.02 of the General Conditions.

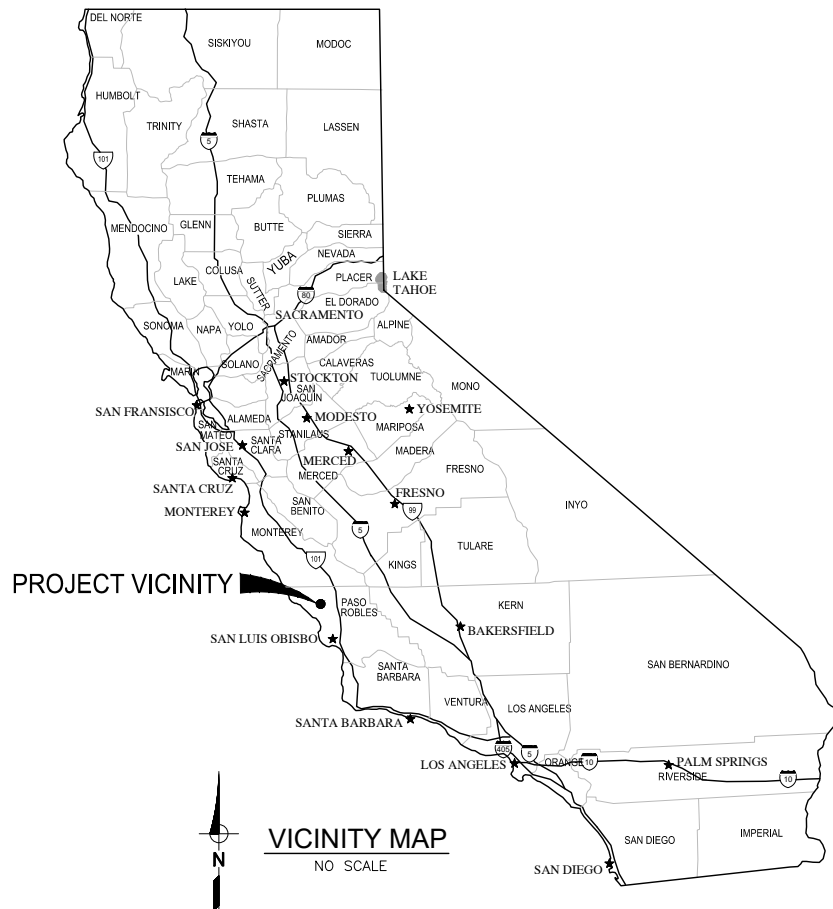
ARTICLE 20—PROCUREMENT CONTRACT TO BE ASSIGNED

20.01 Bidder’s attention is directed to the provisions of Article 5 of the Procurement Agreement which provide for the assignment of the Procurement Contract to a construction contractor designated by the Buyer to construct the Heritage Ranch Community Services District WRRF Upgrades. Successful Bidder (Seller) will be required to perform the Procurement Contract after it has been assigned to the WRRF construction contractor (Contractor/Assignee) in accordance with the provisions in the Procurement Contract. Anticipated timing of the assignment is addressed in the Procurement Agreement but changes to the timing of the assignment do not relieve the Seller of their obligation to execute the Assignment Forms in a timely fashion. Forms documenting the assignment of the Procurement Contract and for the agreement of the Seller’s surety to such assignment are included as attachments to the Procurement Agreement.

HERITAGE RANCH COMMUNITY SERVICES DISTRICT



CONSTRUCTION DRAWINGS FOR WATER RESOURCE RECOVERY FACILITY UPGRADE 30% DESIGN



GOVERNING BOARD

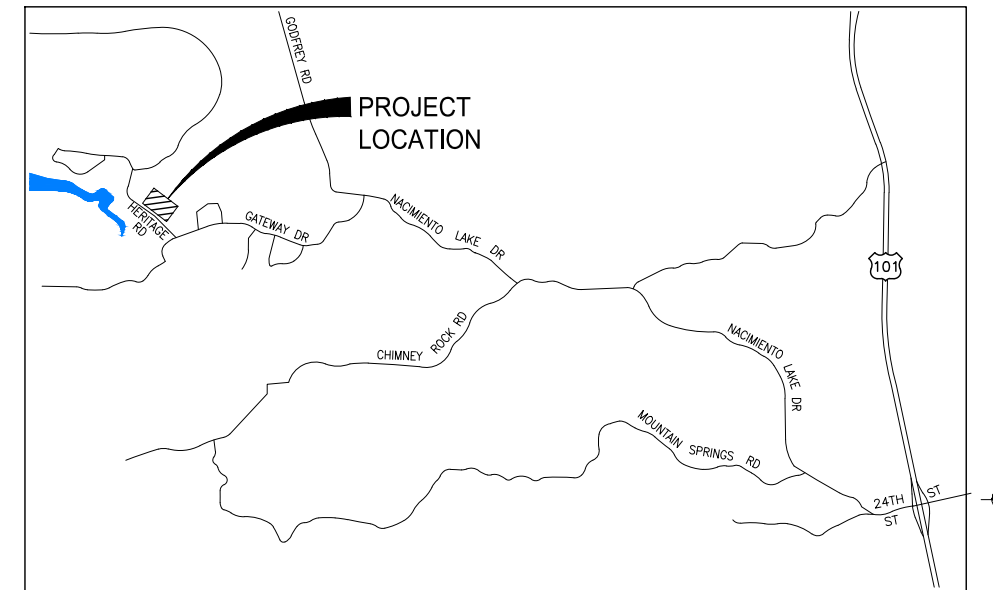
BILL BARKER	PREDIDENT
DAN BURGESS	VICE PRESIDENT
DEVIN CAPPS	DIRECTOR
MICHAEL CAMOU	DIRECTOR
MASEN YAFFEE	DIRECTOR

CONTACT LIST

TITLE	NUMBER	CONTACT
HRCSD GENERAL MANAGER	(805) 227-6230	SCOTT DUFFIELD
HRCSD DISTRICT ENGINEER	(805) 227-6230	DOUG GROSHART
PASO ROBLES FIRE DEPT	(805) 227-7560	
SAN LUIS OBISPO COUNTY SHERIFF	(805) 434-4290	

PROJECT ADDRESS

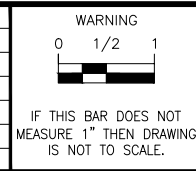
4870 HERITAGE ROAD
PASO ROBLES, CA 93446



DRAFT - NOT FOR CONSTRUCTION

W:\3.0 Clients\Heritage Ranch Community Services District 1029\10090 WRF Upgrade Design\6.0 Working Files\0-CAD\1-SHEET FILES\G-HRCSD-WWTP - Gen.dwg 8/15/2023 1:08 PM Paul D'Santi

REV	DATE	BY	DESCRIPTION



DESIGNED	EKW
DRAWN	PMD
CHECKED	MNR
SCALE	AS NOTED

PREPARED BY:	DATE
MATTHEW N. RODRIGUES	
RCE No.: 84311	



805 AEROVISTA PLACE, SUITE 201
PHONE: (805) 457-8833

SAN LUIS OBISPO, CA 93401
FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT 4870 HERITAGE ROAD PASO ROBLES, CA 93446
APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE GENERAL
TITLE SHEET, VICINITY MAP, AND LOCATION MAP

DRAWING G-001
SHEET X OF X PROJECT #

SHEET INDEX

SHEET No.	DRAWING No.	DRAWING TITLE
GENERAL		
1	G-001	TITLE SHEET, VICINITY MAP, AND LOCATION MAP
2	G-002	SHEET INDEX
3	G-003	LEGENDS AND SYMBOLS
4	G-004	ABBREVIATIONS
5	G-601	HYDRAULIC PROFILE
6	G-602	PROCESS FLOW DIAGRAM
SITEWORK		
7	01-C001	CIVIL NOTES 1
8	01-C002	CIVIL NOTES 2
9	01-C101	EXISTING SITE CONDITIONS
10	01-C102	SITE PLAN
MECHANICAL		
11	02-M101	HEADWORKS PLAN
12	02-M301	HEADWORKS SECTIONS
13	03-C101	EQUALIZATION BASIN PLAN
14	03-M101	EQUALIZATION BASIN PUMP STATION PLAN AND SECTION
15	05-M101	CHEMICAL STORAGE AREA PLAN
16	06-M101	DEWATERING PLAN
17	07-M101	EFFLUENT AND UTILITY WATER PUMP STATION PLAN
18	07-M301	EFFLUENT AND UTILITY WATER PUMP STATION SECTION
ELECTRICAL		
19	00-E001	ELECTRICAL NOTES, SYMBOLS, AND ABBREVIATIONS
20	00-E501	ELECTRICAL DETAILS 1
21	00-E502	ELECTRICAL DETAILS 2
22	00-E601	EXISTING SINGLE LINE DIAGRAM
23	00-E602	PROPOSED SINGLE LINE DIAGRAM
INSTRUMENTATION		
24	00-N001	INSTRUMENTATION LEGENDS, ABBREVIATIONS, AND NOTES
25	02-N601	HEADWORKS P&ID
26	03-N601	EQUALIZATION BASIN P&ID
27	03-N602	EQUALIZATION BASIN PUMP STATION P&ID
28	04-N601	REPRESENTATIVE MBR EQUIPMENT PACKAGE P&ID
29	05-N601	CHEMICAL STORAGE AREA SYSTEM P&ID 1
30	05-N602	CHEMICAL STORAGE AREA SYSTEM P&ID 2
31	06-N601	DEWATERING SCREW PRESS SYSTEM P&ID 1
32	06-N602	DEWATERING SCREW PRESS SYSTEM P&ID 2
33	06-N603	DEWATERING SCREW PRESS SYSTEM P&ID 3
34	07-N601	EFFLUENT AND UTILITY WATER PUMP STATION P&ID
35	07-N602	UTILITY WATER DISTRIBUTION SYSTEM P&ID

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REV	DATE	BY	DESCRIPTION

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DESIGNED	EKW
DRAWN	PMD
CHECKED	MNR
SCALE	NO SCALE

PREPARED BY:
 MATTHEW N. RODRIGUES
 RCE No.: 84311



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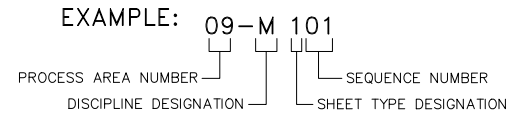
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

APPROVED: _____
 _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 GENERAL
SHEET INDEX

DRAWING
G-002
 SHEET X OF X
 PROJECT # _____

DRAWING NUMBER LEGEND

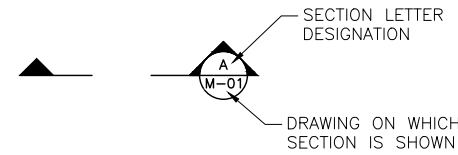


DISCIPLINE DESIGNATIONS

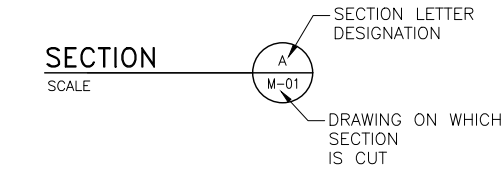
- G GENERAL
- C CIVIL
- M MECHANICAL
- E ELECTRICAL
- S STRUCTURAL
- I INSTRUMENTATION

SECTIONS AND DETAIL NUMBERING SYSTEM

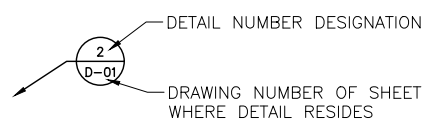
SECTION CUT ON PLAN



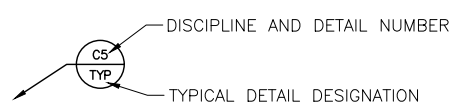
SECTION SHOWN



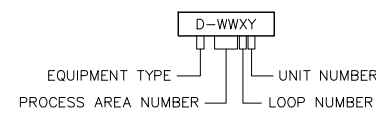
DETAIL NUMBERING SYSTEM



TYPICAL DETAILS



EQUIPMENT TAG NAMING



EQUIPMENT TYPE

- B BLOWER
- C COMPRESSOR
- EW H ELECTRIC WATER HEATER
- G GATE
- M MECHANICAL EQUIPMENT
- P PUMP
- SF SUPPLY FAN
- SG SLIDE GATE
- T TANK
- WG WEIR GATE

LEGEND:

- EXISTING**
- SURVEY MONUMENT
 - CENTERLINE
 - EASEMENT LINE
 - PROPERTY LINE
 - RIGHT OF WAY
 - STORM DRAIN
 - WATERLINE
 - SANITARY SEWER
 - RECYCLED WATER
 - TELEPHONE
 - FIBER OPTIC
 - GAS
 - OVERHEAD UTILITIES
 - ELECTRICAL
 - CABLE TV
 - EDGE OF PAVEMENT
 - FENCE
 - GAS VALVE OR HAND HOLE
 - FIRE HYDRANT ASSEMBLY
 - WATER VALVE
 - WATER SERVICE
 - FIRE SERVICE
 - STORM DRAIN MANHOLE
 - TELEPHONE MANHOLE
 - ELECTRIC MANHOLE
 - SEWER MANHOLE
 - GAS METER
 - AIR VAC
 - BLOW OFF
 - REDUCER
 - UTILITY PULL BOX
 - POWER POLE
 - LIGHT POST
 - SIGN
 - TREE
 - BUSH/TREES/BRUSH

- STEEL IN SECTION
- EARTH IN SECTION
- GRAVEL IN SECTION
- CONCRETE
- ALUMINUM CHECKERPLATE
- 2 SACK SLURRY
- 2 SACK SLURRY
- 2 SACK SLURRY

VALVES

- BALL VALVE
- BUTTERFLY VALVE
- SILENT CHECK VALVE
- GATE VALVE
- PLUG VALVE
- SWING CHECK VALVE
- STRAINER
- PRESSURE REDUCING/SUSTAINING VALVE (ELEVATION VIEW)
- MAGNETIC FLOW METER
- PRESSURE REDUCING/SUSTAINING VALVE (PLAN VIEW)

MECHANICAL PIPE AND FITTING SYMBOLS

- | DOUBLE LINE* | SINGLE LINE | DOUBLE LINE* | SINGLE LINE |
|--------------|-------------|--------------|-------------|
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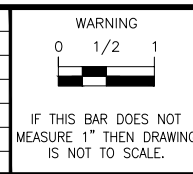
SYMBOLS:

- | | | | | | |
|--|------------------------------------|--|---------------------|--|------------------|
| | CLEANOUT | | WELL SYMBOL | | FLOW SWITCH |
| | FIRE HYDRANT | | FLOW ARROW | | AIR FILTER |
| | SIAMESE FIRE DEPARTMENT CONNECTION | | PIPE CROSSING | | SUBMERSIBLE PUMP |
| | WASHDOWN FIRE HYDRANT | | WATER SURFACE LEVEL | | PUMP |
| | FREE STANDING FIRE HYDRANT | | AIR VAC | | HOSE RACK |
| | FLOOR DRAIN | | BLOWOFF | | |
| | CATCH BASIN | | SOLENOID | | |

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PREPARED BY:

MATTHEW N. RODRIGUES RCE No.: 84311

DATE

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HERITAGE RANCH COMMUNITY SERVICES DISTRICT
4870 HERITAGE ROAD
PASO ROBLES, CA 93446

APPROVED:

POSITION DATE

WATER RESOURCE RECOVERY FACILITY UPGRADE

GENERAL

LEGENDS AND SYMBOLS

DRAWING

G-003

SHEET X OF X
PROJECT #

ABBREVIATIONS

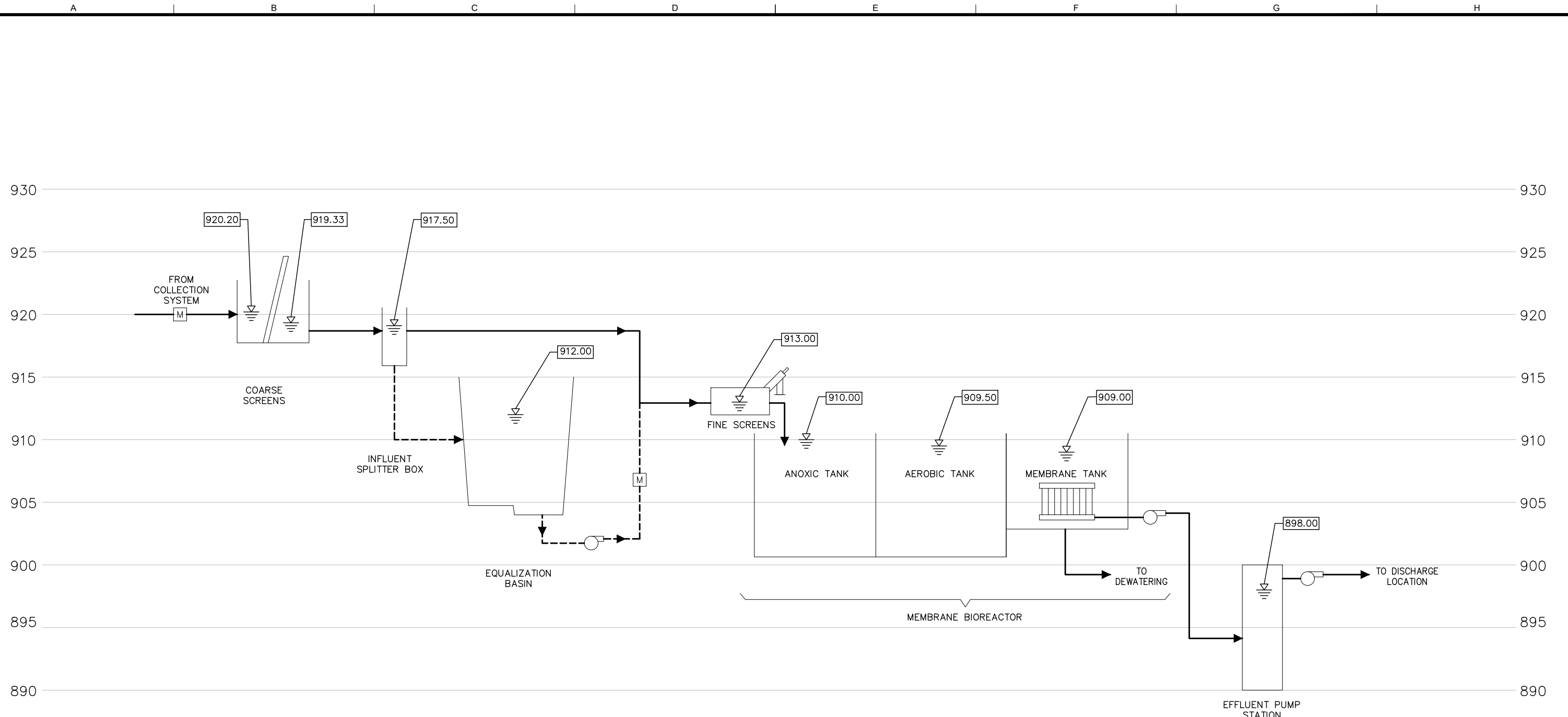
AA	AVERAGE ANNUAL	E	ELECTRICAL, EAST, EXISTING	L	LENGTH, LINE	S	SEWER, SOUTH
ABAND	ABANDONED	EA	EACH	LAB	LABORATORY	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
AB, A.B.	AGGREGATE BASE, ANCHOR BOLT	EC	END OF CURVE	LBS	POUNDS	SCH/SCHED	SCHEDULE
AC, A.C.	ASPHALT CONCRETE	EF	EACH FACE	LG	LONG	SCR	SCREENINGS
ACP	ASBESTOS CEMENT PIPE	EG	EXISTING GRADE	LL	LIVE LOAD	SD	STORM DRAIN
ADDIT.	ADDITIONAL	EI&C	ELECTRICAL, INSTRUMENTATION, AND CONTROL	LLDPE	LINEAR LOW-DENSITY POLYETHYLENE	SDMH	STORM DRAIN MANHOLE
ADJ.	ADJUSTABLE	EL., ELEV	ELEVATION	LOG	LIP OF GUTTER	SDR	STANDARD DIMENSION RATIO
ADWF	AVERAGE DRY WEATHER FLOW	ELL	ELBOW	LR	LONG RADIUS	SECT	SECTION
AGG	AGGREGATE	ELEC(T)	ELECTRIC(AL)	LPA	LOW PRESSURE AIR	SF	SQUARE FOOT
ALUM	ALUMINUM	EMG	EMERGENCY	LT	LEFT TURN	SG	SLIDE GATE, STOP GATE, SLUICE GATE
APCD	SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT	EOR	ENGINEER OF RECORD			SH	SODIUM HYPOCHLORITE
		EPB	ELECTRICAL PULL BOX	MAX	MAXIMUM	SHT	SHEET
APPRO.	APPROXIMATELY	EQ	EQUALIZATION	MCC	MOTOR CONTROL CENTER	SIM	SIMILAR
ARCH	ARCHITECTURAL	EQUIP	EQUIPMENT	MCIP	MEMBRANE CLEAN-IN-PLACE	SL	SLUDGE
ASPH	ASPHALT	ETS	ELECTROLYSIS TEST STATION	MD	MAXIMUM DAY	SOR	STRUCTURAL ENGINEER OF RECORD
AVG	AVERAGE	EXH	EXHAUST	MECH	MECHANICAL	SPEC	SPECIFICATION(S)
ARV	AIR RELEASE VALVE	EXIST, (E)	EXISTING	MBR	MEMBRANE BIOREACTOR	SQ	SQUARE
AR	AIR RELEASE	EXP	EXPANSION	MET	METAL	SS, STN STL	STAINLESS STEEL
ASSY	ASSEMBLY	EW	EACH WAY	MFR, MNFR	MANUFACTURER	STA	STATION
AVRV	AIR/VACUUM RELIEF VALVE	(F)	FUTURE	MJ	MECHANICAL JOINT	STD	STANDARD
AWWF	AVERAGE WET WEATHER FLOW	FA	FOUL AIR	MG	MILLION GALLON	ST(L)	STEEL
BC	BEGINNING OF CURVE	FAC	FACTORY	MGD	MILLION GALLONS PER DAY	STR(UCT)	STRUCTUR(E), (AL)
BD	BACKDRAIN	FB	FABRICATED	MH	MANHOLE	SV	SOLENOID VALVE
B.D.	SAN LUIS OBISPO COUNTY BUILDING DEPARTMENT	FC	FLEXIBLE COUPLING	MIN	MINIMUM	SW	SOLVENT WELD
BF	BLIND FLANGE	FCA	FLANGE COUPLING ADAPTER	MM	MAXIMUM MONTH	SWD	SIDE WATER DEPTH
BFD	BUTTERFLY DAMPER	FCO	FLOOR CLEANOUT	MNTD	MOUNTED	SYS	SYSTEM
BFV	BUTTERFLY VALVE	FD	FLOOR DRAIN	MPH	MILES PER HOUR		
BGS	BELOW GROUND SURFACE	FE	FLOOR EFFLUENT	MW	MAXIMUM WEEK	T	TELEPHONE
BLDG	BUILDING	FX	FIRE EXTINGUISHER			T/	TOP
BM	BEAM, BENCH MARK	FES	FLARED END SECTION	N	NORTH	TBM	TEMPORARY BENCHMARK
BO	BLOWOFF	FF	FINISH FLOOR	(N)	NEW	T&B	TOP AND BOTTOM
BOC	BACK OF CURB	FG	FINISH GRADE	N.F.C.	NOT FOR CONSTRUCTION	T/C, TOC, TC	TOP OF CONCRETE
BOT, BOTT	BOTTOM	FH	FIRE HYDRANT	NA	NOT APPLICABLE	TD	TOP OF DIKE
B&S	BELL AND SPIGOT	FIN	FINISH(ED)	NGVD	NATIONAL GEODETIC VERTICAL DATUM	TDH	TOTAL DYNAMIC HEAD
BV	BALL VALVE	FL	FLOW LINE	NIC	NOT IN CONTRACT	TEMP	TEMPERATURE
C	CURVE	FLR	FLOOR	NO.	NUMBER	TG	TOP OF GRATE
CA	CITRIC ACID	FLG	FLANGE	NPT	NATIONAL PIPE THREAD	TH	THICKNESS
CALTRANS	(CALIFORNIA DEPARTMENT OF TRANSPORTATION)	FLEX	FLEXIBLE	NTS	NOT TO SCALE	THD	THREADED
CATV	CABLE TV	FOC	FACE OF CONCRETE			TOP	TOP OF PAVEMENT
CATVR	CABLE TV RISER	FRP	FIBERGLASS REINFORCED PLASTIC	OAD	OVERALL DEPTH	TRW	TOP OF RINGWALL
CB	CATCH BASIN	FS	FINISH SURFACE	OC	ON CENTER	TW	TOP OF WALL
CC, C/C	CENTER TO CENTER	FSN	FUSION	OCU	ODOR CONTROL UNIT	TP	TEST PIT
CF	CUBIC FEET	FT	FOOT	OD	OUTSIDE DIAMETER	T/S, TOS	TOP OF STEEL
CFM	CUBIC FEET PER MINUTE	FTG	FOOTING	OF	OVERFLOW	TYP	TYPICAL
CI	CAST IRON	G	GAS	OG	ORIGINAL GROUND	T--P	TYPE _____PIPE
CISP	CAST IRON SOIL PIPE	GAL	GALLON	OPNG(S)	OPENING(S)	T--S	TYPE _____SUPPORT
CL, C	CENTERLINE	GA	GAUGE	OH	OVERHEAD		
CLSM	CONTROLLED LOW STRENGTH MATERIAL	GALV	GALVANIZED	P	PNEUMATIC, PIPE	UD	UNDERDRAIN
CLR	CLEAR(ANCE)	GB	GRADE BREAK	PACP	PERFORATED ASBESTOS CEMENT PIPE	UV	ULTRAVIOLET
CMPR	COMPRESSION	GI	GALVANIZED IRON	PCCP	PRETENSIONED CONCRETE CYLINDER PIPE		
CO	CLEANOUT	GPD	GALLONS PER DAY	PC	POINT OF CURVE (BEGIN CURVE)	V, VERT	VERTICAL
COL	COLUMN	GPFSD	GALLONS PER SQUARE-FOOT DAY	PD	PROCESS DRAIN (GRAVITY)	VFD	VARIABLE FREQUENCY DRIVE
CONC	CONCRETE	GPH	GALLONS PER HOUR	PDF	PROCESS DRAIN (FORCE MAIN)	VTR	VENT TO ROOF
CONN	CONNECTION	GPM	GALLONS PER MINUTE	PEX	CROSSLINKED POLYETHYLENE TUBE	W	WATER, WELDED, WEST
CONST	CONSTRUCTION	GS	GALVANIZED STEEL	PG	PRESSURE GAUGE	WAS	WASTE ACTIVATED SLUDGE
CONT	CONTINU(ED), (OUS)	GSP	GALVANIZED STEEL PIPE	PH	PEAK HOUR	WB	WATER BAR
CP	CONTROL POINT, CATHODIC PROTECTION	GV	GATE VALVE	PI	POINT OF INTERSECTION	W/	WITH
CPLG	COUPLING	H, HT	HEIGHT	PL	PLATE	WC	WATER CLOSET
CRA	CHLORINE RESIDUAL ANALYZER	HB	HOSE BIB	P/L	PROPERTY LINE	WCO	WALL CLEANOUT
CS	SODIUM HYDROXIDE (CAUSTIC SODA)	HDG	HOT DIP GALVANIZED	PRES(S)	PRESSURE	WG	WEIR GATE
CTS	CATHODIC TEST STATION	HDPE	HIGH DENSITY POLYETHYLENE	PRM	PERMEATE	WH	WATER HEATER
CU	COPPER	HM	HOLLOW METAL	PRV	PRESSURE RELEASE VALVE, PRESSURE REDUCING VALVE	WL	WATERLINE
D	DRAIN	HORIZ.	HORIZONTAL	PS	PUMP STATION	WLD	WELDED
DEFL	DEFLECTION	H.P.	HIGH POINT, HINGE POINT	PSF	POUNDS PER SQUARE FOOT	WMH	WATER MANHOLE
DEG	DEGREE	HP	HORSEPOWER	PSI	POUNDS PER SQUARE INCH	W/O	WITHOUT
DEPT	DEPARTMENT	HPI	HORIZONTAL POINT OF INFLECTION	PT	POINT OF TANGENT (END CURVE)	WTR	WATER
DI	DROP INLET	HR	HOUR	PVC	POLYVINYL CHLORIDE	WV	WATER VALVE
DIA, Ø	DIAMETER	HWL	HIGH WATER LEVEL	PW	POTABLE WATER	WS	WATER SURFACE
DIM	DIMENSION			Q	FLOW	WW	WASTEWATER
DIP	DUCTILE IRON PIPE	IA	INSTRUMENT AIR	R	RADIUS	WWF	WASTEWATER (FORCEMAIN)
DISCH	DISCHARGE	ID	INSIDE DIAMETER	RAS	RETURN ACTIVATED SLUDGE	YD	YARD
DL	DEADLOAD	IE	INVERT ELEVATION	RCP	REINFORCED CONCRETE PIPE		
DMJ	DOUBLE MECHANICAL JOINT	IN	INCHES	RCCP	REINFORCED CONCRETE CYLINDER PIPE	#	POUND, NUMBER
DN	DOWN	INF	INFLUENT	REINF	REINFORCE(D), (MENT)	&	AND
DR	DIMENSION RATIO	INSUL	INSULATION	REQ'D	REQUIRED	⊙	AT
DWG(S)	DRAWING(S)	INV	INVERT	RESIL	RESILIENT	∅	NOMINAL DIAMETER
		IPS	IRON PIPE SIZE	RESV	RESERVOIR		
		IRR	IRRIGATION	RM	ROOM		
				RSP	ROCK SLOPE PROTECTION		
		JB	JUNCTION BOX	RT	RIGHT TURN		
		JT	JOINT	R/W, ROW	RIGHT OF WAY		
				RW	RECYCLED WATER		

