King Street Pump Station Improvements (Volume I) & ASR Lime System Improvements (Volume II) - RFCSP
Solicitation Number: CO-00670
Job No.: 20-6002 and 22-8603

ADDENDUM 12

January 09, 2024

To Respondent of Record:

This addendum, applicable to work referenced above, is an amendment to the price proposal, plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the Respondent Questionnaire.

RESPONSES TO QUESTIONS

1. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture A / D-103 doesn't appear to be the correct location. Please Advise.**
   Response: No changes made to contract documents. Picture A / D-103 is not shown on sheet D-101 view; however, Picture A / D-103 refers to the demolition at the lime slurry pipe at the existing injection vault. Picture A indicated on D-101 is referenced on C-102.

2. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture B / D-103 isn't shown on D-101. Please Advise.**
   Response: No changes made to contract documents. Picture B / D-103 is not shown on Drawing D-101 view; however, Picture B refers to the demolition at the lime slurry pipe at the existing injection vault.

3. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture E / D-103 is called out at different locations. Please Advise.**
   Response: Picture E / D-103 refers to permanganate pumps as called out on Drawing D-101. Duplicate reference for E / D-103 has been deleted from Drawing D-101. Refer to “Changes to Plans” Item No 1.

4. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture F / D-103 isn't shown on D-101. Please Advise.**
   Response: Reference for F / D-103 has been added to Drawing D-101. Refer to “Changes to Plans” Item No 1.

5. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture D / D-104 is shown, but not found on D-104. Please Advise.**
   Response: D / D-104 reference has been updated to J/D-104 on Drawing D-101. Refer to “Changes to Plans” Item No 1.

6. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture J / D-104 isn't shown on D-101. Please Advise.**
   Response: D / D-104 reference has been updated to J / D-104 on Drawing D-101. Refer to “Changes to Plans” Item No 1.

7. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture L / D-104 isn't shown on D-101. Please Advise.**
   Response: Reference for L / D-104 has been added to Drawing D-101. Refer to “Changes to Plans” Item No 1.

8. **Volume II-ASR Lime Improvements: Contract Drawing D-101 shows where the Demo Pictures were taken from, however, Picture M / D-104 isn't shown on D-101. Please Advise.**
   Response: Reference for M / D-104 has been added to Drawing D-101. Refer to "Changes to Plans" Item No 1.

9. **Volume I-King St PS Improvements: The specifications in Section 15076 Double Containment / Section 3.1.B.2, together with the "PIPE MATERIALS SCHEDULE" table in drawing D-001, require the use of threaded connections for the carrier pipe of PVC and CPVC double containment systems. This is not recommended due to potential leaks, pressure derating and added installation difficulties making it impractical for onsite preparation and installation. IPEX would recommend using solvent weld joints as they are permanent and reliable and easier to install.**
   Response: Solvent weld joints shall be used for carrier pipe of Hydrofluosilicic acid and Sodium Hypochlorite. Refer to "Changes to Plans" Item No 3. Refer to "Changes to Specifications" Item No 3, Item No 4.1 and Item No 4.2. Please note Section 15076 was changed in Addendum no 4.

10. **Volume I-King St PS Improvements: The "PIPE MATERIALS SCHEDULE" table in drawing D-001 lists both fluoride and hypo systems as double contained. In the subsequent drawings the Fluoride systems has visible double containment, tags showing so, and tags showing the location of the low point leak detection sensors. In the Hypo system there is no visible double containment nor tags for the exposed/above ground portion, or defined locations for the leak detection. We want to confirm what are the above ground locations where the Hypo system needs double containment.**
    Response: Double containment and leak sensors for hypo system shown. Refer to "Changes to Plans" Item No 5, Item No 6, Item No 7, Item No 8, Item No 9, Item No 11, Item No 12, Item No 13 and Item No 14.

11. **Volume I-King St PS Improvements: The specifications in Section 15076 Double Containment / Section 1.1.C.4 requires that "Double wall chemical containment floor drains and drain piping shall be installed from the chemical feed rooms to their respective bulk storage containment areas as shown in the Drawings". We could not identify the layout of the mentioned system in the drawings.**
    Response: Double wall chemical containment floor drains are not required for the fluoride room as they drain to the sewer system. Fluoride piping and tanks are double walled and are designed to contain the chemical leakage. The drain that collects sodium hypochlorite leaks from the sodium hypochlorite metering pump room to sump pit needs to be double walled. Refer to P-301 for the drain line. No changes made to contract documents.

12. **Volume I-King St PS Improvements: IPEX offers a complete and competitive range of thermoplastic valves. Please evaluate including IPEX as an approved manufacturer for specification number 15102.**
    Response: Manufacturers cannot be approved during the bidding/advertisement phase of the project. No changes made to contract documents.

13. **Volume I-King St PS Improvements: Are the valves resilient seated? Section 15103 AWWA Ball Valves**
    Response: The ball valves are rubber seated with seat material made of EPDM. Refer to "Changes to Specifications" item no 5.

14. **Volume I-King St PS Improvements: What is the number of seats required? Section 15103 AWWA Ball Valves**
    Response: Valves shall be single seated. Refer to "Changes to Specifications" item no 5.

15. **Volume I-King St PS Improvements: The spec calls for 300 class Flanges. Is that correct? We need to know what CWP we should use to select valves.**
    Response: Flanges shall conform to ANSI/ASME B16.1, Class 125. Refer to "Changes to Specifications" item no 5. Ball valves shall be rated for a working pressure as indicated in table 1 of section 15055 in accordance with paragraph 2.01 D of Section 15103 AWWA Ball Valves.

16. **Volume I-King St PS Improvements: On Sheet 504, Detail 3 there is a detail for a vandal deterrent, however I didn't see this called out anywhere on the plans. What was the intent of this detail? There are new ladders inside the building, the chemical tank access, and the existing water tank. Please advise.**

Response: Refer to Note 5 on D-102. Vandal deterrent is added to the ladder on the existing Ground Storage Tank. No changes made to contract documents.

17. **Volume I-King St PS Improvements: Can Mayfield be closed during the drilling of the new well to provide additional access for the drilling contractor?**
    Response: The closure of W.Mayfield Blvd is not in the contract documents and has not been coordinated with City of San Antonio (COSA) for the project. If the contractor wishes to coordinate with COSA for the closure of W.Mayfield Blvd, they may do so at no additional cost to SAWS. Contractor is responsible for the development, implementation of traffic control plans, maintaining access for residents, submitting any necessary permit requests and securing approval from City of San Antonio for street closure at no additional cost to SAWS.

18. **Volume I-King St PS Improvements: Can you provide a cut of the south wall inside the Hypo Generation Room? We need to see how the pipe is laid out.**
    Response: Cut sections provided. Refer to "Changes to Plans" item no 2 and item no 10.

19. **Volume I-King St PS Improvements: Can you provide a cut of the north wall inside the Fluoride Building? We need to see how the pipe is laid out.**
    Response: Cut sections provided. Refer to "Changes to Plans" item no 2 and item no 10.

20. **Volume I-King St PS Improvements: In regard to this project, the plans show an aluminum stair and platform in the demo section and in the structural. Do you know if this is something that needs to be quoted as new material?**
    Response: The Sheet D-303 (Volume I) referenced in the attachment is not a demo sheet and is a process mechanical sheet. Aluminum stairs/platforms/rails are required to access the hypo bulk storage tanks. Aluminum railing is needed around the hypo bulk storage tank containment walls. These items are to be provided and installed by the contractor. The design of the stairs/platforms/railing is to be provided by the stair manufacturer's licensed engineer (refer to drawing S-504).

21. **Volume I-King St PS Improvements: On the above project, we greatly appreciate it if you could consider naming EDGENG as an approved Manufacturer in the specification OR approve us Equal Status on this Project per the specification sections of Section 13122- FRP Shelters in order for us to forward our proposal for the FRP scope of work, which has developed cost-effective and durable alternatives for Stainless Steel Products.**
    We are an FRP Composite Manufacturer Specializing in Fiber Reinforced Composite products for Structural and civil Engineering Applications. Over the past 2 decades, we have delivered to clients ranging from the US military, Chemical Plants, and City Governments across the United States & Canada with unparalleled service standards.
    Response: EDGENG will not be added to the list of approved manufacturers in the specification. Manufacturers cannot be approved during the bidding/advertisement phase of the project. No changes made to contract documents.

22. **Volume I-King St PS Improvements: Would it be possible for a SAWS representative to meet with Del Shockley (Alsay's Logistics & Equipment Manager) next week to be sure we know exactly where the well stake will be? This would allow us to be 100% confident about our ability to fit the drilling package into the proposed site and through the proposed access. Del inspected the site on Sep. 20th. He tried contacting someone from SAWS at the time but was unable to make contact. From what he understood where the well was supposed to go, he said we could get our equipment in there. If someone from SAWS could verify the well location on-site with him it would be helpful.**
    Response: A second non-mandatory site visit is scheduled for Jan 8, 2024. Please refer to Addendum 11 for details on the site visit. Please refer to "Changes to Plans" item no 4.

23. **Location is a big concern working in a residential area with houses so close. We would be running 24/7 on this type of well construction. Even with acoustic walls to deter the noise, operations could exceed any City noise ordinances. There would be numerous contractors needing to work on this location based on the specifications, however, due to the size of the drilling operations they would be limited as far as access is**

concerned. Weisinger's operations on this type of well would be significant and encompass a large majority of the site.

Response: Please refer to section 13111-Temporary Construction Noise Barrier for the temporary noise control requirements. As per paragraph 2.01 A of Section 13111, a single or double layer may be used as required to achieve desired noise reduction. Well driller should plan to alter operations at night if needed to meet the noise ordinance requirements. General sequence of operations specified is for the demolition to occur first followed by the well drilling and then the remaining construction. Thus, the site premises could be fully dedicated to well drilling except for the existing structures noted to remain in the contract documents.

24. **Elevation of site is a concern. Right now the Edwards Aquifer is setting at approximately 640'. Elevation at the site is 648'. By the time this project gets kicked off, after winter, we could see a rise in the Edwards that would significantly impact the costs associated with the drilling. If it becomes artesian during the construction program, costs associated with control and continued construction would increase significantly. There would need to be assurances that if that happens, the contractor could request a change order for the additional costs.**

    Response: No changes made to contract documents.

    Per paragraph 2.02 A of section 13920-Well No 6 Construction, "The contractor shall be fully prepared to control artesian groundwater flow during the drilling of the pilot borehole and during production casing installation."

    Additional provisions for artesian conditions are addressed in the following specification paragraphs.

    Section 01025, Paragraph 2.1

    Section 13920, Paragraph. 1.01 A

    Section 13920, Paragraph. 1.01 B 1

    Section 13920, Paragraph. 1.03 J

    In addition to the above, the site elevation is surveyed at 653' ASL.

25. **Other wells on the location having an impact on the new construction. If, for some reason beyond the contractor's control, cement leaches out, through a fault, and into one of the other wells on this location during the pressure cementing of the new well's casing, the contractor could not be held responsible for damages to the existing wells.**

    Response: No changes made to contract documents. Paragraph 5.6.2 of General Conditions addresses unforeseen site conditions/conditions at the site different from those indicated in the contract documents. If such conditions are encountered on the site, contractor should comply to the provisions in the same.

CHANGES TO THE SPECIFICATIONS

1. BUILDING WAGE DECISION, Due to updates in the General Wage Decisions for Building Construction Type, remove the wage decision documents from the solicitation in its entirety and replace with the revised versions attached to this addendum (rev. 01/05/2024 for General Decision Number TX20240231). This version should be utilized by the awarded contractor for this project.

2. HEAVY AND HIGHWAY WAGE DECISION, Due to updates in the General Wage Decisions for Heavy and Highway Construction Type, remove the wage decision documents from the solicitation in its entirety and replace with the revised versions attached to this addendum (rev. 01/05/2024 for General Decision Number TX20240007). This version should be utilized by the awarded contractor for this project.

3. SECTION 15062: CPVC PIPE AND FITTINGS
    - DELETE in its entirety and REPLACE with the attached.

4. SECTION 15076: DOUBLE WALL CONTAINMENT PIPING
    - Paragraph 3.1.B.1; DELETE the sentence "Use threaded joints and threaded fittings for joining primary carrier pipe in exposed conditions" and REPLACE with the following "Use solvent weld for joining primary carrier pipe in exposed conditions."
    - Paragraph 3.1.B.2; DELETE the sentence "Use threaded barbed adaptors to transition between exposed piping and buried piping" and REPLACE with the following "Use solvent weld to transition between exposed piping and buried piping."

5. SECTION 15103: AWWA BALL VALVES
    - Paragraph 2.01.F; ADD the following as item "4. Seat: Single seated made of EPDM rubber"
    - Paragraph 2.01.I; DELETE the sentence "Flanges shall conform to ANSI/ASME B16.1, Class 300." and REPLACE with the following "Flanges shall conform to ANSI/ASME B16.1, Class 125."

CHANGES TO THE PLANS

1. DRAWING D-101: LIME FEED SYSTEM DEMOLITION PLAN
- DELETE in its entirety and REPLACE with the attached.

2. DRAWING G-001 DRAWING INDEX
- DELETE in its entirety and REPLACE with the attached.

3. DRAWING D-001: PROCESS GENERAL NOTES LEGEND AND ABBREVIATIONS
- DELETE in its entirety and REPLACE with the attached.

4. DRAWING C-117 YARD PIPING PLAN
- DELETE in its entirety and REPLACE with the attached.

5. DRAWING D-301: OVERALL EQUIPMENT PLAN
- DELETE in its entirety and REPLACE with the attached.

6. DRAWING D-302: OSHG BLDG AND BRINE TANK
- DELETE in its entirety and REPLACE with the attached.

7. DRAWING D-303: FLUORIDE BLDG, TANK & HYPO BULK STORAGE TANKS
- DELETE in its entirety and REPLACE with the attached.

8. DRAWING D-306: OSHG BLDG AND TANK I
- DELETE in its entirety and REPLACE with the attached.

9. DRAWING D-307: OSHG BLDG AND TANK II
- DELETE in its entirety and REPLACE with the attached.

10. DRAWING D-308: ADDITIONAL BUILDING SECTIONS
- ADD the sheet to the plan set.

11. DRAWING E-108: SITE PLAN MODIFICATION ENLARGED VIEW-II
- DELETE in its entirety and REPLACE with the attached.

12. DRAWING E-308: OSHG BULDING CONTROL PLAN -I
- DELETE in its entirety and REPLACE with the attached.

13. DRAWING E-321: FLOURIDE TRANSFER PUMP CONTROL SCHEMATIC
- DELETE in its entirety and REPLACE with the attached.

14. DRAWING I-13: FLOURIDE FEED PID
- DELETE in its entirety and REPLACE with the attached.

CLARIFICATIONS

1. The well location for the new well no. 6 shown on the drawings is not exact. A tolerance of 10 feet is allowable. Adjustments to other utilities on the site to accommodate the new well location need to be made by the Contractor at no additional cost to the Owner.

