



Public Works Department – Engineering Division

Date: April 4, 2024

ADDENDUM NO. 4

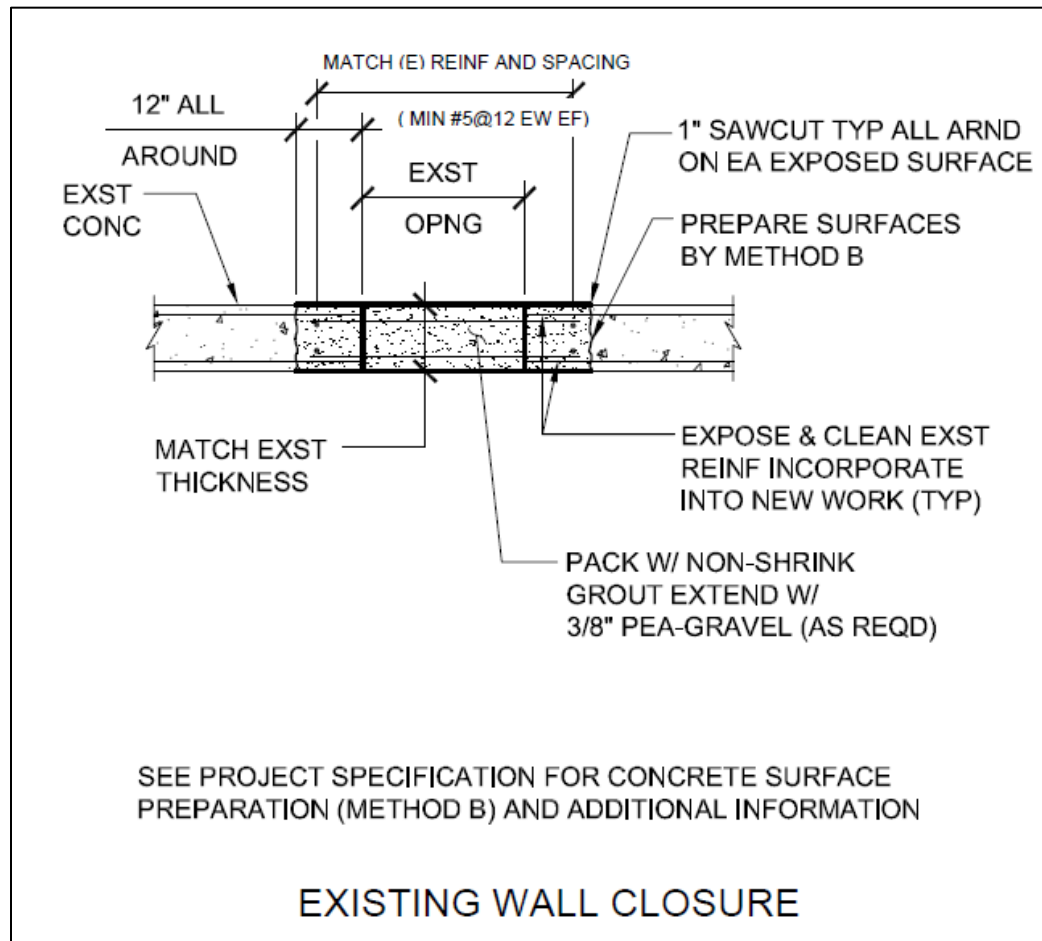
PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

NOTICE TO BIDDERS:

The following clarifications, amendments, additions and/or deletions as set forth herein shall apply to the above project contract documents and shall be made a part thereof and shall be subject to all the requirements thereof as though originally specified and/or shown. Submitters shall assure themselves that all addendum changes have been incorporated into their proposal.

A. ADDITIONS/DELETIONS/REVISIONS

1. Add the following paragraph to Section 40 05 60 (Valves and Appurtenances):
 - 2.15 PLASTIC BODY COMBINATION AIR RELIEF VALVES
 - A. Manufacturers:
 1. Plast-O-Matic, CARD series.
 2. Or equal.
 - B. Materials:
 1. Body and Float: CPVC.
 2. Seals: Viton.
 - C. Valve Design
 1. Type: Pressure relief, de-gassing, and vacuum relief.
 2. Service: Plastic body valves for chemical service pumped discharge.
 3. End Connections: NPT; provide unions if required to match piping system per Section 40 05 10.
 - D. Pressure Rating: Maximum - 30 psi. Closes at 0 psi.
2. Replace Drawing GC001 with the attached updated Drawing GC001. Bidders shall note that the retaining wall detail that has been added to this drawing may be relocated to the Structural drawings as part of a design clarification developed following project award.
3. Replace Drawing I360 with the attached updated Drawing I360.
4. On Drawing S662, add the following detail numbered Detail 1 and titled "Existing Wall Closure":



5. On Drawing M665, in Photo Detail P-3, replace the callout which reads "Patch Duct Openings per Detail XX/XXXX" with "Patch Duct Openings per Detail 1/S662".
6. On Drawing S641, add the following Note 5:
 5. FOR THE CHEMICAL STORAGE TANK PADS, THE CONCRETE REINFORCEMENT SHOWN IN DETAIL 03076/S002 SHALL BE REVISED TO:
 - a. #5@12" VERTICAL DOWELS AT PERIMETER
 - b. #5@24" EW VERTICAL DOWELS AT THE INTERIOR OF THE PAD
 - c. #6@12" EW, T&B IN THE PAD
7. In Specification Section 09 96 00, in the Finish Schedule that begins on page 14, insert the following row:

New Settled Water Chemical Injection Vault	Concrete Exposed to Chemical Spills ^(b)	No. 7	Gray
--	---	-------	------

8. Delete specification Section 32 31 13 in its entirety.
9. Delete specification section 32 80 00 in its entirety.
10. In specification section 32 90 00 Landscape Work after section 2.1.C.4 add:

“5. Hydroseeding: For areas of onsite soil disposal locations and disturbed areas not otherwise hardscaped, Hydroseeding application shall be applied.

 - a) To select appropriate hydroseeding mixtures, an evaluation of site conditions shall be performed with respect to:
 - a. Soil conditions – Maintenance requirements
 - b. Site topography – Sensitive adjacent areas
 - c. Season and climate – Water availability
 - d. Vegetation types – Plans for permanent vegetation
 - b) Selection of hydroseeding mixtures must be submitted for approval by Project Manager.
 - c) Seed mix must comply with the project’s special provisions and must not contain:
 - a. Prohibited noxious weed seed and
 - b. More than 1.0 percent total weed seed by weight.
 - d) Seeds must be delivered to the project site with each species in separate, unopened containers with the seed tag attached. Measure individual seed species and mix in the presence of the resident engineer. Seed may be dry applied to small areas not accessible by hydroseeding equipment if authorized. Fiber must be at least 50 percent wood fiber. The remaining percentage must be cellulose fiber, alternate fiber, or a combination of these fibers. Commercial fertilizer must conform to the requirements of the California Food and Agricultural Code. Fertilizer can be pelleted or granular form.”
11. In specification section 32 90 00 Landscape Work after section 3.3.G.5.F add:

H. Hydroseeding Procedure:

- a) Prior to application, roughen the slope, fill area, or area to be seeded with the furrows trending along the contours. Rolling with a crimping or punching type roller or track walking is required on all slopes prior to hydroseeding. Track walking should only be used where other methods are impractical. Add water to hydroseed materials as recommended by the manufacturer and mix sufficiently to ensure an even application. A dispersing agent may be added to the mixture if authorized.
- b) Equipment must have a built-in continuous agitation and discharge system capable of producing a homogeneous mixture and a uniform application rate. The tank must have a minimum capacity of 1,000 gallons. A smaller tank can be used if authorized by the resident engineer.
- c) Apply temporary hydroseed at the following rates:
 - a. Apply seed at rates specified by manufacturer or as approved by Project Manager
 - b. Apply fiber at 2,000 lb/ac.
 - c. Apply tackifier according to manufacturer's recommendations for the slope, soil, and wind conditions.
- d) Apply materials in locations, rates, and number of applications shown and as follows:
 - a. Start application within 60 minutes after adding seed to the tank.
 - b. Apply in successive passes as necessary to achieve the specified application rate.
 - c. Apply all hydroseed materials shown for a single area within 72 hours.
- e) All seeded areas must be inspected for failures and re-seeded, fertilized, and mulched within the planting season, using not less than half the original application rates. Any temporary revegetation efforts that do not provide adequate cover must be reapplied at a scheduled recommended by the licensed professional. Submit a certificate of compliance as per specification section 01 33 00. It is recommended that a small test area/mock-up occurs prior to large area application to verify sufficient cover for the approved mix. After any rain event, the Contractor is responsible for maintaining all slopes to prevent erosion. Must ensure correct application rates and passes (different directions) take place to ensure adequate coverage."