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REV	DATE	BY	DESCRIPTION	ABBREVIATIONS							

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LEGEND:

AA = 0.24 MGD

AA WS EL (FT)

————— PROCESS FLOW

----- EQUALIZED FLOW

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REV	DATE	BY	DESCRIPTION

WARNING

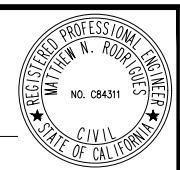
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DESIGNED: MNR
 DRAWN: PMD
 CHECKED: DSW
 SCALE: NO SCALE

PREPARED BY:
 MATTHEW N. RODRIGUES
 RCE No.: 84311

DATE



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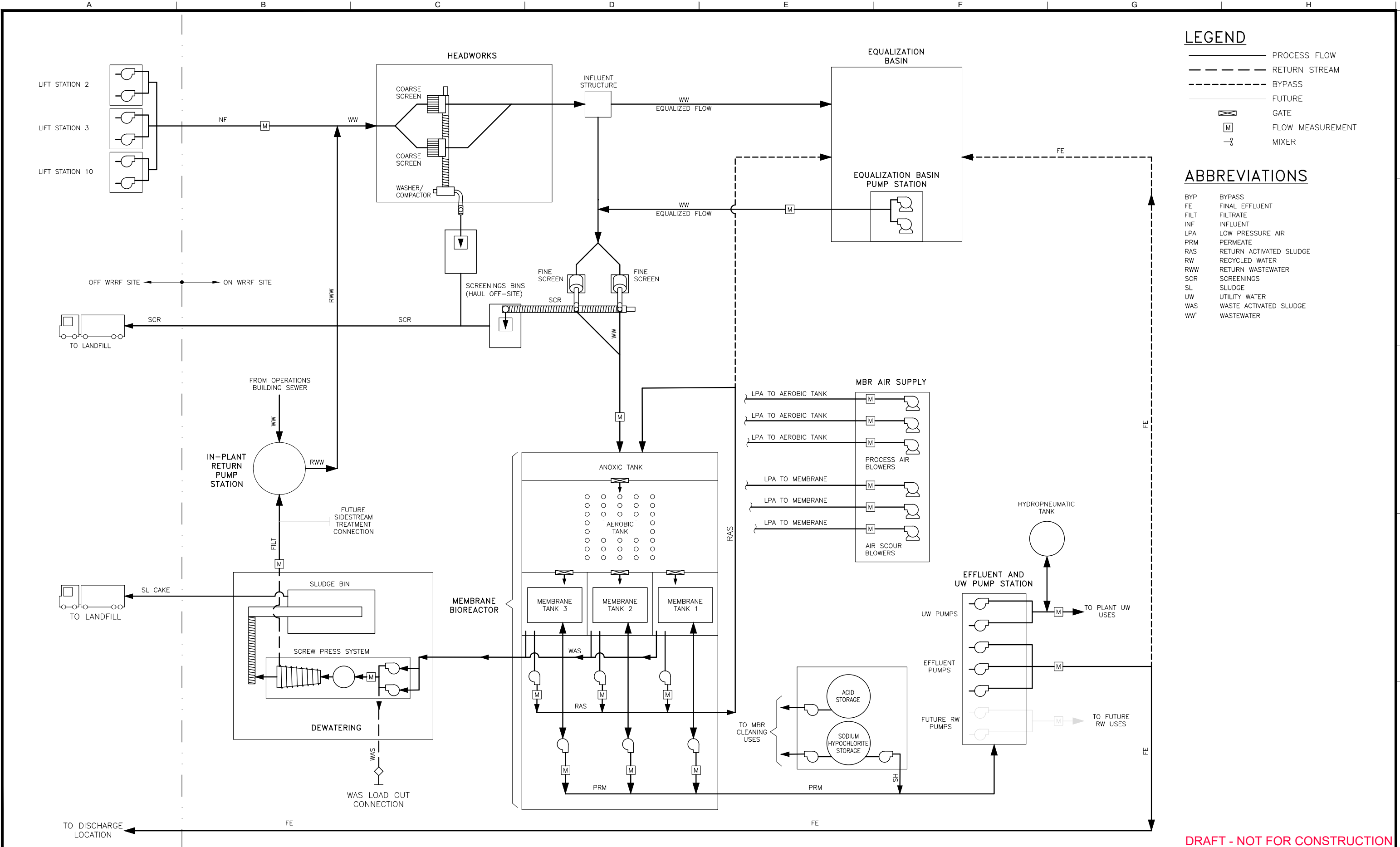
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 GENERAL

HYDRAULIC PROFILE

DRAWING
G-601
 SHEET X OF X
 PROJECT #

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LEGEND

- PROCESS FLOW
- - - - - RETURN STREAM
- - - - - BYPASS
- FUTURE
- ⊘ GATE
- Ⓜ FLOW MEASUREMENT
- ⊕ MIXER

ABBREVIATIONS

- BYP BYPASS
- FE FINAL EFFLUENT
- FILT FILTRATE
- INF INFLUENT
- LPA LOW PRESSURE AIR
- PRM PERMEATE
- RAS RETURN ACTIVATED SLUDGE
- RW RECYCLED WATER
- RWW RETURN WASTEWATER
- SCR SCREENINGS
- SL SLUDGE
- UW UTILITY WATER
- WAS WASTE ACTIVATED SLUDGE
- WW WASTEWATER

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REV	DATE	BY	DESCRIPTION

WARNING

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DESIGNED: EKW
 DRAWN: PMD
 CHECKED: MNR
 SCALE: NO SCALE

PREPARED BY:
 MATTHEW N. RODRIGUES
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HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

APPROVED: _____
 POSITION: _____ DATE: _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 GENERAL

PROCESS FLOW DIAGRAM

DRAWING
G-602

SHEET X OF X
 PROJECT # _____

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GENERAL NOTES

- 1. NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS APPROVED BY [ENTITY]. [ENTITY] SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO STARTING OF CONSTRUCTION AND OF THE TIME LOCATION OF THE PRECONSTRUCTION CONFERENCE.
2. FOR ANY CONSTRUCTION PERFORMED THAT IS NOT IN COMPLIANCE WITH PLANS OR PERMITS APPROVED FOR THE PROJECT THE [ENTITY] MAY REVOKE ALL ACTIVE PERMITS AND RECOMMEND THAT COUNTY CODE ENFORCEMENT PROVIDE A WRITTEN NOTICE OR STOP WORK ORDER IN ACCORDANCE WITH SECTION 22.52.140 [23.10] OF THE LAND USE ORDINANCE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL WEATHER ACCESS AT ALL TIMES TO EXISTING PROPERTIES LOCATED IN THE VICINITY OF WORK. ADDITIONALLY, THEY SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING SERVICES, INCLUDING UTILITY, GARBAGE COLLECTION, MAIL DISTRIBUTION, ETC., TO ALL EXISTING PROPERTIES LOCATED IN THE VICINITY OF WORK.
4. ON-SITE HAZARDS TO PUBLIC SAFETY SHALL BE SHIELDED BY CONSTRUCTION FENCING. FENCING SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND OCCUPIED, POTENTIAL HAZARDS HAVE BEEN MITIGATED, OR ALTERNATIVE PROTECTIVE MEASURES HAVE BEEN INSTALLED.
5. SOILS TESTS SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS. ALL TESTS MUST BE MADE WITHIN 15 DAYS PRIOR TO THE PLACING MATERIAL. THE TEST RESULTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.
6. ROADWAY COMPACTION TESTS SHALL BE MADE ON SUBGRADE MATERIAL, AGGREGATE BASE MATERIAL, AND MATERIAL AS SPECIFIED BY THE SOILS ENGINEER. SAID TESTS SHALL BE MADE PRIOR TO THE PLACEMENT OF THE NEXT MATERIAL LIFT.
7. SUBGRADE MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95% IN THE ZONE BETWEEN FINISHED SUBGRADE ELEVATION AND A MINIMUM OF 1-FOOT BELOW. ALL MATERIAL IN FILL SECTIONS BELOW THE ZONE MENTIONED ABOVE SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
8. A REGISTERED CIVIL ENGINEER SHALL CERTIFY THAT THE IMPROVEMENTS WHEN COMPLETED ARE IN ACCORDANCE WITH THE PLANS PRIOR TO THE REQUEST FOR A FINAL INSPECTION. RECORD DRAWINGS SHALL BE PREPARED AFTER CONSTRUCTION IS COMPLETED. THE CIVIL ENGINEER CERTIFYING THE IMPROVEMENTS AND PREPARING AS-BUILT PLANS MAY BE PRESENT WHEN THE FINAL INSPECTION IS MADE BY THE COUNTY.
9. ALL UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION.
10. A COUNTY ENCROACHMENT PERMIT IS REQUIRED FOR ALL WORK DONE WITHIN THE COUNTY RIGHT-OF-WAY. THE ENCROACHMENT PERMIT MAY ESTABLISH ADDITIONAL CONSTRUCTION, UTILITY AND TRAFFIC CONTROL REQUIREMENTS.
11. THE COUNTY INSPECTOR ACTING ON BEHALF OF [ENTITY] MAY REQUIRE REVISIONS IN THE PLANS TO SOLVE UNFORESEEN PROBLEMS THAT MAY ARISE IN THE FIELD. ALL REVISIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OF WORK.
12. THE STRUCTURAL SECTION SHALL BE BASED ON SOILS TESTS TAKEN AT THE TIME OF CONSTRUCTION AND USING A TRAFFIC INDEX OF 8 FOR THE EXTERIOR ACCESS ROAD AND A TRAFFIC INDEX OF 6 FOR THE INTERIOR OF THE SITE.
13. HYDRO-SEEDING OR OTHER PERMANENT EROSION CONTROL SHALL BE PLACED AND ESTABLISHED WITH 90% COVERAGE ON ALL DISTURBED SURFACES (OTHER THAN PAVED OR GRAVEL SURFACES) PRIOR TO THE FINAL INSPECTION.
14. ENGINEER OF RECORD TO PROVIDE A FINAL REPORT STATING THE WORK PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS INCLUDING SPECIAL INSPECTION REPORTS.

UNDERGROUND FACILITIES

- 1. ENGINEER HAS SEARCHED AVAILABLE KNOWN RECORDS FOR INFORMATION ABOUT UNDERGROUND FACILITIES INCLUDING FACILITIES PRESENTLY BEING DESIGNED IN THE VICINITY OF THE PROJECT. TO THE BEST OF THE ENGINEER'S ABILITY THOSE UNDERGROUND FACILITIES WHICH MAY AFFECT THE WORK ARE SHOWN ON THESE DRAWINGS. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON FACILITY DESIGN DRAWINGS AND ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESENCE AND LOCATION OF ALL EXISTING FACILITIES.
2. AT LEAST 48 HOURS BEFORE COMMENCING ANY EXCAVATION, CONTRACTOR SHALL REQUEST UNDERGROUND SERVICE ALERT AND NON-MEMBER COMPANIES OR UTILITIES TO MARK OR OTHERWISE INDICATE THE LOCATION(S) OF THEIR SUBSURFACE FACILITIES. CONTRACTOR SHALL MARK THE PROPOSED AREA OF EXCAVATION IN ACCORDANCE WITH THE DIGALERT DELINEATION GUIDE.
3. PRIOR TO PIPELINE EXCAVATION, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING FACILITIES (POTHOLE) IN LOCATIONS WHERE NEW FACILITIES ARE PROPOSED TO ESTABLISH THE EXACT LOCATION, SIZE, AND DEPTH, AND DETERMINE IF THERE WILL BE AN INTERFERENCE WITH PROPOSED FACILITIES. CHANGES OR DELAYS CAUSED BY CONTRACTOR'S FAILURE TO PERFORM "POTHOLING" AND INTERFERENCE LOCATION WORK SHALL NOT BE ELIGIBLE FOR EXTRA WORK COMPENSATION OR TIME EXTENSION. UPON LEARNING OF THE EXISTENCE OR LOCATION OF ANY UNDERGROUND FACILITY OMITTED OR SHOWN INCORRECTLY ON THESE DRAWINGS, OR IMPROPERLY MARKED OR OTHERWISE INDICATED, CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, PROVIDING FULL DETAILS AS DEPTH, LOCATION, SIZE, AND FUNCTION.
4. CONTRACTOR SHALL PRESERVE ALL SURVEY MARKERS AND MONUMENTATION IN PLACE. IF ANY EXISTING MONUMENTS REQUIRE REMOVAL TO PERFORM THE WORK, CONTRACTOR SHALL NOTIFY OWNER AT LEAST 7 DAYS IN ADVANCE OF CONSTRUCTION. SAID MONUMENTS WILL BE TIED OUT AND RE-ESTABLISHED BY OWNER.
5. CONTRACTOR SHALL PRESERVE ALL PIPELINE MARKINGS. WATER MARKINGS DESTROYED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

GENERAL CONSTRUCTION

- 1. ALL SPECIFICATIONS, DRAWINGS, AND DETAILS INCLUDED IN THE CONTRACT DOCUMENTS SHALL FULLY APPLY TO THE WORK WHETHER OR NOT SPECIFICALLY REFERENCED.
2. NORMAL WORKING HOURS ARE 7:00 AM TO 4:00 PM MONDAY THROUGH FRIDAY. NORMAL INSPECTION HOURS ARE 7:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY, EXCEPT HOLIDAYS. CONSTRUCTION WILL NOT TAKE PLACE ON WEEKENDS OR HOLIDAYS UNLESS SPECIFICALLY APPROVED BY OWNER.
3. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL HOLD OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
4. STATIONING AND DISTANCES SHOWN ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASUREMENTS PROJECTED FROM THE PIPE CENTERLINE UNLESS NOTED OTHERWISE.
5. DIMENSIONED DISTANCES SHALL GOVERN OVER SCALED DISTANCES.
6. MAINTAIN ON-SITE THE LATEST SIGNED CONSTRUCTION DRAWINGS AT ALL TIMES. MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES IN CONSTRUCTION FROM THAT SHOWN ON THE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER.
7. CONTRACTOR SHALL VIDEO TAPE AND DOCUMENT THE PRE-EXISTING CONDITIONS OF THE JOBSITE AND PROPERTIES ADJACENT TO THE PROJECT, AND SUBMIT THE VIDEO ON DVD TO OWNER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING JOBSITE CONDITIONS AND ADJACENT PROPERTIES DURING THE WORK AND REPAIR DAMAGE TO LANDSCAPING, PAVING, IRRIGATION, STRUCTURES, ETC., CAUSED BY THE WORK.
8. IN ACCORDANCE WITH CALIFORNIA HEALTH AND SAFETY CODE SECTION 7050.5, THE CONTRACTOR SHALL NOTIFY [ENTITY] IF HUMAN REMAINS ARE DISCOVERED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL NOTIFY [ENTITY(S)] IF HUMAN REMAINS OR ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED.
9. CONTRACTOR, SUBCONTRACTORS, AND SUPPLIERS PERFORMING WORK OR SUPPLYING EQUIPMENT AND MATERIALS SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS.
10. DURING CONSTRUCTION, IN THE EVENT ARCHAEOLOGICAL RESOURCES ARE UNEARTHED OR DISCOVERED DURING ANY CONSTRUCTION ACTIVITIES, CONSTRUCTION ACTIVITIES SHALL CEASE AND A QUALIFIED ARCHAEOLOGIST WILL BE CONTACTED.
11. WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE AND EXCEEDING THE APCD'S LIMIT OF 20% OPACITY FOR GREATER THAN 3 MINUTES IN ANY 60-MINUTE PERIOD. INCREASED WATERING FREQUENCY IS REQUIRED WHEN WINDS EXCEED 15 MPH. CONTRACTOR SHALL IMPLEMENT ALL DUST CONTROL MEASURES IDENTIFIED IN MITIGATION MEASURE AQ-1.
12. THE CONTRACTOR SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE FUGITIVE DUST EMISSIONS AND ENHANCE IMPLEMENTATION OF DUST CONTROL MEASURES AS NECESSARY TO MINIMIZE DUST COMPLAINTS, REDUCE VISIBLE EMISSIONS BELOW THE APCD'S LIMIT OF 20% OPACITY FOR GREATER THAN 3 MINUTES IN ANY 60 MINUTE PERIOD. THE NAME AND TELEPHONE NUMBER OF SUCH PERSONS SHALL BE PROVIDED TO THE APCD ENGINEERING AND COMPLIANCE DIVISION PRIOR TO START OF ANY GRADING, EARTHWORK, OR DEMOLITION.
13. ALL WORK SHALL COMPLY WITH THE CONDITIONS OF APPROVAL AND THE PROJECT'S MITIGATION AND MONITORING PROGRAM IDENTIFIED IN SPECIFICATION SECTION 013543 ENVIRONMENTAL REQUIREMENTS.
14. PRIOR TO ANY SITE DISTURBANCE, A LICENSED SURVEYOR FURNISHED BY CONTRACTOR SHALL STAKE THE BUILDING CORNERS, ESTABLISH AVERAGE NATURAL GRADE, AND SET A BENCHMARK.
15. DURING CONSTRUCTION, IF A CALIFORNIA RED-LEGGED FROG IN ANY LIFE STAGE IS DISCOVERED IN THE WORK AREA AS PART OF MONITORING SURVEYS AND IS AT RISK FROM PROJECT-RELATED ACTIVITIES, WORK MUST BE SUSPENDED ON THAT PARTICULAR PHASE OF THE PROJECT UNTIL THE INDIVIDUAL VOLUNTARILY LEAVES THE AREA OR THE APPROVED BIOLOGIST IS AVAILABLE TO CAPTURE AND MOVE IT OUT OF HARM'S WAY.
16. ANY EXCAVATION OR EQUIPMENT/MATERIALS STORAGE AREAS THAT COULD ENTRAP CALIFORNIA RED-LEGGED FROGS MUST BE COVERED EACH NIGHT AND DURING PERIODS OF TIME WHEN ACTIVE CONSTRUCTION IS NOT OCCURRING AND CHECKED PRIOR TO USE BEFORE THE START OF ANY WORK DAY IN ORDER TO REDUCE THE CHANCE OF INJURY OR MORTALITY THAT COULD RESULT FROM CONFINING INDIVIDUALS IN THESE FEATURES.
17. A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE INSPECTOR TO GO OVER THE SPECIAL INSPECTION REPORTING REQUIREMENTS, STORM WATER REQUIREMENTS, QSP, EROSION & SEDIMENTATION CONTROL, MITIGATION MEASURES, PROGRESS REPORTS AS DETERMINED AT THE PRE-CONSTRUCTION MEETING & REPORTS REQUIRED. CALL [PERSON, (000) 000-0000] TO COORDINATE WITH THE AREA INSPECTOR.

GRADING AND SITE WORK NOTES

- 1. CONTRACTOR SHALL CONTROL ALL RUNOFF FROM CONSTRUCTION ACTIVITIES AND SHALL DEVELOP AND IMPLEMENT A SWPPP. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF ALL BMPs PRIOR TO ANY CONSTRUCTION ACTIVITIES OCCURRING AND THROUGHOUT THE DURATION OF THE PROJECT. REFER TO SPECIFICATION SECTION 01 57 23.
2. BORING LOGS PER THE GEOTECHNICAL REPORT PREPARED BY GEOSOLUTIONS TITLED ["TITLE"] AND PER THE GEOTECHNICAL REPORT PREPARED BY [ENTITY], INC. TITLED ["TITLE"] ARE INCLUDED IN THE SPECIFICATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE TO FAMILIARIZE HIMSELF WITH THE SITE CONDITIONS AND THE EXTENT OF CLEARING REQUIRED TO PERFORM THE WORK. CLEARING SHALL BE PERFORMED, IN ACCORDANCE WITH SPECIFICATIONS.
4. CONTRACTOR SHALL MINIMIZE CLEARING AND GRUBBING ACTIVITIES ONLY TO THE EXTENT REQUIRED TO PERFORM THE WORK. CONTRACTOR SHALL PROTECT ALL EXISTING TREES IN PLACE.
5. ALL DEBRIS, BRUSH, AND RUBBISH WITHIN THE WORK AREA SHALL BE REMOVED AND DISPOSED OF DAILY, EXCEPT AS OTHERWISE REQUIRED. SAID MATERIALS SHALL BE LEGALLY DISPOSED OF IN AN APPROVED OFFSITE LOCATION. WHERE REMOVAL OF SUBSURFACE OBSTRUCTIONS IS NECESSARY, CAVITIES CREATED BY THE REMOVAL SHALL BE CLEARED OF ALL LOOSE DEBRIS AND SOIL AND SHAPED TO PROVIDE ACCESS FOR BACKFILLING AND COMPACTION EQUIPMENT.
6. CONTRACTOR SHALL RESTORE DISTURBED EARTH UPON COMPLETION OF THE SITE WORK.
7. EXISTING CONTOURS ARE AT ±1'. CONTRACTORS SHALL GRADE MATERIAL AS REQUIRED TO ACHIEVE SPECIFIED FINISH GRADES.
8. A LICENSED PROFESSIONAL SURVEYOR, FURNISHED BY THE CONTRACTOR SHALL CERTIFY THE ROUGH PAD ELEVATIONS ARE PER THE APPROVED PLANS.
9. ADDITIONAL INFORMATION REGARDING SITE DRAINAGE CAN BE FOUND IN THE DRAINAGE REPORT PREPARED BY WATER SYSTEMS CONSULTING, INC ON [DATE AND TITLE].
10. GEOTECHNICAL ENGINEER SHALL BE PRESENT ON-SITE DURING SUBGRADE EXCAVATION AND DURING OTHER MAJOR EARTHWORK ACTIVITIES.