END OF ADDENDUM

This Addendum, including these six (6) pages, is thirty-nine (39) pages with attachments in its entirety.

Attachments:
1. WAGE DECISION BUILDING (7 Pages)
2. WAGE DECISION HIGHWAY (6 Pages)
3. SPECIFICATIONS – SECTION 15062 CPVC PIPE AND FITTINGS (6 Pages)
4. DRAWING D-101: LIME FEED SYSTEM DEMOLITION PLAN (1 Page)
5. DRAWING G-001: DRAWING INDEX (1 Page)
6. DRAWING D-001: PROCESS GENERAL NOTES LEGEND AND ABBREVIATIONS (1 Page)
7. DRAWING C-117 YARD PIPING PLAN (1 Page)

8. DRAWING D-301: OVERALL EQUIPMENT PLAN (1 Page)
9. DRAWING D-302: OSHG BLDG AND BRINE TANK (1 Page)
10. DRAWING D-303: FLUORIDE BLDG, TANK & HYPO BULK STORAGE TANKS (1 Page)
11. DRAWING D-306: OSHG BLDG AND TANK I (1 Page)
12. DRAWING D-307: OSHG BLDG AND TANK II (1 Page)
13. DRAWING D-308: ADDITIONAL BUILDING SECTIONS (1 Page)
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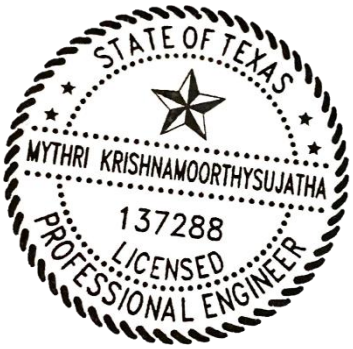
15. DRAWING E-308: OSHG BULDING CONTROL PLAN I (1 Page)
16. DRAWING E-321: FLOURIDE TRANSFER PUMP CONTROL SCHEMATIC (1 Page)
17. DRAWING I-13: FLOURIDE FEED PID (1 Page)



MKS 01/09/2024

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Mythri Krishnamoorthysujatha, P.E.
Tetra Tech

"General Decision Number: TX20240231 01/05/2024

Superseded General Decision Number: TX20230231

State: Texas

Construction Type: Building

County: Bexar County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

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

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

Modification Number	Publication Date
0	01/05/2024

ASBE0087-014 06/04/2023

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation)	$ 28.95	8.39

BOIL0074-003 07/01/2023

	Rates	Fringes
BOILERMAKER	$ 37.00	24.64

ELEC0060-003 06/05/2023

	Rates	Fringes
ELECTRICIAN (Communication Technician Only)	$ 33.00	18%+5.45

ELEC0060-004 06/05/2023

	Rates	Fringes
ELECTRICIAN (Excludes Low Voltage Wiring)	$ 33.00	18%+5.45

ELEV0081-001 01/01/2023

	Rates	Fringes
ELEVATOR MECHANIC	$ 46.83	37.335+a+b

FOOTNOTES:

a. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

b. Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day; and Veterans Day.

ENGI0450-002 04/01/2014

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Cranes	$ 34.85	9.85

IRON0066-013 06/01/2023

	Rates	Fringes
IRONWORKER, STRUCTURAL	$ 26.00	7.53

IRON0084-011 06/01/2023

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 27.51	8.13

PLUM0142-009 07/01/2023

	Rates	Fringes
HVAC MECHANIC (Electrical Temperature Control Installation & Unit Installation Only)	$ 35.95	11.25
PIPEFITTER (Including HVAC Pipe Installation)	$ 35.95	11.25
Including HVAC Pipe Installation PLUMBER	$ 35.95	11.25
Excludes HVAC Pipe Installation		

SFTX0669-002 04/01/2023

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers)	$ 34.60	23.30

SHEE0067-004 07/03/2023

	Rates	Fringes
Sheet metal worker		
Excludes HVAC Duct Installation	$ 30.24	15.89
HVAC Duct Installation Only	$ 30.24	15.89

SUTX2014-006 07/21/2014

	Rates	Fringes
BRICKLAYER	$ 22.15	0.00
CARPENTER (Acoustical Ceiling Installation Only)	$ 17.83	0.00
CARPENTER (Form Work Only)	$ 13.63 **	0.00
CARPENTER, Excludes Acoustical Ceiling Installation, Drywall Hanging, Form Work, and Metal Stud Installation	$ 16.86 **	4.17
CAULKER	$ 15.00 **	0.00
CEMENT MASON/CONCRETE FINISHER	$ 22.27	5.30
DRYWALL FINISHER/TAPER	$ 13.81 **	0.00
DRYWALL HANGER AND METAL STUD INSTALLER	$ 15.18 **	0.00
ELECTRICIAN (Low Voltage Wiring Only)	$ 20.39	3.04
IRONWORKER, REINFORCING	$ 12.27 **	0.00
LABORER: Common or General	$ 10.75 **	0.00
LABORER: Mason Tender - Brick	$ 11.88 **	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.00 **	0.00

LABORER: Pipelayer.....$ 11.00 ** 0.00

LABORER: Roof Tearoff.....$ 11.28 ** 0.00

LABORER: Landscape and
Irrigation.....$ 8.00 ** 0.00

OPERATOR:
Backhoe/Excavator/Trackhoe.....$ 15.98 ** 0.00

OPERATOR: Bobcat/Skid
Steer/Skid Loader.....$ 14.00 ** 0.00

OPERATOR: Bulldozer.....$ 14.00 ** 0.00

OPERATOR: Drill.....$ 14.50 ** 0.00

OPERATOR: Forklift.....$ 12.50 ** 0.00

OPERATOR: Grader/Blade.....$ 23.00 5.07

OPERATOR: Loader.....$ 12.79 ** 0.00

OPERATOR: Mechanic.....$ 18.75 5.12

OPERATOR: Paver (Asphalt,
Aggregate, and Concrete).....$ 16.03 ** 0.00

OPERATOR: Roller.....$ 12.00 ** 0.00

PAINTER (Brush, Roller and
Spray), Excludes Drywall
Finishing/Taping.....$ 13.07 ** 0.00

ROOFER.....$ 12.00 ** 0.00

TILE FINISHER.....$ 11.32 ** 0.00

TILE SETTER.....$ 14.94 ** 0.00

TRUCK DRIVER: Dump Truck.....$ 12.39 ** 1.18

TRUCK DRIVER: Flatbed Truck.....$ 19.65 8.57

TRUCK DRIVER: Semi-Trailer
Truck.....$ 12.50 ** 0.00

TRUCK DRIVER: Water Truck.....$ 12.00 ** 4.11

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and

non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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

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

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

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END OF GENERAL DECISION"

"General Decision Number: TX20240007 01/05/2024

Superseded General Decision Number: TX20230007

State: Texas

Construction Types: Heavy and Highway

Counties: Atascosa, Bandera, Bastrop, Bell, Bexar, Brazos, Burleson, Caldwell, Comal, Coryell, Guadalupe, Hays, Kendall, Lampasas, McLennan, Medina, Robertson, Travis, Williamson and Wilson Counties in Texas.

HEAVY (excluding tunnels and dams, not to be used for work on Sewage or Water Treatment Plants or Lift / Pump Stations in Bell, Coryell, McClennon and Williamson Counties) and HIGHWAY Construction Projects

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

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

Additional information on contractor requirements and worker protections under the Executive Orders is available at

http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/05/2024

SUTX2011-006 08/03/2011

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (Paving and Structures)	$ 12.56 **	
ELECTRICIAN	$ 26.35	
FORM BUILDER/FORM SETTER		
Paving & Curb	$ 12.94 **	
Structures	$ 12.87 **	
LABORER		
Asphalt Raker	$ 12.12 **	
Flagger	$ 9.45 **	
Laborer, Common	$ 10.50 **	
Laborer, Utility	$ 12.27 **	
Pipelayer	$ 12.79 **	
Work Zone Barricade Servicer	$ 11.85 **	
PAINTER (Structures)	$ 18.34	
POWER EQUIPMENT OPERATOR:		
Agricultural Tractor	$ 12.69 **	
Asphalt Distributor	$ 15.55 **	
Asphalt Paving Machine	$ 14.36 **	
Boom Truck	$ 18.36	
Broom or Sweeper	$ 11.04 **	
Concrete Pavement Finishing Machine	$ 15.48 **	
Crane, Hydraulic 80 tons or less	$ 18.36	
Crane, Lattice Boom 80 tons or less	$ 15.87 **	
Crane, Lattice Boom over 80 tons	$ 19.38	
Crawler Tractor	$ 15.67 **	
Directional Drilling Locator	$ 11.67 **	
Directional Drilling Operator	$ 17.24	
Excavator 50,000 lbs or Less	$ 12.88 **	
Excavator over 50,000 lbs	$ 17.71	
Foundation Drill, Truck Mounted	$ 16.93 **	
Front End Loader, 3 CY or Less	$ 13.04 **	
Front End Loader, Over 3 CY	$ 13.21 **	
Loader/Backhoe	$ 14.12 **	
Mechanic	$ 17.10 **	
Milling Machine	$ 14.18 **	
Motor Grader, Fine Grade	$ 18.51	
Motor Grader, Rough	$ 14.63 **	
Pavement Marking Machine	$ 19.17	
Reclaimer/Pulverizer	$ 12.88 **	

Roller, Asphalt.....$ 12.78 **
Roller, Other.....$ 10.50 **
Scraper.....$ 12.27 **
Spreader Box.....$ 14.04 **
Trenching Machine, Heavy....$ 18.48

Servicer.....$ 14.51 **

Steel Worker
Reinforcing.....$ 14.00 **
Structural.....$ 19.29

TRAFFIC SIGNALIZATION:
Traffic Signal Installation
Traffic Signal/Light Pole
Worker.....$ 16.00 **

TRUCK DRIVER
Lowboy-Float.....$ 15.66 **
Off Road Hauler.....$ 11.88 **
Single Axle.....$ 11.79 **
Single or Tandem Axle Dump
Truck.....$ 11.68 **
Tandem Axle Tractor w/Semi
Trailer.....$ 12.81 **

WELDER.....$ 15.97 **

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

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** Workers in this classification may be entitled to a higher
minimum wage under Executive Order 14026 ($17.20) or 13658
($12.90). Please see the Note at the top of the wage
determination for more information. Please also note that the
minimum wage requirements of Executive Order 14026 are not
currently being enforced as to any contract or subcontract to
which the states of Texas, Louisiana, or Mississippi, including
their agencies, are a party.

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

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

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

for the classifications and rates under that identifier.

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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==========

END OF GENERAL DECISION"

SECTION 15062

CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE AND FITTINGS

PART 1- GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Furnish all labor, materials, equipment and incidentals required, and install and test in the locations and of the size as shown on the Drawings and specified herein Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) piping, fittings and appurtenances.

2. All plastic pipe and fittings shall conform to this specification section whether provided as a part of an equipment "package" or purchased separately by the Contractor.

B. Related Work Described Elsewhere:

1. Section 09900 – Painting and Coating

2. Section 15140 – Pipe Supports for Process Piping

3. Section 15014 – Pressure Testing of Pipe

4. Section 15015 – Identification for Process Piping and Valves

5. Section 15141 – Couplings, Connectors and Adapters

C. General Design (Not Applicable)

1.02 QUALITY ASSURANCE

A. CPVC pipe, fittings and appurtenances shall meet the following standards:

1.	Pipe	ASTM D1784/ASTM F441, Type IV, Grade I, CPVC 4120, Schedule 80, Cell Classification 23447-A, bearing NSF seal.
2.	Fittings	ASTM D2464 or D2467, Cell Classification 23447-A, bearing NSF seal.
3.	Flanges	Diameter and drilling shall conform to ANSI B16.5, Class 150.
4.	Flange Bolts and Nuts	Flange bolts and nuts shall conform to ASTM F593 and F594 respectively.

5.	Flat Washers	Shall be of the same material as the bolts.
6.	Flange Gaskets	Full face, 1/8 inch thick, chemical-resistant elastometric material suitable for the specified service.
7.	Solvent Cement	ASTM D2564.
8.	Primer	ASTM F656.
9.	Expansion Joints	Edlon "Thermo-molded TFE", Resistoflex "Style R6905".

1.03 SUBMITTALS

A. Materials and Shop Drawings:

1. Shop drawings shall be submitted to the Owner for approval in accordance with the General Requirements and Section 01330. All products within this specification shall be combined into a single submittal which shall include at least the following:

   a. Dimensioning and the technical specification for all piping, fittings, and appurtenances to be furnished.

   b. Letter of Certification from the National Sanitation Foundation International (NSF) stating compliance with Standard 14 and Standard 61.

   c. Letter from the Manufacturer verifying chemical compatibility of all products to be used in chemical feed systems.

B. Additional Information:

1. Submit to the Owner, for approval, samples of all materials specified herein, along with the manufacturer's descriptive literature, illustrations, specifications, installation instructions and related information.

C. Operating Instructions (Not Applicable)

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Pipe and fittings shall be handled and stored in a manner which will ensure installation in sound, undamaged condition. Handling methods and equipment used shall prevent damage to pipe. Bare cables, chains, or metal bars shall not be used. Pipe shall be stored off the ground on wide padded skids.

1.05 WARRANTY

A. Provide equipment warranty for a period of two years, in accordance with Section 01600, Material and Equipment.

PART 2 - PRODUCTS

2.01 GENERAL

A. All materials that come into contact with the water being treated or the finished water shall be on either the EPA or NSF lists of products approved for use in contact with potable water. Manufacturers shall submit an affidavit with the shop drawings indicating approval by the EPA or NSF for the materials used in products that come into contact with the water, in accordance with Rule 290.44(a) of the Texas Administrative Code.

2.02 MATERIALS AND EQUIPMENT

A. Piping for buried service:

1. Pipe and fittings:

a. Pipe and fittings shall be gasketed style utilizing twin gasket coupling or single gasket bell and spigot unless otherwise shown on the Drawings or specified in other Sections in this Division.

b. All chemical piping using Schedule 80 CPVC shall besolvent welded..

c. Pipe lengths: Laying length of 20 feet or as shown on the Drawings.