12. Replace Drawing C105 with the attached updated drawing C105.

13. Replace Drawing C103 with the attached updated drawing C103.
14. Replace Drawing S308 with the attached updated drawing S308.
15. In Section 40 05 10, Part 2.2.N.1.b, add the following "Steel Plate Fabricators Association (SPFA) Quality Certification Program for Steel Pipe and Accessory Manufacturers, or the Lloyd's Register Quality Assurance" after "...shall conform to the requirements of ANSI/AWWA C200 and ISO 9001:2005 Certificate of Quality System Registration"
16. On sheets M303 and M305, modify the drawings to provide a flange-by-flange butterfly valve with a flanged coupling adapter moved to the west side of the filter inlet vaults.
17. Provide a callout on sheet M302 for restrained flexible couplings on the CFE pipe exiting the filter gallery building.
18. Replace Drawing C003 with the attached updated drawing C003.
19. Replace Drawing C004 with the attached updated drawing C004.
20. Revise specification 01 27 53 section 3.4.B to "Street Vacuum/Sweeper: Have a commercial standard street vacuum/sweeper available within 24 hours if requested. The street vacuum/sweeper shall be able to pick up sand, gravel, dust, and debris, and other things, shall minimize dust generation, and shall also be available during the day and shall sweep as outlined below and as directed by the Project Manager."
21. Remove all references to wet testing in Specification 41 22 13.13.
22. Replace Drawing C102 with the attached updated drawing C102.
23. Replace Drawing S301 with the attached updated drawing S301.
24. Replace Drawing S302 with the attached updated drawing S302.
25. Replace Drawing S310 with the attached updated drawing S310.
26. Replace Drawing S643 with the attached updated drawing S643.
27. Replace Drawing S644 with the attached updated drawing S644.
28. Add specification 07 72 33 Aluminum Access Hatches.
29. Replace the Conduit Schedule in Specification 26 05 33, Appendix A, with the updated Conduit Schedule.
30. Revise callout on sheet M304 for Rail Mounted Hose Station to Detail 2 from sheet GM005.

- 31. In Specification Section 22 10 00 Plumbing Piping Systems, Section 3.10.C AFTER “Disinfect domestic water system in conformity with procedures and standards described herein and requirements of regulatory agencies.” ADD “Procedures shall comply with AWWA Standard C651 as relevant, as described in 22 CCR §64580 and as described in Section 46 30 13.”

- 32. In Specification Section 22 10 00 Plumbing Piping Systems, Section 3.10. REPLACE Section E with the following:

 “E. Disinfecting Agent:

 Shall meet the specification of NSF/ANSI 60 (per 22 CCR § 64591(c)) as described in Section 33 13 00 – Part 1.3(A) and Part 2.1(A)

 Use one of the following:

 a. Hypochlorite, calcium, or sodium, aqueous solution. Purex, Clorox, or equal commercial product with 5.25% or 16% available chlorine in water solution.”

- 33. In Specification Section 22 10 00 Plumbing Piping Systems, Section 3.10.H ADD the following after 1.e

 “f. Shall meet the specification of NSF/ANSI 60 (per 22 CCR § 64591(c)) as described in Section 33 13 00 – Part 1.3(A) and Part 2.1(A)”

- 34. In Specification Section 40 05 60 Valves and Appurtenances, Section 2.9 ADD the following after D. “E. Air release valves should be installed in such a way to comply with the requirements of 22 CCR § 64576 where relevant.”

- 35. Add the following Table in Specification 01 14 00, Paragraph 3.3 B.3.a.6.i

Keynote/Sheet	Bypass Utility	Demolition Start	Demolition End	Flow Requirements
5/C004	Joint Trench -Sample Air -Powdered Activated Carbon -Cationic Polymer -Chlorine Solution -Spare Chemical Description: Joint Trench from Building 20-Pretreatment Basins to Joint Trench Travelling east-west,	West of Building 20, north of existing 36” SW	South of Building 30-Filters, west of existing 24” SD	Provide same size pipe

City of Pittsburg
 Addendum No. 4
 Project 5067 WTP Filter Improvements
 and Hypochlorite Conversion

	just south of Building 30-Filters.			
5/C004	<p>Joint Trench Unknow utilities within trench</p> <p>Description: Joint Trench from Building 48-High Service Booster Station to Building 31-WTP Office (to remain)</p>	West of Building 20, north of existing 30" RW	East of Building 40, west of Building 30	Provide same size pipe
1/C004	<p>2" Natural Gas</p> <p>Description: Connection from east of site connecting to Building 30-Filters</p>	West of Building 20, north of existing 24" SD	Connection into south of Building 30	Provide same size pipe
6/C004	<p>30" RW</p> <p>Description: From Building 20-Pretreatment Basins to Building 16-Rapid Mix</p>	West of Building 20, south of existing 24" SD	West of Building 30, East of Building 40	20 MGD, pressure pipe
7/C004	<p>8" TKS</p> <p>Description: From Building 20-Pretreatment Basins to southwest of site</p>	Southwest of Building 20, south of existing 36" SW	North of Building 9X, east of abandoned 24"W	1,000 gpm, pressure pipe
2/C004	<p>36" SW</p> <p>Description: From Building 20-Pretreatment Basins to Building 30-Filters</p>	Southwest of Building 20, north of existing 8" TKS	Connection into south of Building 30	32 MGD, gravity
3/C004	<p>24" WWS</p>	North of the Master Backwash	Connection into south of Building 30	17.3 MGD, gravity

	Description: From Master Backwash Flow Valve Vault to Building 30-Filters	Flow Valve Vault, East of Building 9X		
4/C004	24" SD Description: Routing stormwater for site and discharging into Pond	West of Building 20, from manhole denoted with keynote 21 on Sheet C004	East of abandoned 24" W	4,000 gpm, gravity

36. Add to 40 05 10 Piping Systems as 2.3.G:

G. Stainless Steel Bellows:

1. Type: Single pipe expansion joint with full flanges.
2. Materials:
 - a. Bellows: A240-T304
 - b. Flanges: 150 lb. ANSI B16.5 RFSO
 - c. Pipe: ASTM A53/A106
 - d. Liners: A240-T304
3. Pressure and Temperature Rating:
 - a. 150 psi, 650 °F
4. Manufacturers: U.S. Bellows or approved equal
5. Maximum Test Pressure: 1.5 times rated working pressure

37. Delete specification Section 32 27 26 in its entirety.

38. On Drawings E303, E660, and E661, delete all references to Detail "26402" and replace with "Detail 03076/S002".

39. On Drawing E642, delete all references to Detail "26210" and replace with "Detail 26410/GE004".

40. On Drawing E303, delete all references to Detail "26401" and replace with "Detail 03076/S002".

41. On Drawing S280, upper right corner, replace sump dimension of "2'-0"x2'-0"x 1'-0"" with "2'-0"x2'-0"x 1'-2"".

42. The Site Tour #2 Sign-in Sheet is attached to this addendum as Attachment A.
43. The bid date of April 11, 2024 at 2:00 pm is changed to April 18, 2024 at 2:00 pm.

B. CLARIFICATIONS AND QUESTIONS

Please be advised of the following clarifications to the contract documents:

1. Acceptance of Val-Matic AWWA Butterfly Valves - attached documentation

Response: "Or Equal" items will be reviewed after award of the bid per Item 9 in the Instructions to Bidders. The "or equal" product must be submitted within 35 days of the Notice of Potential Award. For major equipment and materials, the process outlined in the Schedule of Major Equipment and Material Suppliers shall be followed, which requires submittals to be provided for review within 30 days of Notice to Proceed.

2. Please clarify door material for Stair 1 Mark 101. See plan sheet A110.

Response: Please see updated door schedule provided in Addendum 3 Item A.1.

3. Will the bid RFI deadline be extended by 1 week now that the bid date has been extended?

Response: The bid date opening was extended to April 11, 2024 in Addendum 3, Item A.44 and is being extended to April 18, 2024 in this addendum, Item A.43.

4. Spec section 32 31 13 references chain link fences and gates, but there are no call outs for any new fencing on the plan sheets. Please advise if there is any new fencing and gates required.

Response: Please remove specification section 32 31 13. Please see this addendum, Item A.8.

5. Spec section 32 80 00 references irrigation systems, but there are no plan sheets for any new irrigation system. Please advise.

Response: Please remove specification section 32 80 00. Please see this addendum, Item A.9.

6. Spec section 32 90 00 references landscape work, but there are no landscaping plan sheets provided. Please advise.

Response: Please see this addendum, Items A.10 and A.11 for revised verbiage in specification 32 90 00 Landscape Work. Please note that Addendum 3, Question B.44, mistakenly deleted this specification. Specification Section 32 90 00 shall remain in the project.

7. Spec section 32 12 17 references asphalt pavement rehabilitation, but the plans show remove and replace only. Are there other areas that the contractor is required to rehabilitate existing asphalt?

Response: Any existing asphalt that is damaged during construction activities that is not replaced shall be rehabilitated per specification 32 12 17 at the end of construction and prior to project acceptance.