EROSION CONTROL NOTES

- 1. EROSION CONTROL MEASURES FOR WIND, WATER, MATERIAL STOCKPILES, AND TRACKING SHALL BE IMPLEMENTED ON ALL PROJECTS AT ALL TIMES AND SHALL INCLUDE SOURCE CONTROL, INCLUDING PROTECTION OF STOCKPILES, PROTECTION OF SLOPES, PROTECTION OF ALL DISTURBED AREAS, PROTECTION OF ACCESSSES, AND PERIMETER CONTAINMENT MEASURES. EROSION CONTROL SHALL BE PLACED PRIOR TO THE COMMENCEMENT OF GRADING AND SITE DISTURBANCE ACTIVITIES UNLESS [ENTITY] DETERMINES TEMPORARY MEASURES TO BE UNNECESSARY BASED UPON LOCATION, SITE CHARACTERISTICS OR TIME OF YEAR. THE INTENT OF EROSION CONTROL MEASURES SHALL BE TO KEEP ALL GENERATED SEDIMENTS FROM ENTERING A SWALE, DRAINAGE WAY, WATERCOURSE, ATMOSPHERE, OR MIGRATE ONTO ADJACENT PROPERTIES OR ONTO THE PUBLIC RIGHT-OF-WAY.
2. SITE INSPECTIONS AND APPROPRIATE MAINTENANCE OF ALL EROSION CONTROL MEASURES/DEVICES SHALL BE CONDUCTED AND DOCUMENTED AT ALL TIMES DURING CONSTRUCTION AND ESPECIALLY PRIOR TO, DURING, AND AFTER RAIN EVENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF ALL EROSION CONTROL MEASURES/DEVICES AS SPECIFIED BY THE APPROVED PLAN UNTIL SUCH TIME THAT THE PROJECT IS ACCEPTED AS COMPLETE BY [ENTITY] OR UNTIL RELEASED FROM THE CONDITIONS OF APPROVAL OF THEIR GENERAL PERMIT. EROSION CONTROL MEASURES/DEVICES MAY BE RELOCATED, DELETED OR ADDITIONAL MEASURES/DEVICES MAY BE REQUIRED DEPENDING ON THE ACTUAL CONDITIONS ENCOUNTERED DURING CONSTRUCTION. ADDITIONAL EROSION CONTROL MEASURES/DEVICES SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER OF WORK, COUNTY INSPECTOR, SWPPP MONITOR, OR RWQCB INSPECTOR. GUIDELINES FOR DETERMINING APPROPRIATE EROSION CONTROL DEVICES SHALL BE INCLUDED IN THE PLANS WITH ADDITIONAL MEASURES/DEVICES NOTED.
4. WET WEATHER EROSION CONTROL MEASURES/DEVICES SHALL BE AVAILABLE, INSTALLED, AND/OR APPLIED BETWEEN OCTOBER 15 AND APRIL 15 OR ANYTIME WHEN THE RAIN PROBABILITY EXCEEDS 30%.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE PROJECT SITE PRIOR TO OCTOBER 15 (RAINY SEASON) AND TO COORDINATE AN IMPLEMENTATION PLAN FOR WET WEATHER EROSION CONTROL DEVICES. A LOCALLY BASED STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 15 THROUGH APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE AND STOCK PILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OR MAINTENANCE OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
6. IN THE EVENT OF A FAILURE, THE CONTRACTOR AND/OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR CLEANUP AND ALL ASSOCIATED COSTS OR DAMAGE. IN THE EVENT THAT DAMAGE OCCURS WITHIN THE RIGHT-OF-WAY AND THE COUNTY IS REQUIRED TO PERFORM CLEANUP, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COUNTY REIMBURSEMENT OF ALL ASSOCIATED COSTS OR DAMAGE.
7. ALL PROJECTS INVOLVING SITE DISTURBANCE OF ONE ACRE OR GREATER SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (NOI) TO COMPLY WITH THE GENERAL PERMIT FOR CONSTRUCTION ACTIVITY WITH THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB). THE CONTRACTOR SHALL PROVIDE THE COUNTY WITH THE WASTE DISCHARGE IDENTIFICATION NUMBER (WQID #) OR THWI VERIFICATION THAT AN EXEMPTION HAS BEEN GRANTED BY RWQCB. WQID NO.: 3 40C380890.

PIPELINE NOTES

- 1. PIPELINE ELEVATIONS SHOWN ARE FOR INVERT OF PIPE UNLESS NOTED OTHERWISE. PIPELINES SHALL SLOPE UNIFORMLY BETWEEN INVERT ELEVATIONS SHOWN. CONTRACTOR SHALL PROVIDE ALL SHORTS, SPOOLS, AND FITTINGS NECESSARY TO MEET ELEVATIONS SPECIFIED.
2. ALL HORIZONTAL OR VERTICAL CHANGES IN PIPE ALIGNMENT DELINEATED ON THE PLANS AS SHOWN WITHOUT FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR PIPE DEFLECTION. DO NOT BEND THE PIPE WITH MACHINERY. PROTECT JOINTS FROM OFFSET WHILE BENDING THE PIPE. IF BENDING THE PIPE WITHIN THE MANUFACTURER'S RECOMMENDATION IS INADEQUATE TO MEET THE REQUIRED ALIGNMENT, CONTRACTOR SHALL USE HIGH DEFLECTION COUPLINGS.
3. CONNECTIONS MADE BETWEEN DIFFERENT CLASSES OF PIPE SHALL BE MADE WITH MATERIALS RATED FOR THE HIGHER PRESSURE CLASS.
4. ALL NEW VALVES SHALL BE FLANGED DIRECTLY TO A TEE, CROSS OR OTHER FITTING. VALVES SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE BOX PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
5. PIPELINES SHALL BE HYDROSTATICALLY TESTED PRIOR TO PLACING COMPACTED BASE OR PAVEMENT.
6. ALL HYDROSTATIC TESTING AND DISINFECTION SHALL BE MADE IN THE PRESENCE OF THE ENGINEER. HYDROSTATIC TEST PRESSURE SHALL BE IN ACCORDANCE WITH SHEET ##-###. TESTING AGAINST VALVES OR THROUGH FLEX-TEND EXPANSION JOINTS IS NOT PERMITTED. CONTRACTOR SHALL INSTALL BULKHEADS AND TOP OUTLETS AS REQUIRED FOR TESTING. END CAPS SHALL BE INSTALLED ON THE NEWLY CONSTRUCTED SIDE OF ALL CONNECTION POINTS AND NEW PIPING SHALL PASS ALL TESTING PRIOR TO CONNECTION TO THE EXISTING WATER SYSTEM.

APPLICABLE CODES

- 2022 CALIFORNIA BUILDING CODE
-2022 CALIFORNIA FIRE CODE
-2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN)
-2022 CALIFORNIA TITLE 24: 2016 CALIFORNIA ENERGY CODE AND ACCESSIBILITY STANDARDS
-COUNTY ORDINANCE(S) TITLE 19, 22

TRAFFIC CONTROL

- 1. CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL DURING ALL PHASES OF THE WORK PER A COUNTY PUBLIC WORKS DEPARTMENT APPROVED TRAFFIC CONTROL PLAN.

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Table with 4 main columns: Revision table (REV, DATE, BY, DESCRIPTION), Warning scale (0, 1/2, 1), Designer/Drawn/Checked/Scale info, and Project/Sheet info (HERITAGE RANCH COMMUNITY SERVICES DISTRICT, WATER RESOURCE RECOVERY FACILITY UPGRADE, CIVIL, CIVIL NOTES 1, SHEET X OF X).

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SURVEYOR'S NOTES

1. NO TITLE SEARCH (TITLE REPORT) WAS PROVIDED TO THE SURVEYOR. EASEMENTS WHICH MAY AFFECT THE SUBJECT PROPERTY HAVE NOT BEEN PLOTTED.
2. ONLY THE SURFACE EVIDENCE OF UNDERGROUND UTILITIES HAVE BEEN MEASURED IN THE FIELD ON THIS SURVEY. IF APPROXIMATE UNDERGROUND ALIGNMENTS ARE SHOWN, I MAKE NO WARRANTY AS TO THE ACTUAL LOCATION, TYPE OR DEPTH OF THOSE UNDERGROUND UTILITIES. CALL UNDERGROUND SERVICE ALERT (USA) AT 1-800-642-2444 TO VERIFY THE ACTUAL LOCATION OF UTILITIES PRIOR TO ANY EXCAVATION. THE SURVEYOR ALSO HAS MADE NO INVESTIGATION AS TO SUBSURFACE ENVIRONMENTAL CONDITIONS THAT WOULD AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.
3. THE SIGNED AND SEALED ORIGINAL DRAWING OF THIS MAP CONSTITUTES THE FINAL WORK PRODUCT. MBS LAND SURVEYS WILL NOT BE LIABLE FOR ELECTRONIC VERSIONS OF THIS MAP PROVIDED TO OTHER PARTIES.
4. THE BOUNDARY LINES SHOWN HEREON WERE COMPILED FROM RECORD INFORMATION (I.E. RECORDED MAPS OR DEEDS) AND ARE NOT INTENDED TO REPRESENT THE TRUE OR ACTUAL BOUNDARY LINES OF THE SUBJECT PROPERTY. TO DETERMINE THE ACTUAL BOUNDARIES OF THE PARCEL WILL REQUIRE A COMPLETE BOUNDARY SURVEY, THE SETTING OF PROPERTY MONUMENTS AND THE FILING OF A CORNER RECORD OR RECORD OF SURVEY IN CONFORMANCE WITH STATE LAW (LS ACT SEC. 8762). APPROXIMATE DIMENSIONAL TIES FROM THE BOUNDARY LINES SHOWN TO PHYSICAL FEATURES (E.G. BUILDINGS, FENCES, WALLS OR TREES, ETC.) SHOWN ON THIS MAP CAN BE DERIVED BY SCALING THE FINISHED WORK PRODUCT WHICH IS PLOTTED AT THE SCALE INDICATED.

BASIS OF BEARING

THE COORDINATES AND BEARINGS AS MEASURED AND SHOWN HEREON ARE ON GRID AND ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 5 0405, (1991.35 EPOCH) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID COORDINATES AND BEARINGS ARE BASED LOCALLY UPON FIELD-OBSERVED TIES TO THE FOLLOWING CALIFORNIA SPATIAL REFERENCE NETWORK, NGS, CAL TRANS, OR EQUIVALENT STATIONS.

BASIS OF BEARINGS IS BASED UPON AN INVERSE (BEARING N57° 27' 49"E) BETWEEN THE FOLLOWING TWO STATIONS PROVIDED BY JOANN HEAD, LS:

REFERENCED CONTROL STATIONS CONNECTED:

STATION	NORTHING(ft)	EASTING(ft)	ELEV.	VERT. DATUM	
5007	2,461,129.5338	5,705,353.457	889.8	NAVD88	AERIAL CONTROL TARGET
5014	2,462,713.6152	5,707,836.4931	1023.1	NAVD88	AERIAL CONTROL TARGET

MAPPING ANGLE AND GRID FACTOR:

STATION	NORTHING(ft)	EASTING(ft)	MAPPING ANGLE	COMB. FACTOR	ELEV.(88)	ELLIP.
5007	2,461,129.534	5,705,353.457	-1°38'39.894"	0.9999715	1023.1	774.2011

MEASURED DISTANCES SHOWN HEREON OR INVERSED FROM COORDINATES SHOWN HEREON ARE IN REFERENCE TO CCS83. TO APPROXIMATE LOCAL GROUND DISTANCES DIVIDE BY THE COMBINATION FACTOR PROVIDED HEREON.

BENCHMARK

THE INITIAL BENCH MARK FOR THIS PROJECT IS AN OPUS SOLUTION BY JOANN HEAD, LS.

SITE DATA:

ADDRESS: HERITAGE RANCH CSD WWTP, PASO ROBLES
 ASSESSOR'S PARCEL NO. 012-181-085

BASIS OF SURVEY

THIS MAP REPRESENTS AN AERIAL TOPOGRAPHIC SURVEY PERFORMED BY CENTRAL COAST AERIAL MAPPING, PHOTOGRAPHY DATED JUNE 11TH, 2019, JOB NO. 21-276, WITH GROUND CONTROL SET BY JOANN HEAD, AND SUPPLEMENTAL TOPOGRAPHIC SURVEYING BY MBS LAND SURVEYS FEBRUARY 2ND, 2022.
 CONTACT: ROBERT LAFICA, CCAM 805-543-4307

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REV	DATE	BY	DESCRIPTION

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED	MNR
DRAWN	PMD
CHECKED	DSW
SCALE	NO SCALE

PREPARED BY:
 MATTHEW N. RODRIGUES
 RCE No.: 84311

DATE



805 AEROVISTA PLACE, SUITE 201
 PHONE: (805) 457-8833

SAN LUIS OBISPO, CA 93401
 FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

APPROVED:

----- POSITION

DATE

WATER RESOURCE RECOVERY FACILITY UPGRADE

CIVIL

CIVIL NOTES 2

DRAWING

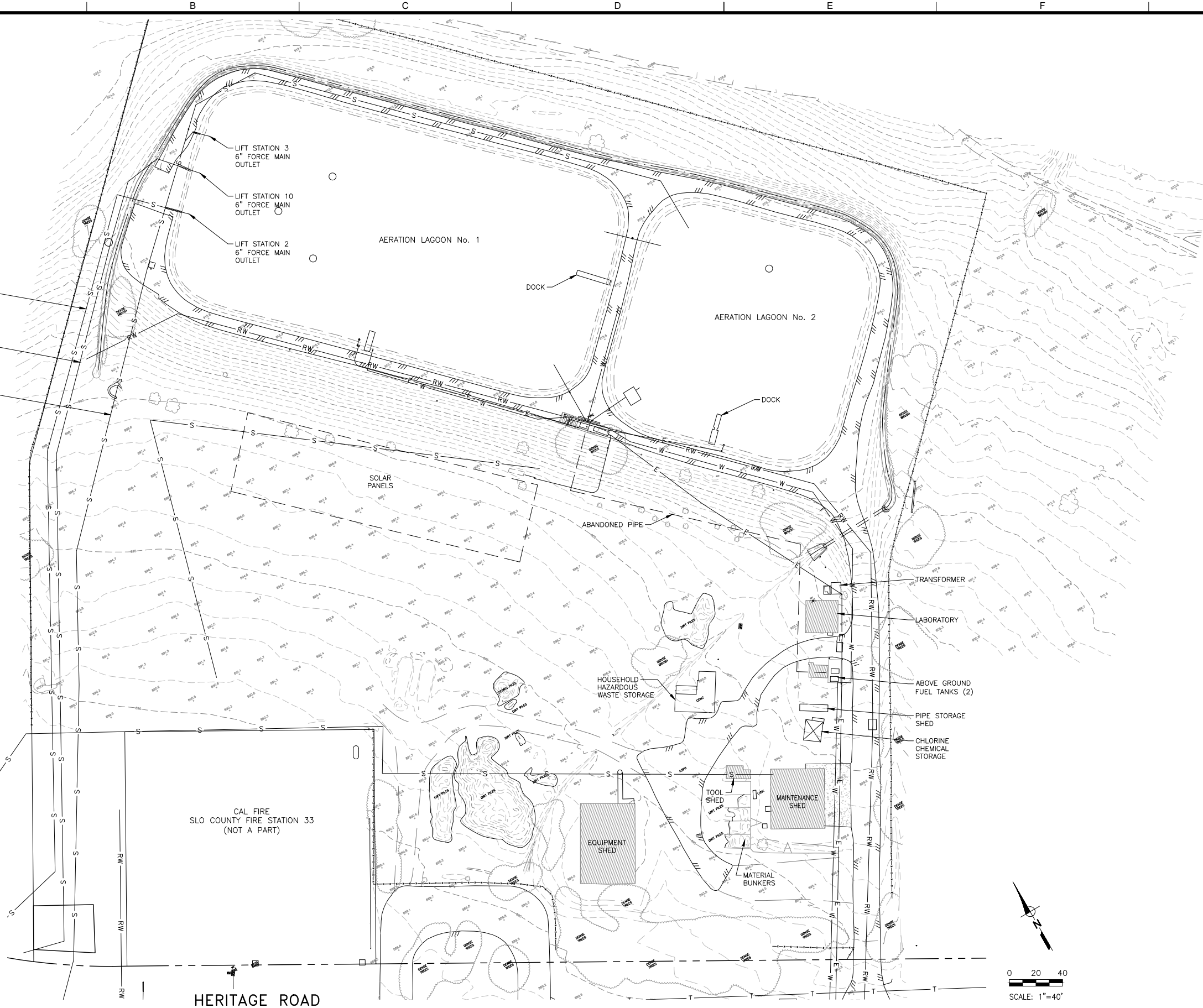
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SHEET X OF X
 PROJECT #

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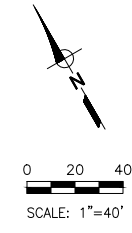


Know what's below.
Call before you dig.



HERITAGE ROAD

PLAN



DRAFT - NOT FOR CONSTRUCTION

REV	DATE	BY	DESCRIPTION

WARNING

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DESIGNED	MNR
DRAWN	PMD
CHECKED	DSW
SCALE	1"=40'

PREPARED BY:	DATE
MATTHEW N. RODRIGUES	
RCE No.: 84311	



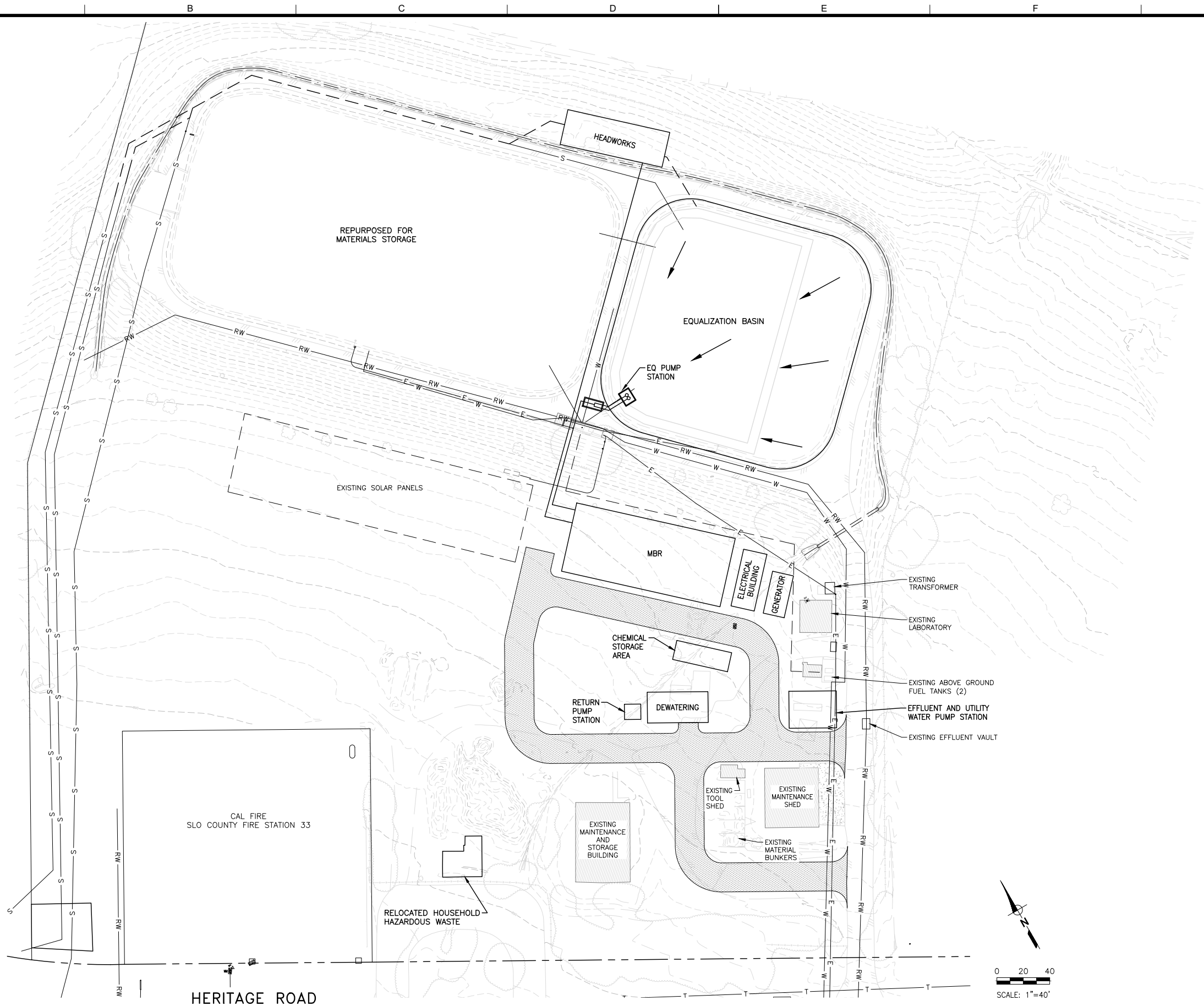
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
PHONE: (805) 457-8833 FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT 4870 HERITAGE ROAD PASO ROBLES, CA 93446
APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE CIVIL
EXISTING SITE CONDITIONS

DRAWING 01-C101
SHEET X OF X PROJECT # _____

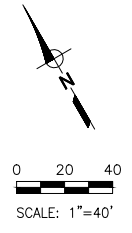
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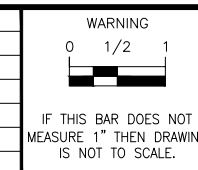
HERITAGE ROAD

PLAN



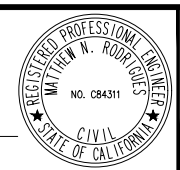
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REV	DATE	BY	DESCRIPTION



DESIGNED	MNR
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SCALE	1"=40'

PREPARED BY:	
MATTHEW N. RODRIGUES	DATE
RCE No.: 84311	



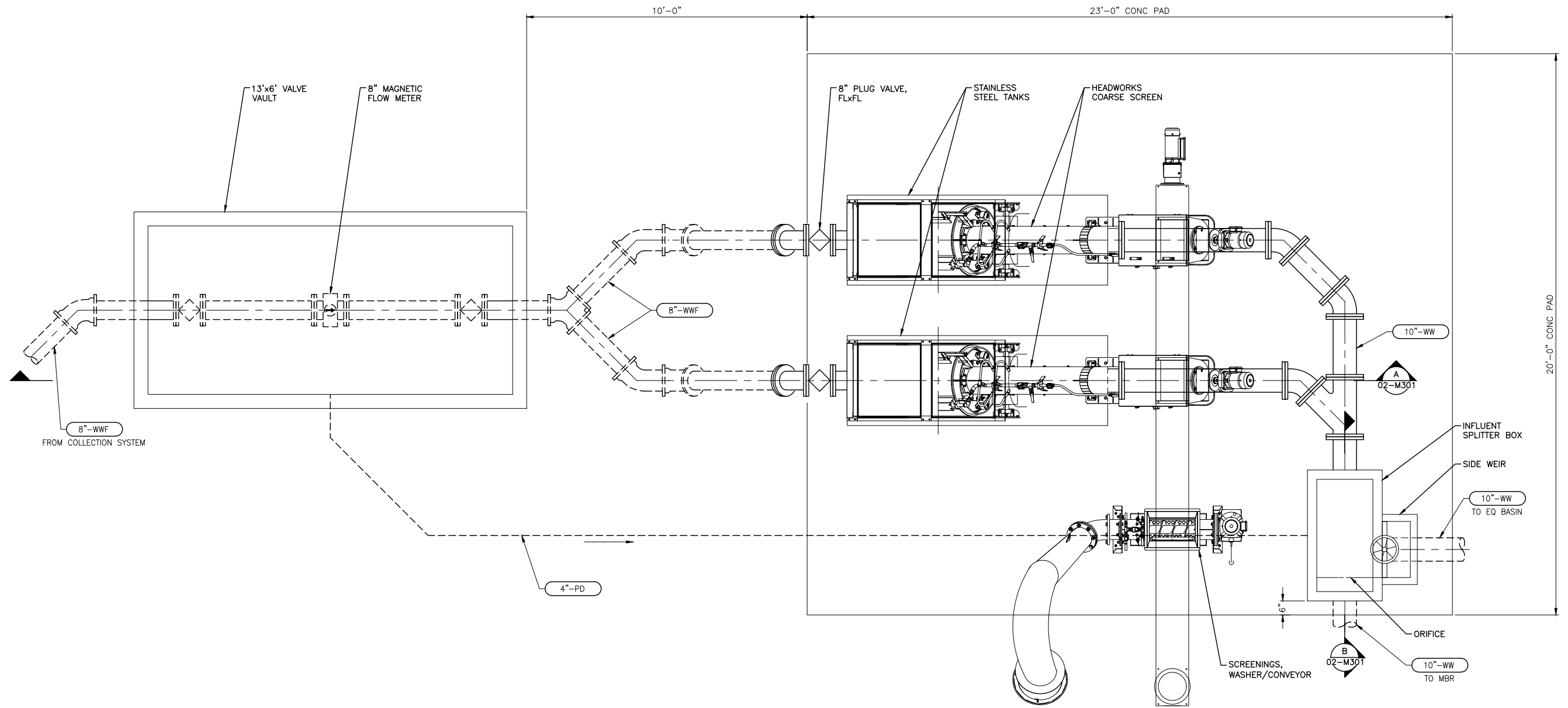
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
PHONE: (805) 457-8833 FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT 4870 HERITAGE ROAD PASO ROBLES, CA 93446
APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE CIVIL
SITE PLAN

DRAWING 01-C102
SHEET X OF X PROJECT # _____

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HEADWORKS PLAN
SCALE: 1/2"=1'-0"

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WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED	KCS
DRAWN	MAH
CHECKED	DSW
SCALE	1/2"=1'-0"

PREPARED BY: _____
DATE: _____

805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
PHONE: (805) 457-8833 FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
4870 HERITAGE ROAD
PASO ROBLES, CA 93446