2. Joints:

a. Provide rubber gaskets in sufficient quantity to allow for loss.

b. Provide couplings of the same quality as the pipe that will maintain tight joints when subjected to the same hydrostatic tests designated for the pipe.

3. Adapters: When applicable, provide adapters for connecting chlorinated polyvinyl chloride pipe to pipes constructed from other material.

B. Piping for exposed service:

1. Pipe and fittings:

a. Solvent weld type unless otherwise shown on the Drawings or specified in other Sections in the Division.

b. Chemical piping, fittings and components: Schedule 80 CPVC, normal impact unless otherwise shown on the Drawings or specified in other Sections in this Division.

2. Joints:

   a. Solvent weld using solvent supplied or approved by pipe manufacturer.

   b. Threaded and screwed joints: Permitted only on Schedule 80 and heavier pipe. For all non chemical pipes.

   c. Couplings and fittings: Minimum schedule and pressure rating as the pipe.

3. Provide suitable adapters for connections to equipment and other piping systems.

C. Solvent Cement:

1. CPVC solvent cement shall be in compliance with ASTM D 2564.

2. Solvent cement shall be specified by compatibility based on pipe service and size.

3. For CPVC pipe in chemical service, provide IPS Corp Type 724 cement or another cement certified by the manufacturer for the proposed chemical service. Manufacturer to provide certification with submittal.

D. Flanges:

1. The Contractor shall provide flanges on CPVC piping to connect to flanged valves, fittings, or equipment and as shown in the Drawings. Flanges shall match the connecting flanges on the adjacent fitting, valve or piece of equipment and must meet the test pressure of the piping system as specified in Section 15014: Pressure Testing of Piping.

2. Except for higher pressure flange connections that may be required as noted above, flanges shall meet ANSI B16.5 and be rated for an internal pressure of 150 psi at 73-degrees F.

3. Flange hardware (bolts, nuts, and washers) for CPVC flanges shall be Type 316 stainless steel in accordance with ASTM F593 and F594, respectively, and shall be furnished with a bright electropolished finish. Flange hardware for CPVC flanges on Hydrofluosilisic Acid and Sulfuric Acid chemical piping and at injection nozzles on process piping shall be Hastelloy C-276. Bolt length shall be provided such that bolts will project 1/8 to 3/8 inch beyond the outer face of the nut.

4. For chemical feed piping systems, the gasket material shall be selected by the gasket manufacturer based on the chemical concentrations as specified in Divisions 11 and 13.

2.03 ACCESSORIES (Not Applicable)

2.04 SPARE PARTS

A. All special tools, solvents, lubricants, and cements required for normal installation shall be furnished with the pipe.

2.05 QUALITY CONTROL

A. Contractor shall follow Manufacturer's and Supplier's recommended product quality control specifics as required for this project.

PART 3 - EXECUTION

3.01 PREPARATION (Not Applicable)

3.02 INSTALLATION

A. Install CPVC pipe where shown on the Drawings and in strict accordance with the manufacturer's technical data and printed instructions.

B. Joints for Schedule 80 CPVC pipe and fittings shall be solvent welded. All joints shall be made watertight. All pipe cutting, threading and jointing procedures for solvent welded and threaded CPVC pipe joints shall be in strict accordance with the pipe and fitting manufacturer's printed installation instructions. Thread lubricant for threaded joints shall be Teflon tape only. In making solvent welded connections, clean dirt and moisture from pipe and fittings, bevel pipe ends slightly with emery cloth, if necessary and apply solvent cement of proper grade.

C. Installation of valves and fittings shall be strictly in accordance with the manufacturer's instructions. Particular care shall be taken not to over-stress threaded connections at sleeves. In making solvent weld connections the solvent shall not be spilled on valves or allowed to run from joints.

D. All piping shall have sufficient number of unions to allow convenient removal and shall be as approved by the Owner.

E. Where plastic passes through wall sleeves, joints shall be sealed with a mechanical seal equal to Link-seal.

F. Concrete inserts for hangers and supports shall be furnished and installed in the concrete as it is placed. The inserts shall be set in accordance with the requirements of the piping layout and the Contractor shall verify their locations from approved piping layout Drawings and the structural Drawings. Pipe Supports for Process Piping are specified in Section 15140.

G. Jointing:

1. Clean each pipe length, coupling and fitting of all debris and dirt before installation.

2. Do not use pipe length if there are any cuts, abrasions, or defects on the surface of the pipe.

3. Provide and use coupling pullers for joining the pipe when required.

4. Shove home each length of pipe against the pipe previously laid and hold securely in position.

5. Do not pull or cramp joints.

H. Fabrication:

1. Cutting:

a. Use a hand saw or pipe cutter with blades (not rollers).

b. Examine all cut ends for possible cracks caused by cutting.

2. Connecting:

a. Solvent weld connections are recommended by the manufacturer.

b. Connect pipe and fittings only when temperature is above the minimum recommended by the manufacturer.

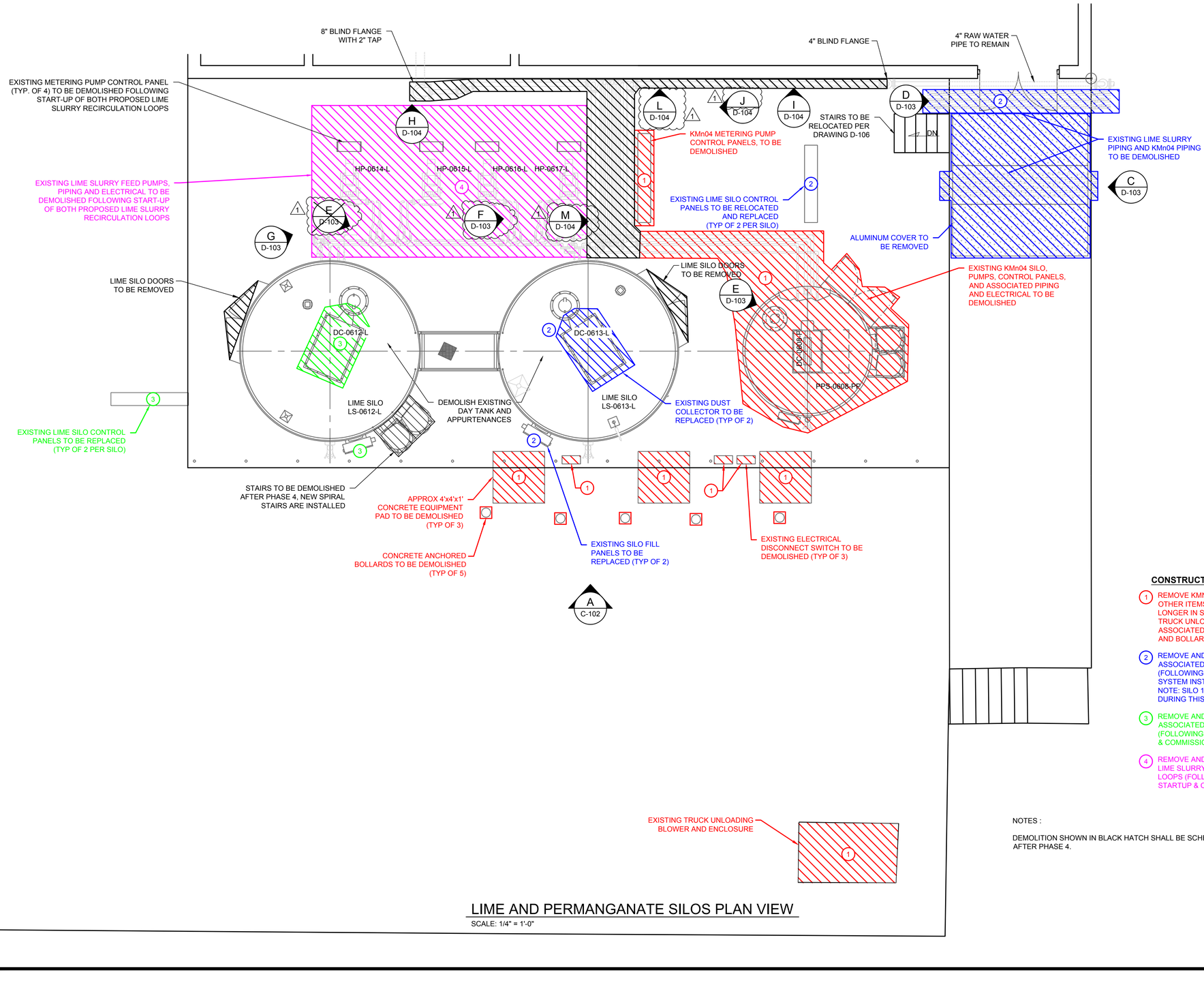
c. Threaded adapters shall be connected only with plastic male into metal female.

3.03 INSPECTION AND TESTING

A. All CPVC pipe shall be pressure tested in accordance with Section 15014: Pressure Testing of Piping.

3.04 START-UP AND INSTRUCTION (Not Applicable)

END OF SECTION



LIME AND PERMANGANATE SILOS PLAN VIEW

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

CONSTRUCTION PHASING

1. REMOVE KMNO4 EQUIPMENT AND OTHER ITEMS THAT ARE NO LONGER IN SERVICE. "REMOVE TRUCK UNLOADING BLOWER, ASSOCIATED ELECTRICAL WIRING AND BOLLARDS. "
2. REMOVE AND REPLACE EQUIPMENT ASSOCIATED WITH LIME SILO #2 (FOLLOWING TEMPORARY LIME SYSTEM INSTALLATION & STARTUP) NOTE: SILO 1 WILL BE OPERATIONAL DURING THIS PHASE.
3. REMOVE AND REPLACE EQUIPMENT ASSOCIATED WITH LIME SILO #1 (FOLLOWING LIME SILO #2 STARTUP & COMMISSIONING)
4. REMOVE AND INSTALL PERMANENT LIME SLURRY RECIRCULATION LOOPS (FOLLOWING LIME SILO #1 STARTUP & COMMISSIONING)

NOTES :

DEMOLITION SHOWN IN BLACK HATCH SHALL BE SCHEDULED AFTER PHASE 4.

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

TETRA TECH
www.tetratech.com
711 NAVARRO ST. SUITE 560
SAN ANTONIO, TX 78205
PH: 210.299.7900 FAX: 210.226.8497

BID SET

STATE OF TEXAS
JARRETT K. KINSLOW
121441
LICENSED PROFESSIONAL ENGINEER
1/5/2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	12/2024	ADDENDUM NO. 12	NR