8. Spec section 32 17 26 references detectable warning surfacing. There are no call outs on the plans for these. Please advise of a quantity and location of these detectable domes if required.

Response: Please see Addendum 3, Question B.44 and A.37.

9. On Sheet C105, a 10" WL is proposed, but the line is shown as 30". Please advise.

Response: Sheet C105 has been revised. Please see this addendum, Item A.12.

10. Where is the 3" UW line on the overall site plans from the settled water chemical injection vault?

Response: Sheet C103 has been revised. Please see Item addendum, Item A.13.

11. Where is the 1.5" drain line on the overall site plans from the settled water vault on sheet M280? Did not see this manhole on any of the site plans. I see SDMH 4 on sheet C105, but you have SDMH S4.

Response: Sheet C103 has been revised. Please see this addendum, Item A.13.

12. Where is the 8" drain and all of these 4" drains? They are not shown on any of the site plans. Please advise.

Response: 8" Drain line runs below the 42" SW. 4" and 8" drain line has been added to plan views. See revised sheets C102 and C103 per this addendum, Items A.13 and A.22.

13. Contract drawing M313 calls out removable grating TYP see Structural drawings inside the CFE injection vaults, however there are no details in the structural

drawings indicating removable grating inside the injection vaults. Please provide the required details.

Response: Please see updated drawing S308 in this addendum, Item A.14.

14. I would just like to try and get some clarification on this reclaimed brick wall on C203. I'm curious if you know that this will be a single or double brick wall, and what the footing for this is supposed to look like. Also, if there will be a cap.

Response: See Item A.42 in Addendum No. 3 for updated information about this wall. A detail for the replacement retaining wall is provided in this addendum, Item A.2.

15. Drawing M313 shows 4" and 1.5" CFE connections in the north and south injection vaults. The "Pipe Type Schedule" in spec 40 05 10 describes CFE greater than, or equal to, 16" as WSP, and the spec goes on to describe WSP as C200 pipe. Please provide updated schedule and material to be used for sizes smaller than 16". Note, C200 is not available for sizes smaller than 6".

Response: The fluid inside these pipes comes from and is injected back into the CFE pipeline, so does not change service type. Similarly as Question B.77 in Addendum 3: 4" and smaller CFE = SA = potable water = PVC-P.

16. Please provide specifications and listed manufacturers for a Combination Air Valve for service "CD" as shown on P&ID I-642.

Response: Provide a CPVC combination air relief valve per Section D, Drawing M641. Section 40 05 60 is also modified in this addendum, Item A.1 to include a specification for such a combination air relief valve.

17. PLA Section 2.3.1 includes "start-up, calibration, commissioning, performance testing, repair, maintenance, and operational revisions to systems or sub-systems". The field-service technicians that perform these duties, who are the authorized manufacturer representatives required by the technical specifications, are not union employees. They must be involved in the start-up, calibration, and testing requirements in order to satisfy the manufacture's warranty requirements. Please remove this section from the PLA, or add an exception for authorized manufacturer representatives.

Response: This will be addressed in Addendum 5.

18. Drawing C102 Shows the chemical piping systems (SA, SHC, SC, CP, CSO, HA, LAS) in a new joint trench from the existing Ops Building to new CCMH1, indicating that this is a new buried pipe run, and that there should be a tie-in to the existing pipes just outside the Ops Building. Detail 6 on Drawing GC004 appears to show this run of piping as Existing, with the new pipe transition taking

place just outside of CCMH1, with several of them cross-connecting to another existing run towards the West. Please confirm which if these is correct.

Response: Please see revised sheet C102 from Addendum 3, Item A.13.

19. From a Pipe Support / Metals Fabricator: Per Section 40 05 10, Part 2.2.N.1.b, we respectfully request a change to "...shall conform to the requirements of ANSI/AWWA C200 and ISO 9001:2005 Certificate of Quality System Registration" by adding the Steel Plate Fabricators Association (SPFA) Quality Certification Program for Steel Pipe and Accessory Manufacturers, or the Lloyd's Register Quality Assurance

Response: This change is made as part of this addendum, Item A.15.

20. Please confirm what style of Victaulic coupling is required.

Response: The arrangement of equipment and piping including the types and locations of fittings, couplings, dismantling joints, connections and supports are based on information available at the time of design and the drawings are in part, diagrammatic and show the general arrangement. Final piping drawings and supports shall be submitted for review that consider the piping systems along with the equipment, valves, fittings etc. Please refer to Spec 40 05 10 1.4 for submittal requirements.

21. We need to have this 8" and 4" drain material shown on the yard piping plans. Here it shows tying into SDMH 3 but none of this is shown on the yard piping plans.

Response: Please see response to Question B.12.

22. Please verify what type of Flange Coupling Adapter is required for the steel pipe.

Response: Please see response to Question B.20.

23. DWG C-120 in response to adding the second flex couplings at structures per addenda #2, the existing 36" CFE in detail 3 doesn't appear to have room to accommodate a second coupling.

Response: Please see revised sheets C102 and C120 in Addendum 3, Items A.13 and A.46.

24. DWG M304 For the stainless air scour piping, the bellows expansion joint isn't called out by model, and doesn't appear to be a rubber exp joint. Will a stainless steel US Bellows FXF be suitable in these locations? Also, the bolts, nuts, and gaskets for stainless steel piping aren't spelled out. Will 316L A193 / 194 with 1/8" Viton gasket combo work for all stainless steel piping?

Response: Stainless steel bellows are acceptable. A US Bellows stainless steel single expansion joint bellow with a maximum expansion/contraction of 2" is acceptable. 316L A193/194 with a 1/8" Viton gasket combo is acceptable for all stainless steel piping. See this addendum, Item A.36.

25. DWG M305 - Sections that have the flow control valve with what appears to be a flanged coupling adapter bolted directly to the valve, with a short grooved pup, then grooved coupling. Is this orientation correct as drawn?

Response: Provide a flange-by-flange butterfly valve with a flanged coupling adapter moved to the west side of the filter inlet vaults. Please see this addendum, Item A.16.

26. DWG M309 18" venturi flow meter - Are the rectangles on either end representing flanges? The spec calls for ANSI class 125 flanges, but the drawing doesn't look like a flanged connection.

Response: Yes, the rectangular boxes on each end of the 18-inch venturi flow meter represent flanges connected to a flanged spool piece on one end and a flanged butterfly valve on the other end.

27. DWG M309 the 36" CFE leaving the building has a flanged flexible coupling. Is this correct? The Smith Blair 411 is for plain ended pipe. Please clarify.

Response: These are restrained flexible couplings. Please see Item A.17.

28. DWG M311- 18" FTW where it ties into the WWD header, is this an air gap with a funnel into the duck bill check valve? The in line check valves referenced in the speech look different, one has a flange, the other doesn't. Please confirm if how I have it spooled off is correct, plain ended just above the funnel, and flanged at the bottom.

Response: Please provide a flange on the upper outlet of the tee, flange by flange duckbill as listed in the spec and a flanged spool piece connecting to the funnel. The jacketed style duckbill valves provide appropriate flanges for this application.

29. Note 5 on drawing C004 states, "For each Joint Trench (denoted JT), electrical conduit, and small diameter water line, Contractor shall conduct potholing and other field investigations to identify source and destination of fluid, power or signal. Contractor shall coordinate with Owner and Engineer on suitable demolition and relocation approach". In order for the Contractor to carry the proper cost in their Bid, please provide the size, pipe material and source/destination of all the Joint trench, electrical conduit, and small diameter water lines that will need to be relocated and demolished, or if quantities are unknown at this time, please consider making this an allowance bid item.

Response: Known utilities per record drawings and potholing have been identified and shown on the drawings. Please reference the existing drawings and potholing information that is available. If there are utilities that are not shown in any of these documents, this will be considered a change condition and a change order will be negotiated.

30. Spec 01 71 23 says that all surveying work must be performed by a registered professional land surveyor licensed in the State of California. If GPS is setup by a licensed surveyor, is it acceptable for a non-licensed union operating engineer to utilize calibrated GPS equipment to provide As-Builts, CAD drawings, and Coordinate Data Sheets?

Response: Once established by a licensed surveyor, a non-licensed union operating engineer can utilize calibrated GPS equipment to provide As-Builts, CAD drawings, and Coordinate Data Sheets granted that the end deliverable is reviewed and signed by a licensed engineer/surveyor.

31. There is a callout on M641 for a 2" gate valve, but the line is 1". Please verify the correct size of water line.

Response: The correct size for the service saddle and gate valve on the new 1W line serving the utility stations is 1 inch.

32. Please clarify the correct type of service saddle required. There are two different types in the specs.

Response: For any service saddle applications related to water meter installations, use the specifications in Section 33 05 17. For all other applications in the Contract Documents, use the specifications in Section 40 05 10.

33. With respect to the NSF 61 material certifications, instead of certifying each of the individual ingredients (Cement, admixtures, fine aggregate, coarse aggregate), can the Ready Mix Supplier obtain NSF 61 project certifications for the entire Concrete Mix Design with all internal ingredients by supplying samples of the hardened concrete mixture to be tested?