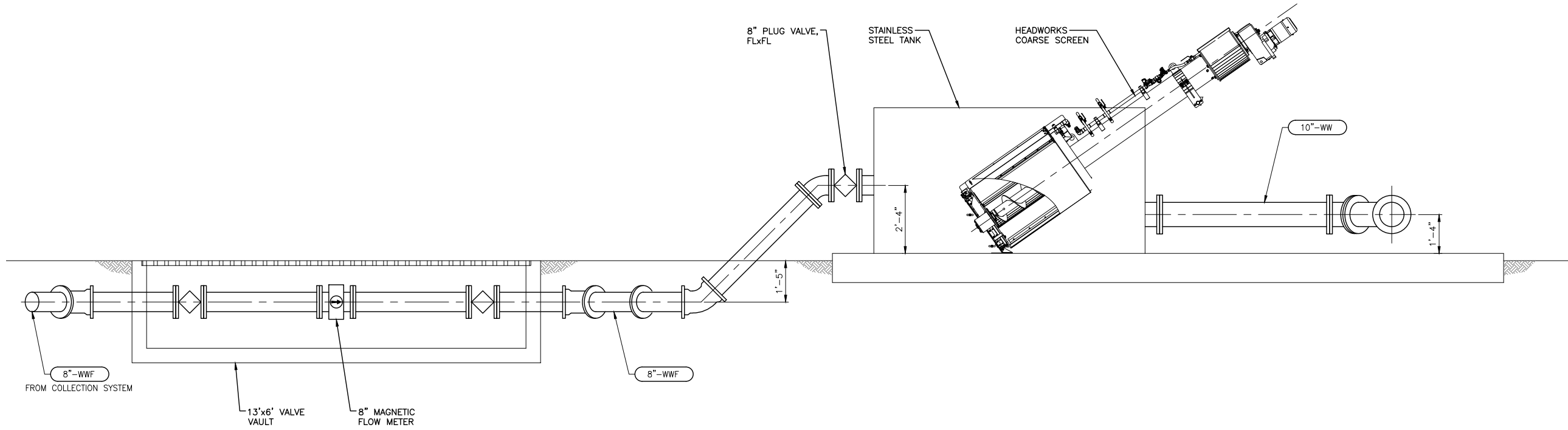
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POSITION: _____ DATE: _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
MECHANICAL

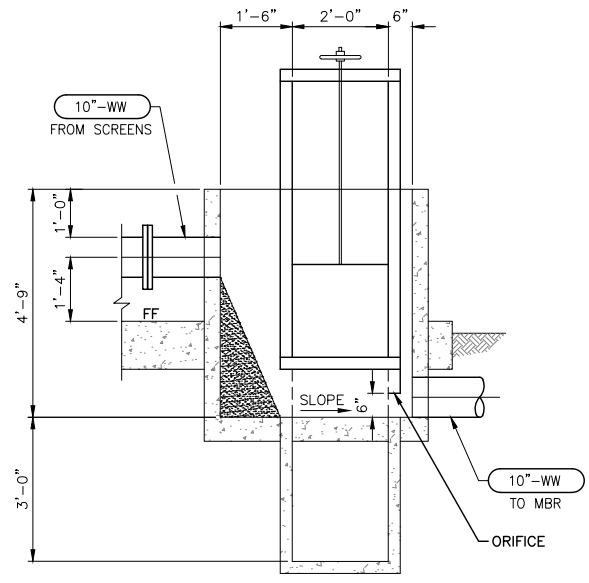
HEADWORKS PLAN

DRAWING
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SHEET X OF X
PROJECT # _____

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HEADWORKS SECTION A
 SCALE: 1/2"=1'-0" 02-M101



INFLUENT SPLITTER BOX SECTION B
 SCALE: 1/2"=1'-0" 02-M101

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REV	DATE	BY	DESCRIPTION

WARNING

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 DRAWN: MAH
 CHECKED: DSW
 SCALE: 1/2"=1'-0"

PREPARED BY: _____
 DATE: _____



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 PHONE: (805) 457-8833 FAX: (805) 888-2764

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

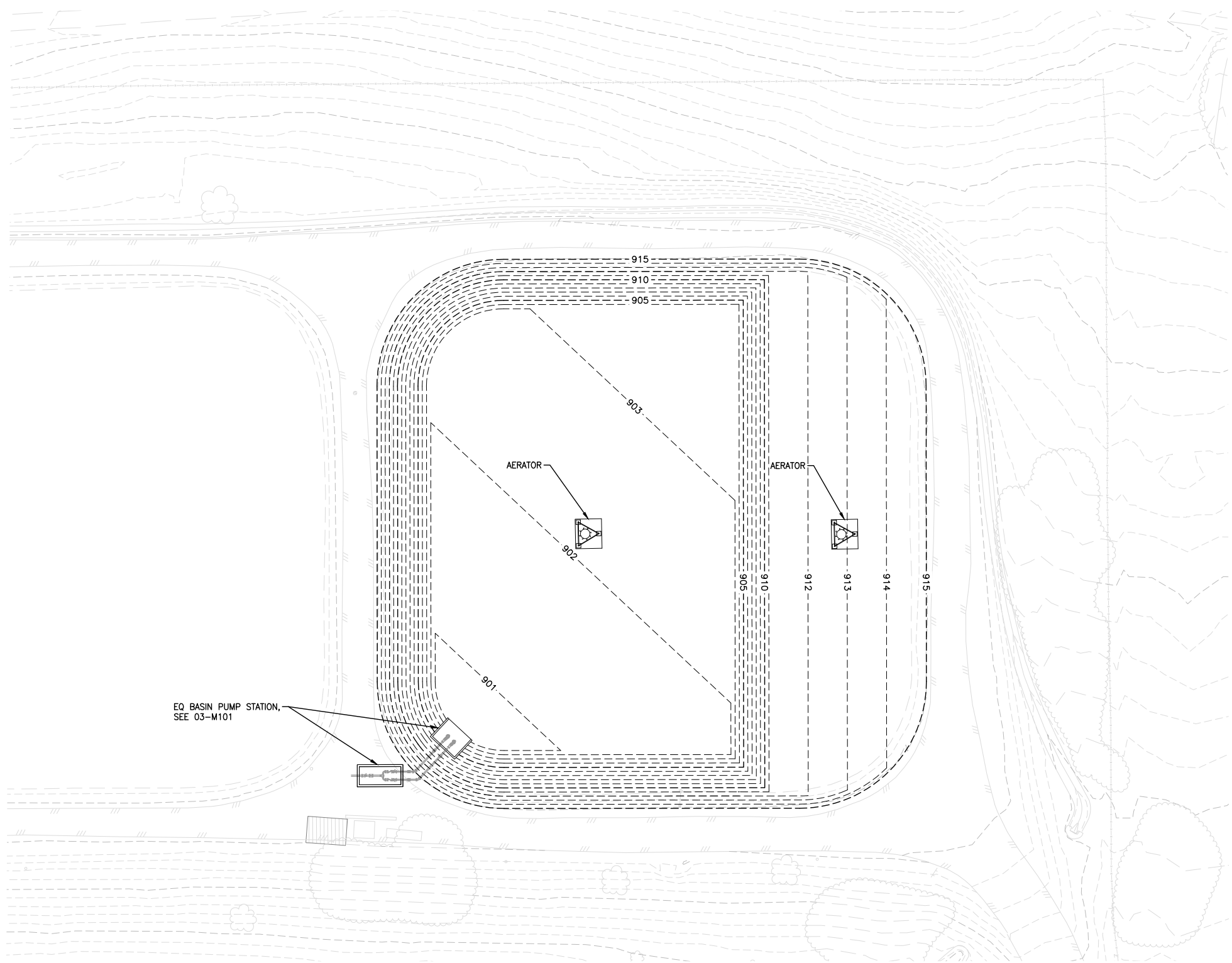
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 POSITION: _____ DATE: _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 MECHANICAL

HEADWORKS SECTIONS

DRAWING
02-M301
 SHEET X OF X
 PROJECT # _____

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PLAN



Know what's below.
Call before you dig.

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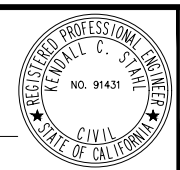
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 SCALE: 1"=20'

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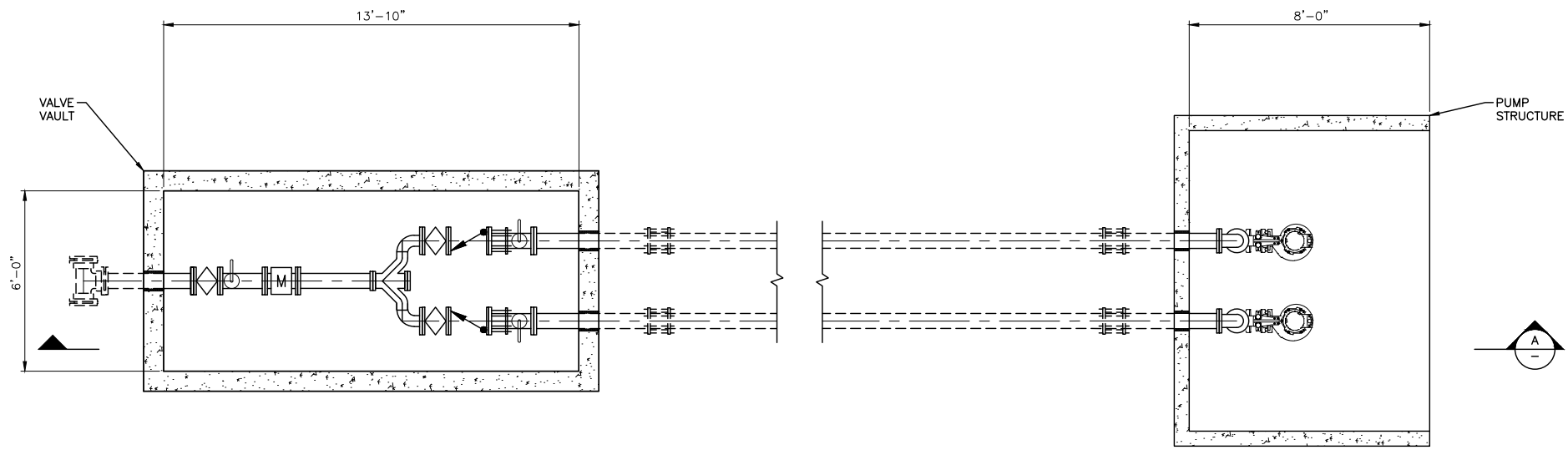
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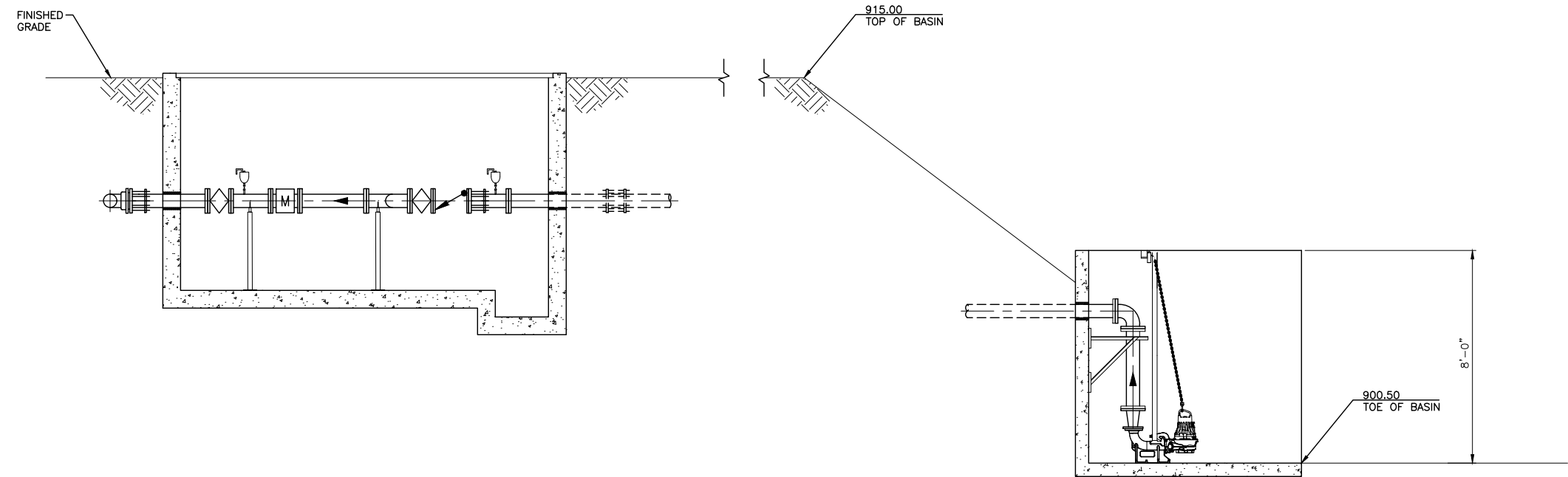
APPROVED: _____
 POSITION: _____ DATE: _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 CIVIL
 EQUALIZATION BASIN PLAN

DRAWING
 03-C101
 SHEET X OF X
 PROJECT # _____



EQUALIZATION BASIN PUMP STATION PLAN
SCALE: 3/8"=1'-0"



EQUALIZATION BASIN PUMP STATION SECTION
SCALE: 3/8"=1'-0"

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CHECKED _____ DSW
SCALE _____ AS NOTED

PREPARED BY: _____
DATE _____



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POSITION _____ DATE _____

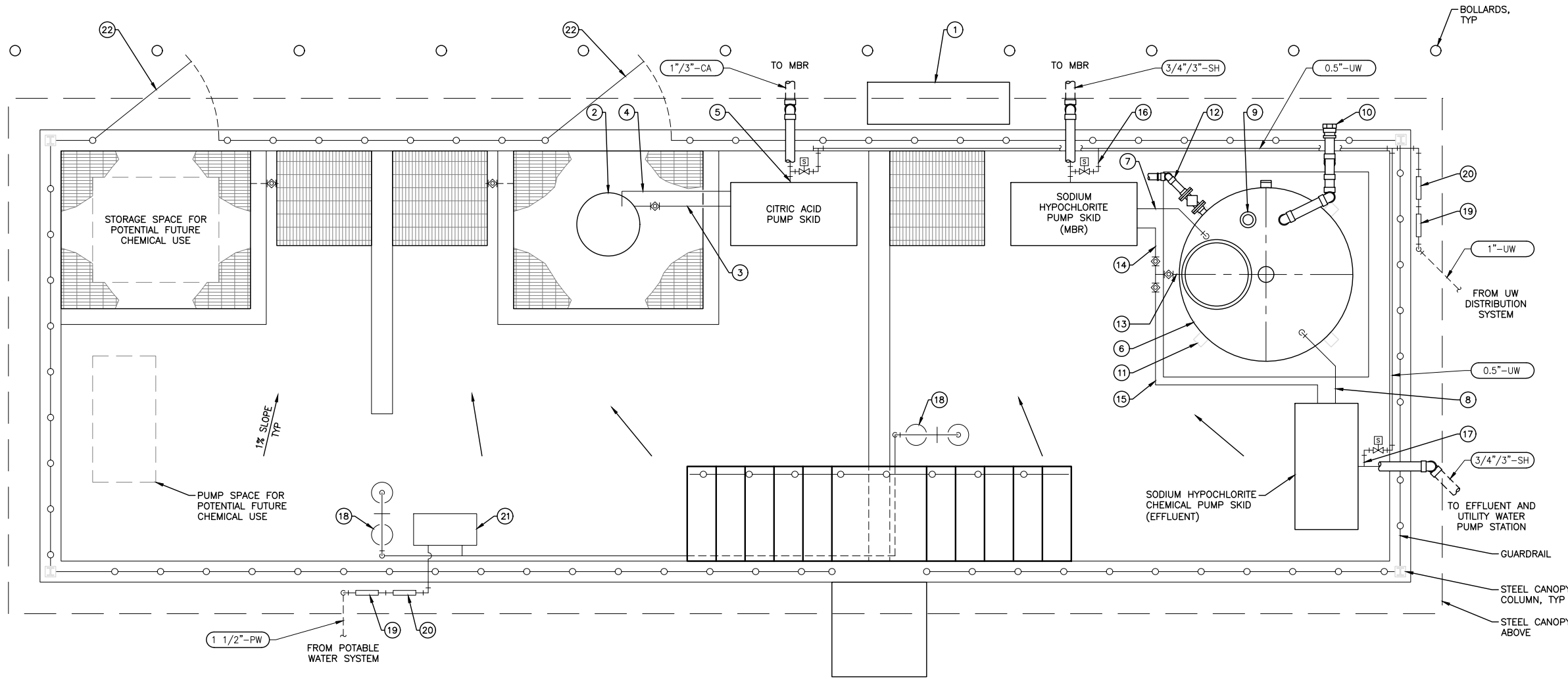
WATER RESOURCE RECOVERY FACILITY UPGRADE
MECHANICAL
**EQUALIZATION BASIN PUMP STATION
PLAN AND SECTION**

DRAWING
03-M101
SHEET X OF X
PROJECT # _____

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SHEET KEY NOTES

- ① CHEMICAL STORAGE AREA ELECTRICAL CONTROL PANEL
- ② CITRIC ACID STORAGE DRUM
- ③ CITRIC ACID PUMP SKID SUCTION LINE
- ④ CITRIC ACID PUMP SKID VENT LINE
- ⑤ CITRIC ACID FEED LINE TO MBR
- ⑥ SODIUM HYPOCHLORITE STORAGE TANK
- ⑦ SODIUM HYPOCHLORITE PUMP SKID (MBR) VENT LINE
- ⑧ SODIUM HYPOCHLORITE PUMP SKID (EFFLUENT) VENT LINE
- ⑨ STORAGE TANK LEVEL TRANSMITTER
- ⑩ SODIUM HYPOCHLORITE BULK CHEMICAL QUICK-CONNECT TANK FILL WITH STRAINER
- ⑪ STORAGE TANK ANCHORS, TYPICAL OF 4
- ⑫ STORAGE TANK OVERFLOW AND DRAIN LINE
- ⑬ SODIUM HYPOCHLORITE SUCTION LINE
- ⑭ SODIUM HYPOCHLORITE PUMP SKID (MBR) SUCTION LINE
- ⑮ SODIUM HYPOCHLORITE PUMP SKID (EFFLUENT) SUCTION LINE
- ⑯ SODIUM HYPOCHLORITE PUMP SKID (MBR) UW FLUSHING LINE
- ⑰ SODIUM HYPOCHLORITE PUMP SKID (EFFLUENT) UW FLUSHING LINE
- ⑱ EMERGENCY EYE WASH AND SHOWER
- ⑲ REDUCED PRESSURE BACKFLOW PREVENTER
- ⑳ PRESSURE REDUCING STATION
- ㉑ ELECTRIC WATER HEATER
- ㉒ GUARDRAIL SWING GATE FOR OFFLOADING TOTES AND DRUMS

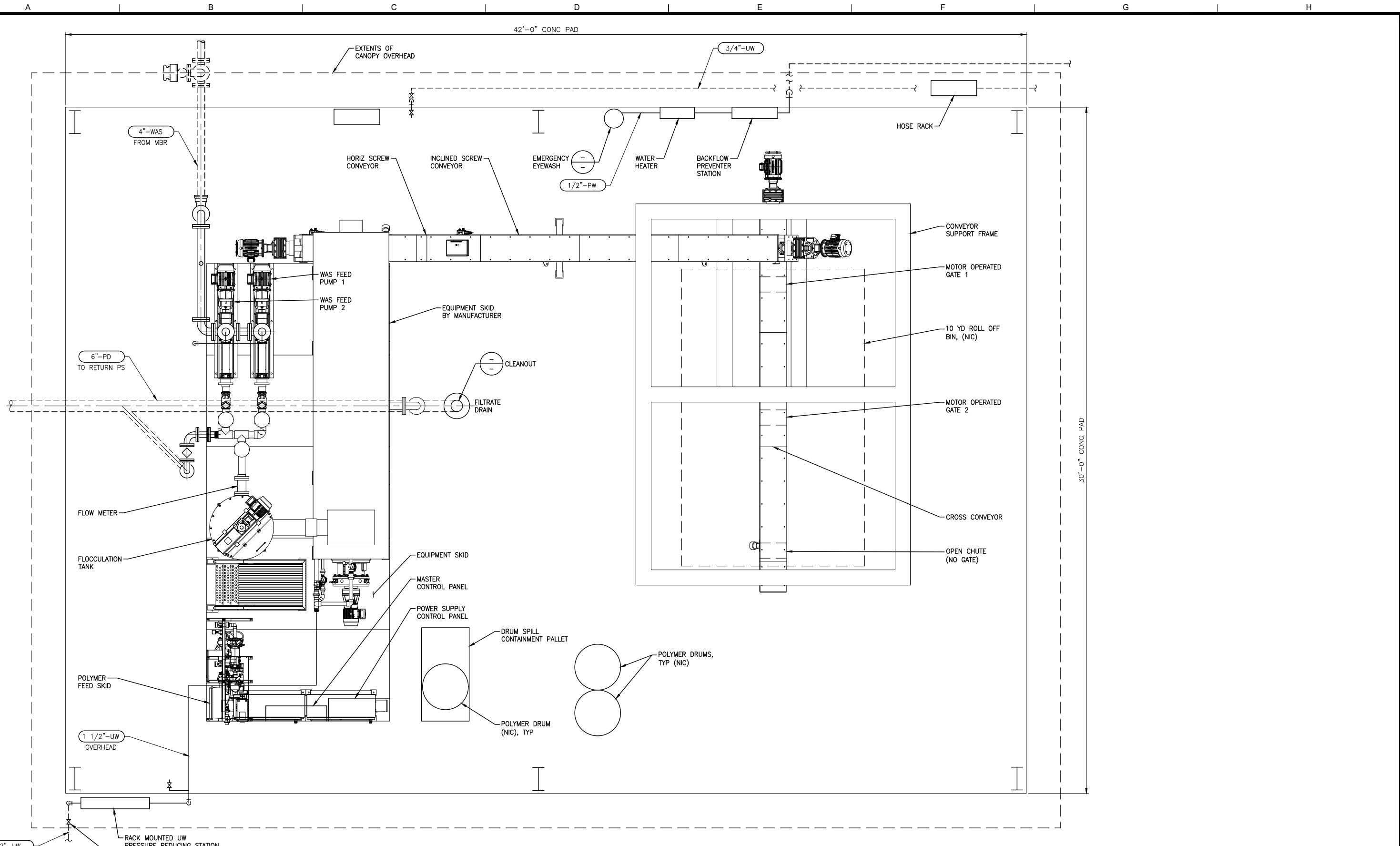


CHEMICAL STORAGE AREA PLAN
SCALE: 1/2"=1'-0"

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	<p>WARNING</p> <p>IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.</p>	<p>DESIGNED: MNR</p> <p>DRAWN: MAH</p> <p>CHECKED: DSW</p> <p>SCALE: 1/2"=1'-0"</p>	<p>PREPARED BY:</p> <p>MATTHEW N. RODRIGUES RCE No.: 84311</p> <p>DATE</p>		<p>805 AEROVISTA PLACE, SUITE 201 PHONE: (805) 457-8833</p> <p>SAN LUIS OBISPO, CA 93401 FAX: (805) 888-2764</p>	<p>HERITAGE RANCH COMMUNITY SERVICES DISTRICT 4870 HERITAGE ROAD PASO ROBLES, CA 93446</p> <p>APPROVED: _____ POSITION _____ DATE _____</p>	<p>WATER RESOURCE RECOVERY FACILITY UPGRADE</p> <p>MECHANICAL</p> <p>CHEMICAL STORAGE AREA PLAN</p>	<p>DRAWING</p> <p>05-M101</p> <p>SHEET X OF X PROJECT # _____</p>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	BY	DESCRIPTION																				
REV	DATE	BY	DESCRIPTION																					

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DEWATERING PLAN
SCALE: 1/2"=1'-0"

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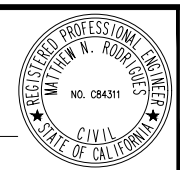
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DRAWN	MAH
CHECKED	DSW
SCALE	1/2"=1'-0"

PREPARED BY:
MATTHEW N. RODRIGUES
RCE No.: 84311

DATE



WSC

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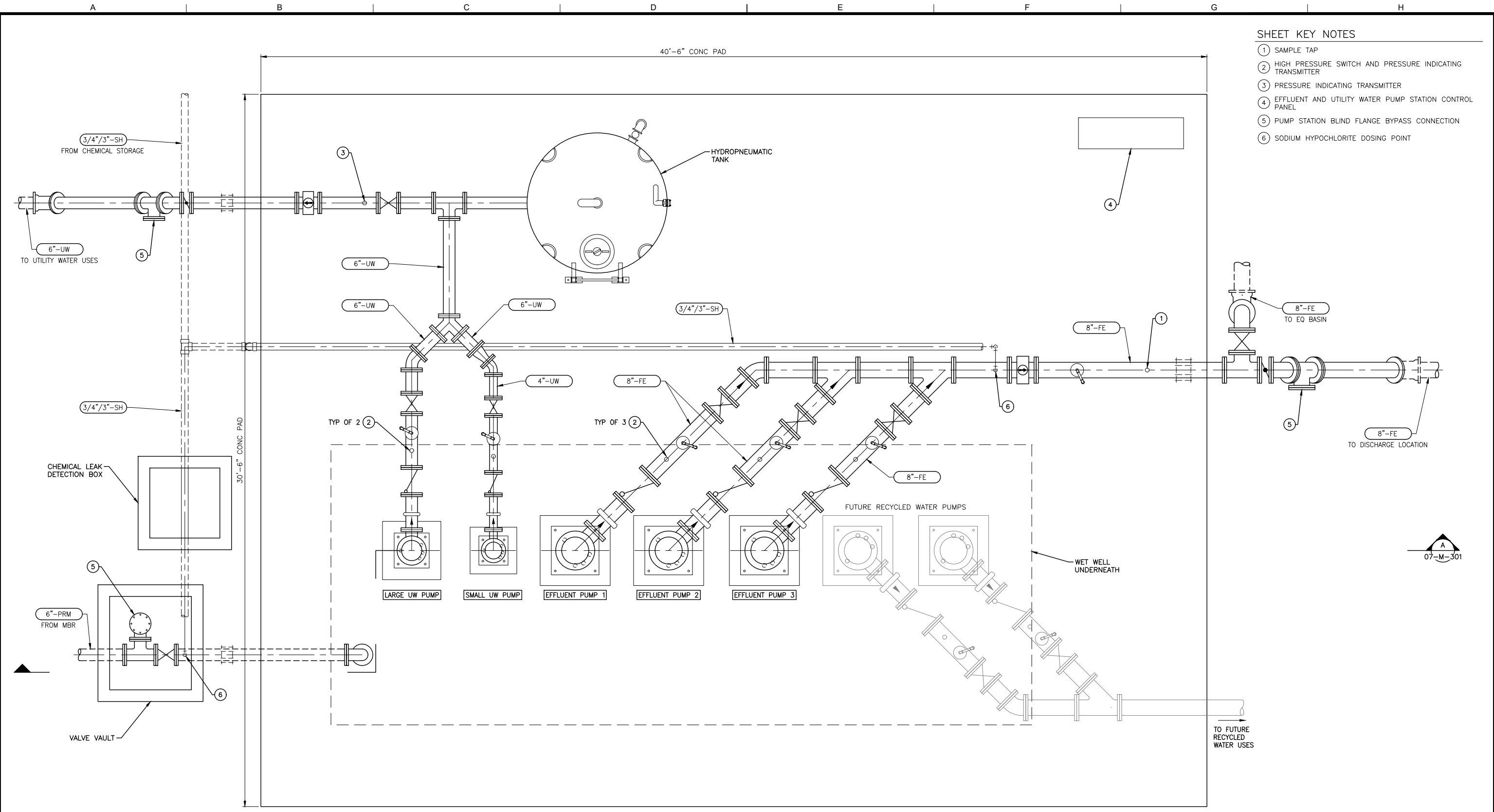
WATER RESOURCE RECOVERY FACILITY UPGRADE
MECHANICAL