SAN ANTONIO WATER SYSTEM
H2OAKS ASR LIME SYSTEM IMPROVEMENTS PROJECT

LIME FEED SYSTEM DEMOLITION PLAN

PROJ:	200-09308-21001
DESN:	MS
DRWN:	SGG
CHKD:	JKK

D-101

Bar Measures 1 inch, otherwise drawing not to scale

DRAWING INDEX

SHEET NO	DRAWING NO	DRAWING TITLE
GENERAL		
1	G-000	COVER
2	G-001	DRAWING INDEX
3	G-002	GENERAL NOTES
4	G-003	LEGEND AND ABBREVIATIONS
5	G-004	WELL FIELD PROCESS FLOW DIAGRAM
6	G-005	HIGH SERVICE PUMP STATION PROCESS FLOW DIAGRAM
7	G-006	FLUORIDE SYSTEM PROCESS FLOW DIAGRAM
8	G-007	OSHG SYSTEM PROCESS FLOW DIAGRAM
9	G-008	SODIUM HYPOCHLORITE FEED SYSTEM PROCESS FLOW DIAGRAM
CIVIL/YARD PIPING		
10	C-001	CIVIL GENERAL NOTES AND LEGEND
11	C-100	EXISTING SITE
12	C-101	OVERBUILD PLAN
13	C-102	ABOVEGROUND DEMOLITION
14	C-103	UNDERGROUND DEMOLITION
15	C-104	DEMOLITION PHOTOS I
16	C-105	DEMOLITION PHOTOS II
17	C-106	DEMOLITION PHOTOS III
18	C-107	DEMOLITION PHOTOS IV
19	C-108	NEW SITE LAYOUT PLAN
20	C-109	EROSION CONTROL PLAN
21	C-110	EROSION CONTROL DETAILS
22	C-111	HORIZONTAL CONTROL PLAN
23	C-112	GRADING PLAN
24	C-113	UTILITY PLAN
25	C-114	WATER PLAN AND PROFILE
26	C-115	OVERFLOW DRAIN PLAN AND PROFILE
27	C-116	JOINT LAYOUT PLAN
28	C-117	YARD PIPING PLAN - PROCESS MECHANICAL
29	C-118	PIPE A PLAN AND PROFILE
30	C-119	PIPE B PLAN AND PROFILE
31	C-120	PIPES C & D PLAN AND PROFILE
32	C-121	PIPES E & F PLAN AND PROFILE
33	C-122	PIPES G & H PLAN AND PROFILE
34	C-123	PIPE I PLAN AND PROFILE
35	C-501	STANDARD CIVIL DETAILS I
36	C-502	CONCRETE DRIVEWAY STANDARDS
37	C-503	WHEELCHAIR RAMP STANDARDS
38	C-504	COSA STANDARD 5' X 5' X 5' JUNCTION BOX
39	C-505	SOUND BARRIER WALL DETAILS
40	C-506	YARD PIPING DETAILS I
41	C-507	YARD PIPING DETAILS II
42	C-508	SITE SECTIONS I
43	C-509	SITE SECTIONS II
44	C-510	SITE SECTIONS III
LANDSCAPING		
45	L-101	TREE PRESERVATION PLAN
46	L-102	TREE PRESERVATION SCHEDULE
47	L-103	LANDSCAPE PLAN
48	L-104	TREE PRESERVATION DETAILS
PROCESS		
49	D-001	PROCESS GENERAL NOTES, LEGEND AND ABBREVIATIONS
50	D-002	VALVE SCHEDULE
51	D-101	STATIC MIXER AND TANK OUTLET PLAN AND SECTION
52	D-102	EXISTING 0.5 MG GST MODIFICATIONS
53	D-201	WELL NO. 3 DISCHARGE PIPING PLAN & SECTIONS
54	D-202	WELL NO. 4 DISCHARGE PIPING PLAN & SECTIONS
55	D-203	WELL NO. 5 DISCHARGE PIPING PLAN & SECTIONS
56	D-204	WELL NO. 6 DISCHARGE PIPING PLAN & SECTIONS
57	D-301	OVERALL EQUIPMENT PLAN
58	D-302	OSHG BLDG & BRINE TANK
59	D-303	FLOURIDE BLDG, TANK & HYPO BULK STORAGE TANKS
60	D-304	FLOURIDE BLDG & TANK SECTIONS
61	D-305	HYPO BULK STORAGE TANKS SECTION
62	D-306	OSHG BLDG & TANK I
63	D-307	OSHG BLDG & TANK II
1 64	D-308	ADDITIONAL SECTIONS
65	D-401	HSP STATION SUCTION PIPING AND DISCHARGE PIPING
66	D-402	HSP STATION SUCTION PIPING AND DISCHARGE PIPING SECTIONS
67	D-501	PROCESS STANDARDS DETAILS I
68	D-502	PROCESS STANDARDS DETAILS II
69	D-503	PROCESS STANDARDS DETAILS III
70	D-504	PROCESS STANDARDS DETAILS IV
71	D-505	PROCESS STANDARDS DETAILS V
72	D-506	PROCESS STANDARDS DETAILS VI
73	D-507	PROCESS STANDARDS DETAILS VII
74	D-508	WELL NO. 6 DETAIL
75	D-509	WELL CASING DETAIL
ARCHITECTURAL		
76	A-301	OSHG CODE ANALYSIS & LIFE SAFETY PLAN
77	A-302	OSHG BUILDING FLOOR PLAN
78	A-303	OSHG BUILDING REFLECTED CEILING PLAN
79	A-304	OSHG BUILDING ROOF PLAN
80	A-305	OSHG EXTERIOR ELEVATIONS
81	A-306	OSHG EXTERIOR ELEVATIONS
82	A-307	OSHG BUILDING SECTIONS
83	A-308	OSHG BUILDING SECTIONS
84	A-401	HSPS CODE ANALYSIS & LIFE SAFETY PLAN
85	A-402	HSPS BUILDING FLOOR PLAN
86	A-403	HSPS BUILDING REFLECTED CEILING PLAN
87	A-404	HSPS BUILDING ROOF PLAN
88	A-405	HSPS EXTERIOR ELEVATIONS
89	A-406	HSPS EXTERIOR ELEVATIONS
90	A-407	HSPS BUILDING SECTIONS
91	A-501	WALL SECTONS & DETAILS
92	A-502	SCHEDULES & DETAILS
93	A-503	3D AERIAL PERSPECTIVE
STRUCTURAL		
94	S-001	STRUCTURAL GENERAL NOTES
95	S-002	STRUCTURAL GENERAL NOTES
96	S-201	WELL'S SLAB - STRUCTURAL DETAILS
97	S-202	NEW STATIC MIXER AND CONCRETE FOUNDATION PLAN
98	S-301	NEW CHEMICAL BUILDING SLAB AND WALL PLAN
99	S-302	NEW CHEMICAL BUILDING FOUNDATION FRAMING PLAN
100	S-303	NEW CHEMICAL BUILDING - ROOF PLAN
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166	E-311	OSHG BUILDING LIGHTING PLAN
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187	E-509	SCHEMATICS - IX GROUND STORAGE TANK
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202	I-7	GROUND STORAGE TANK P&ID
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205	I-10	OSHG GENERATOR SKIDS P&ID
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210	I-15	INSTRUMENTATION INSTALLATION DETAILS - I
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212	I-17	CHLORINE AND FLUORIDE ANALYZER PANEL DETAIL
213	I-18	SUPERVISORY CONTROL PANEL ELEVATION AND DETAILS
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LICENSED PROFESSIONAL ENGINEER
Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	12/2023	ADDENDUM NO. 12	MK

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
DRAWING INDEX

PROJ:	200-09308-20002
DESN:	MK
DRWN:	SG
CHKD:	FR

G-001

Bar Measures 1 inch, otherwise drawing not to scale

MECHANICAL EQUIPMENT

- MAGNETIC FLOWMETER
- TURBINE FLOWMETER
- ROTAMETER
- POSITIVE DISPLACEMENT FLOWMETER
- ULTRASONIC LEVEL INSTRUMENT
- NORMAL LIQUID LEVEL
- LEVEL SENSOR, FLOAT TYPE
- MIXER
- CALIBRATION COLUMN
- PULSATION DAMPENER
- REDUCER
- Y STRAINER
- BLIND FLANGE
- SAMPLE PORT
- DIAPHRAGM SEAL
- FIRE HYDRANT
- CAPPED OR PLUGGED
- QUICK CONNECT COUPLING
- CAMLOCK W/ MALE CAP
- RUPTURE DISK
- INJECTOR
- DRAIN
- ULTRASONIC LEVEL SENSOR
- PIPE MATERIAL CHANGE
- PIPE BREAK
- PIPE CROSSING
- PROPELLER MIXER
- INJECTION QUILL WITH CORP STOP
- PUMPOUT CONNECTION
- VAPOR SEAL
- FLEXIBLE HOSE
- VENT
- MOTOR OPERATED ACTUATOR WITH POSITIONER
- PNEUMATIC OPERATED ACTUATOR WITH POSITIONER
- MOTOR ACTUATOR
- SOLENOID ACTUATOR
- PNEUMATIC ACTUATOR
- PNEUMATIC ACTUATOR WITH STROKE POSITIONER
- PRESSURE RELIEF VALVE
- PRESSURE GAUGE
- SLEEVE VALVE

PIPING LEGEND

FITTING/ APPURTENANCE	FLANGED				MECHANICAL JOINT				GROOVE JOINT				SOLVENT WELD			
	SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE	
	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
BEND																
TEE																
WYE																
REDUCER																
CAP/ BLIND FLANGE					N/A	N/A	N/A	N/A								
PLUG	N/A	N/A	N/A	N/A					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BUTTERFLY VALVE																
BALL VALVE					N/A	N/A	N/A	N/A								
CHECK VALVE					N/A	N/A	N/A	N/A								
GATE VALVE																
PLUG VALVE																
AUTOMATIC CONTROL VALVE					N/A	N/A	N/A	N/A								
PINCH VALVE					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				

ABOVE GRADE PIPING

BELOW GRADE PIPING

NOTES:

1. SURFACE PREPARATIONS PER SPECIFICATIONS 09900-PAINTING AND COATINGS.
2. ALL CHEMICALS FEED PIPING CONSISTING OF SCH 80 PVC TO BE MINIMUM 3/4" DIA UNLESS OTHERWISE SHOWN SHOWN ON THE DRAWINGS.
3. ALL EXPOSED PROCESS PIPING IS TO BE PAINTED PER THE PAINTING SPECIFICATIONS, EXCEPT STAINLESS STEEL.
4. GRAVITY SEWER IS TO BE AIR TESTED.
5. WORKING PRESSURE RATING OF FITTING TO MEET OR EXCEED THE RATING OF PIPE.
6. ALL CARBON STEEL PIPING SHALL BE RATED FOR 150 PSI WORKING PRESSURE, MINIMUM 1/4" WALL THICKNESS PER SAWS STANDARDS, REGARDLESS OF WORKING AND TEST PRESSURES INDICATED IN THE SCHEDULE ABOVE.
7. REFER TO SPECIFICATION SECTION 15076 - DOUBLE WALL CONTAINMENT PIPING FOR DOUBLE WALL CONTAINMENT PIPING, FITTINGS AND APPURTENANCES.

PIPE MATERIALS SCHEDULE

ABBREVIATION	DESCRIPTION	BURIED	EXPOSED	EXPOSED COLOUR	MAX WORKING PRESSURE	TEST PRESSURE/TESTING SPEC	SPECIFICATIONS
BR	BRINE	NA	PVC SCH 80, SOLVENT WELD	BROWN W/ WHITE LETTERS	50	100	15063
DR,D,SS	DRAIN/SEWER	<6": PVC SCH 40; >= 6" PVC SEWER PIPE, SDR 26 W/ PVC FITTINGS	PVC SCH 80, SOLVENT WELD	DK. GRAY (34GR)	GRAVITY	15 FT WATER COLUMN/15014	15063
DRAIN	10" TANK DRAIN	N/A	CARBON STEEL, WELDED AND FLANGED	MATCH GST	15	30/15014	15055, 15056
HFA	HYDROFLUOSILICIC ACID (FLOURIDE)	PFA TUBING IN SCH 80 CPVC CONTAINMENT PIPE	2 CPVC SCH 80, SOLVENT WELD IN SCH 80 CPVC CONTAINMENT PIPE, SOLVENT WELD	WHITE W/YELLOW BANDS	60	100/15014	15062, 15076
PW	POTABLE WATER	DUCTILE IRON, RESTRAINED RTJ AND RESTRAINED MJ>=4" <4" PVC SCH 40, SOLVENT WELD	<=4" PVC SCHEDULE 80; >4" CARBON STEEL	BLUE (11SF "SAFETY BLUE")	150	225/15085	15055, 15056,15058
RW	RAW WATER	DUCTILE IRON	2 CARBON STEEL	TAN W/ WHITE LETTERS	150	225/15085	15055, 15056, 15058
SH	SODIUM HYPOCHLORITE (HYPO)	PVC CARRIER TUBING IN SCH 80 PVC CONTAINMENT PIPE	PVC SCH 80, SOLVENT WELD IN SCH 80 PVC CONTAINMENT PIPE WHERE INDICATED, SOLVENT WELD	YELLOW	60	100	15063, 15076
SMPL	SAMPLE	PVC SCH 80, SOLVENT WELD	PVC SCH 80, SOLVENT WELD OR 316 SST AS NOTED ON DRAWING	MATCH SERVICE	100	150/15014	15063, 15067
UW	UTILITY WATER	< 4" PVC SCH 80, SOLVENT WELD & COPPER	<=3" PVC SCH 80, SOLVENT WELD	LIGHT BLUE	75	150/15104	15063
SW	SOFTENED WATER	NA	PVC SCH 80, SOLVENT WELD	ALUMINUM W/ BLACK LETTERS	50	100	15063
1 VNT/AIR	VENT/AIR	NA	INDOOR: PVC, SCH 40; OUTDOOR: PVC, SCH 80	VENT: MD. GRAY (33GR) AIR: INDOOR- CLEAR, OUTDOOR- PLASTIC	NA	NA	15063
SF	SALT FILL	NA	316 STAINLESS STEEL	1 NA	12" WATER COLUMN	NA	15067

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STATE OF TEXAS
DONALD J. BURGER
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LICENSED PROFESSIONAL ENGINEER
Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	10/2023	ADDENDUM NO. 2	MK
2	12/2023	ADDENDUM NO. 12	MK

SAN ANTONIO WATER SYSTEMS

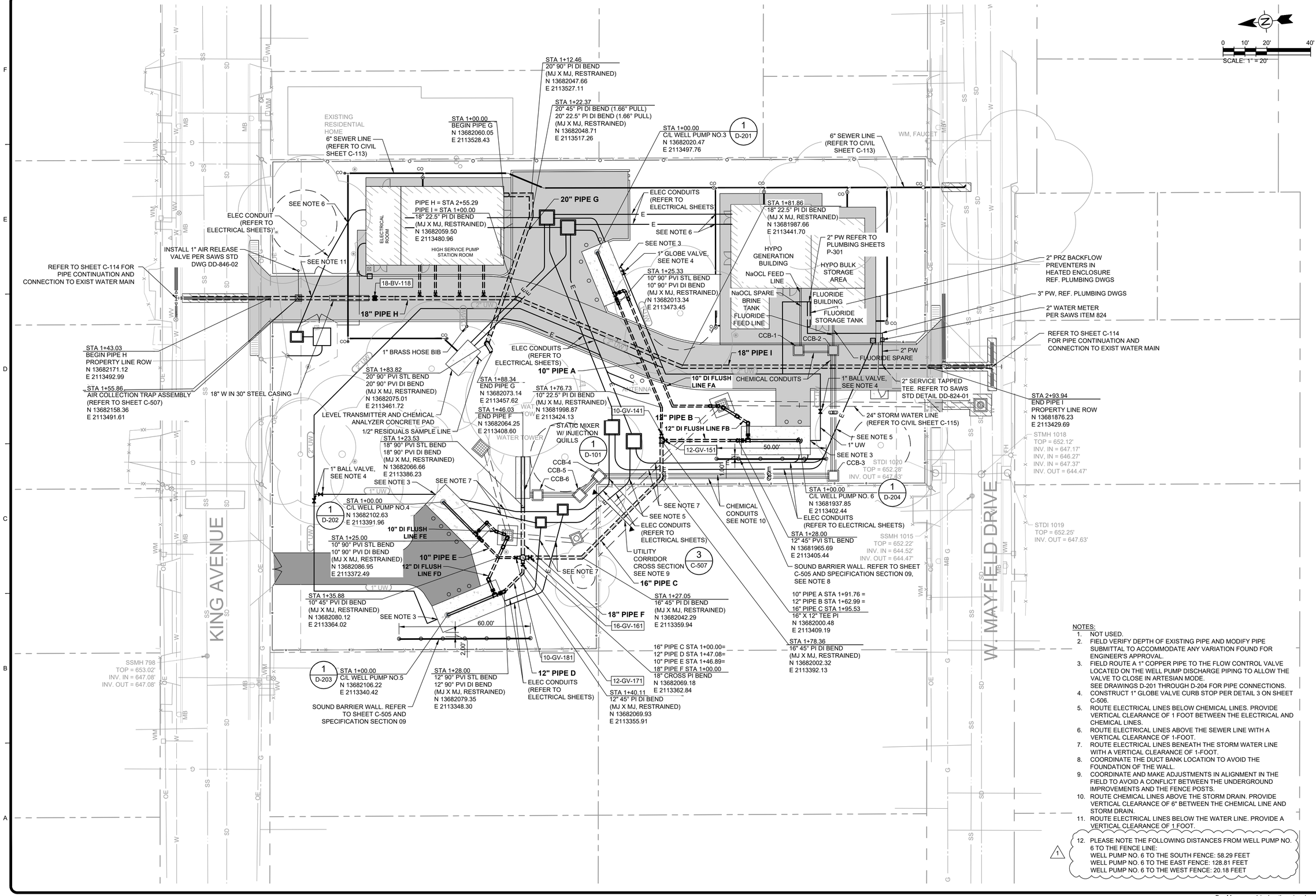
KING STREET PUMP STATION IMPROVEMENTS

PROCESS GENERAL NOTES LEGEND AND ABBREVIATIONS

PROJ:	200-09308-20002
DESN:	MK
DRWN:	SG
CHKD:	FR

D-001

Bar Measures 1 inch, otherwise drawing not to scale



NOTES:

1. NOT USED.
2. FIELD VERIFY DEPTH OF EXISTING PIPE AND MODIFY PIPE SUBMITTAL TO ACCOMMODATE ANY VARIATION FOUND FOR ENGINEER'S APPROVAL.
3. FIELD ROUTE A 1" COPPER PIPE TO THE FLOW CONTROL VALVE LOCATED ON THE WELL PUMP DISCHARGE PIPING TO ALLOW THE VALVE TO CLOSE IN ARTESIAN MODE. SEE DRAWINGS D-201 THROUGH D-204 FOR PIPE CONNECTIONS.
4. CONSTRUCT 1" GLOBE VALVE CURB STOP PER DETAIL 3 ON SHEET C-506.
5. ROUTE ELECTRICAL LINES BELOW CHEMICAL LINES. PROVIDE VERTICAL CLEARANCE OF 1 FOOT BETWEEN THE ELECTRICAL AND CHEMICAL LINES.
6. ROUTE ELECTRICAL LINES ABOVE THE SEWER LINE WITH A VERTICAL CLEARANCE OF 1-FOOT.
7. ROUTE ELECTRICAL LINES BENEATH THE STORM WATER LINE WITH A VERTICAL CLEARANCE OF 1-FOOT.
8. COORDINATE THE DUCT BANK LOCATION TO AVOID THE FOUNDATION OF THE WALL.
9. COORDINATE AND MAKE ADJUSTMENTS IN ALIGNMENT IN THE FIELD TO AVOID A CONFLICT BETWEEN THE UNDERGROUND IMPROVEMENTS AND THE FENCE POSTS.
10. ROUTE CHEMICAL LINES ABOVE THE STORM DRAIN. PROVIDE VERTICAL CLEARANCE OF 6" BETWEEN THE CHEMICAL LINE AND STORM DRAIN.
11. ROUTE ELECTRICAL LINES BELOW THE WATER LINE. PROVIDE A VERTICAL CLEARANCE OF 1 FOOT.