Response: Certification shall be for each of the individual ingredients.

34. Specification section 01 14 00-3.3-B-3-h states "New filter basins must undergo successful hydraulic structure testing prior to undergoing disinfection." The specifications do not require or describe hydraulic structure testing. Is this required? Please advise and provide specifications.

Response: Please see Addendum 3, Question B.85.

35. Specification section 03 35 00 -3.1-F describes requirements for abrasive blast finish. Per the specification the abrasive blast finish shall be applied only where shown on the drawings. The drawings do not appear to call out abrasive blast finish. Please confirm this is not required.

Response: Confirmed. Abrasive blast finish as a concrete finish is not used on this project.

36. Per addendum 2, question number 42, you stated "See this addendum, Item A.18. I do not see an item A.18. Can you please provide this?"

Response: Please see page 2 of Addendum 2, Item A.18.

37. Spec section 31 50 00 (Excavation Support and Protection) requires the removal of the excavation support system. Please confirm if soldier beam removal will be required for soldier beams set in the 2-sack lean concrete mix. Beams set in the lean concrete mix will be difficult and costly to remove.

Response: Preparation of the excavation support system design is the Contractor's responsibility. There may be certain areas where the support system must be completely removed to avoid conflicts with new construction that attaches to or is adjacent to the filter gallery. The type and configuration of the system would dictate current unknown information such as the ability to remove, as well as the means, timing, and extent of the removal. This specification is not the design, therefore cannot address those unknowns. Any removal process must be part of the support system design and submittal. Complete or partial removal of any remainder of the system is subject to City preferences, and as directed by the City's representative.

38. Spec section 31 50 00 (Excavation Support and Protection) requires the removal of the excavation support system. Please confirm if it is acceptable to de-tension the tiebacks rather than require full removal of tieback tendons.

Response: Please see response to this "addendum, Question B.37.

39. Sheet S208 indicates that the chemical injection vault is 10' deep, however there are no details for the access, please confirm that there is no access ladder to be installed or provide the details and location of the access ladder in the vault.

Response: Correct, there will be no permanently installed access ladder for this vault. It is anticipated that the Owner will use portable ladders for vault entry when required for maintenance.

40. Sheet S303 Calls out 2" tall aluminum grating on top of the valve vault whereas Sheet M303 & M305 indicate access hatches covering the 6 ea valve vaults. Please confirm which detail is to be considered?

Response: Please refer to detail 05061 on Sheet S003.

41. Specification section 31 50 00, item 3.9A requires the removal of the excavation support system. Please clarify if temporary soil anchors (if used) would require removal.

Response: Please see response to this addendum, Question B.37.

42. The existing North Filtered Water Pump Station is currently located in the path of the new relocated Lower Road. Please confirm if Alt #2 is deducted from the bid proposal and the North Pump Station is not moved, a new alignment of the road will be issued to avoid the existing North Pump Station.

Response: Bid Alternate #2 has been revised. Please see this addendum, Items A.18 and A.19 and Addendum 3, Items A.21 and A.22 and B.47.

43. The new 30" Raw Water pipeline is currently shown as routed through the existing North Filtered Water Pump Station. Per spec section 01 14 00, 3.3.B.3.a.1, the Raw Water pipeline must be moved before the new filters can be built, but per spec section 01 14 00, 3.2.C.3.c, the North Pump Station cannot be moved until the new filters are built. These constraints conflict with each other. Please advise.

Response: Bid Alternate #2 has been revised. Please see this addendum, Items A.18 and A.19 and Addendum 3, Items A.21 and A.22 and B.47. The existing North Clearwell Filtered Effluent Pump Station should remain in service as long as possible but it will be taken out of service and demolished as part of the based bid with flow only going to the South Clearwell Filtered Effluent Pump Station.

44. Drawing S402 note 3 states "INTERIOR CONCRETE SURFACE SHALL BE COATED WITH POLYAMIDOAMINE EPOXY COATING." The Polyamidoamine System No. 3 in specification 09 96 00 High Performance Coatings is shown for use on Metal surfaces. Please advise if this system is correct for concrete surfaces and if so, what are the installation requirements for concrete surfaces?

Response: Please see Addendum 3, Question B.3 and Addendum 3, Item A.6.

45. Specification 01 57 23 Section 3.4.B states that the contractor is required to have a street sweeper in operation each working day. Because the work is happening within the existing facility and not within publicly traveled roadways, is it necessary to have a sweeper on site and operational every day?

Response: A street sweeper is not required each working day but good housekeeping practices need to be followed and the site needs to be maintained and clean. See this addendum, Item A.20.

46. We have an RFI for the Pittsburg water specifications 41 22 13 .13 -7 (Part 3.3.c.3). What are the conditions of wet testing? Does it apply the Class "A" Standby duty crane?

Response: Please see this addendum, Item A.21.

47. Spec 23 85 00 states, "Use mill phosphatized or galvanized sheet metal where new ductwork is to be painted." Is any of the new ductwork on this project to be painted?

Response: New ductwork shall not be painted.

48. The plans call for one run of metal exhaust duct to be oval shaped. Will square duct with elbows including turning vanes or round duct be an acceptable alternative? Oval shaped duct will limit the fabricator options and competitive pricing. Also, in past experience oval duct has a tendency not maintain a straight shape unlike square or round duct.

Response: Square ductwork is acceptable.

49. Detail 3 on Drawing GH003 calls for stainless steel discharge duct on fan EF-2. Please confirm all ductwork on this project to be galvanized steel (Per 23 85 00) besides the stainless steel discharge duct for EF-2 shown on detail 2 of drawing GH003.

Response: All ductwork on this project shall be galvanized steel.

50. Page GE030 shows that the New Service Entrance Rated Breaker Box is 200AT/200AF. Please verify that this is a typo and the rating is 1200AT/1200AF.

Response: This is not a typo. The breaker box is for connection to MCC-A after the loads (as indicated on GE030) are disconnected, refer to 01 14 00 for Work Sequence and Constraints.

51. Within the analyzer specifications 40 75 05, 40 75 21, and 40 75 29, ProMinent Fluid Controls is listed as an approved manufacturer. Please verify if Hach would be considered an "approved equal."

Response: "Or Equal" items will be reviewed after award of the bid per Item 9 in the Instructions to Bidders. The "or equal" product must be submitted within 35 days of the Notice of Potential Award. For major equipment and materials, the process outlined in the Schedule of Major Equipment and Material Suppliers shall be followed, which requires submittals to be provided for review within 30 days of Notice to Proceed.

52. Please provide Structural Sections for retaining wall as described in Addenda 3.

Response: Please see this addendum, Item A.2.

53. Addenda #3 Q&A response to question #46 and accompanied revised Civil plan sheets clarified the ADA ramp plan view dimensions but provided no information regarding the concrete ramp thickness or reinforcing details. Please provide a Structural plan view, including Sections and Details, for the construction of the ADA Ramp.

Response: Provide a 12" thick concrete section reinforced with #5@12 EW T&B for the portion of the ADA ramp east of approximately Gridline C.9 (i.e. starting at the base of the sloped ramp coming down from the Filter building). For the portion of the sloped ramp west of approximately Gridline C.9, refer to Detail 1/S310. For railing, toeboard, and railing post mounting details for the ADA ramp, see structural standard details on S003 and S004.

54. The Settled Water Injection vault is not listed in the finish schedule in Specification section 09 96 00-2.4.A. Nor is a coating system listed for the Settled Water Chemical Injection Vault on Drawings S280 and M280. Please confirm that protective coating of the interior surfaces of the Settled Water injection vault are not required.

Response: The Settled Water Chemical Injection Vault should be coated using System No. 7. Section 09 96 00 will be modified via this addendum, Item A.7.

55. Rev 1 Drawing A102 provided in Addendum 3 added Keynote 14 which says, "Metal Ladder Per Structural Drawings." The ladder shown in the Architectural plan view on the north side of the EL. 142 Platform is not shown on the Structural Drawings, or the Rev 1 Section on A108 provided in Addendum 3. The addition of this ladder is also not mentioned in A.1, Additions/Deletions/Revisions of Addendum 3. Please confirm the addition of the ladder, and if confirmed, provide a corresponding section view as well as an applicable detail for this Ladder. Detail 05561 provided in Addendum 3 requires connections to a vertical concrete surface @ 4'-0" OC max. which would not be possible at the Keynote 14 callout location.

Response: Metal ladder has been added to the structural drawings. See updated Structural drawings S301 and S302 in Item A.23 and A.24 above. The ladder is a deferred submittal that requires the Contractor to submit engineering design calculations and details that are prepared, stamped and signed by a California licensed civil or structural engineer.

56. The Addenda #3 Drawings C102 and C103 shows three 18" Butterfly Valves to be removed and replaced at the existing Flow Splitter Box. Drawing sheet 2M-1 on the reference file "Ref Mat A3 1988 CDM Dwgs" shows three 24" Butterfly Valves at the Flow Splitter Box. Please confirm the size of these Butterfly Valves.