DEWATERING PLAN

DRAWING
06-M101

SHEET X OF X
PROJECT # _____

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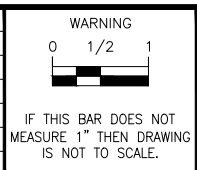


- SHEET KEY NOTES**
- ① SAMPLE TAP
 - ② HIGH PRESSURE SWITCH AND PRESSURE INDICATING TRANSMITTER
 - ③ PRESSURE INDICATING TRANSMITTER
 - ④ EFFLUENT AND UTILITY WATER PUMP STATION CONTROL PANEL
 - ⑤ PUMP STATION BLIND FLANGE BYPASS CONNECTION
 - ⑥ SODIUM HYPOCHLORITE DOSING POINT

EFFLUENT AND UTILITY WATER PUMP STATION PLAN
SCALE: 1/2"=1'-0"

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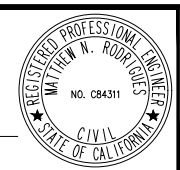
REV	DATE	BY	DESCRIPTION



DESIGNED: MNR
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 CHECKED: DSW
 SCALE: 1/2"=1'-0"

PREPARED BY:
 MATTHEW N. RODRIGUES
 RCE No.: 84311

DATE: _____



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 PASO ROBLES, CA 93446

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WATER RESOURCE RECOVERY FACILITY UPGRADE
 MECHANICAL

EFFLUENT AND UTILITY WATER PUMP STATION PLAN

DRAWING
07-M101
 SHEET X OF X
 PROJECT # _____

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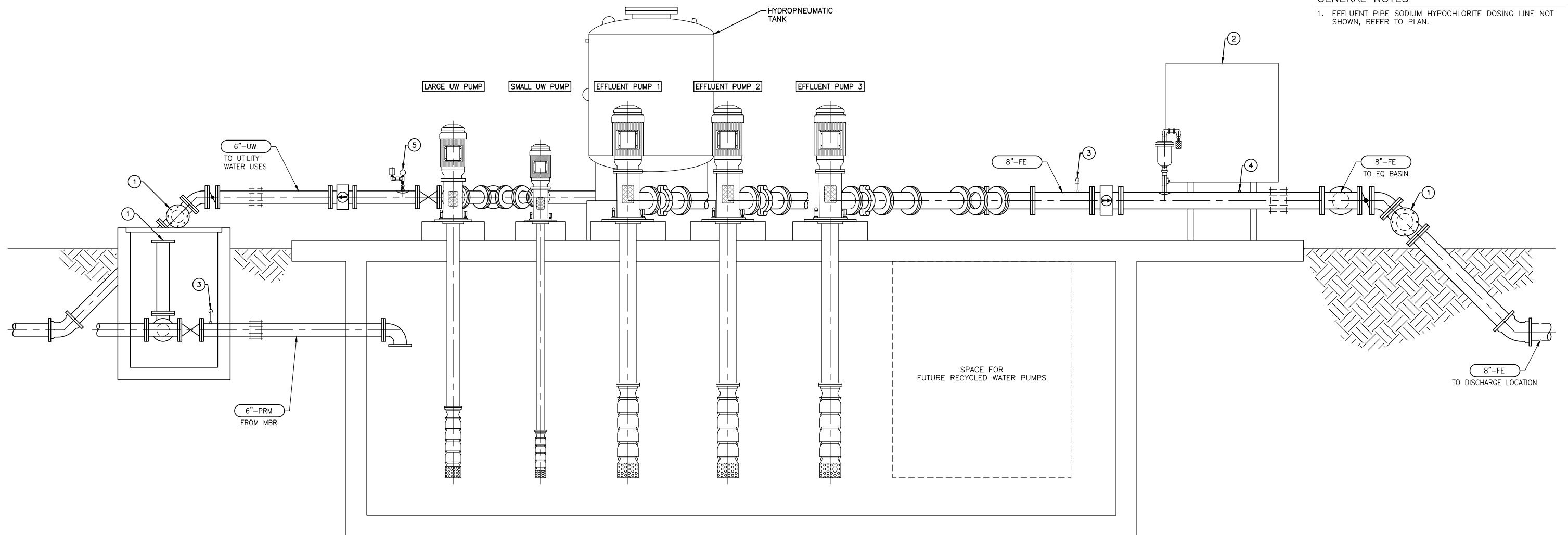
A B C D E F G H

SHEET KEY NOTES

- ① PUMP STATION BLIND FLANGE BYPASS CONNECTION
- ② EFFLUENT AND UTILITY WATER PUMP STATION CONTROL PANEL
- ③ SODIUM HYPOCHLORITE DOSING POINT
- ④ SAMPLE TAP
- ⑤ PRESSURE INDICATING TRANSMITTER

GENERAL NOTES

- 1. EFFLUENT PIPE SODIUM HYPOCHLORITE DOSING LINE NOT SHOWN, REFER TO PLAN.



EFFLUENT AND UTILITY WATER PUMP STATION SECTION A
07-M101
SCALE: 1/2"=1'-0"

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REV	DATE	BY	DESCRIPTION

WARNING

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DESIGNED	KCH
DRAWN	MAH
CHECKED	DSW
SCALE	1/2"=1'-0"

PREPARED BY:
MATTHEW N. RODRIGUES
RCE No.: 84311

DATE

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WATER RESOURCE RECOVERY FACILITY UPGRADE
MECHANICAL

**EFFLUENT AND UTILITY WATER
PUMP STATION SECTION**

DRAWING
07-M301

SHEET X OF X
PROJECT #

ABBREVIATIONS	
A	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AICS	AMPERES INTERRUPTING CAPACITY, SYMMETRICAL
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
C	CONDUIT
CB	CIRCUIT BREAKER
CO	CONDUIT ONLY
CKT	CIRCUIT
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DP	DEEP
DC	DIRECT CURRENT
DISC	DISCONNECT
DWG	DRAWING
E	EXISTING
ELEV	ELEVATION
G, GND	GROUND
GFCI	GROUND FAULT CURRENT INTERRUPTING
GRS	GALVANIZED RIGID STEEL
HDG	HOT DIPPED GALVANIZED
HH	HANDHOLE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HR	HOUR
Hz	HERTZ
JB	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATT
L	LONG
LA	LIGHTING ARRESTOR
LTG	LIGHTING
MT'D	MOUNTED
MA	MILLIAMPERE
MCC	MOTOR CONTROL CENTER
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
N	NEUTRAL
NC	NORMAL CLOSED
NO	NORMAL OPEN
NTS	NOT TO SCALE
O/L'S	OVERLOADS
P	POLE
PB	PULL BOX, PUSH BUTTON
PH, Ø	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PQM	POWER QUALITY METER
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECP	RECEPTACLE
RGS	RIGID STEEL CONDUIT
RVSS	REDUCED VOLTAGE SOLID STATE
SMUD	SACRAMENTO MUNICIPAL UTILITY DISTRICT
SW	SWITCH
TB	TERMINAL BOARD
TEL. CO.	TELEPHONE COMPANY
TWSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UG	UNDERGROUND
V	VOLT
W	WIRE, WIDE
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL SYMBOLS - PLANS			
CLG.	WALL	FLR.	SYMBOLS DESCRIPTION
			DUPLEX RECEPTACLE
			JUNCTION BOX
			AREA FLOOD LIGHT AND POLE
		+18"	INDICATES HEIGHT FROM FINISHED GRADE TO CENTERLINE OF DEVICE
	*		+ 18" U.O.N.
			HANDHOLE, 11"Hx17"Lx18"D, U.O.N.
			FUSIBLE DISCONNECT SWITCH SITE AS NOTED ON PLANS.
			CONTROL STATION, SEE SCHEMATIC DIAGRAM
			FEEDER DESIGNATION SEE SCHEDULE OR ONE LINE DIAGRAM FOR SIZE
			CONDUIT IN SLAB OR UNDER GROUND 3/4"C-2#12 & 1#12 GND. U.O.N.
			CONDUIT EXPOSED 3/4"C-2#12 & 1#12 GND U.O.N.
			QUANTITY #12 WIRE 3/4"C U.O.N. CURVE LINE INDICATES GROUND WIRE
			WIRE SIZE OTHER THAN #12 CURVE LINE INDICATES GROUND WIRE
			GROUNDING CONDUCTOR 30" BELOW GRADE, #4/0 U.O.N.
			EXOTHERMIC WELD CONNECTION
			HOMERUN TO PANEL A, CIRCUIT 1 AND 3
			CONDUIT BENDS TOWARD OBSERVER CONDUIT BENDS AWAY FROM OBSERVER
			CONDUIT STUB-OUT AND CAPPED
			FLEXIBLE CONDUIT CONNECTION
			CONDUIT SEAL (HAZARDOUS LOCATION)
			MOTOR CONNECTION
			GROUND ROD, 3/4" x 10'-0" GW NEXT TO SYMBOL INDICATES GROUND ROD WITH GROUND WELL. SEE DETAIL.
			DETAIL CALLOUT- X, DETAIL IDENTIFIER. Y- SHEET WHERE DETAIL IS DRAWN
			JUNCTION BOX OR PULLBOX
	(E)		EXISTING TO REMAIN
	(RS)		EXISTING TO BE REMOVE AND SALVAGED.
	(D)		EXISTING TO BE DEMOLISHED.

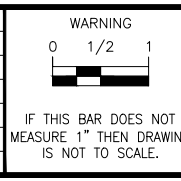
POWER WIRE COLOR CODE					
SYSTEM	PHASE A	PHASE B	PHASE C	NEUTRAL	GROUND
208Y/120V	BLACK	RED	BLUE	WHITE	GREEN
480Y/277V	BROWN	ORANGE	YELLOW	GRAY	GREEN
240Y/120V	BLACK	RED	----	WHITE	GREEN
240V	BLACK	RED	BLUE	WHITE	GREEN

ELECTRICAL SYMBOLS - SINGLE LINE DIAGRAM	
	UTILITY METERING
	AMMETER
	VOLTMETER
	VOLTMETER SWITCH
	AMMETER SWITCH
	CURRENT TRANSFORMER, QUANTITY INDICATED
	POWER TRANSFORMER
	CIRCUIT BREAKER, 3 POLE UNLESS NOTED MCP INDICATES MOTOR CIRCUIT PROTECTOR
	MAGNETIC MOTOR STARTER, NEMA SIZE INDICATED FVNR=FULL-VOLTAGE NON-REVERSING 2S, 2W = 2 SPEED, 2 WINDING
	SWITCH
	FUSE
	DISCONNECT SWITCH "F" INDICATES FUSED, SEE PLANS FOR RATING
	MOTOR, 15 HORSEPOWER
	GENERATOR
	SURGE ARRESTER
	LIGHTING ARRESTER
	GROUND
	DELTA CONNECTION
	WYE CONNECTION
	POWER FAILURE RELAY
	GROUND FAULT RELAY
	SPACE HEATER
	FLUORESCENT LIGHT FIXTURE
	VENTILATION FAN
	UTILITY SERVICE
	SOLID STATE STARTER
	VARIABLE FREQUENCY DRIVE

ELECTRICAL SYMBOLS - SCHEMATIC DIAGRAMS		
NORMALLY OPEN	NORMALLY CLOSED	DEVICE
		CONTACT
		PUSH BUTTON SINGLE CIRCUIT MOMENTARY CONTACT
		PUSH BUTTON SINGLE CIRCUIT LOCK-OUT
		LIQUID FLOAT LEVEL SWITCH
		PRESSURE OR VACUUM SWITCH
		FLOW SWITCH
		TEMPERATURE SWITCH
		TIME CONTACT CONTACT ACTION RETARDED ON ENERGIZATION
		TIME CONTACT CONTACT ACTION RETARDED ON DE-ENERGIZATION
		SELECTOR SWITCH (H-O-A)
		MANUAL MOTOR STARTER
		MOTOR OVERLOAD RELAY CONTACT
		MOTOR OVERLOAD HEATER
		PILOT LIGHT R=RED, W=WHITE, G=GREEN, A=AMBER
		PILOT LIGHT-PUSH TO TEST
		RELAY
		TIME DELAY RELAY
		STARTER COIL
		SOLENOID OPERATED VALVE
		MOTOR
		BELL OR BUZZER
		ELAPSED TIME METER
		FUSE
		CONTROL POWER TRANSFORMER
		GROUND
		WIRING IN MOTOR STARTER OR CONTROL PANEL
		FIELD WIRING
		WIRE TERMINAL IN MOTOR STARTER OR CONTROL PANEL
		WIRE TERMINAL IN PLC
		PHASE/POWER FAILURE RELAY
		SPACE HEATER
		RESISTOR
		CIRCUIT BREAKER

- GENERAL NOTES:**
- INSTALLATION SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES HAVING JURISDICTION.
 - AN EQUIPMENT GROUNDING CONDUCTOR SIZED PER THE NEC SHALL BE PULLED IN ALL ELECTRICAL CONDUITS (POWER AND CONTROL) WHETHER OR NOT SHOWN ON THE PLANS.
 - ALL EQUIPMENT SHALL BE NEW, UNUSED, AND U.L. LISTED (WHERE A U.L. LISTING IS AVAILABLE FOR THAT CLASS OF EQUIPMENT).
 - ALL EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
 - THE DRAWINGS ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT RUNS AND STUB-UPS. THESE ARE TO BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND MAINTAIN REQUIRED CLEARANCES. THE CONTRACTOR SHALL COORDINATE CONDUIT STUB-UP LOCATIONS BASED UPON APPROVED EQUIPMENT SHOP DRAWINGS. UNLESS SHOWN OTHERWISE,
 - ALL LIGHTING & RECEPTACLE HOMERUNS SHALL BE 3/4" CONDUIT CONTAINING (AS A MINIMUM) 2#12 AND 1 #12 GND.
 - DETAILS APPLY TO ALL WORK, EVEN IF DETAIL CALLOUT IS NOT SPECIFICALLY CALLED OUT ON DRAWINGS.

REV	DATE	BY	DESCRIPTION



DESIGNED	JCC
DRAWN	KSC
CHECKED	MNR
SCALE	NO SCALE

PREPARED BY:
 JOHN CALTON, PE
 No.: E14099
 DATE



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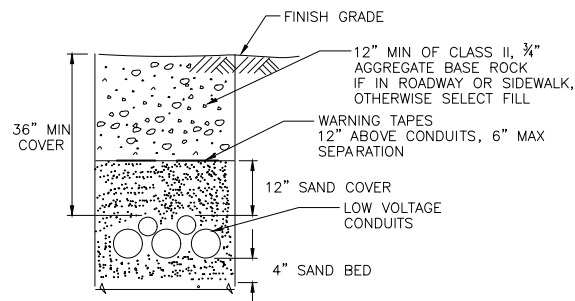
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WATER RESOURCE RECOVERY FACILITY UPGRADE

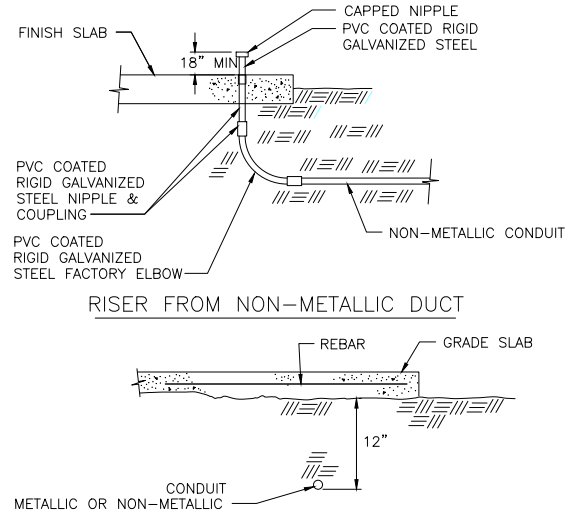
ELECTRICAL NOTES, SYMBOLS, AND ABBREVIATIONS

DRAWING
00-E001
 SHEET X OF XX
 PROJECT # _____

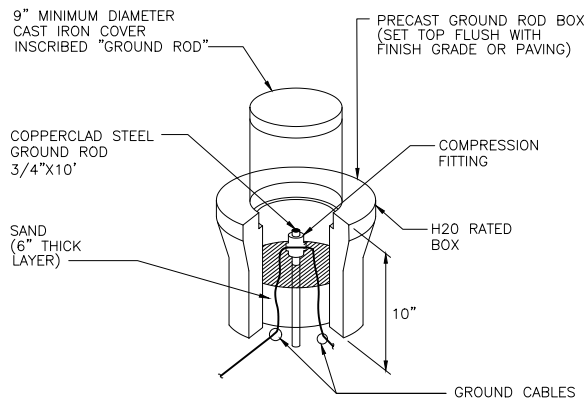
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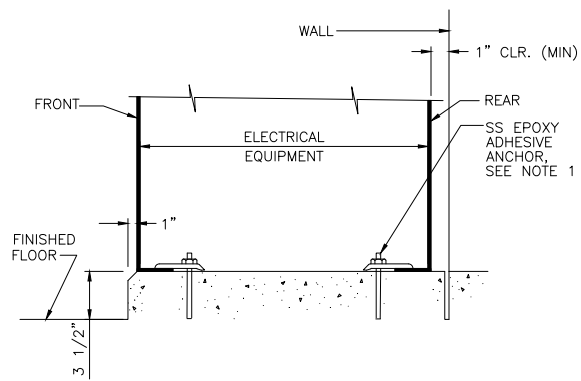
TYPICAL ELECTRICAL TRENCH SECTION 1



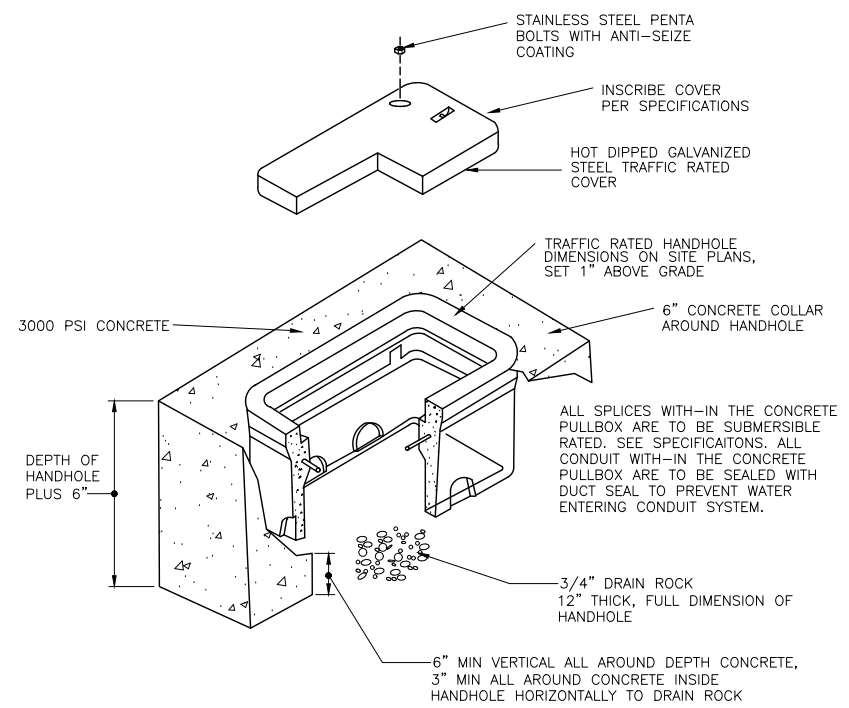
RISER FROM NON-METALLIC DUCT
CONDUIT PLACEMENT UNDER SLAB 2



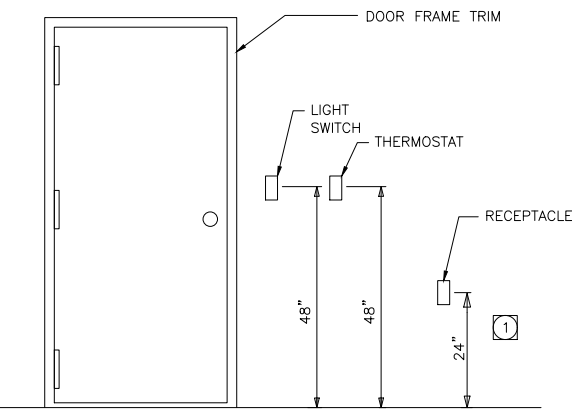
GROUND ROD INSTALLATION 3



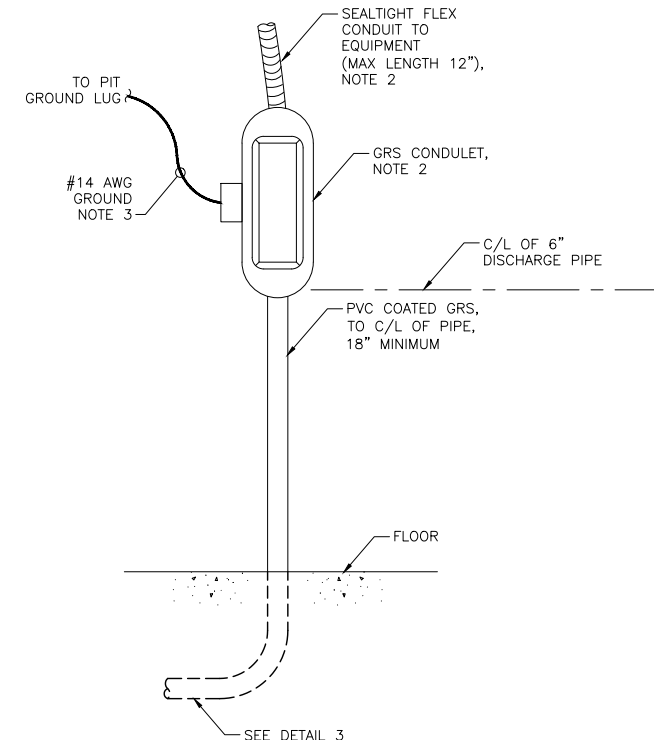
NOTES:
1. EQUIPMENT ANCHORAGE SHALL BE DESIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER.
FREESTANDING EQUIPMENT MOUNTING 4



HANDHOLE DETAIL 6



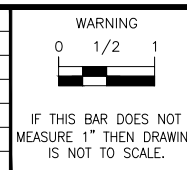
OUTLET BOX MOUNTING 5
1 OR AS NOTED ON PLAN DRAWINGS



NOTES:
1. CONDUIT STUB UP THRU CONCRETE FLOOR TO BE PVC COATED GALVANIZED RIGID STEEL AND CONTINUE PVC COATED CONDUIT TO CONDULET.
2. CONTRACTOR TO PROVIDE HOT DIPPED GALVANIZED STRUT, ANCHORED TO FLOOR, FOR SUPPORT OF CONDUITS, AND CONDULET, PER NEC.
3. FOR PRESSURE TRANSMITTER ONLY, PROVIDE 'T' CONDULET AND ROUTE EQUIPMENT GROUNDING CONDUCTOR TO TRANSMITTER.
TYPICAL CONDUIT TO EQUIPMENT DETAIL 7

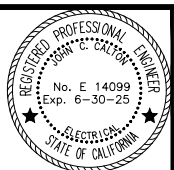
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REV	DATE	BY	DESCRIPTION