1

12. PLEASE NOTE THE FOLLOWING DISTANCES FROM WELL PUMP NO. 6 TO THE FENCE LINE:
WELL PUMP NO. 6 TO THE SOUTH FENCE: 58.29 FEET
WELL PUMP NO. 6 TO THE EAST FENCE: 128.81 FEET
WELL PUMP NO. 6 TO THE WEST FENCE: 20.18 FEET

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STATE OF TEXAS DONALD J. BURGER 82597 LICENSED PROFESSIONAL ENGINEER
Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	1/2024	ADDENDUM NO. 12	MK

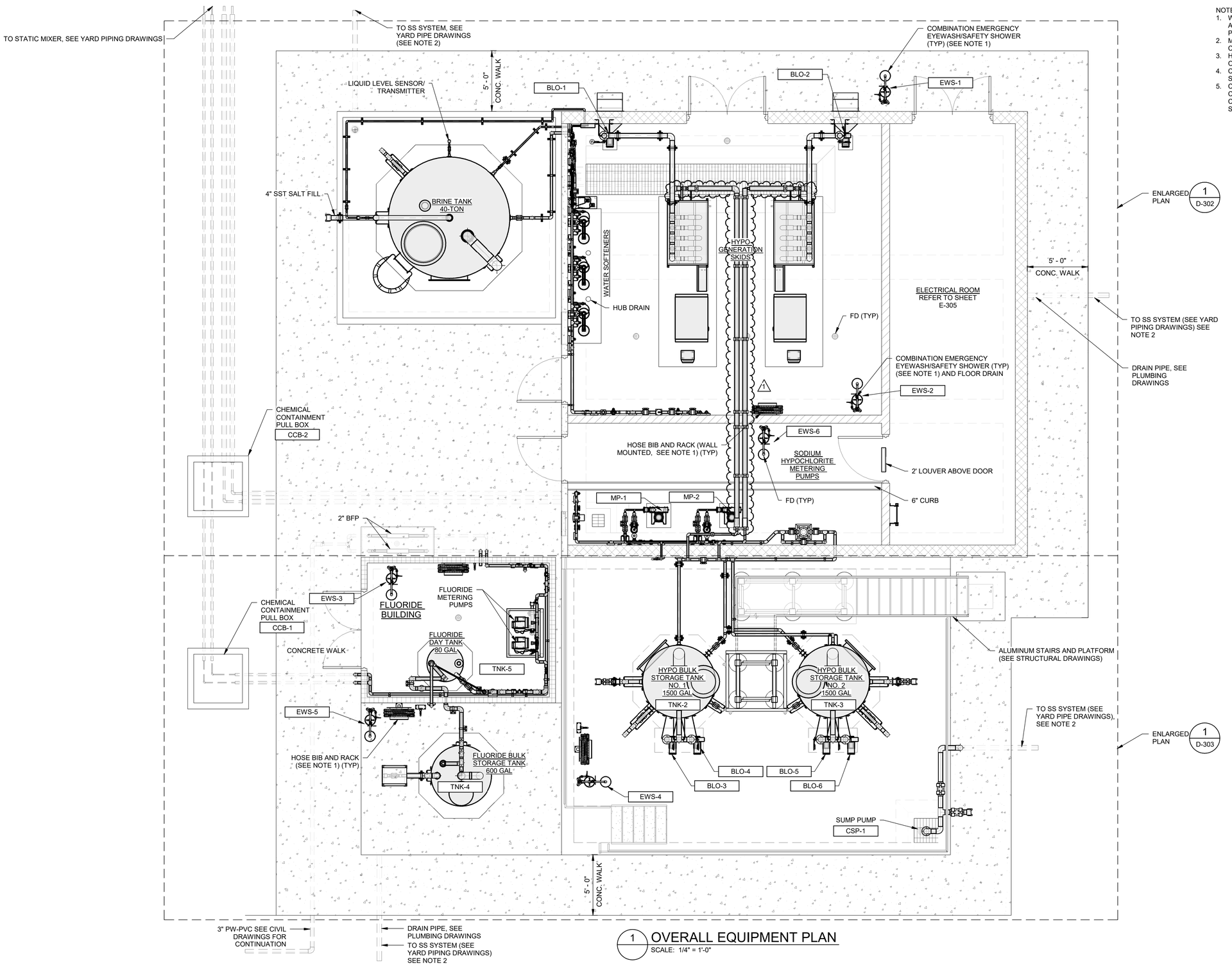
SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS

YARD PIPING PLAN PROCESS MECHANICAL

PROJ:	200-09308-20002
DESN:	MK
DRWN:	SG
CHKD:	FR

C-117

Bar Measures 1 inch, otherwise drawing not to scale



1 OVERALL EQUIPMENT PLAN
SCALE: 1/4" = 1'-0"

NOTES:
1. WATER SUPPLY PIPING FOR EYEWASH STATIONS AND HOSE BIB STATIONS ARE SHOWN ON PLUMBING DRAWINGS.
2. MAINTAIN 1-FT MINIMUM SEPARATION BETWEEN CHEMICAL AND DRAIN PIPE.
3. HEAT TRACE AND INSULATE ALL EXPOSED OUTDOOR PIPING.
4. CONCRETE PEDESTALS FOR METERING PUMPS SHALL BE COATED PER SPECIFICATION 09850.
5. COAT PUMP CONTAINMENT FLOOR, CURB, TANK CONTAINMENT AND ADJACENT WALLS WITH CHEMICAL RESISTANT PROTECTIVE COATING PER SPECIFICATION 09850.

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Jan 05, 2024

MARK	DATE	DESCRIPTION	BY
1	12/2023	ADDENDUM NO. 12	MK

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
OVERALL EQUIPMENT PLAN

PROJ:	200-09308-20002
DESN:	MMS
DRWN:	RWP
CHKD:	DJB

D-301

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

Bar measures 1 inch, otherwise drawing is not to scale

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FITTING LIST	
TAG NO.	DESCRIPTION
53	2" PVC BALL VALVE

TO SS SYSTEM, SEE YARD PIPING DRAWINGS

DRAIN PIPE, SEE PLUMBING DRAWINGS

6 D-501 — PIPE SUPPORT NON-METALLIC (TYP)

H D-307

LIQUID LEVEL SENSOR/ TRANSMITTER

6" CONTAINMENT CURB

FD

5' - 0" CONCRETE WALK

3 D-502 — PIPE PENETRATION - WALL

HYDROGEN VENT BLOWER NO. 1 BLO-1

EWS-1

1" SW

3" OVERFLOW AND DRAIN

SALT LEVEL INDICATOR

5' - 0" CONCRETE WALK

4" SST SALT FILL

4" QUICK CONNECT

1 D-501 — NON-METALLIC STANCHION PIPE SUPPORT

4" SF

ACCESS LADDER W/SAFETY CAGE PROVIDE BY TANK MANUFACTURER PER SPECIFICATIONS SECTION 13126

E D-306

BRINE TANK 40-TON

0° / 90° / 180° / 270°

2"x1" REDUCER COUPLING

2" INLET NOZZLE

53

2"-BR

8" VENT W/ DUST BAG

36" MANWAY

SLOPE CONTAINMENT AREA TO FLOOR DRAIN

HUB DRAIN

1 1/2" SW

4" VNT

1/2" BR

FRP GRATING

1 1/2" SH

4" VNT

HYDROGEN VENT BLOWER NO. 2 BLO-2

BRINE METERING PUMP

WS-3

HUB DRAIN

WS-2

WATER SOFTENERS

HUB DRAIN

WS-1

4' - 9"

HYPO GENERATION SKID NO. 1

HYPO GENERATION SKID NO. 2

K D-307

4' - 0"

4' - 10"

ELECTRICAL ROOM REFER TO SHEET E-305

TRANSFORMER/ RECTIFIER (TYP)

FD (TYP), SEE PLUMBING DRAWINGS

TO SS SYSTEM (SEE YARD PIPING DRAWINGS) SEE NOTE 2

DRAIN PIPE, SEE PLUMBING DRAWINGS

5' - 0" CONCRETE WALK

2" UW

B D-308

G D-307

HARMONIC FILTER (TYP), SEE ELECTRICAL DRAWINGS

4' - 0"

1 1/2" SH — IN 4" CONTAINMENT PIPE WITH SLOPE DOWN TO SODIUM HYPOCHLORITE METERING PUMP ROOM

COMBINATION EMERGENCY EYEWASH/SAFETY SHOWER AND FLOOR DRAIN

HOSE BIB AND RACK (WALL MOUNTED)

2 D-503

F D-307

1 1/2" SH

1/2" HFA

CHEMICAL CONTAINMENT PULL BOX SEE NOTE 4

5 D-503

CCB-2

3 D-502 — PIPE PENETRATION - WALL

J D-307

FRP GRATING

12"x12"x6" DEEP SUMP

SODIUM HYPOCHLORITE METERING PUMPS

1 1/2" SH — IN 4" CONTAINMENT PIPE

6" CURB

2' LOUVER ABOVE DOOR

METERING PUMP NO. 1 MP-1

METERING PUMP NO. 2 MP-2

0' - 9" / 5' - 3" / 0' - 9"

1-1/2" SH (TO INJECTION POINT) IN 4" PVC CONTAINMENT PIPE

1-1/2" SPARE SH (TO INJECTION POINT) IN 4" PVC CONTAINMENT PIPE

1 1/2" SH

2" BFP

PIPE HANGER NON-METALLIC 8 D-501

PIPE PENETRATION - WALL 3 D-502

1/2" HFA

LEAK DETECTION SWITCHES

PIPE PENETRATION - WALL 3 D-502

MATCH LINE SEE SHEET D-303

3"-PW SEE D-303 FOR CONTINUATION

2"-PW

NOTES:
1. HEAT TRACE AND INSULATE ALL OUTDOOR EXPOSED PIPING.
2. COAT PUMP CONTAINMENT FLOOR, CONCRETE PEDESTALS FOR METERING PUMPS AND ADJACENT WALLS TO SEVEN FEET ABOVE FINISHED FLOOR WITH CHEMICAL RESISTANT COATING PER SPECIFICATION 09850.
3. PROVIDE INSULATED JACKET AROUND BACKFLOW PREVENTER WITH A MINIMUM INSULATION THICKNESS OF 2"
4. CHEMICAL PIPING SHOULD BE SLOPED TOWARDS ONE CONTAINMENT BOX OR THE OTHER.