Response: Please see revised sheets C102 and C103 in this addendum, Items A.13 and A.22.

57. C60101D indicates 28#14 wires in a 1-inch conduit. Please Confirm this conduit should be an 1-1/4" to meet conduit fill code requirements.

Response: Conduit size has been updated to 1-1/4". See updated conduit schedule for reference. See this addendum, Item A.29.

58. Please Confirm if C60101D should combine with C60610A for a total of 30 wires, not 28.

Response: That approach is acceptable but C60610A needs to branch out and route to PSH6610.

59. C60101C, C60101B & C60101A are missing control wires from the Pressure Switch. These conduits (except C60101A). Please confirm control wire count and conduit size.

Response: Fourteen #14 control wires per each metering pump includes the control wires for the pressure switch. C60610A typical to B and C, enters a junction box then splits into control conduits going to the Integral VFD and Pressure Switch. Control wires going to the VFD is updated to 12#14 to show the separation of runs from the junction box. See updated conduit schedule in this addendum, Item A.29.

60. Detail #26402 is listed on the drawing pages E303, E660, E661, however, the detail does not exist. Please provide detail #26402.

Response: 26402 is an older reference, detail should be referencing 03076 on S002 for equipment pad detail. See this addendum, Item A.38.

61. There are "Special System Jack" symbols that appear on E303A, but there is no information on how they are interconnected to a system, or exactly what the difference is between the white and black symbols. Please clarify.

Response: Per GE001, dark triangles represent telephone wall jacks, white triangles are for data (ethernet connections) wall jacks. Per note 3 on GE001, plans do not show routes for receptacles, lights, or other loads (including telephone or data jacks).

62. Detail #26210 located on page E642 does not exist. Please provide detail #26402.

Response: Detail reference should be revised to be #26410 on GE004 for equipment stand detail. See this addendum, Item A.39.

63. Detail #26401 located on page E303 does not exist. Please provide detail #26401.

Response: 26401 is an older reference, detail should be referencing 03076 on S002 for equipment pad detail. See this addendum, Item A.40.

64. Addendum 3, A. 15 indicates that the roof curbs and hatches have been eliminated per item A.1. Item A.1 refers to sheet A107 on the filter building. Q 15 refers to the Pump Canopy shown on S401. Please advise if there is anything on or around the roof framed openings on the Pump Canopy Sheet S401.

Response: Please revise response to Addendum 3 Question 15 to state: "The canopy shown on S401 has three 4'-0" x 4'-0" roof openings and are to be supplied with removable covers supported on the curbs."

65. Reference sheet S301 and section A/S305. Drawing sheet S301 shows section A/S305 being cut through the filter plenum/gullet. The section view shown on S305 appears to be a cut through the filter area. Please revise cut location or section view or clarify.

Response: On Sheet S301, Section A cut will be revised to cut through the filter area. See this addendum, Items A.23 and A.24.

66. Reference sheets S306, S310, and M307. Sections B/S306 and 1/S310 show the filter plenum/gullet north of filter 6 with no intermediate concrete decks. Section C/M307 shows intermediate concrete decks at this filter plenum/gullet. Which is correct? Please advise and revise drawings accordingly.

Response: Section C/M307 is correct. Sections B/S306 and 1/S310 shall be revised to show intermediate concrete decks for the filter plenum/gullet north of filter 6. See this addendum, Item A.25. Please note that Drawing S306 is similar and will be updated as part of developing the Conformed Documents.

67. Reference sheet S308. Detail 1 and sections A and B on drawing S308 show the chemical injection sumps and utility trench. There are no elevations provided for the sumps or utility trench. Please update drawing to include top of concrete elevations as required.

Response: See this addendum, Items A.14 and A.23.

68. Drawings S642-S643 contain keynote D that reads "STANDING SEAM METAL DECK, AS REQUIRED BY DESIGN. SEE ARCHITECTURAL DRAWINGS." No architectural drawings for the Chemical Storage area have been provided. Will architectural drawings be provided for the Chemical Storage area?

Response: Architectural Drawing for canopy will not be provided. Reference to SEE ARCHITECTURAL DRAWINGS to be removed from the note. See this addendum, Item A.26.

69. Drawings S400, S401 and S402 all refer to a canopy structure "BY OTHERS". Per spec 01 42 00 – 1.5 Definitions, "BY OTHERS" is Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by City, other contractors, or other means. Please confirm the scope of the canopy on sheets S400, S401 and S402 is not within the scope of this project. If the canopy is intended to be included per Note 1 on sheets S401 and S402 "CANOPY IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CANOPY HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL GENERAL NOTES, SHEET GS001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION." Please provide additional clarity on the height of the structure dimensioned as "SEE DRAWINGS BY OTHERS" on sheet S402, Section B. Architectural drawings have not been provided for this structure where some of these details would typically be shown. Will Architectural drawings be provided for this structure?

Response: The canopy is a deferred submittal. No architectural drawings for this structure will be provided.

70. For the Stair inside the Stairwell per A102, 108, are the Landings Metal? If so, could you provide details? Or do you require us to include engineering in our bid?

Response: This is additional information to Question B.45 in Addendum 2. The stairs inside the Stairwell are metal stairs. The stairs shall be Aluminum and are a Contractor deferred submittal which requires engineering and stamped/signed calculations and drawings. Refer to existing specification section 05 51 00 for additional information.

71. Detail 05061 / S003 shows a Stud / Machine Bolt config for Grating attachment. In our past projects, this config has been difficult to shop fab to ensure the studs will be centered between the Grating Bars. They often need to be cut off in the field for re-fab / re-welding or shipped loose for field fab / welding. Is it acceptable to use Self-drilling screws? If not, Struct-Fast (www.structfast.com) offers alternative types of grating clips that eliminate the need for field welding. If either of these alternative config is acceptable, it will save the cost for field fab / welding of studs in between bearing bars.

Response: Stainless steel self-drilling screws are acceptable.

72. Specification section 31 50 00 Item 3.2 A. states "Due to site space constraints, sloping and benching systems for exposed faces of excavation may not be utilized". Drawing S305 and S306 depict the excavations for the new filters as having sloped sides. Please clarify if sloped excavations are allowed.

Response: Specification is to be followed. See attached updated Drawing S310 in this addendum, Item A.25 depicting Excavation Shoring, as required for construction. Please note that Drawings S305 and S306 are similar and will be updated as part of developing the Conformed Documents.

73. General Conditions 4.3 (F) Deductibles and Self-Insured Retentions requires that deductibles in excess of \$100,000 must be approved by the City's Risk Manager. Regarding Builder's Risk coverage, if coverage for the peril of earthquake is required, please accept an earthquake deductible of 5% of the values at risk at time of loss, with a \$250,000 per occurrence minimum. Lower deductibles for earthquake in this seismic zone have limited availability and do not come at a reasonable cost.

Response: This will be addressed in Addendum 5.

74. California Public Contract Code Sec. 7105, the Act of God statute, provides Contractors relief from damages in excess of 5% of the contract value when caused by an earthquake (or resulting tidal wave) that registers 3.5 or higher on the Richter Scale. Code 7105 does permit an agency to require Contractors to provide earthquake insurance through a builders' risk insurance policy. When the agency elects to do so, the premium must be shown as a separate bid item. General Conditions 2.2 (B) makes the Contractor responsible for damage to the work caused by earthquake, but General Conditions 4.3 (A) (5) Builder's Risk Insurance only calls for coverage to be on an all-risk or "all perils" basis. Per industry standards, all risk / all perils policies do not automatically include coverage for the peril of earthquake. Please either amend General Conditions 2.2 (B) Responsibility for the Work and Risk of Loss to include relief as provided by Section 7105, or amend General Conditions 4.3 (A) (5) Builder's Risk Insurance to specifically require coverage for earthquake with a sublimit no greater than \$40,000,000 per occurrence and annual aggregate per commercially available limits in this seismic zone, which would also require a bid line item for the earthquake premium.

Response: This will be addressed in Addendum 5.

75. Drawing M307 includes a callout indicating, 8" Dia. PVC Sleeve, Typ. @12" Center EL 134.5. Details 1 & 2 on S310 call for #8 reinforcing @ 6" OC, both vertically and horizontally and at each face, as well as #4 ties @ 6" OC at the elevation of the 8" PVC Sleeves in these walls. Please provide a drawing which details the combination of the indicated reinforcing steel in these walls, and the 8" sleeves at 12" centers at elevation 134.5.

Response: See attached updated Drawing S310 and this addendum, Item A.25.

76. Per General Conditions, Article 2, Contractor 2.2(B), Contractor bears all risks of injury or damage to the Work and the materials and equipment delivered to any Worksite, by any cause including fire, earthquake, wind, weather, vandalism or

theft and Article 4, Insurance 4.3A(5), The builder's risk insurance policy must be issued on an occurrence basis, for all-risk or "all perils" coverage. Pursuant to PCC 7105, Contractors are not responsible to the public agency for repairing or restoring damages caused by an Act of God in excess of 5% of the contracted amount. If coverage for Acts of God are required, a separate bid item for this coverage is required. Please confirm the requirement for such policy shall exclude Acts of God as defined in PCC 7105.