DESIGNED	JCC
DRAWN	KSC
CHECKED	MNR
SCALE	NO SCALE

PREPARED BY:
JOHN CALTON, PE
No.: E14099
DATE



805 AEROVISTA PLACE, SUITE 201
PHONE: (805) 457-8833

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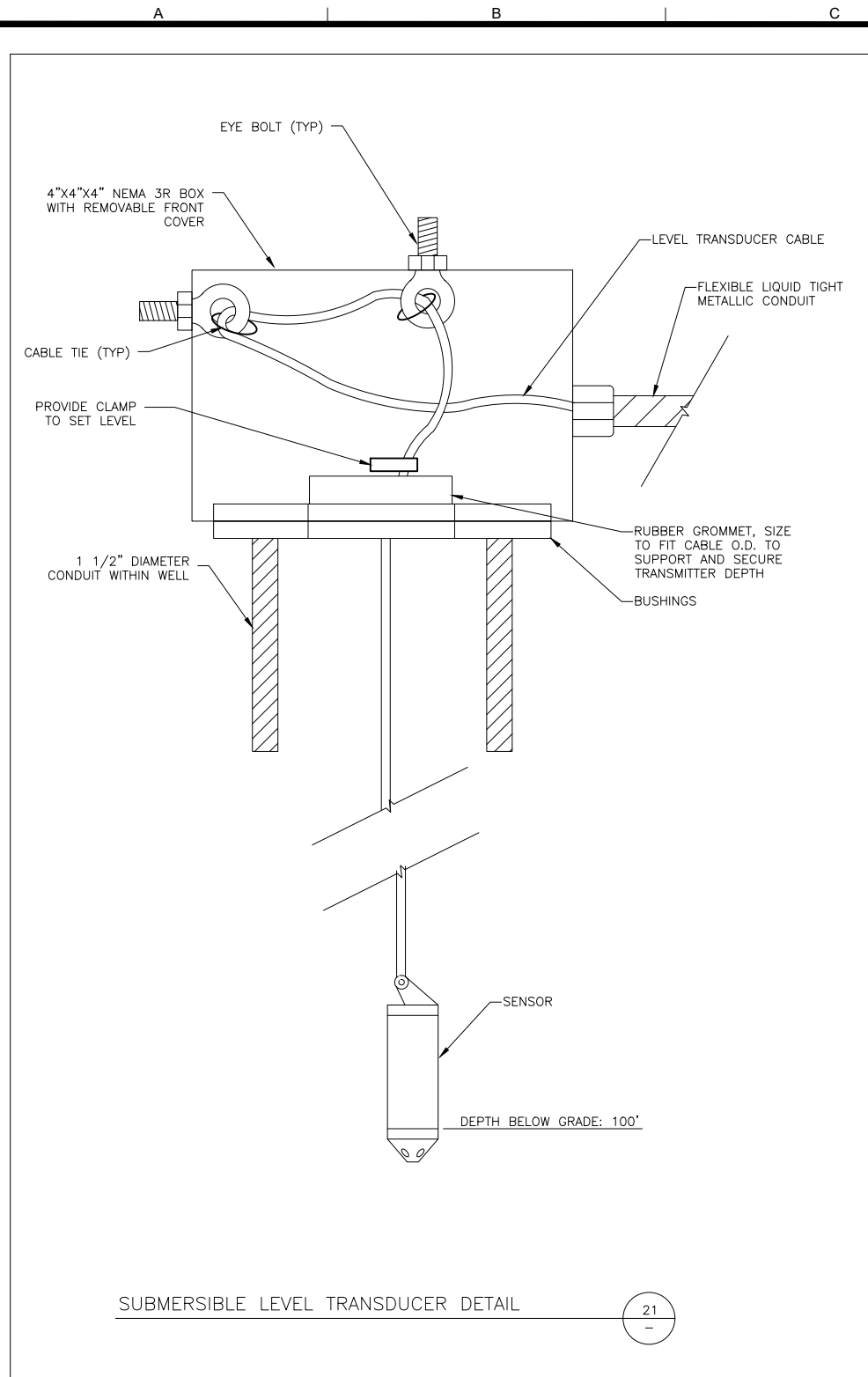
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
4870 HERITAGE ROAD
PASO ROBLES, CA 93446

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WATER RESOURCE RECOVERY FACILITY UPGRADE

ELECTRICAL DETAILS 1

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00-E501
SHEET X OF XX
PROJECT # _____



SUBMERSIBLE LEVEL TRANSDUCER DETAIL

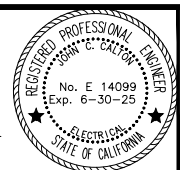
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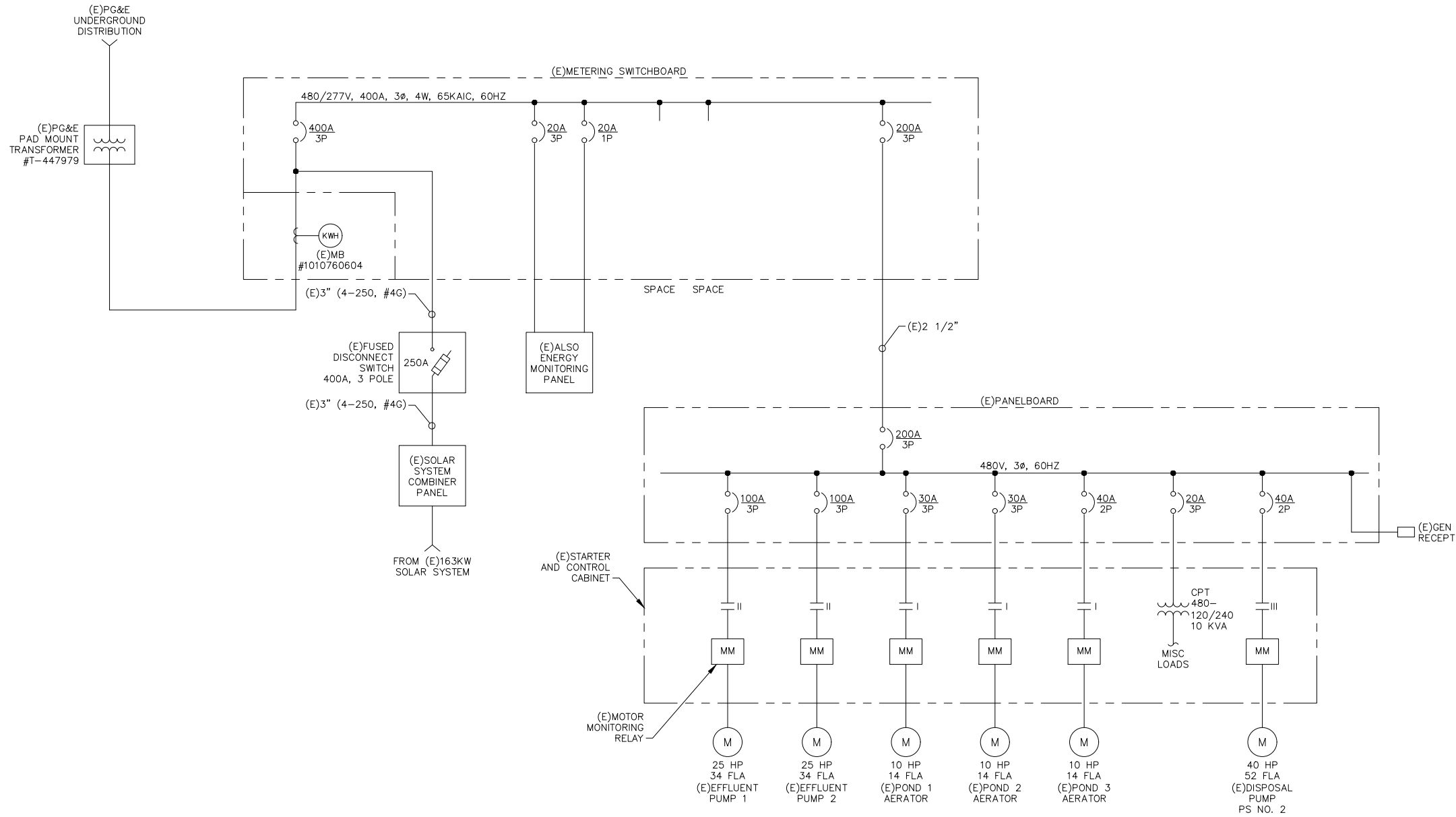
PREPARED BY:
 JOHN CALTON, PE
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HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 ELECTRICAL DETAILS 2

DRAWING
 00-E502
 SHEET X OF XX
 PROJECT # _____

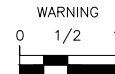


LOAD CALCULATIONS	
AT 480 VAC, 3 PHASE	
LOAD DESCRIPTION	AMPS
EFFLUENT PUMP 1 (25 HP)	34
EFFLUENT PUMP 2 (25 HP)	34
POND 1 AERATOR (10 HP)	14
POND 2 AERATOR (10 HP)	14
POND 3 AERATOR (10 HP)	14
CONTROL POWER TRANSFORMER (10 KVA)	20
DISPOSAL PUMP (40 HP)	52
SUBTOTAL	182
25% CONTINGENCY	46
TOTAL AMPS	228

EXISTING SINGLE LINE DIAGRAM

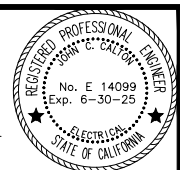
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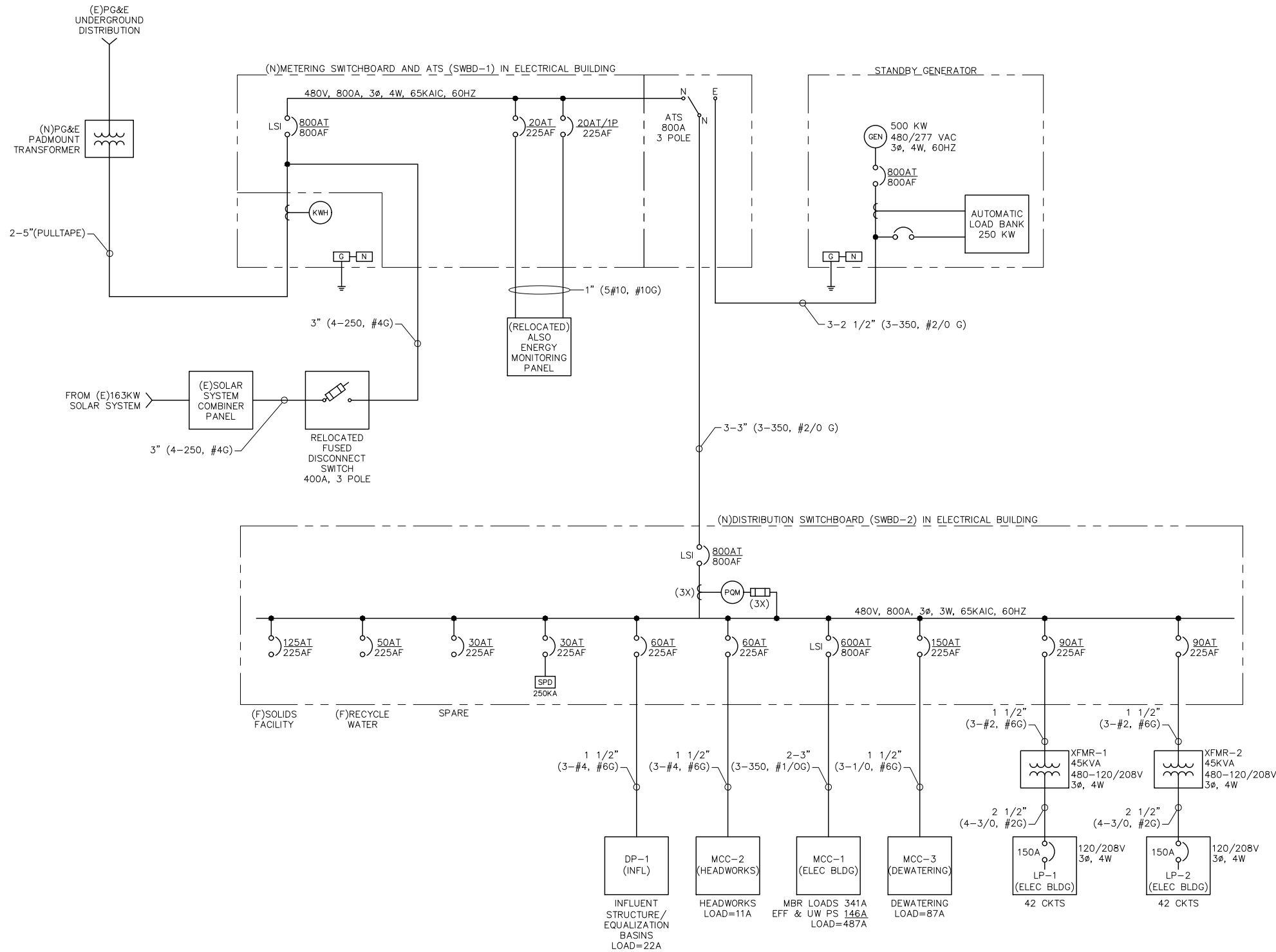
PREPARED BY:
 JOHN CALTON, PE
 No.: E14099



HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 EXISTING SINGLE LINE DIAGRAM

DRAWING
 00-E601
 SHEET X OF XX
 PROJECT # _____



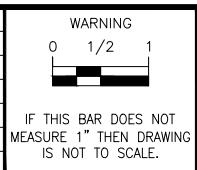
PROPOSED SINGLE LINE DIAGRAM

LOAD CALCULATIONS AT 480 VAC		
DESCRIPTION	CONNECTED AMPS	DUTY AMPS
INFLUENT STRUCTURE/ EQUALIZATION PUMPS		
EQUALIZATION BASIN AERATOR 1 (7.5 HP)	11	11
EQUALIZATION BASIN AERATOR 2 (7.5 HP)	11	(NOTE 1)
SUBTOTALS	22	11
HEADWORKS		
COARSE SCREEN 1 (0.75 HP)	1.4	1.4
COARSE SCREEN 2 (0.75 HP)	1.4	1.4
WASHER COMPACTOR (5 HP)	7.6	7.6
SUBTOTALS	10.4	10.4
PACKAGED MBR FACILITY		
FINE SCREEN GRIT REMOVAL (3 HP)	4.8	4.8
AIR DRYER (1 HP)	1.8	1.8
BLOWER 1 - BIOLOGICAL REACTOR (20 HP)	27	27
BLOWER 2 - BIOLOGICAL REACTOR (20 HP)	27	27
BLOWER 3 - BIOLOGICAL REACTOR (20 HP)	27	(NOTE 1)
BLOWER 1 - MEMBRANE (15 HP)	21	21
BLOWER 2 - MEMBRANE (15 HP)	21	21
BLOWER 3 - MEMBRANE (15 HP)	21	(NOTE 1)
AIR COMPRESSOR (7.5 HP)	11	11
ANOXIC TANK MIXER 1 (5 HP)	7.6	7.6
ANOXIC TANK MIXER 2 (5 HP)	7.6	7.6
DEOXYGENATION TANK MIXER 1 (3 HP)	4.8	4.8
DEOXYGENATION TANK MIXER 2 (3 HP)	4.8	4.8
WAS PUMP 1 (3 HP)	4.8	4.8
WAS PUMP 2 (3 HP)	4.8	(NOTE 1)
RAS PUMP 1 (7.5 HP)	11	11
RAS PUMP 2 (7.5 HP)	11	11
RAS PUMP 3 (7.5 HP)	11	(NOTE 1)
IMLR FLOW PUMP 1 (3 HP)	4.8	4.8
IMLR FLOW PUMP 2 (3 HP)	4.8	4.8
PERMEATE PUMP 1 (10 HP)	14	14
PERMEATE PUMP 2 (10 HP)	14	14
PERMEATE PUMP 3 (10 HP)	14	(NOTE 1)
WATER HEATER (40 KW)	60	(NOTE 1)
SUBTOTALS	340.6	202.8
CHEMICAL FACILITY		
HYPO DOSING PUMP 1 (0.25 HP)	0.5	0.5
HYPO DOSING PUMP 2 (0.25 HP)	0.5	(NOTE 1)
CAUSTIC DOSING PUMP 1 (0.25 HP)	0.5	0.5
CAUSTIC DOSING PUMP 2 (0.25 HP)	0.5	(NOTE 1)
ACID DOSING PUMP 1 (0.25 HP)	0.5	0.5
ACID DOSING PUMP 2 (0.25 HP)	0.5	(NOTE 1)
CARBON DOSING PUMP 1 (0.25 HP)	0.5	0.5
CARBON DOSING PUMP 2 (0.25 HP)	0.5	(NOTE 1)
WATER HEATER (12 KW)	19	(NOTE 1)
SUBTOTALS	23.0	2.0
DEWATERING FACILITY		
SLUDGE FEED PUMP 1 (3 HP)	4.8	4.8
SLUDGE FEED PUMP 2 (3 HP)	4.8	(NOTE 1)
DEWATERING UNIT (3 HP)	4.8	4.8
FLOC TANK MIXER (1 HP)	1.8	1.8
SLUDGE CONVEYOR (3 HP)	4.8	4.8
SPEED REDUCER (2 HP)	3	3.4
POLYELECTROLYTE PREP UNIT (1 HP)	1.8	1.8
POLYELECTROLYTE DOSING PUMP 1 (5 HP)	7.6	7.6
POLYELECTROLYTE DOSING PUMP 2 (5 HP)	7.6	(NOTE 1)
SOLIDS STORAGE TANK BLOWER 1 (5 HP)	7.6	7.6
SOLIDS STORAGE TANK BLOWER 2 (5 HP)	7.6	(NOTE 1)
ODOR CONTROL (7.5 HP)	11	11
WATER HEATER (12 KW)	19	(NOTE 1)
SUBTOTALS	86.6	47.6
EFFLUENT AND UW PUMP STATION		
EFFLUENT PUMP 1 (30 HP)	40	40
EFFLUENT PUMP 2 (30 HP)	40	40
EFFLUENT PUMP 3 (30 HP)	40	(NOTE 1)
UTILITY WATER BOOSTER PUMP 1 (3 HP)	4.8	4.8
UTILITY WATER BOOSTER PUMP 2 (15 HP)	21	(NOTE 1)
SUBTOTALS	145.8	84.8
MISC. ELECTRICAL LOADS		
120/208V TRANSFORMER 1 (45 KVA)	54	32.4
120/208V TRANSFORMER 2 (45 KVA)	54	32.4
OPERATIONS BUILDING	25	15
FUTURE LOADS (SOLIDS FACILITY)	100	80
SUBTOTALS	233.0	159.8
FUTURE RECYCLE WATER PUMPS		
RECYCLED WATER PUMP 1 (7.5 HP)	11	11
RECYCLED WATER PUMP 2 (7.5 HP)	11	11
SUBTOTALS	22.0	22.0
GRAND SUBTOTALS	883	540
25% DUTY (CONTINUOUS) LOAD:	135	
TOTAL LOAD:	676	

NOTES:
1. DUTY LOAD, NOT PART OF CONTINUOUS LOAD CALCULATIONS.

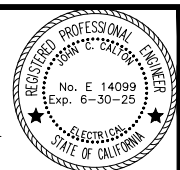
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REV	DATE	BY	DESCRIPTION



DESIGNED: JCC
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CHECKED: MNR
SCALE: NO SCALE

PREPARED BY:
JOHN CALTON, PE
No.: E14099



HERITAGE RANCH COMMUNITY SERVICES DISTRICT
4870 HERITAGE ROAD
PASO ROBLES, CA 93446
APPROVED: _____ POSITION _____ DATE _____

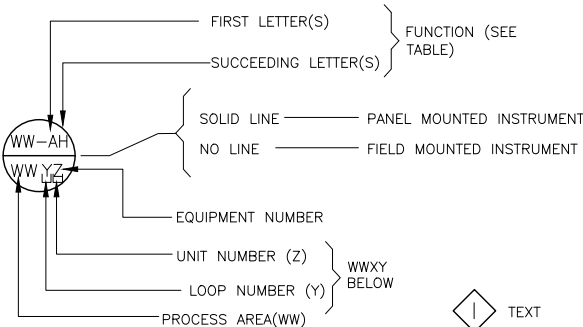
WATER RESOURCE RECOVERY FACILITY UPGRADE
PROJECT #
PROPOSED SINGLE LINE DIAGRAM

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00-E602
SHEET X OF XX
PROJECT #

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INSTRUMENTATION IDENTIFICATION

EXAMPLE SYMBOLS



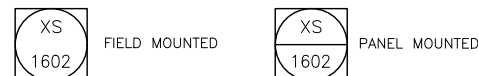
INSTRUMENT



PLC (PROGRAMMABLE LOGIC CONTROLLER)



HMI (HUMAN-MACHINE INTERFACE)

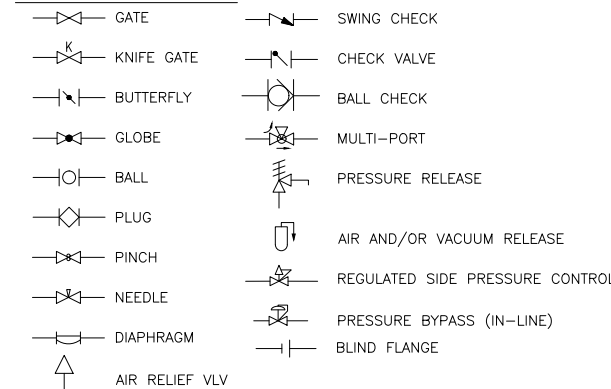


INSTRUMENT SOCIETY OF AMERICA TABLE

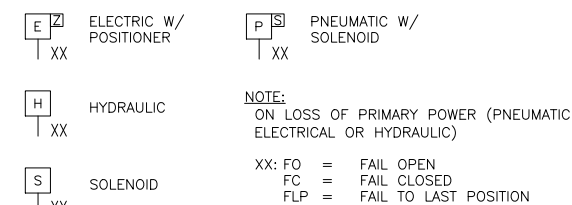
LETTER	FIRST LETTER (S)		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (+)		ALARM		
B	BURNER FLAME		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+)
C	CONDUCTIVITY			CONTROL	
D	DENSITY (S.G)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	GAUGE		GLASS	GATE	
H	HAND (MANUAL)				
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION				MIDDLE
N	USERS CHOICE (+)		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+)
O	USERS CHOICE (+)		ORIFICE		
P	PRESSURE (OR VACUUM)		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE	INTEGRATE		
R			RECORD OR POINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (+)		MULTIFUNCTION	MULTIFUNCTION (+)	MULTIFUNCTION (+)
V	VISCOSITY			VALVE OR DAMPER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED (+)		UNCLASSIFIED (+)	UNCLASSIFIED (+)	UNCLASSIFIED (+)
Y	EVENT			RELAY OR COMPUTE (+)	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS.

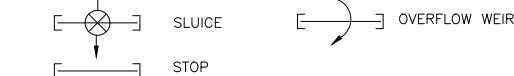
VALVE SYMBOLS



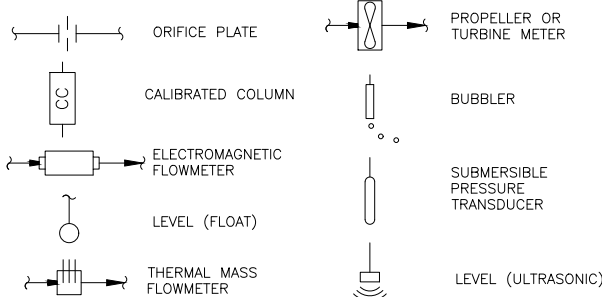
ACTUATOR SYMBOLS



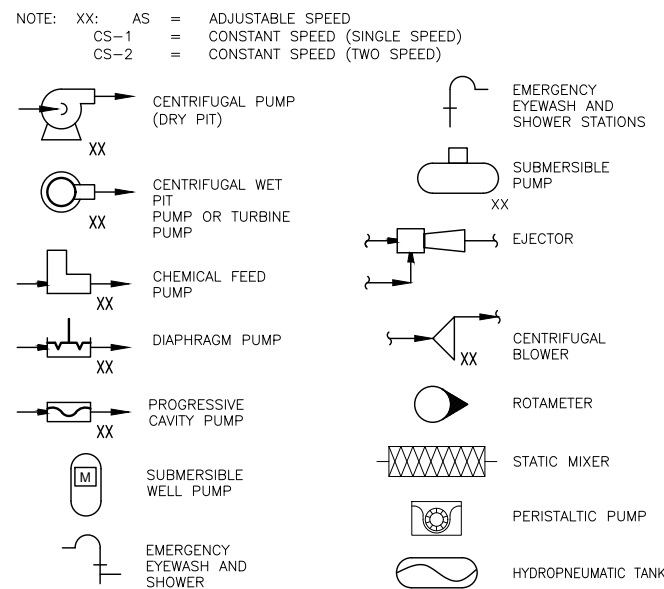
GATE SYMBOLS



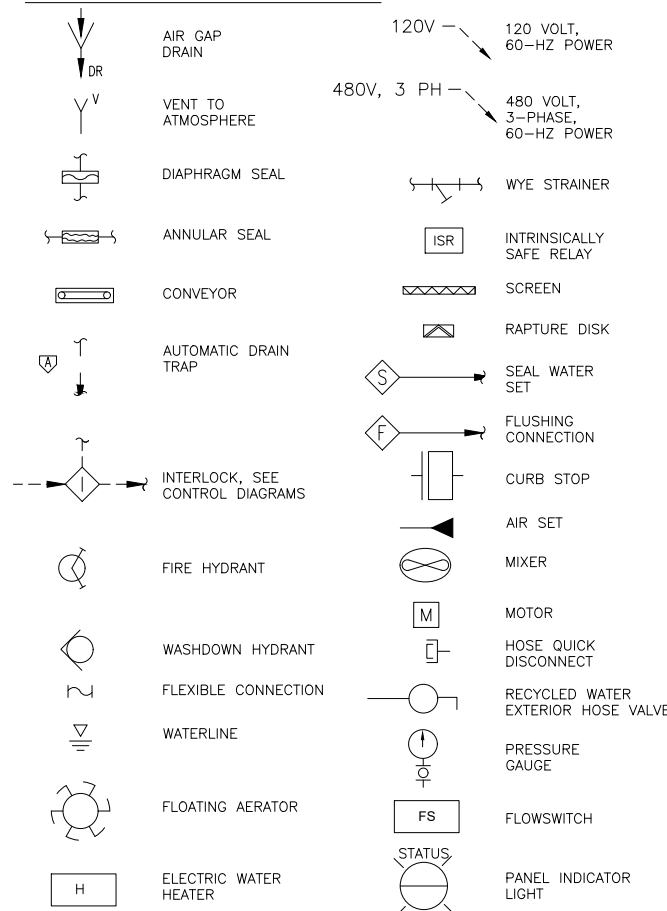
PRIMARY ELEMENT SYMBOLS



EQUIPMENT SYMBOLS



MISCELLANEOUS SYMBOLS



ABBREVIATIONS

ACK	ACKNOWLEDGE
AFD	ADJUSTABLE FREQUENCY DRIVE
AHU	AIR HANDLING UNIT
CS	CONSTANT SPEED
DC	DIRECT CURRENT
EF	EXHAUST FAN
HMI	HUMAN-MACHINE INTERFACE
HOA	HAND-OFF-AUTO
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
LCP	LOCAL CONTROL PANEL
LOR	LOCAL-OFF-REMOTE
LR	LOCAL-REMOTE
MA	MANUAL-AUTO
MCC	MOTOR CONTROL CENTER
MFR	MANUFACTURER
MPU	MOTOR PROTECTION UNIT
OC	OPEN-CLOSE (D)
OCA	OPEN-CLOSE-AUTO
OD	ON-OFF
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
OSC	OPEN-STOP-CLOSE
PF	PULSE FREQUENCY
pH	HYDROGEN ION CONCENTRATION
PLC	PROGRAMMABLE LOGIC CONTROLLER
PWR	POWER
SS	START-STOP
SSRVS	SOLID STATE REDUCED VOLTAGE STARTER
RIO	REMOTE IO PNL
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
VIB	VIBRATION

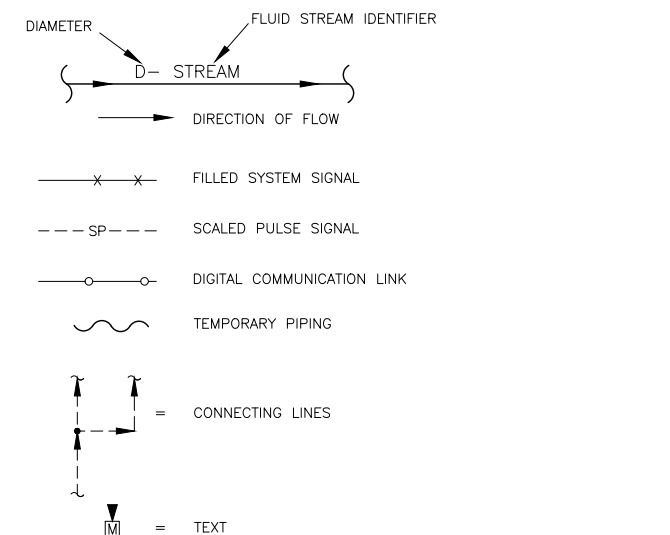
NOTES

- THIS IS A STANDARD LEGEND, THEREFORE NOT ALL OF THIS INFORMATION MAY BE USED ON THIS PROJECT.
- COMPONENTS AND PANELS SHOWN WITH A () ARE SPECIFIED UNDER SECTION PROCESS INSTRUMENTATION AND CONTROL SYSTEM.
- COMPONENTS AND PANELS SHOWN WITH ONE OR MORE ASTERISKS ARE PART OF A PACKAGE SYSTEM, SEE EQUIPMENT SPECIFICATIONS.