1 OSHG BLDG & BRINE TANK
SCALE: 3/8" = 1'-0"

N

2' 0' 2' 4' 6'

SCALE: 3/8" = 1'-0"

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BID SET

STATE OF TEXAS — DONALD J. BURGER — 82597 — LICENSED PROFESSIONAL ENGINEER

Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION
1	12/2023	ADDENDUM NO. 12

BY MK

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
OSHG BLDG & BRINE TANK

PROJ:	200-09308-20002
DESN:	MMS
DRWN:	RWP
CHKD:	DJB

D-302

Bar measures 1 inch, otherwise drawing is not to scale

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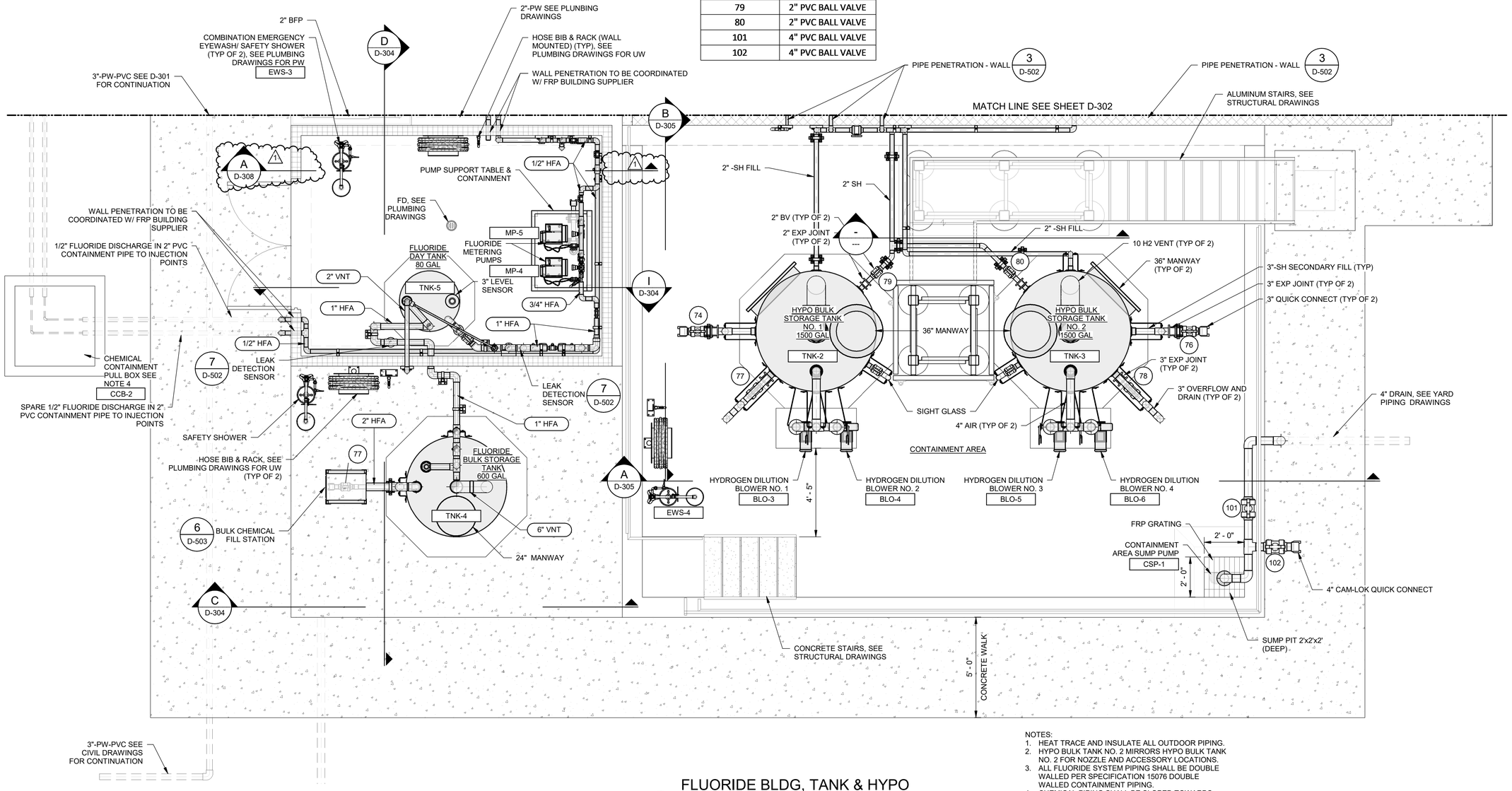
FITTING LIST	
TAG NO.	**DESCRIPTION**
74	3" PVC BALL VALVE
76	3" PVC BALL VALVE
77	3" PVC BALL VALVE
78	3" PVC BALL VALVE
79	2" PVC BALL VALVE
80	2" PVC BALL VALVE
101	4" PVC BALL VALVE
102	4" PVC BALL VALVE



1 FLUORIDE BLDG, TANK & HYPO BULK STORAGE TANKS

SCALE: 3/8" = 1'-0"

NOTES:
1. HEAT TRACE AND INSULATE ALL OUTDOOR PIPING.
2. HYPO BULK TANK NO. 2 MIRRORS HYPO BULK TANK NO. 2 FOR NOZZLE AND ACCESSORY LOCATIONS.
3. ALL FLUORIDE SYSTEM PIPING SHALL BE DOUBLE WALLED PER SPECIFICATION 15076 DOUBLE WALLED CONTAINMENT PIPING.
4. CHEMICAL PIPING SHALL BE SLOPED TOWARDS ONE CONTAINMENT BOX OR THE OTHER.

SCALE: 3/8" = 1'-0"

Bar measures 1 inch, otherwise drawing is not to scale

TETRA TECH
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TEL: 210.299.7900 FAX: 210.226.8497

BID SET

STATE OF TEXAS — DONALD J. BURGER — 82597 — LICENSED PROFESSIONAL ENGINEER

Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION
1	12/2023	ADDENDUM NO. 12

BY: MK

SAN ANTONIO WATER SYSTEMS

KING STREET PUMP STATION IMPROVEMENTS

FLUORIDE BLDG, TANK & HYPO BULK STORAGE TANKS

PROJ:	200-09308-20002
DESN:	MMS
DRWN:	RWP
CHKD:	DJB

D-303

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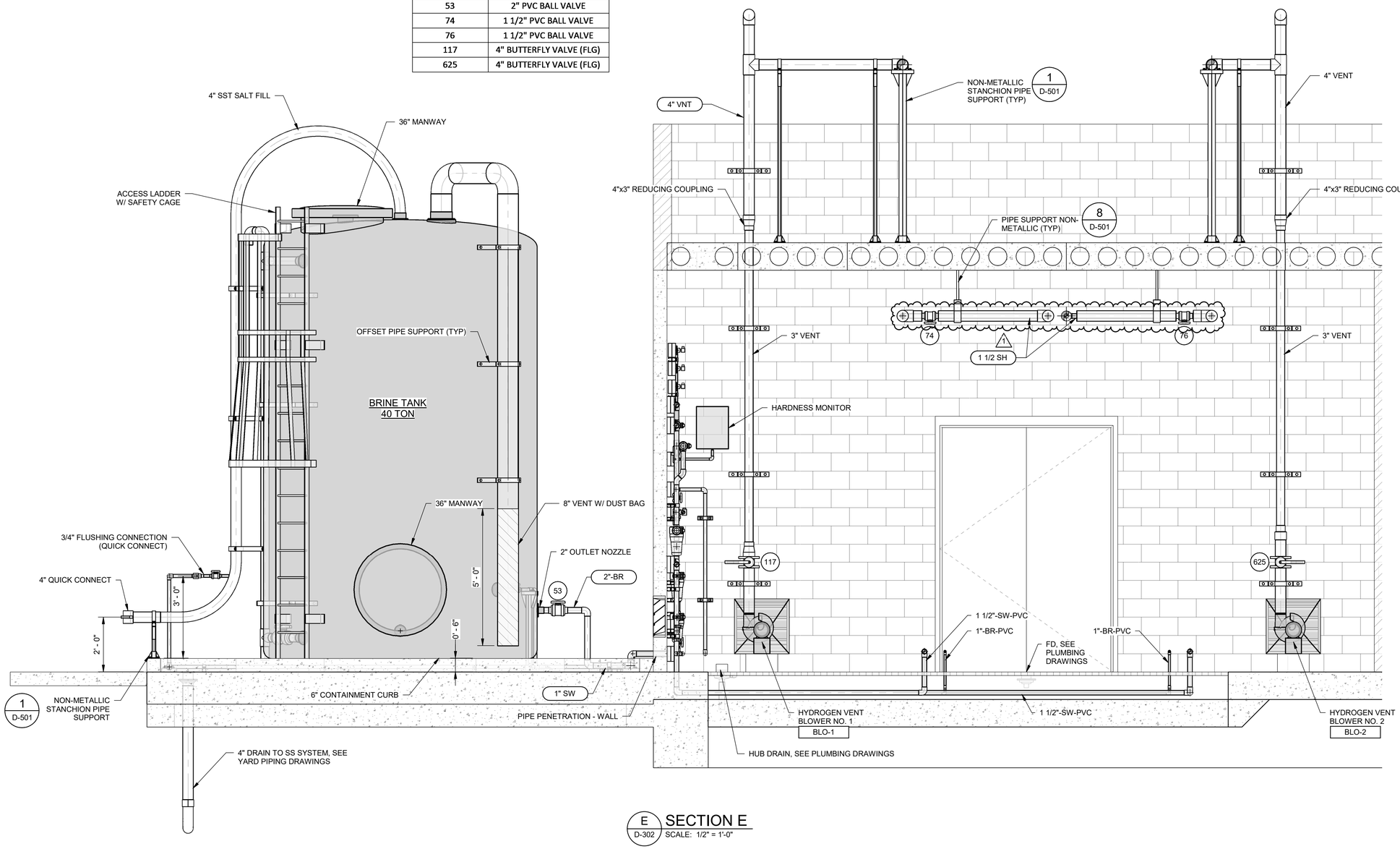
FITTING LIST	
TAG NO.	DESCRIPTION
53	2" PVC BALL VALVE
74	1 1/2" PVC BALL VALVE
76	1 1/2" PVC BALL VALVE
117	4" BUTTERFLY VALVE (FLG)
625	4" BUTTERFLY VALVE (FLG)



E D-302 SECTION E
SCALE: 1/2" = 1'-0"

2' 0' 2' 4'
SCALE: 1/2" = 1'-0"

Bar measures 1 inch, otherwise drawing is not to scale

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BID SET

STATE OF TEXAS
DONALD J. BURGER
82597
LICENSED PROFESSIONAL ENGINEER
Jan 05, 2024

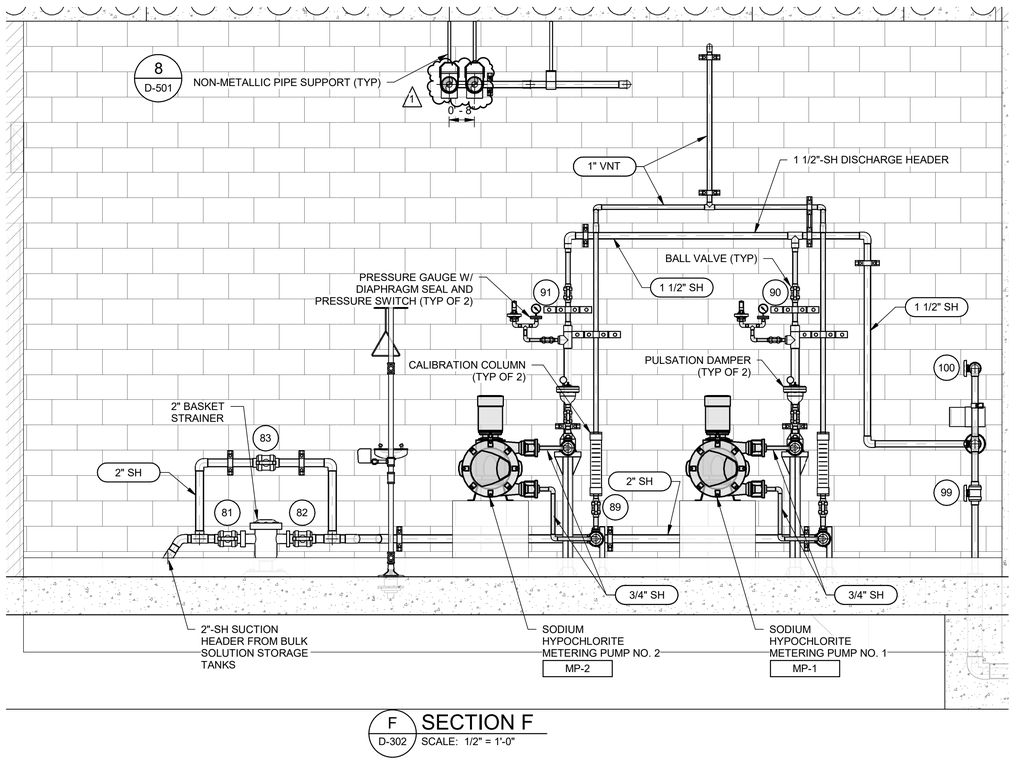
SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	12/2023	ADDENDUM NO. 1/2	MK

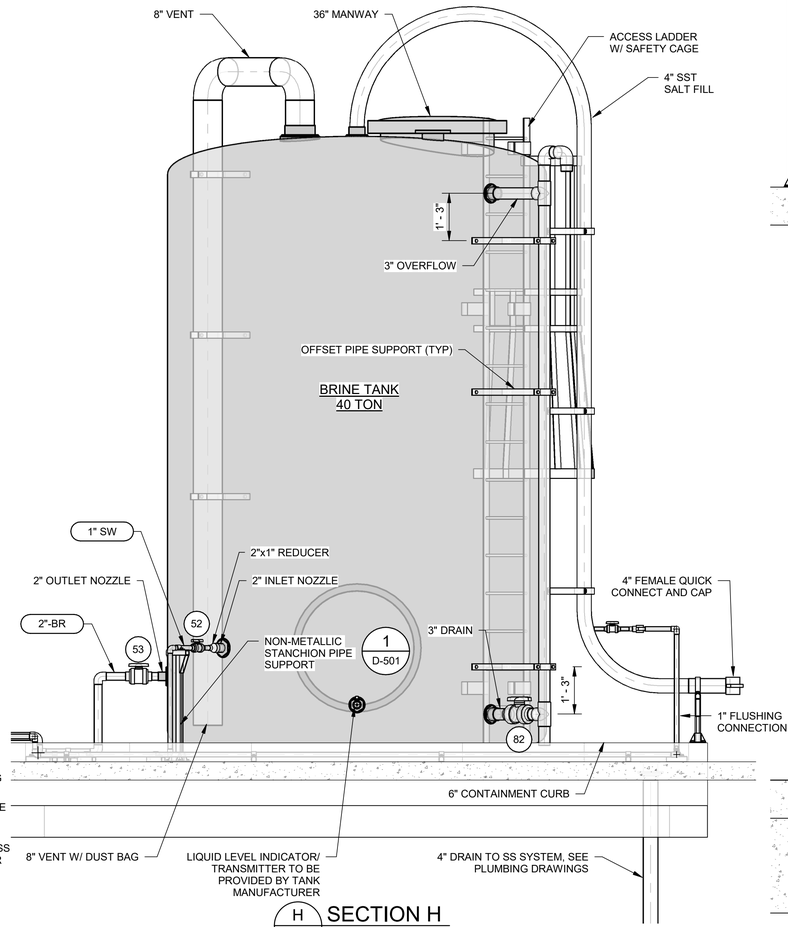
SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
OSHG BLDG & TANK I