Response: This will be addressed in Addendum 5.

77. General Conditions Article 7.8.C states that the City will bear the initial cost of inspection and testing. However, Volume 1 Division 01 Spec 01 45 00 Part 1.2.B states the Contractor shall employ and pay a qualified independent testing agency where individual Sections specifically indicate the Contractor is responsible for certain inspections, tests, and QC services. These two statements contradict and following the Order of Precedence in the General Conditions Article 3.2, the General Conditions are of higher precedence than the Specifications. Please confirm if the City will bear the costs of inspections and testing or if the bidding contractors shall follow the individual specification sections to determine responsibility.

Response: This will be addressed in Addendum 5.

78. Tesco Controls is not one of the 3 approved suppliers (40-61-00-12, 1.5.B.6) would it still be possible to submit or prequals so we are able to bid on the project?

Response: Per specification 40 61 00, 1.5.B.7, "Suppliers interested in being listed as an equal to the above-listed suppliers shall submit three copies of a qualifications proposal to the Owner no later than four weeks before the bid opening date."

79. On M304, the detail callout is incorrect. Please revise.

Response: Please see this addendum, Item A.30.

80. SECTION 01 45 00 – QUALITY CONTROL, Paragraph 1.1.E lists several specific quality control Sections of the specifications. In reviewing these sections, we have notice that the following Specifications are not included in the Contract documents:

- a. Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes
- b. Section 33 11 13 – Water Distribution Piping
- c. Section 33 12 00 – Water Distribution Equipment
- d. Section 33 12 13 – Water Service Connections

- e. Section 33 12 16 – Water Distribution Valves
- f. Section 33 12 19 – Water Distribution Fire Hydrants
- g. Section 33 31 13 – Sanitary Sewer Piping

Please provide these sections so we can complete our evaluation of quality control.

Response: These specifications are referencing City Standard Specifications. Even though these are not provided as a part of the package, they are referenced and included as part of additional information available for downloading from the City's webpage.

81. On Drawing S280, the foundation plan indicates the deep sump to have dimensions of 2'-0"x2'-0"x1'-0". Section A on the same page, it appears the sump is 1'-2" deep. Please confirm the depth of the sump at this location.

Response: The sump is 1'-2" deep. See this addendum, Item A.41.

82. Sec. 40 05 10.M "Welded Steel Pipe" does not specify if the nominal size shown on the schedule is the net clear inside diameter after lining on the cement lined pipe for sizes larger than 12" diameter.

Will this requirement be included in the specifications?

Response: Please provide the nominal pipe size specified not including any pipe wall thickness or lining.

83. Per Addendum 3, Item B.40, additional information regarding bypass piping to be provided in this Addendum.

Response: See this addendum, Item A.35. Please note that bypass piping requirements shall be confirmed during construction with the Owner.

BIDDERS MUST SIGN AND ATTACH one (1) copy of this addendum document to the proposal as acknowledgment of receipt of these instructions and that said addendum was properly evaluated in the proposal.

ANY PROPOSAL NOT IN COMPLIANCE WITH THIS ADDENDUM MAY BE REJECTED.



Issued: 04-04-2024

Dayne Johnson, P.E.
Assistant City Engineer

ADDENDUM NO. 4, PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION is hereby acknowledged and was considered in this Project Proposal.