SELF CONTAINED VALVE & EQUIPMENT TAG NAMING

- ARV AIR RELEASE VALVE
- BFV BUTTERFLY VALVE
- CFP CHEMICAL FEED PUMP
- CP CENTRIFUGAL PUMP
- CS COARSE SCREEN
- EQP EQUALIZATION PUMP
- FCV FLOW CONTROL VALVE
- FS FINE SCREEN
- G GATE
- LCV LEVEL CONTROL VALVE
- M MECHANICAL EQUIPMENT
- P PUMP
- PCP PROGRESSIVE CAVITY PUMP
- PRV PRESSURE RELIEF VALVE
- PWP POTABLE WATER PUMP
- SGA SLIDE GATE ACTUATOR
- T TANK
- VTP VERTICAL TURBINE PUMP
- WP WELL PUMP
- WW = PROCESS NUMBER
- Y = LOOP NUMBER
- Z = UNIT NUMBER

INTERFACE SYMBOLS & LINE LEGEND



FLOW STREAM IDENTIFICATION

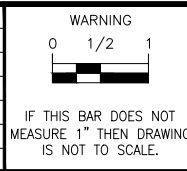
- UW UTILITY WATER
- LPA LOW PRESSURE AIR
- BD BACKDRAIN
- CA CITRIC ACID
- FA FOUL AIR
- FE FINAL EFFLUENT
- INF INFLUENT
- IA INSTRUMENT AIR
- PRM PERMEATE
- PW POTABLE WATER
- PDF PROCESS DRAIN (FORCE MAIN)
- PD PROCESS DRAIN (GRAVITY)
- RW RECYCLED WATER
- RAS RETURN ACTIVATED SLUDGE
- SD STORM DRAIN
- SH SODIUM HYPOCHLORITE
- CS SODIUM HYDROXIDE
- SL SLUDGE
- WW WASTEWATER
- WWF WASTEWATER (FORCEMAIN)
- WAS WASTE ACTIVATED SLUDGE

INPUT/OUTPUT INTERFACE SYMBOLS



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REV	DATE	BY	DESCRIPTION



DESIGNED	JCC
DRAWN	PMD
CHECKED	MNR
SCALE	NO SCALE

PREPARED BY:	JOHN CALTON, PE	DATE	
	No. E 14099		
	Exp. 6-30-25		

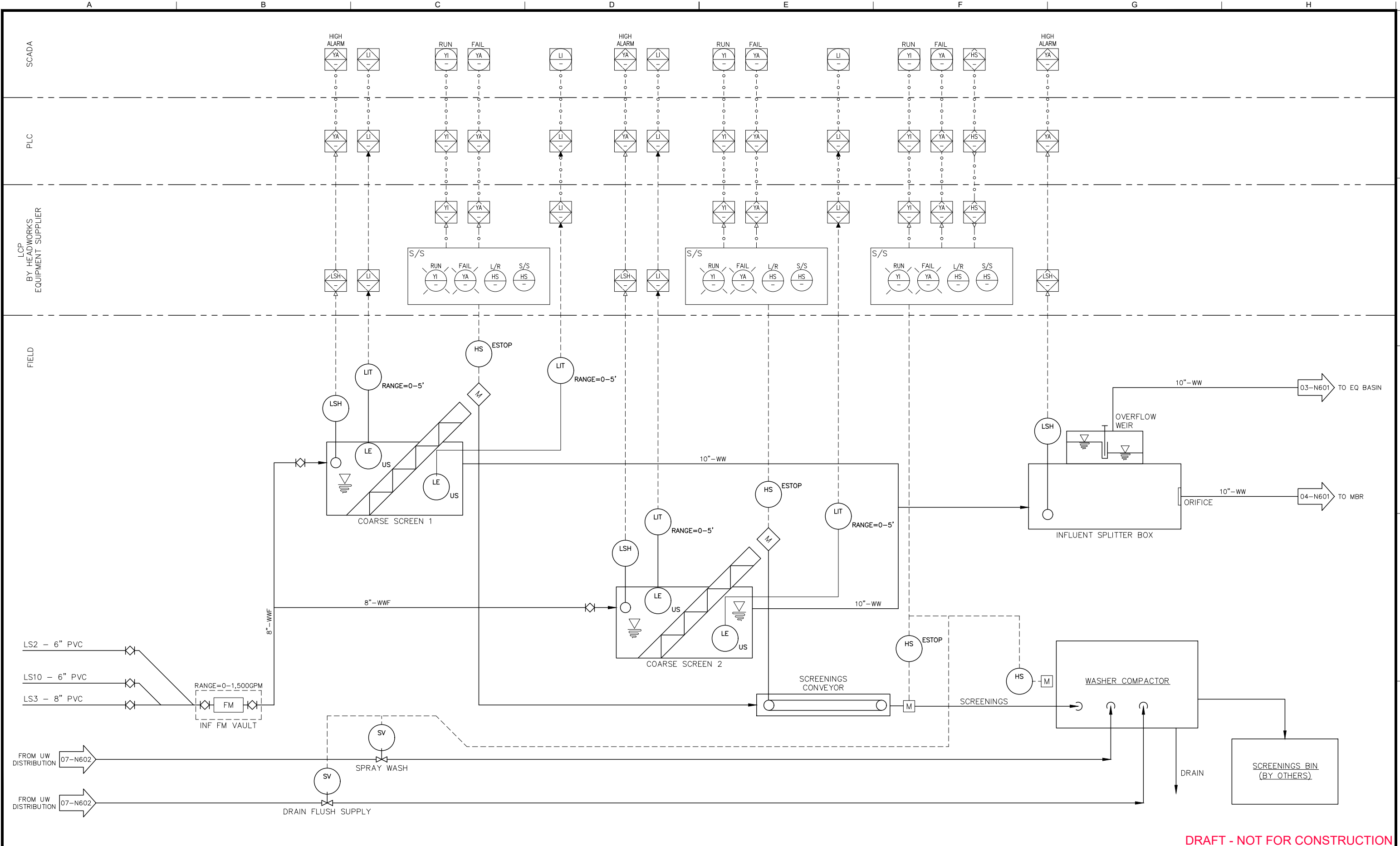
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 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

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WATER RESOURCE RECOVERY FACILITY UPGRADE
INSTRUMENTATION
INSTRUMENTATION LEGENDS, ABBREVIATIONS, AND NOTES

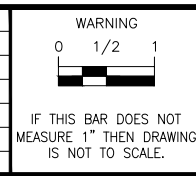
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PREPARED BY:
 JOHN CALTON, PE
 No.: E14099
 Exp.: 6-30-25
 REGISTERED PROFESSIONAL ENGINEER
 ELECTRICAL
 STATE OF CALIFORNIA

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

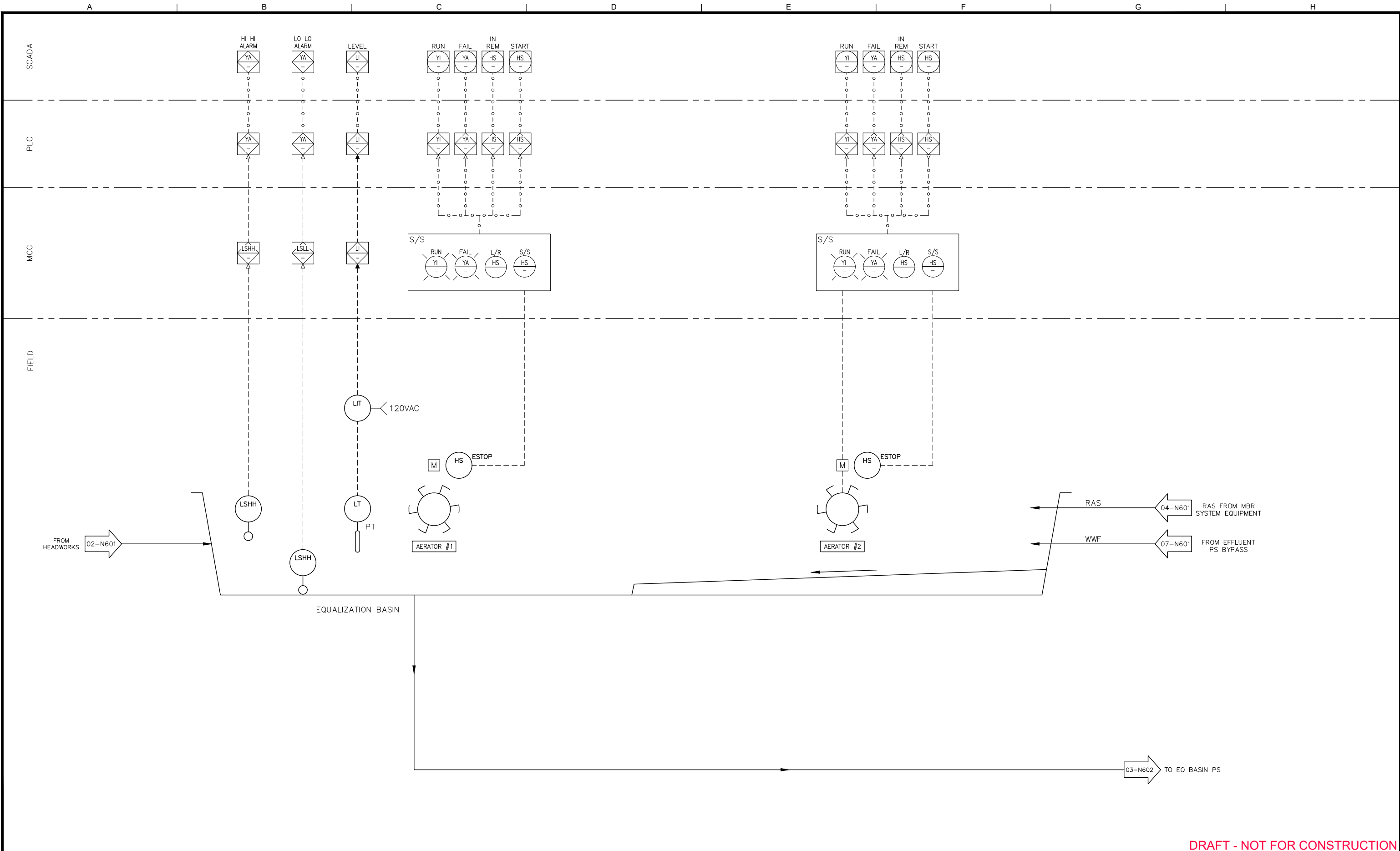
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
HEADWORKS P&ID

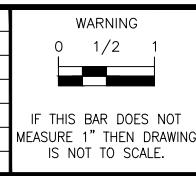
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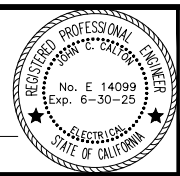
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 PASO ROBLES, CA 93446

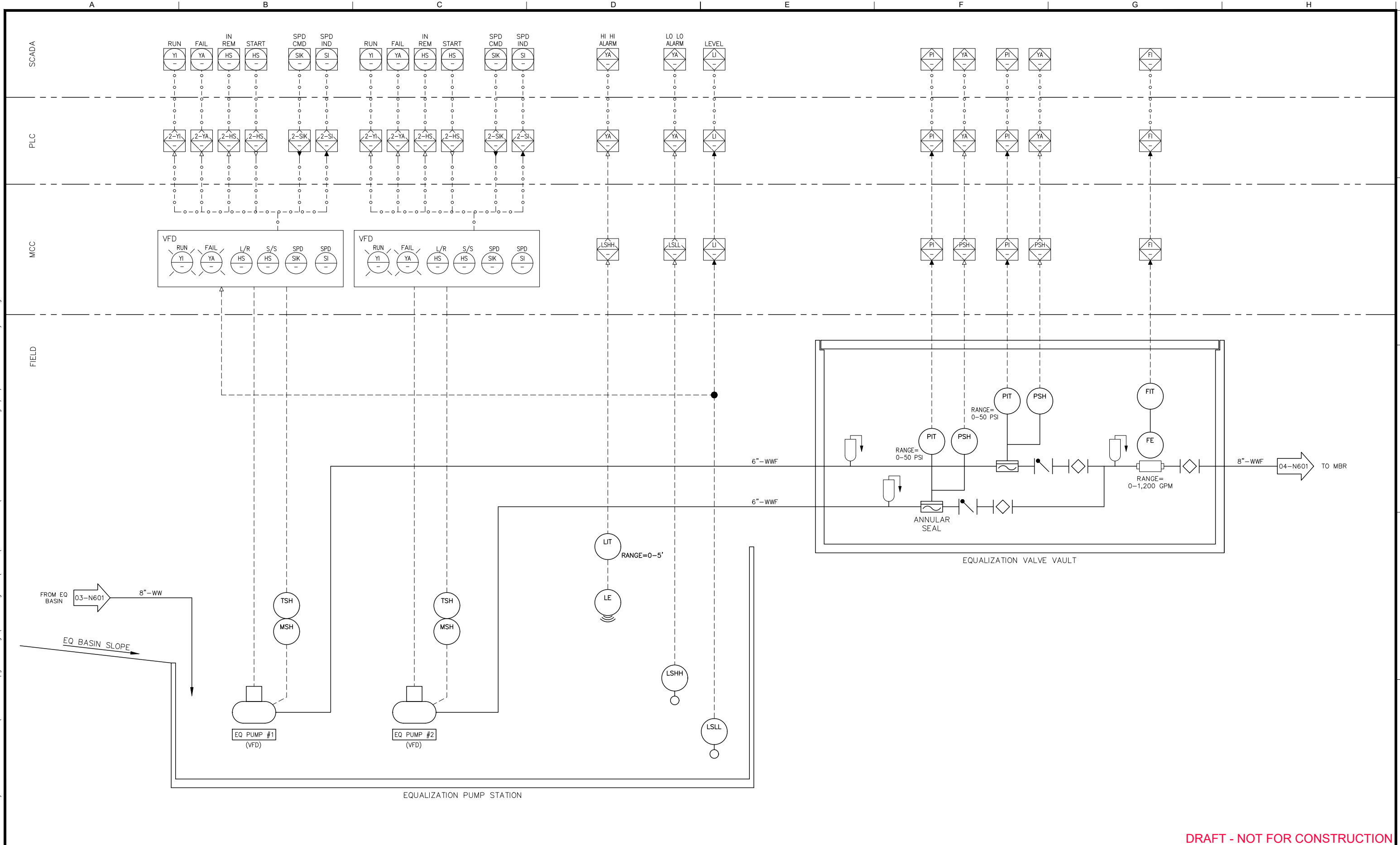
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
**EQUALIZATION BASIN
 P&ID**

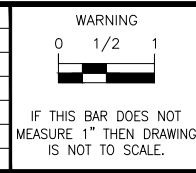
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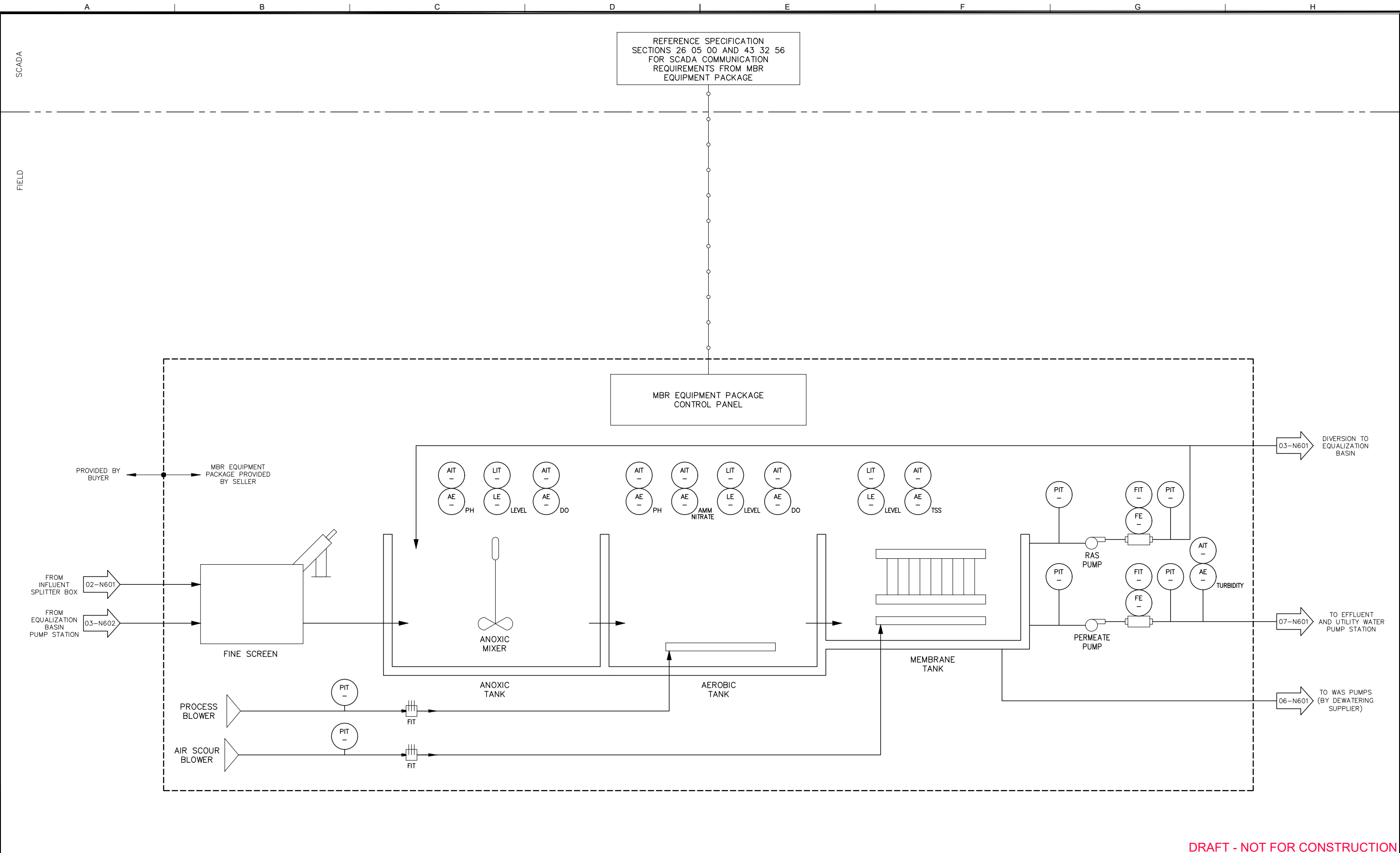
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 805 AEROVISTA PLACE, SUITE 201
 PASO ROBLES, CA 93446
 SAN LUIS OBISPO, CA 93401
 PHONE: (805) 457-8833 FAX: (805) 888-2764

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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
**EQUALIZATION BASIN PUMP STATION
 P&ID**

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03-N602
 SHEET X OF X
 PROJECT # _____

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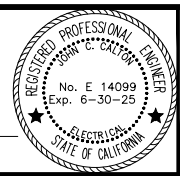
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WARNING

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DESIGNED: JCC
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 No.: E14099
 DATE



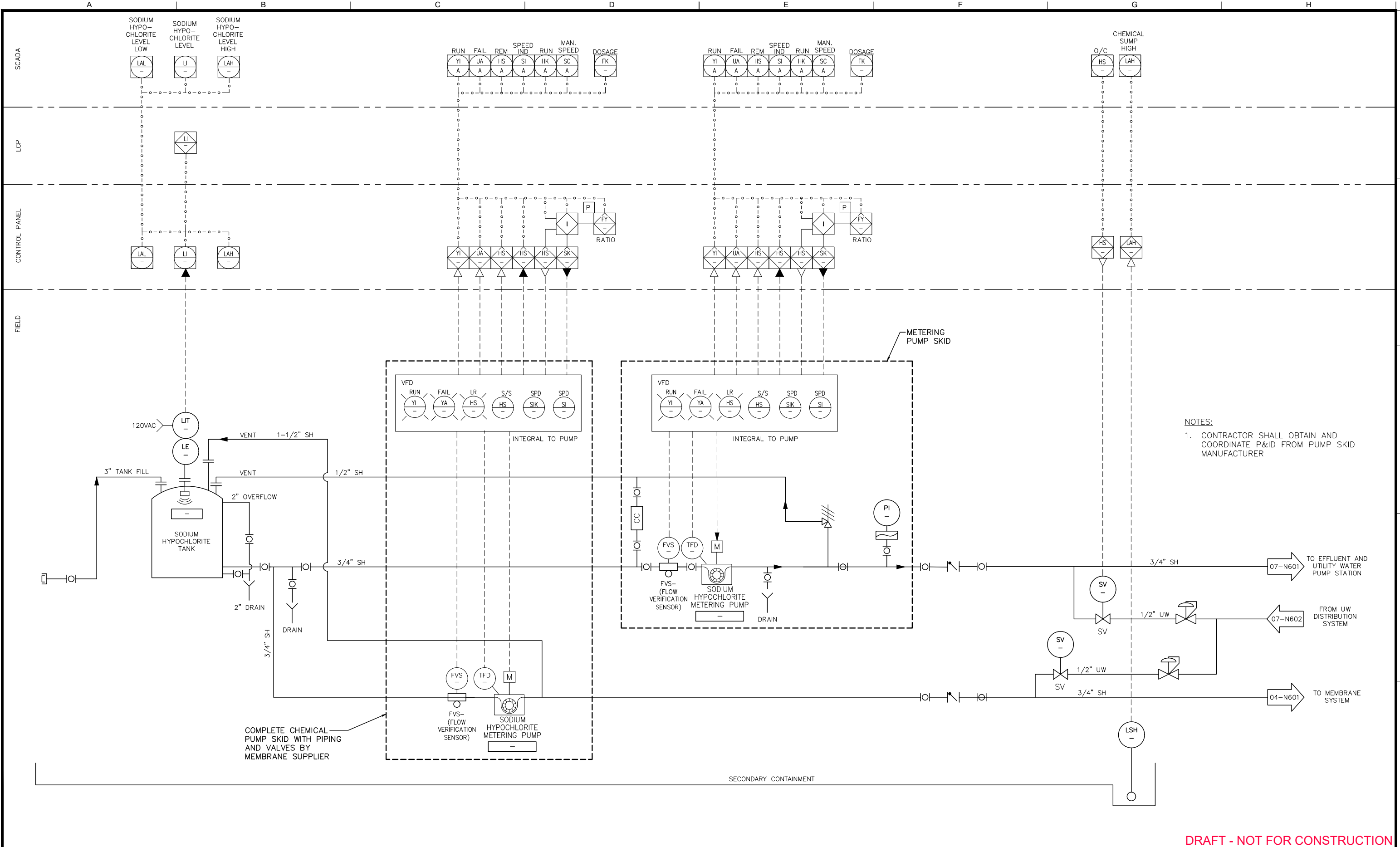
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446
 805 AEROVISTA PLACE, SUITE 201
 PHONE: (805) 457-8833
 SAN LUIS OBISPO, CA 93401
 FAX: (805) 888-2764

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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
REPRESENTATIVE MBR EQUIPMENT PACKAGE P&ID

DRAWING
04-N601
 SHEET X OF X
 PROJECT # _____

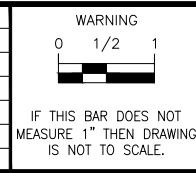
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NOTES:
 1. CONTRACTOR SHALL OBTAIN AND COORDINATE P&ID FROM PUMP SKID MANUFACTURER