PROJ:	200-09308-20002
DESN:	MMS
DRWN:	RWP
CHKD:	DJB

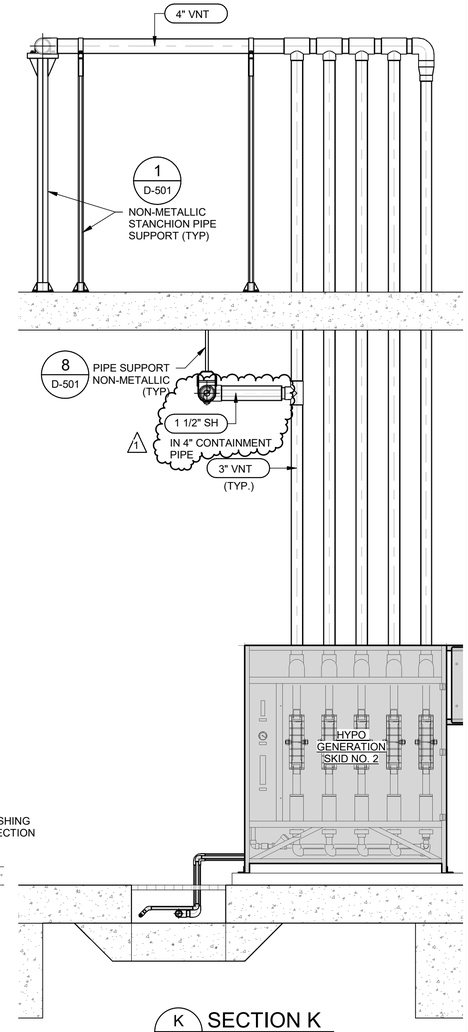
D-306



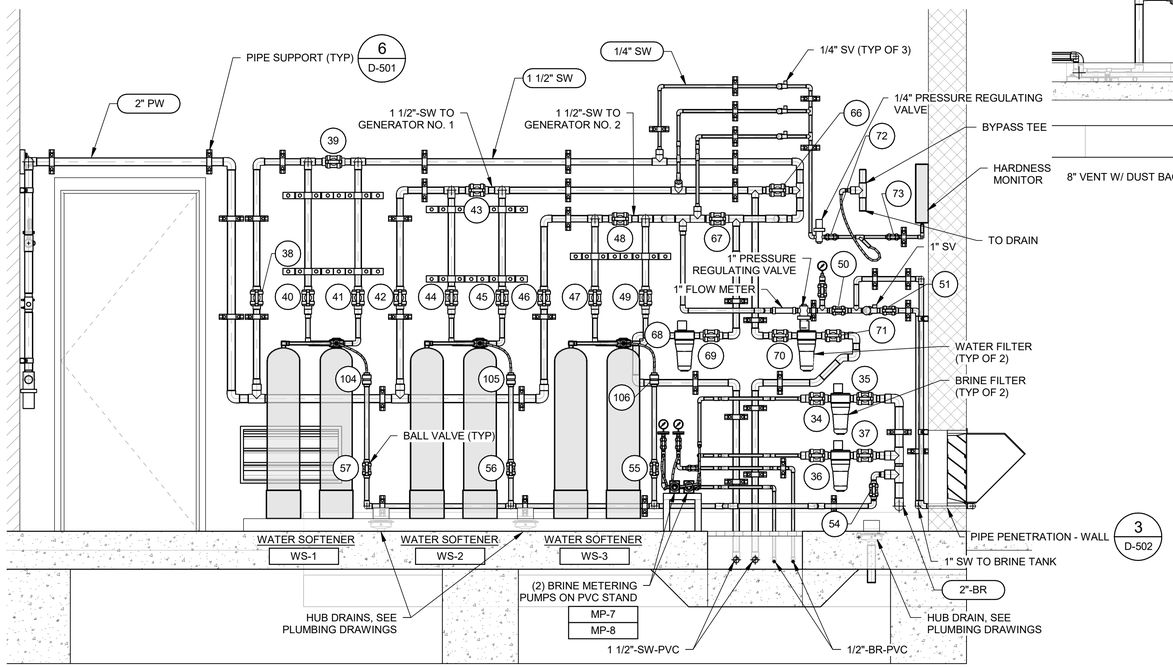
F D-302 SECTION F
SCALE: 1/2" = 1'-0"



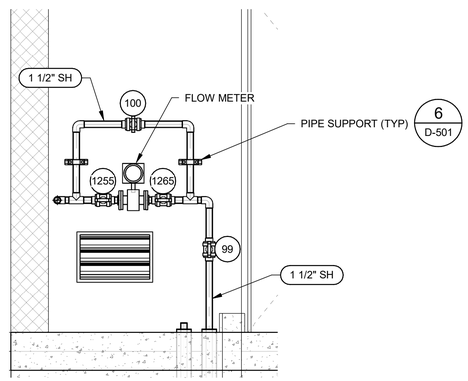
H D-302 SECTION H
SCALE: 1/2" = 1'-0"



K D-302 SECTION K
SCALE: 1/2" = 1'-0"



G D-302 SECTION G
SCALE: 1/2" = 1'-0"



J D-302 SECTION J
SCALE: 1/2" = 1'-0"

TAG NO.	DESCRIPTION
81 THRU 83	2" PVC BALL VALVE
89 THRU 91	1" PVC BALL VALVE
99 AND 100	1 1/2" PVC BALL VALVE
38 THRU 51	1 1/2" PVC BALL VALVE
52	1" PVC BALL VALVE
53	2" PVC BALL VALVE
1255	1 1/2" PVC BALL VALVE
1265	1 1/2" PVC BALL VALVE

2' 0' 2' 4'
SCALE: 1/2" = 1'-0"

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BID SET

STATE OF TEXAS
DONALD J. BURGER
82597
LICENSED
PROFESSIONAL ENGINEER
Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	12/2023	ADDENDUM NO. 12	MK

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
OSHG BLDG & TANK II

PROJ: 200-09308-20002
DESN: MMS
DRWN: RWP
CHKD: DJB

D-307

Bar measures 1 inch, otherwise drawing is not to scale

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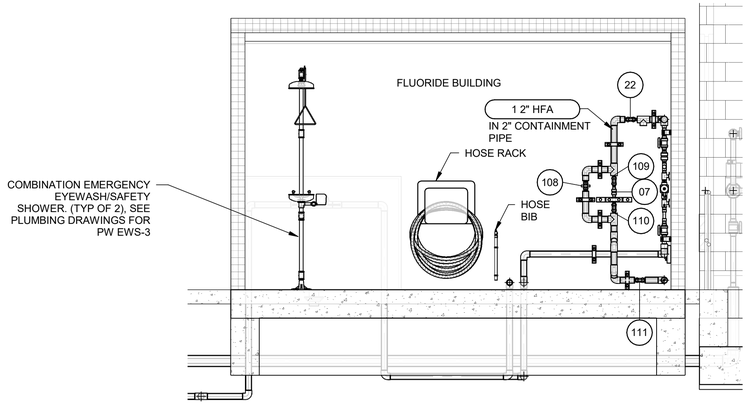
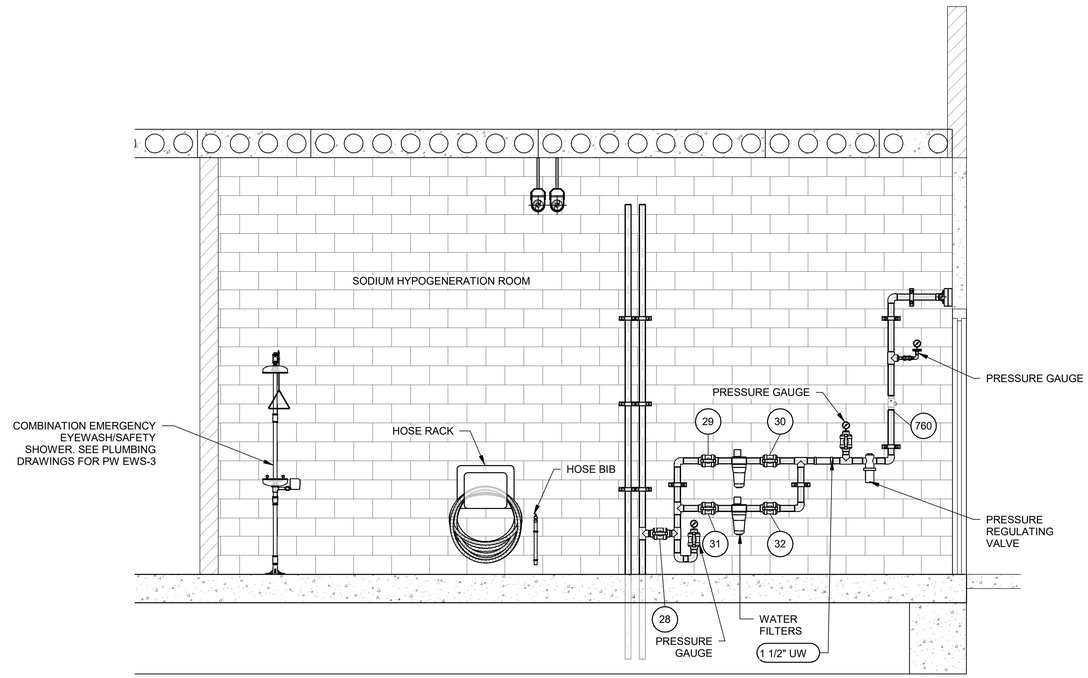


1 A D-303 NORTH WALL FLOURIDE BLDG
SCALE: 3/8" = 1'-0"



1 B D-302 SOUTH WALL HYPO GEN ROOM
SCALE: 3/8" = 1'-0"

FITTING LIST	
TAG NO.	DESCRIPTION
07	1/2" CPVC CHECK VALVE
22	1/2" CPVC BALL VALVE
28-32	1 1/2" PVC BALL VALVE
108-111	1/2" CPVC BALL VALVE
760	1 1/2" MOTORIZED BALL VALVE

2' 0' 2' 4' 6'
SCALE: 3/8" = 1'-0"

Bar measures 1 inch, otherwise drawing is not to scale

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BID SET

STATE OF TEXAS
DONALD J. BURGER
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PROFESSIONAL ENGINEER
Jan 05, 2024

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	12/2023	ADDENDUM NO. 12	MK

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
ADDITIONAL SECTIONS

PROJ:	200-09308-20002
DESN:	Designer
DRWN:	Author
CHKD:	Checker

D-308

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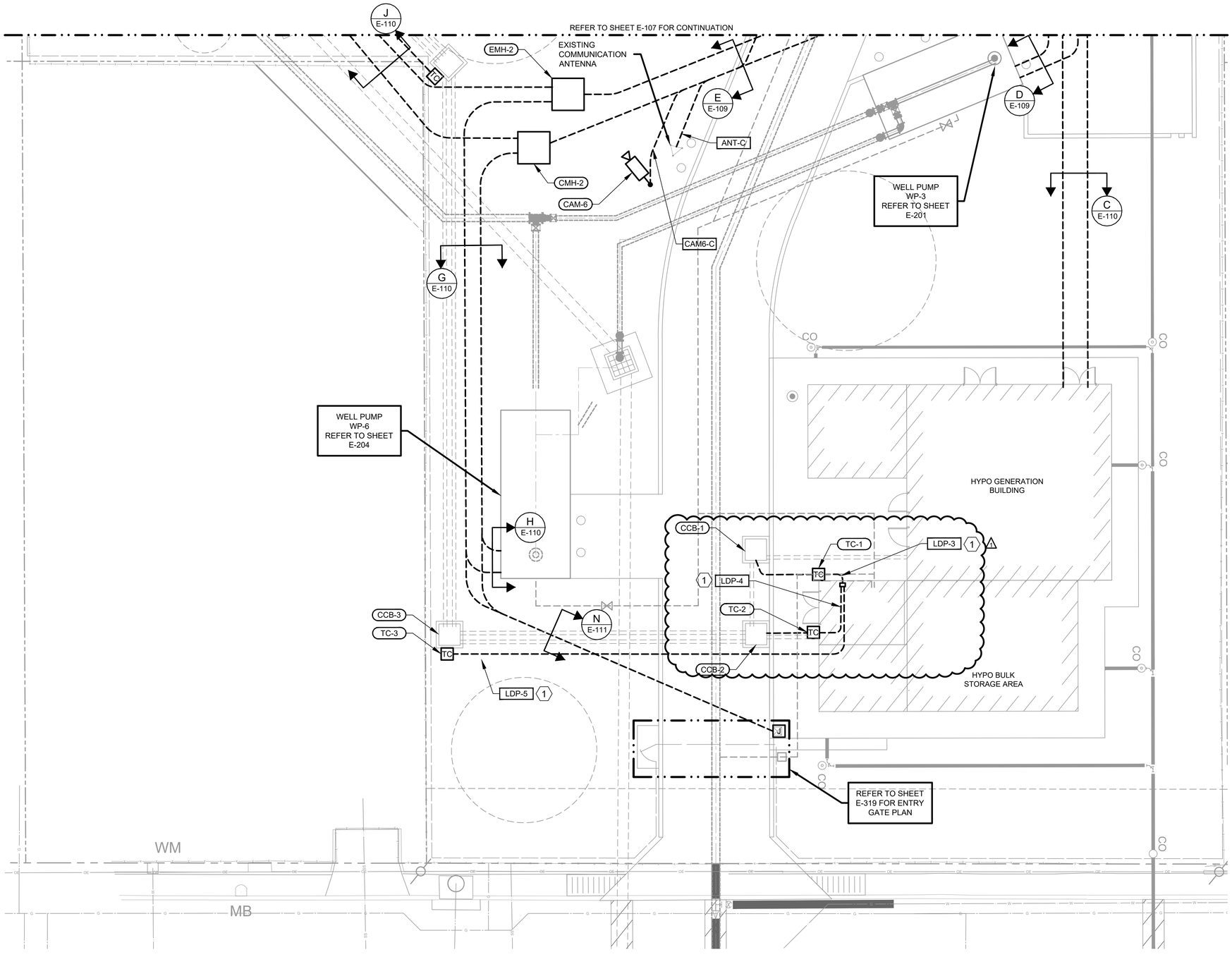

ENLARGED SITE PLAN - MODIFICATION

SCALE: 1"=10'

GENERAL NOTES:

1. FIELD VERIFY EXACT LOCATION OF THE EQUIPMENT WITH MECHANICAL DRAWINGS.
2. COORDINATE EXACT LOCATION AND ROUTING OF ALL ELECTRICAL AND COMMUNICATION DUCTBANKS WITH ANY EXISTING AND NEW UNDERGROUND UTILITIES. REFER TO CIVIL DRAWINGS FOR PIPING LOCATIONS AND PROFILES.