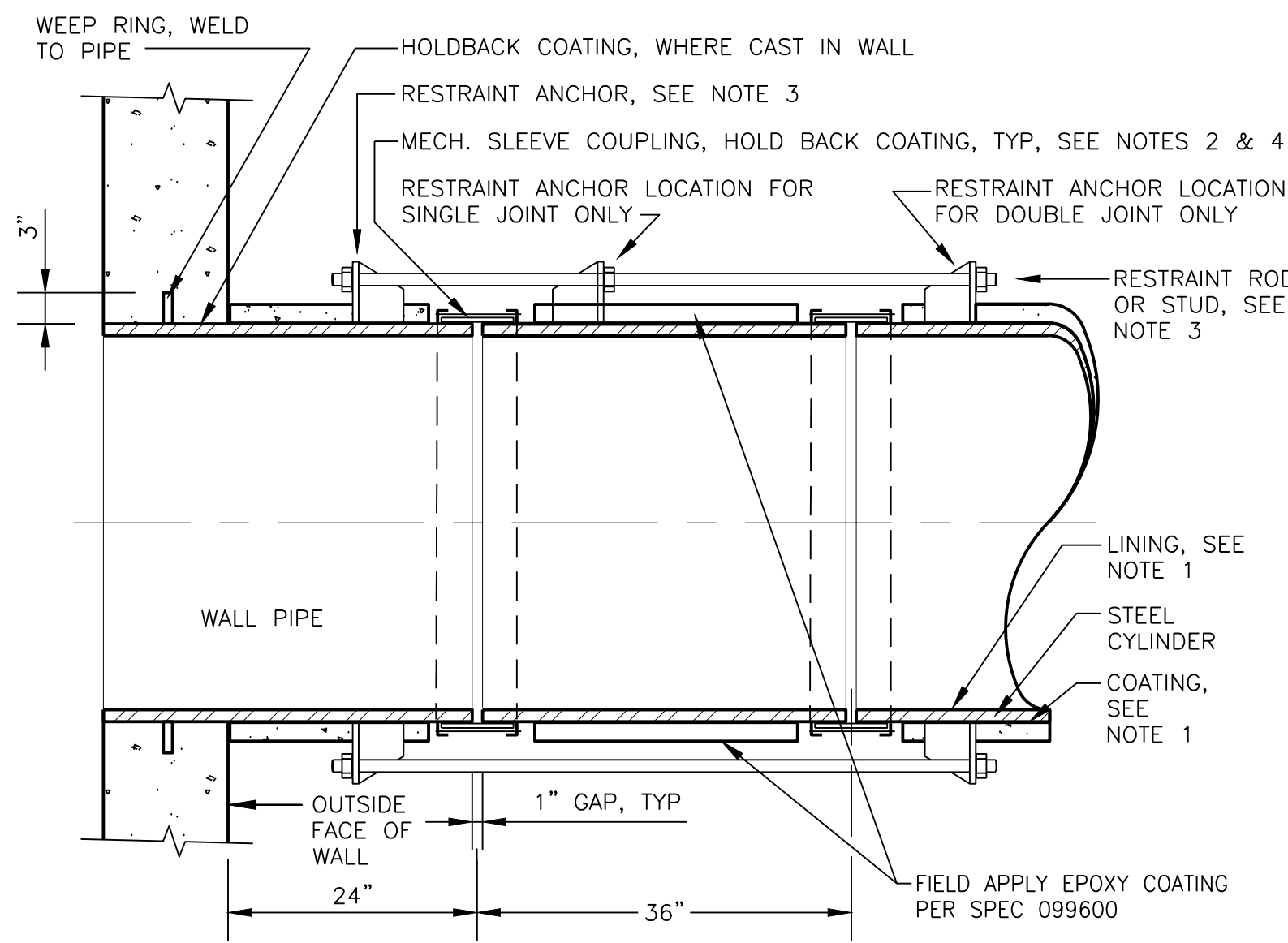
Bidder's Signature

Date

Firm Name

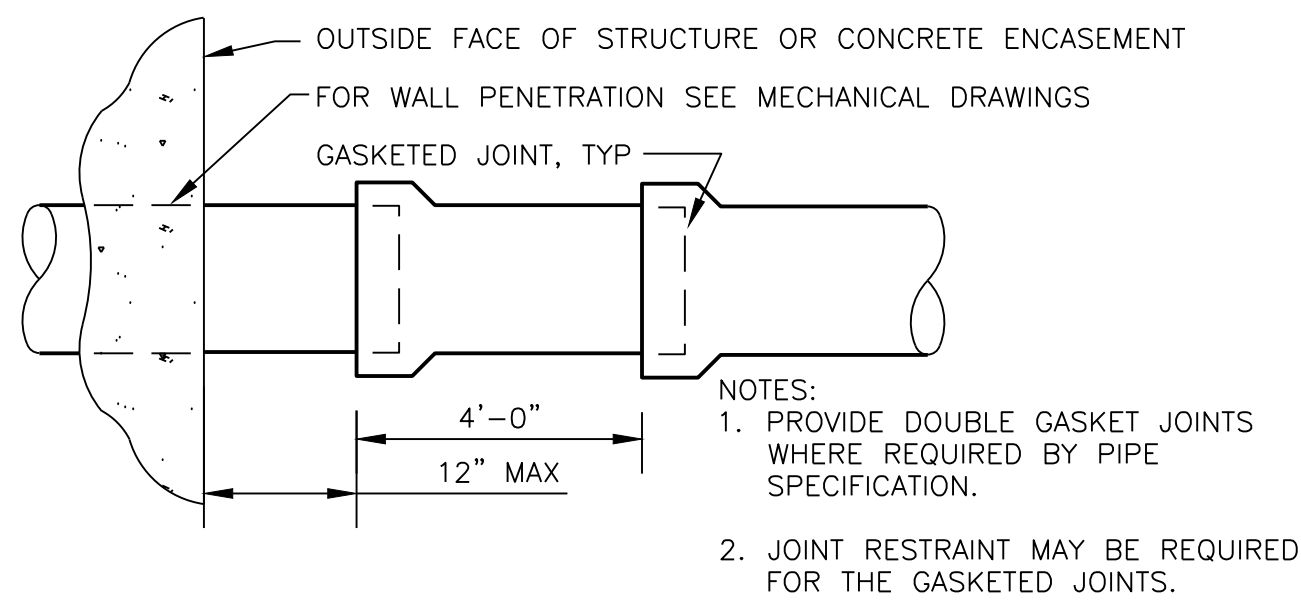
Mailing Address

City/State/Zip+4

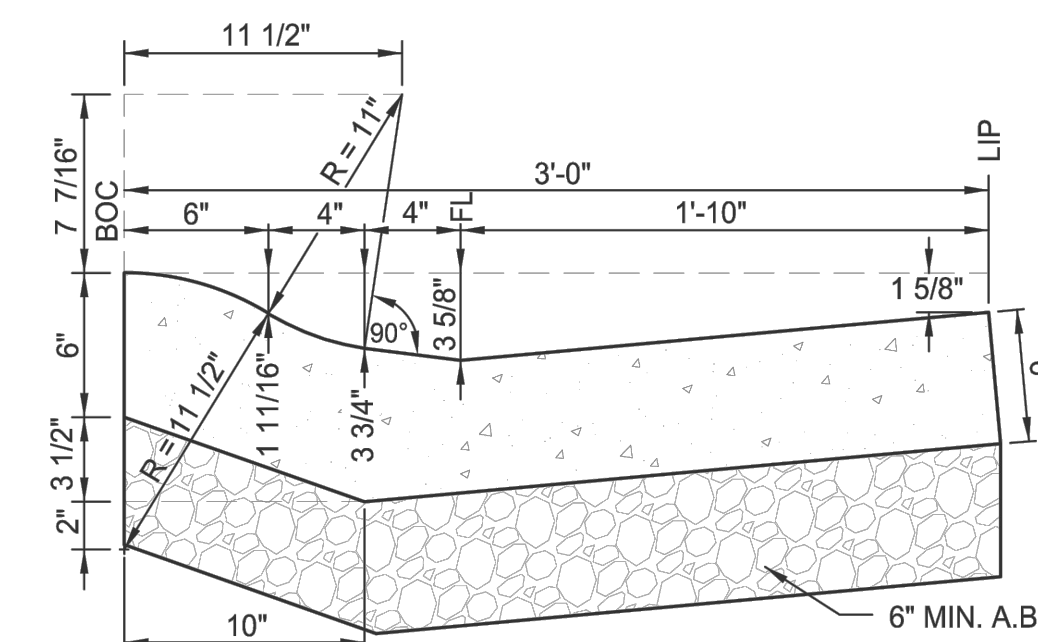


- NOTES:
- SEE SPEC SECTIONS 400510 FOR FABRICATED STEEL PIPE AND SPECIALS REQUIREMENTS.
 - SEE SPEC SECTION 400596 FOR MECHANICAL SLEEVE COUPLING AND RESTRAINT REQUIREMENTS.
 - RESTRAINED ANCHORS AND RODS SHALL BE DESIGNED PER AWWA MOP11 AND AWWA C219-01. SUBMIT CALCULATIONS. SEE ALSO NOTE 2.
 - SEE SECTION 099600 FOR COATING REQUIREMENTS.
 - WAX TAPE EXPOSED FILLINGS PER CP