DRAFT - NOT FOR CONSTRUCTION

REV	DATE	BY	DESCRIPTION



DESIGNED: JCC
 DRAWN: PMD
 CHECKED: MNR
 SCALE: NO SCALE

PREPARED BY:
 JOHN CALTON, PE
 No.: E14099
 DATE: _____



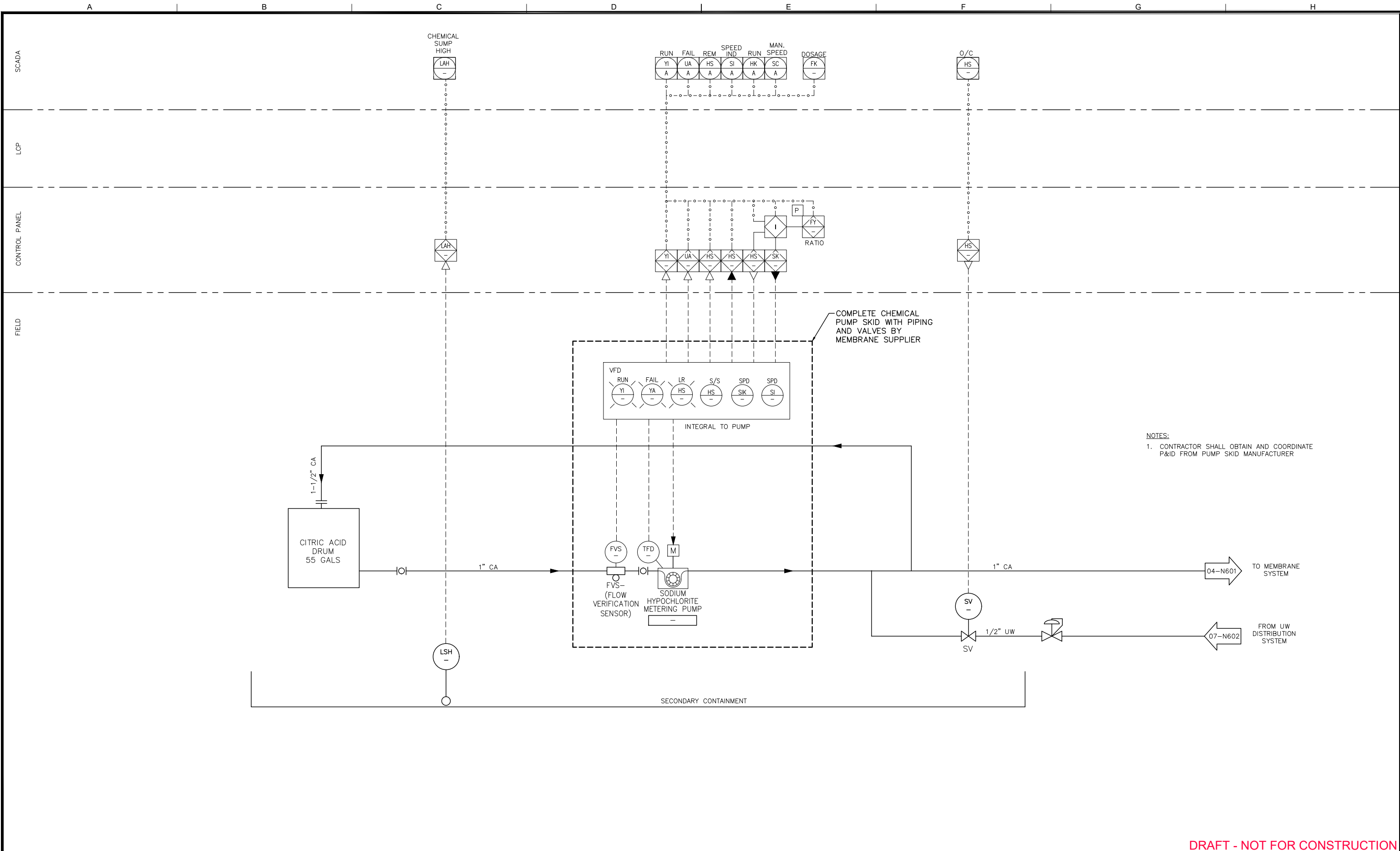
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
**CHEMICAL STORAGE AREA SYSTEM
 P&ID 1**

DRAWING
05-N601
 SHEET X OF X
 PROJECT # _____

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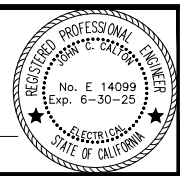
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DESIGNED: JCC
DRAWN: PMD
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SCALE: NO SCALE

PREPARED BY:
JOHN CALTON, PE
No.: E14099



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4870 HERITAGE ROAD
PASO ROBLES, CA 93446

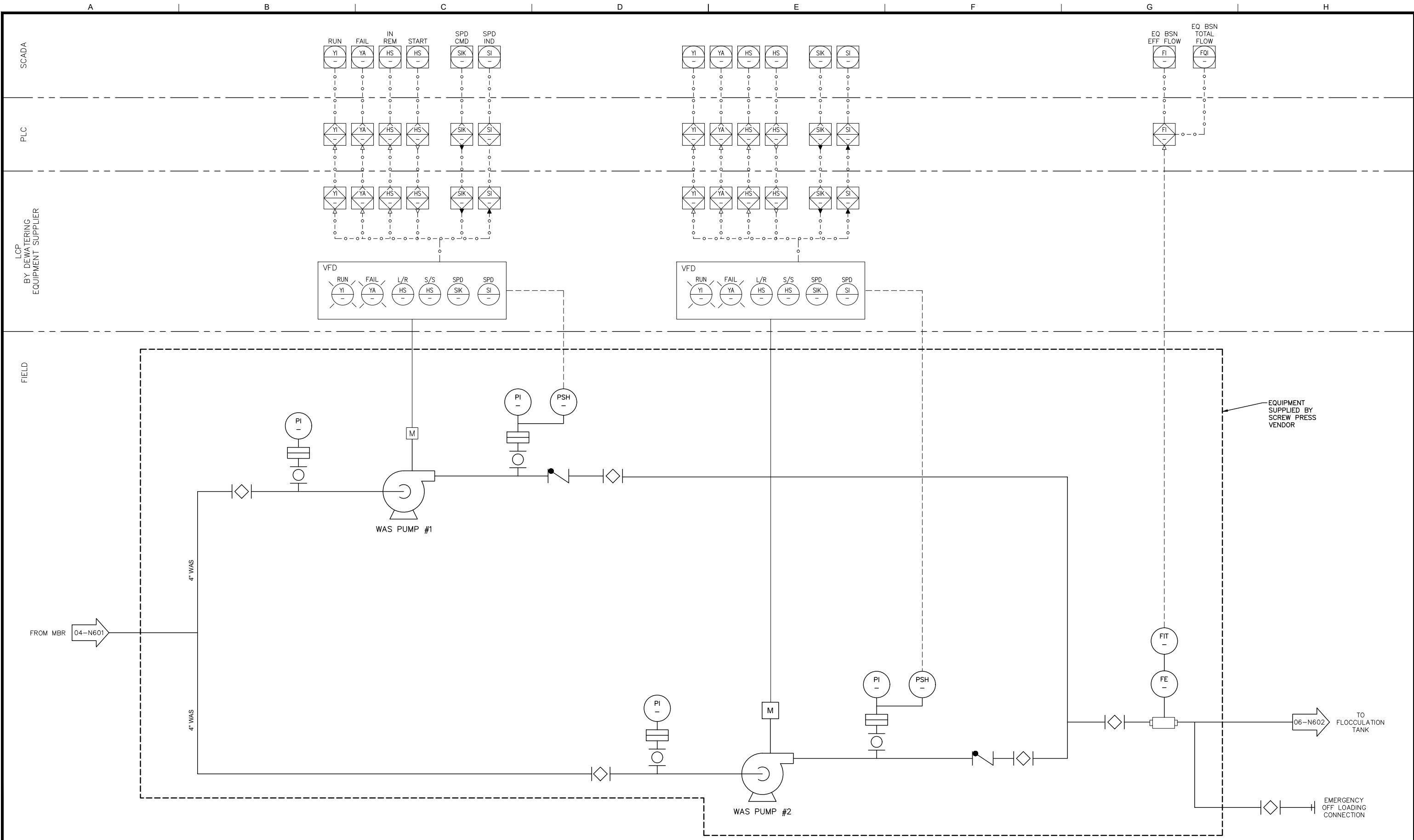
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
PHONE: (805) 457-8833 FAX: (805) 888-2764

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WATER RESOURCE RECOVERY FACILITY UPGRADE
INSTRUMENTATION
CHEMICAL STORAGE AREA SYSTEM
P&ID 2

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05-N602
SHEET X OF X
PROJECT # _____

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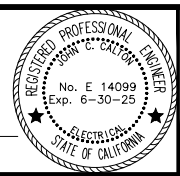
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 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

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PREPARED BY:
 JOHN CALTON, PE
 No.: E14099

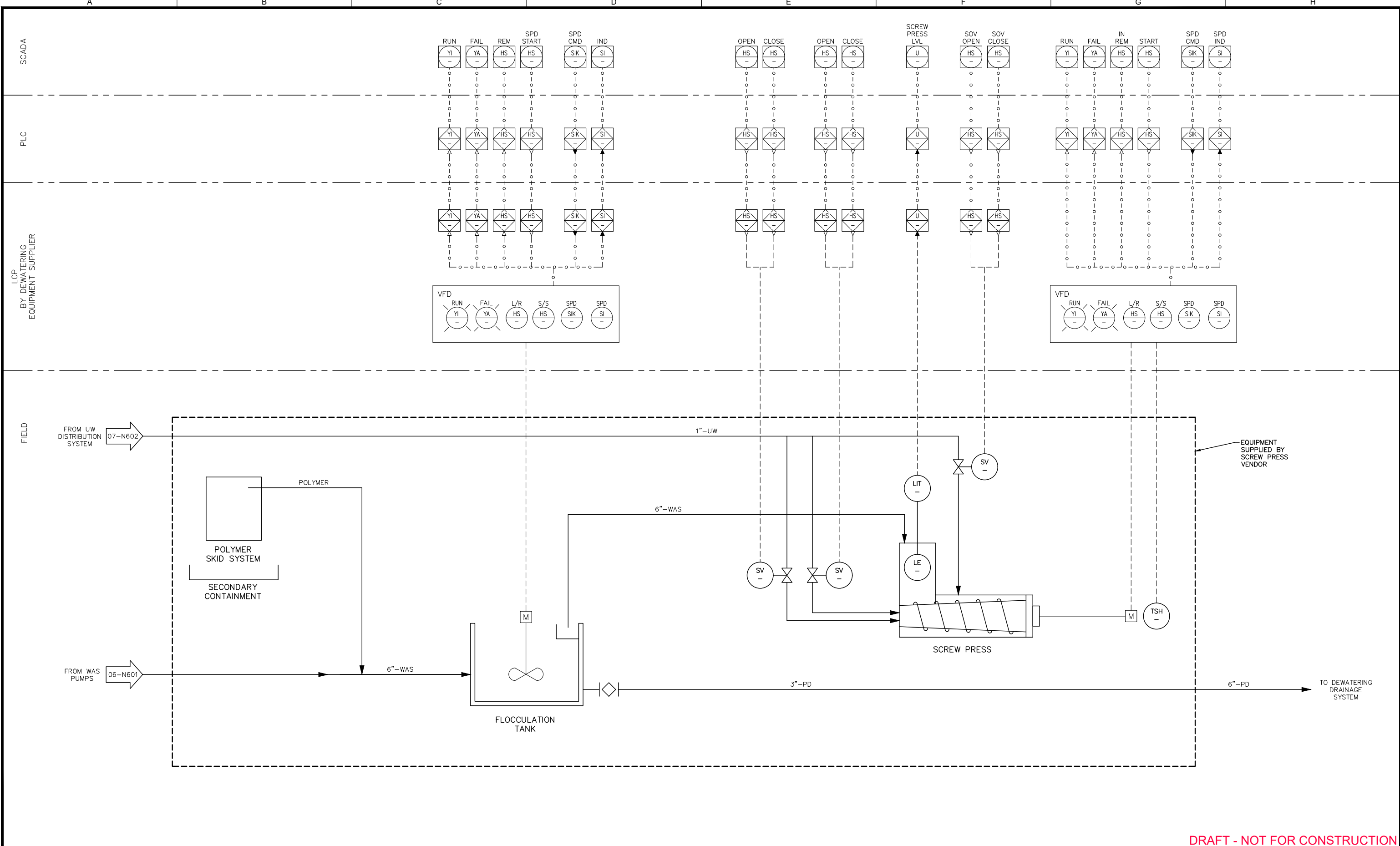


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 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446
 APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
DEWATERING SCREW PRESS SYSTEM
 P&ID 1

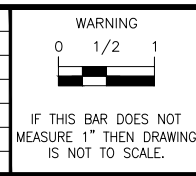
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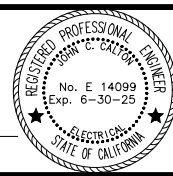
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DESIGNED: JCC
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PREPARED BY:
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HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

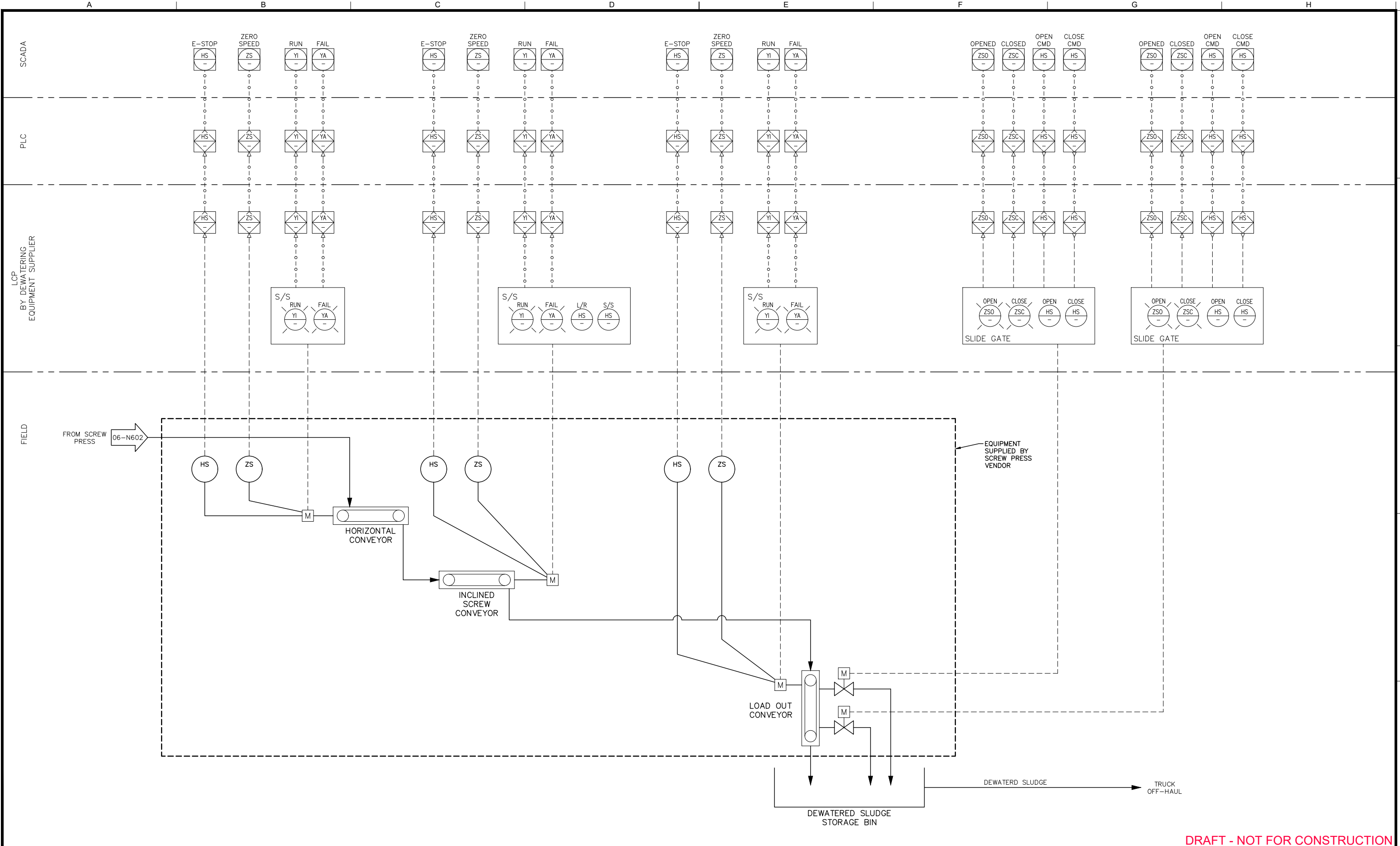
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
 PHONE: (805) 457-8833 FAX: (805) 888-2764

APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
DEWATERING SCREW PRESS SYSTEM
 P&ID 2

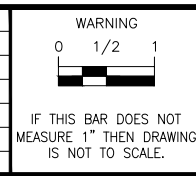
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REV	DATE	BY	DESCRIPTION



DESIGNED: JCC
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PREPARED BY:
 JOHN CALTON, PE
 No.: E14099
 DATE

HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

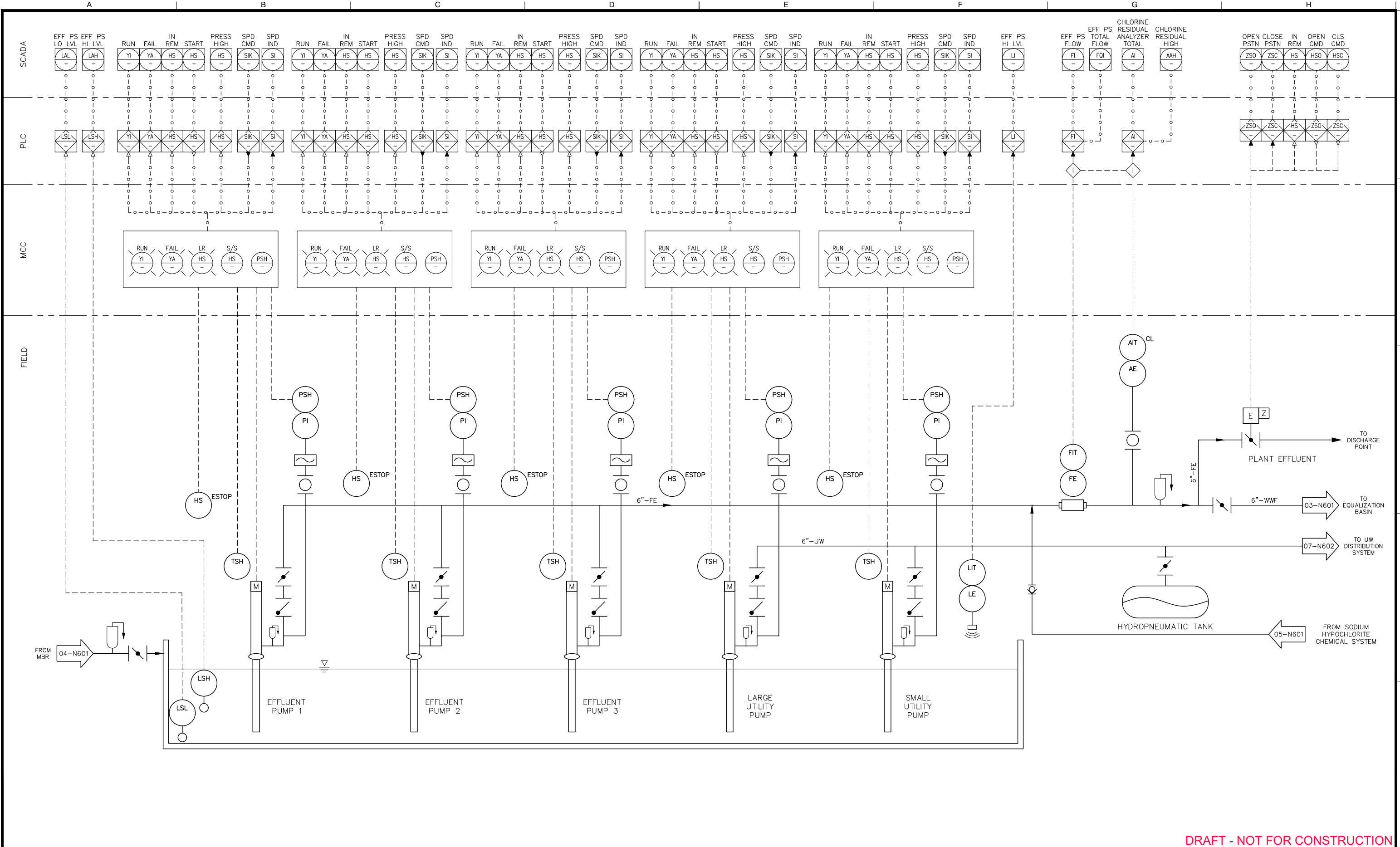
805 AEROVISTA PLACE, SUITE 201 SAN LUIS OBISPO, CA 93401
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
DEWATERING SCREW PRESS SYSTEM
 P&ID 3

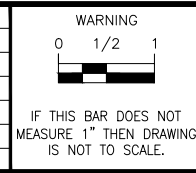
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REV	DATE	BY	DESCRIPTION



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 DRAWN: PMD
 CHECKED: MNR
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PREPARED BY:
 JOHN CALTON, PE
 No.: E14099
 DATE: _____



805 AEROVISTA PLACE, SUITE 201
 PHONE: (805) 457-8833

SAN LUIS OBISPO, CA 93401
 FAX: (805) 888-2764

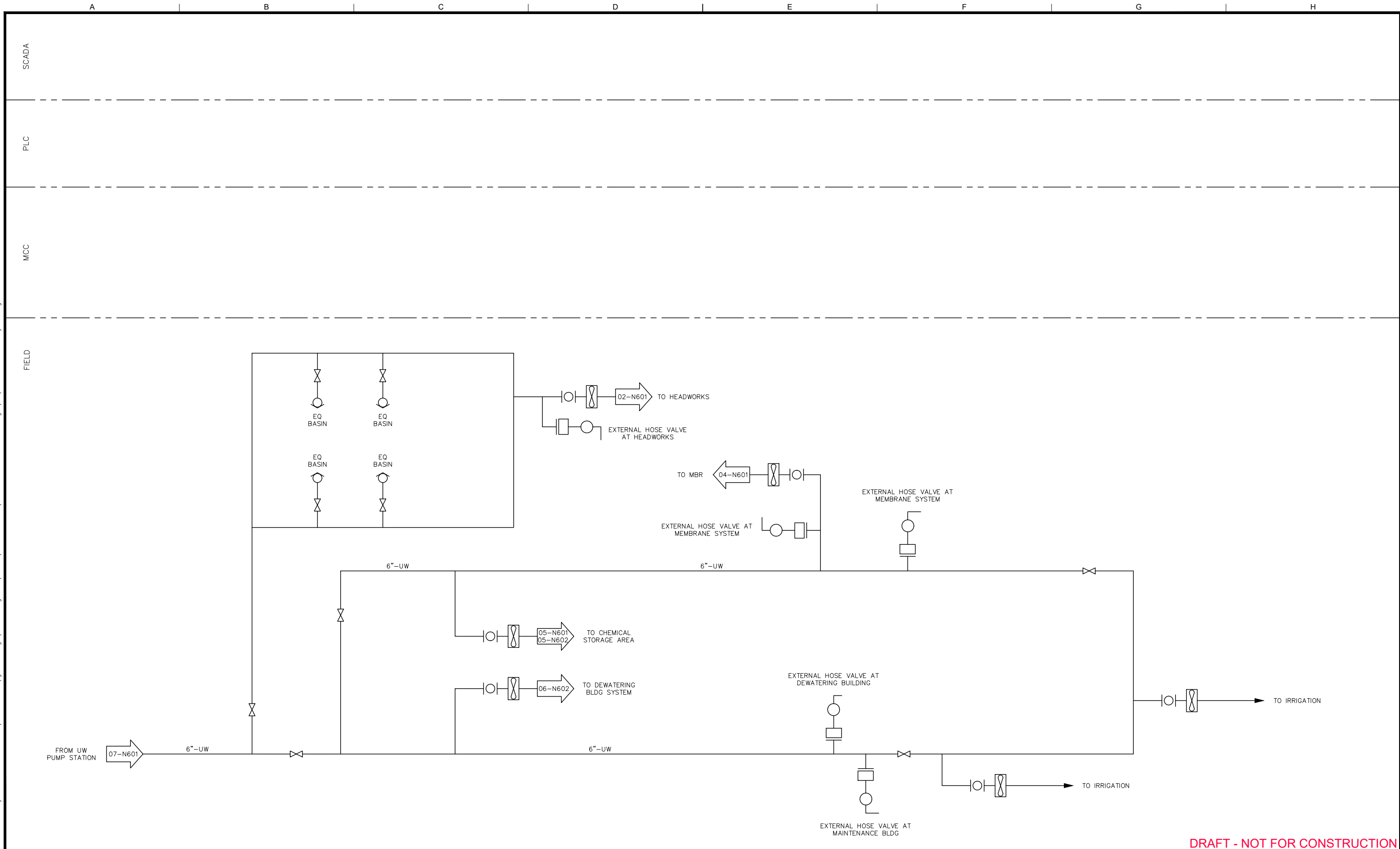
HERITAGE RANCH COMMUNITY SERVICES DISTRICT
 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446

APPROVED: _____ POSITION _____ DATE _____

WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
**EFFLUENT AND UTILITY WATER
 PUMP STATION P&ID**

DRAWING
07-N601
 SHEET X OF X
 PROJECT # _____

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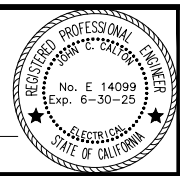
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DESIGNED: JCC
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PREPARED BY:
 JOHN CALTON, PE
 No.: E14099



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 4870 HERITAGE ROAD
 PASO ROBLES, CA 93446
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WATER RESOURCE RECOVERY FACILITY UPGRADE
 INSTRUMENTATION
 UTILITY WATER DISTRIBUTION SYSTEM
 P&ID

DRAWING
07-N602
 SHEET X OF X
 PROJECT # _____