NOTES:

1. INSTALL IN DUCTBANK.

N

0 5' 10' 20'

SCALE: 1" = 10'

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STATE OF TEXAS
DANIEL N. GHOBRIAL
134360
LICENSED PROFESSIONAL ENGINEER
08/21/2023

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	1/4/24	ADDENDUM NO.12	DG

SAN ANTONIO WATER SYSTEMS

KING STREET PUMP STATION IMPROVEMENTS

SITE PLAN MODIFICATION ENLARGED VIEW - II

PROJ:	200-09308-20002
DESN:	DG
DRWN:	EM
CHKD:	DG

E-108

GAI
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Registration No. F-2593
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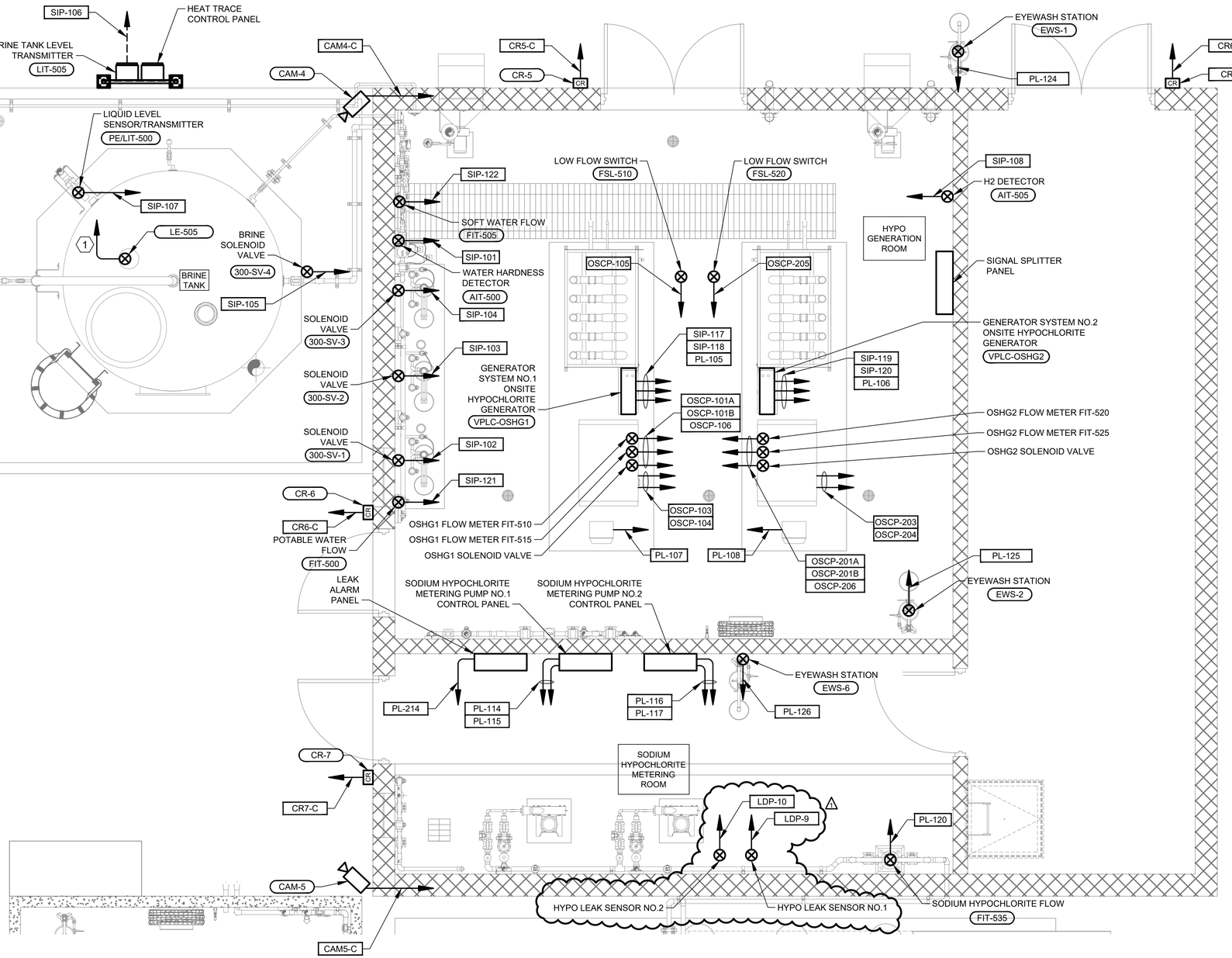
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com

Bar Measures 1 inch, otherwise drawing not to scale



OSHG BUILDING CONTROL PLAN - I

SCALE: 3/8"=1'-0"

NOTES:

1. TO LIT-505. MANUFACTURER PROVIDED CABLES IN 1"C.

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SAN ANTONIO WATER SYSTEM

KING STREET PUMP STATION IMPROVEMENTS

OSHG BUILDING CONTROL PLAN - I

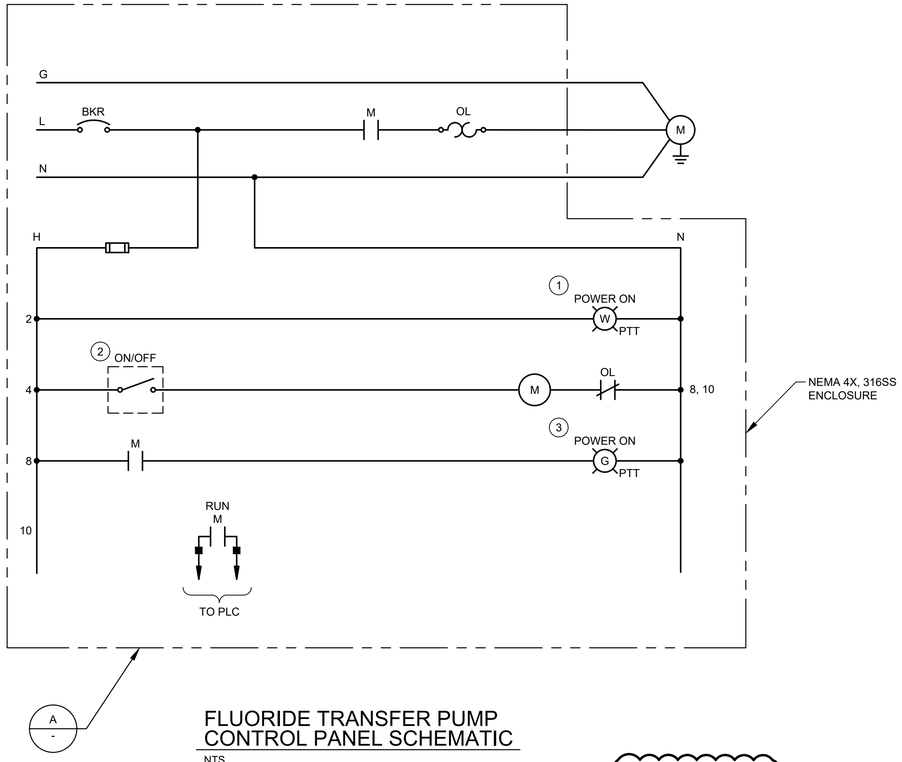
MARK	DATE	DESCRIPTION
1	1/4/24	ADDENDUM NO.12

BY: DG

PROJ:	200-09308-20002
DESN:	KK
DRWN:	EM
CHKD:	DG

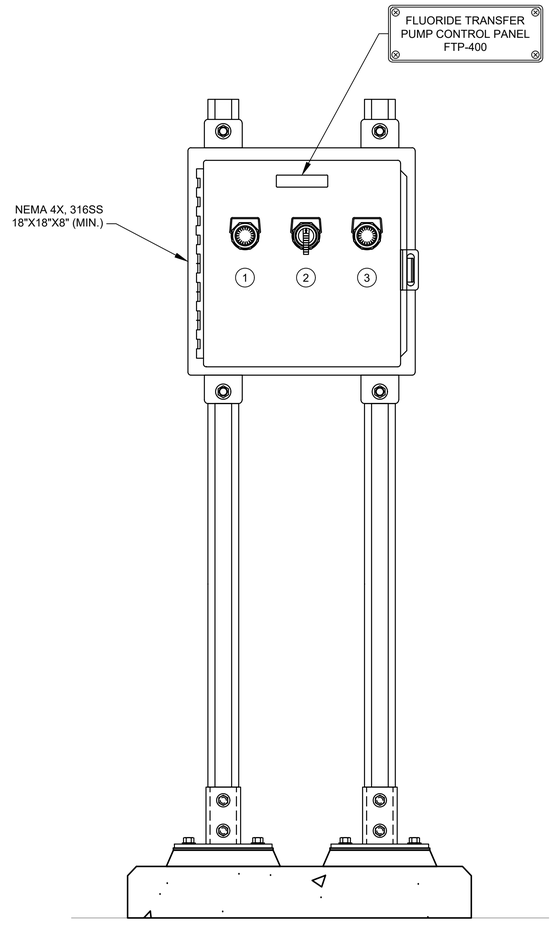
E-308

Bar Measures 1 inch, otherwise drawing not to scale



FLUORIDE TRANSFER PUMP
CONTROL PANEL SCHEMATIC

NTS



FLUORIDE TRANSFER PUMP
CONTROL PANEL

A – DETAIL

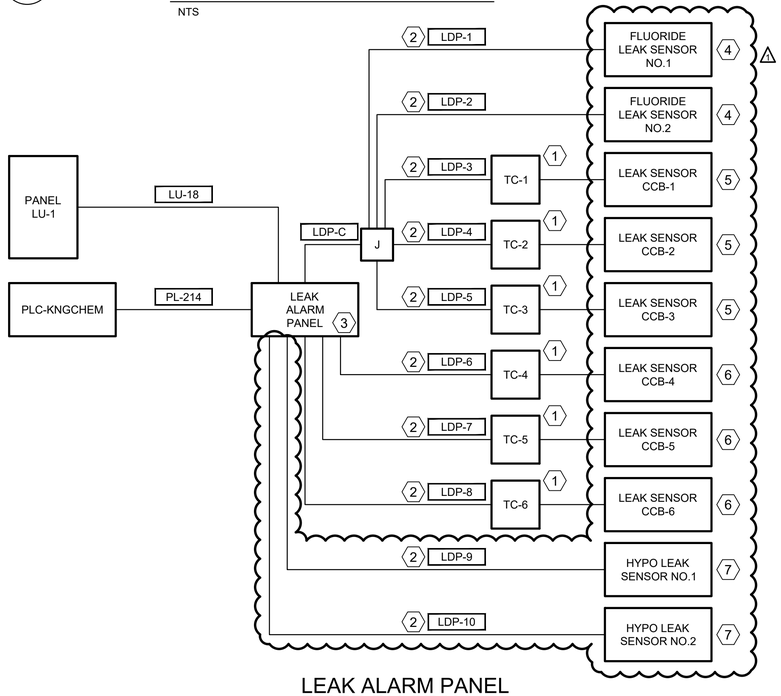
NTS

LEGEND:

- DEVICE LOCATED IN THE FIELD.
- LOCATED AT PLC.
- ▲ DEVICE LOCATED AT THE LCP.
- ■ TERMINAL IN MCC FOR FIELD WIRING.
- • CONNECTION IN MCC.

NOTES:

1. TERMINAL BOX SHALL BE PLACED ON WALL FOR CCB-1 AND CCB-2 NEAR THE CHEMICAL BUILDING. FOR CCB-3 THROUGH CCB-6, TERMINAL BOX SHALL BE STRUT MOUNTED NEAR THE CHEMICAL CONTAINMENT BOX.
2. 4/C #16 SHIELDED CABLE 1"C.
3. LOCATED IN CHEMICAL BUILDING. REFER TO SHEET E-307.
4. REFER TO SHEET E-310 FOR LEAK SENSOR LOCATION.
5. REFER TO SHEET E-108 FOR LEAK SENSOR LOCATION.
6. REFER TO SHEET E-107 FOR LEAK SENSOR LOCATION.
7. REFER TO SHEET E-308 FOR LEAK SENSOR LOCATION.



LEAK ALARM PANEL
RISER DIAGRAM

NTS

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STATE OF TEXAS
DANIEL N. GHOBRIAL
134360
LICENSED PROFESSIONAL ENGINEER
08/21/2023

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	1/4/24	ADDENDUM NO.12	DG

SAN ANTONIO WATER SYSTEMS
KING STREET PUMP STATION IMPROVEMENTS
FLUORIDE TRANSFER PUMP CONTROL SCHEMATIC

PROJ:	200-09308-20002
DESN:	KK
DRWN:	EM
CHKD:	DG

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E-321

Bar Measures 1 inch, otherwise drawing not to scale

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FLUORIDE DAY TANK

LEVEL LIR 360

LEAK LAH 360

FLUORIDE METERING PUMP NO.* (TYPICAL OF 2)

LOCAL/REMOTE YL 37* A

RUNNING YL 37* B

FAILED XA 37* A

LEAK ALARM XA 37* B

START/STOP HSH 37*

SPEED COMMAND SC 37*

SPEED SIR 37*

HIGH DISCHARGE PRESSURE XA 37* C

FLOURIDE LEAK LAH 395

HMI

WIRELESS COMMUNICATIONS

PLC-KNGCHEM

120V → RELAY PANEL (DIV 11)

LIT 360

LE 360

LSH 360 11

FLUORIDE DAY TANK 80 GALLONS

FROM BULK STORAGE TANK I-12

300-BV-3

PI 360 11

PI 365 11

BASKET STRAINER

300-BV-4

300-BV-5

300-BV-6

TO DAYTANK VENT

1"

FLUORIDE METERING PUMP NO.1 CONTROL PANEL

M

METERING PUMP NO.1

PSH 370 11

PI 370 11

1/2"

FLUORIDE METERING PUMP NO.2 CONTROL PANEL

M

METERING PUMP NO.2

PSH 375 11

PI 375 11

1/2"

1/2"

300-BV-19

300-BV-18

300-BV-24

PI 380

1/2"

1"

1"

300-BV-23

FLUSHING WATER SUPPLY

RPZ BACKFLOW PREVENTER

300-BV-22

TRANSITION TO FLEXIBLE TUBING (TYP.)

TO STATIC MIXER I-7

120V → LEAK ALARM PANEL (DIV 15)

FLUORIDE NORTH SENSOR

FLUORIDE SOUTH SENSOR

CCB-1 SENSOR

CCB-2 SENSOR

CCB-3 SENSOR

CCB-4 SENSOR

CCB-5 SENSOR

CCB-6 SENSOR

HYPO SENSOR NO.1

HYPO SENSOR NO.2

FLUORIDE METERING PUMP SKID (DIV 11)

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STATE OF TEXAS
V. K. GUPTA
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LICENSED
PROFESSIONAL ENGINEER
08/21/2023

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	1/4/24	ADDENDUM NO.12	DG

SAN ANTONIO WATER SYSTEMS

KING STREET PUMP STATION IMPROVEMENTS

FLURODE FEED P&ID

PROJ:	200-09308-20002
DESN:	WN
DRWN:	EM
CHKD:	VG

GAI
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email: vkg@gaiconsulting.com

I-13

Bar Measures 1 inch, otherwise drawing not to scale

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