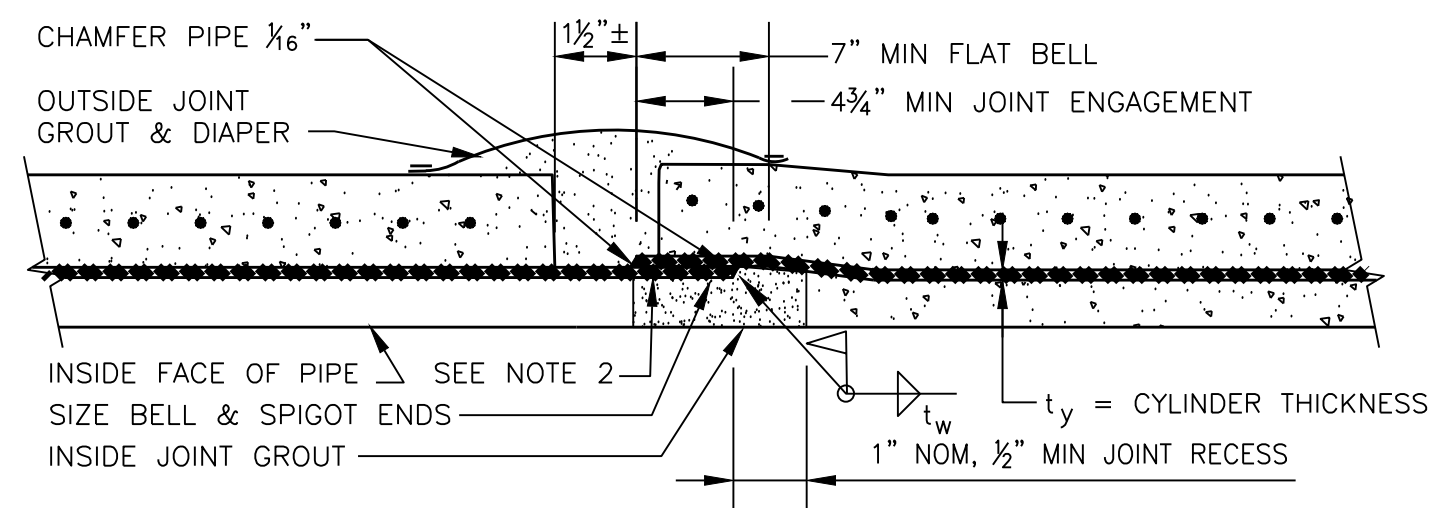
SINGLE OR DOUBLE RESTRAINED SLEEVE COUPLING
DETAIL 1 VAR
NOT TO SCALE



DUCTILE IRON (GRAVITY) AT STRUCTURES & ENCASEMENTS
DETAIL 5 VAR
NOT TO SCALE

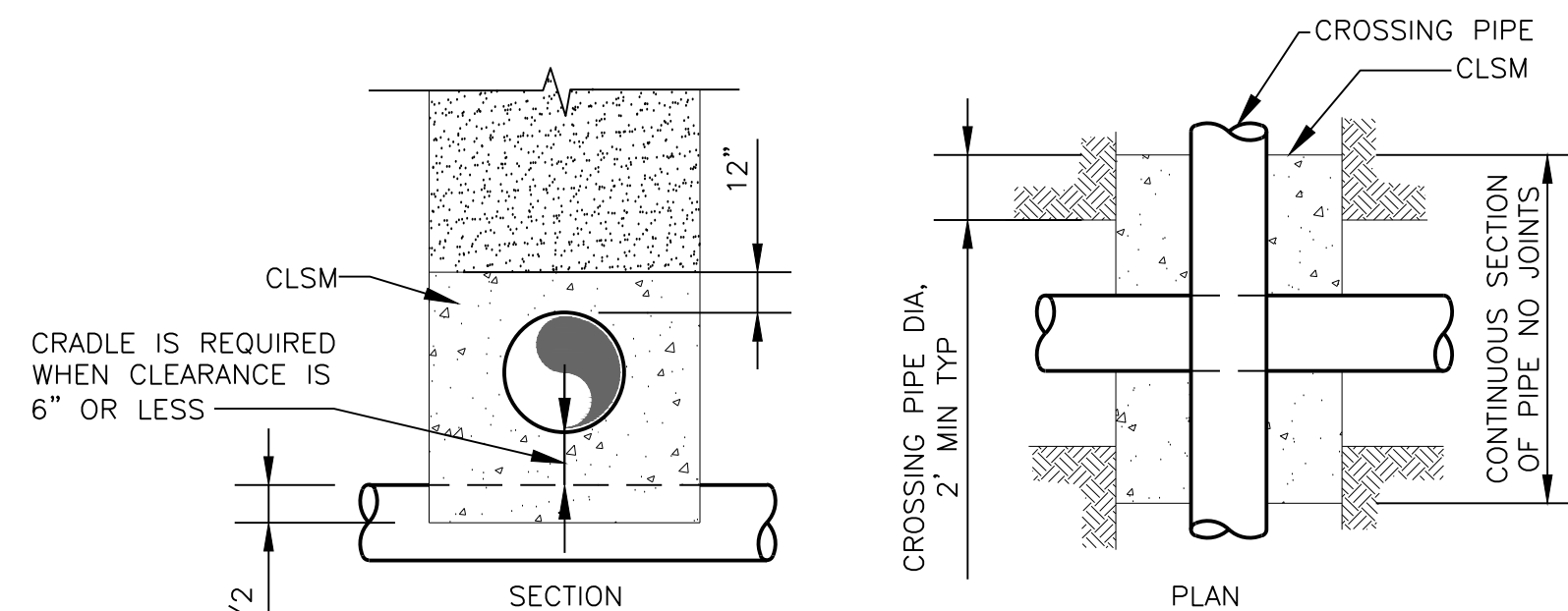


CURB & GUTTER TYPE 1
DETAIL 8 VAR
NOT TO SCALE

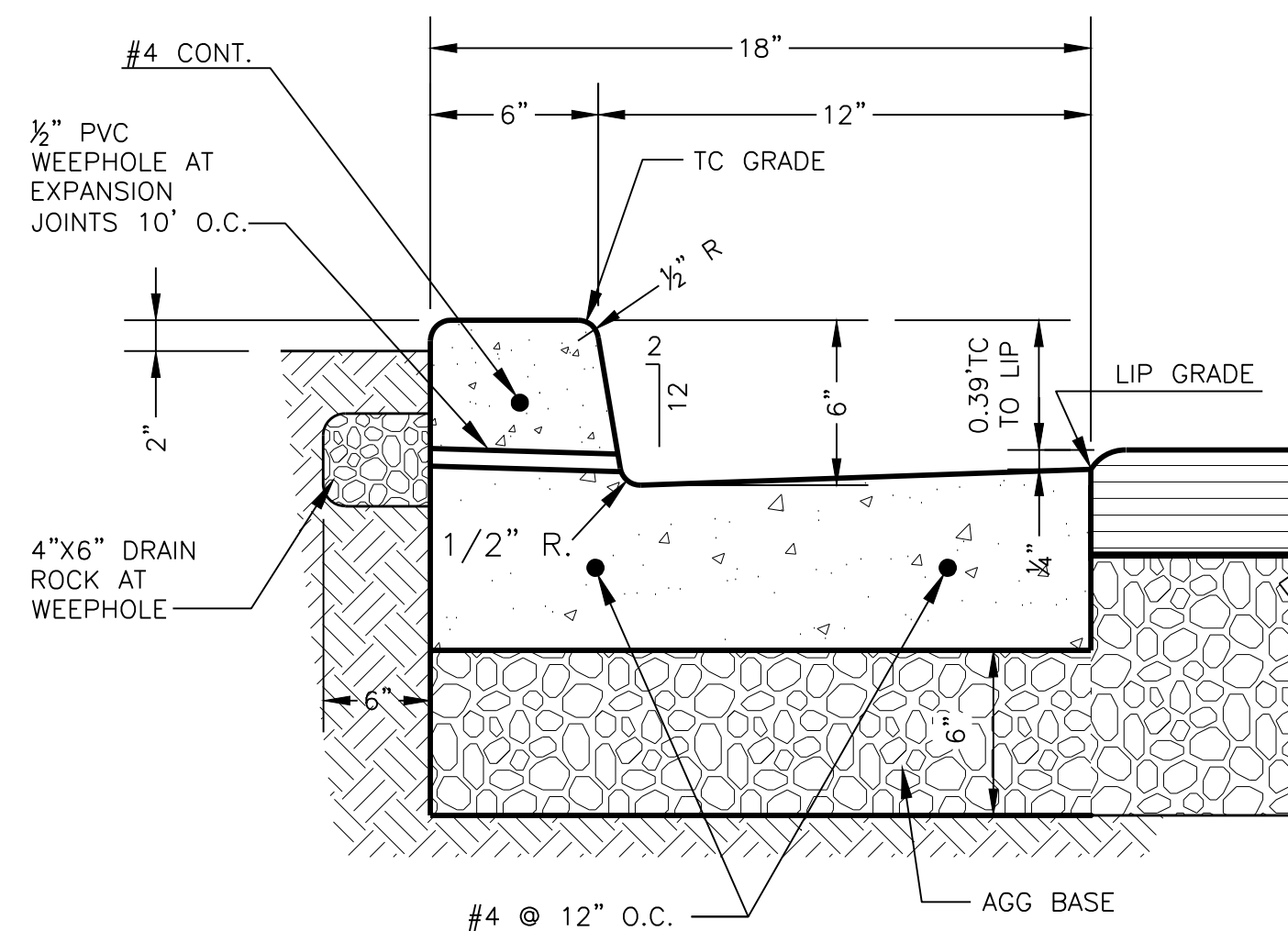


- NOTES:
- SEE SPECIFICATION SECTION 055000 FOR SIZE OF FILLET WELD t_w.
 - USE TWO 1/8" NPT TEST HOLES, WITH LINING BLOCKOUTS.
 - USE THIS DETAIL AS STANDARD FIELD JOINT AND FOR RESTRAINED JOINTS.
 - THIS JOINT DETAIL IS LIMITED TO PIPE WITH CYLINDER THICKNESS t_y LESS THAN OR EQUAL TO 3/8". USE DOUBLE WELDED BUTT JOINT FOR PIPE WITH t_y GREATER THAN 3/8".
 - HOLD BACK COATING AND LINING TO ACCOMMODATE FIELD WELDS.

FIELD JOINT FOR STEEL PIPE
DETAIL 2 VAR
NOT TO SCALE

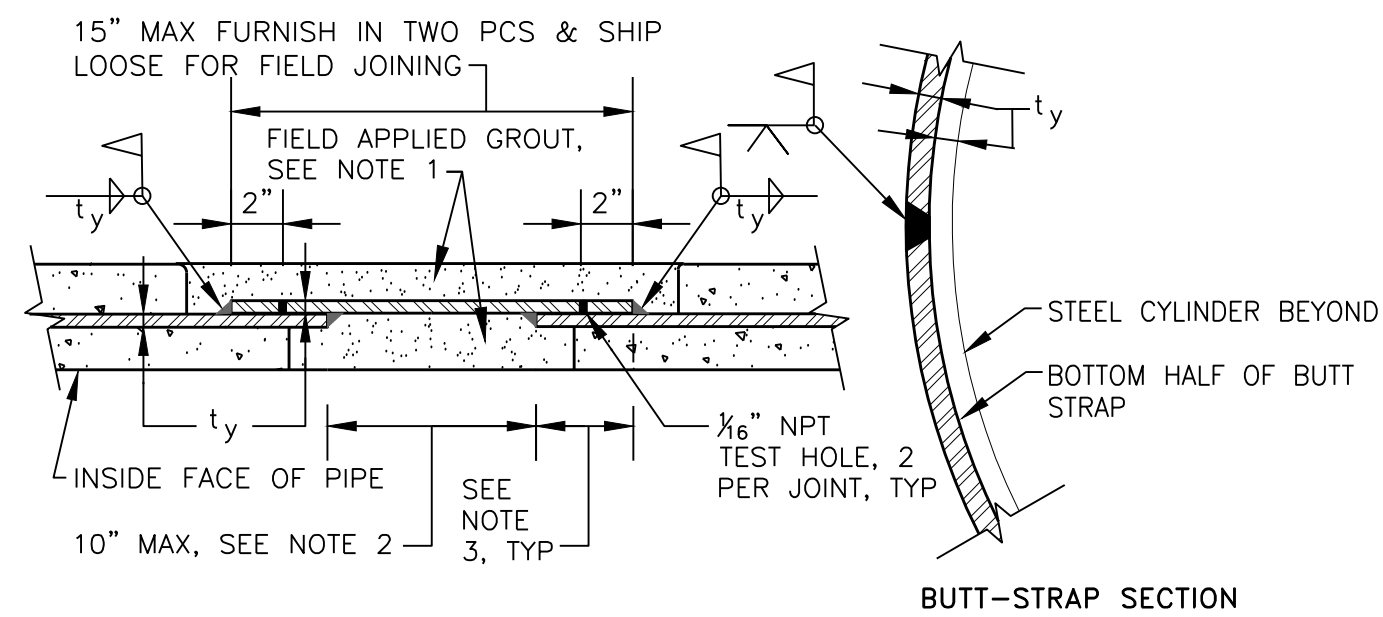


CLOSE CROSSING DETAIL
DETAIL 6 VAR
NOT TO SCALE



- NOTES:
- BOTTOM OF CURB TO BE SET ON COMPACTED AGG BASE ROCK.
 - BROOM FINISH ALL EXPOSED CONCRETE SURFACES.
 - PROVIDE 1/2" EXPANSION JOINTS @ 25'-0" O.C. MAX. AND AT CURVES, TANGENTS, AND CORNERS.
 - CONTINUE RE-BAR THROUGH EXPANSION JOINTS.

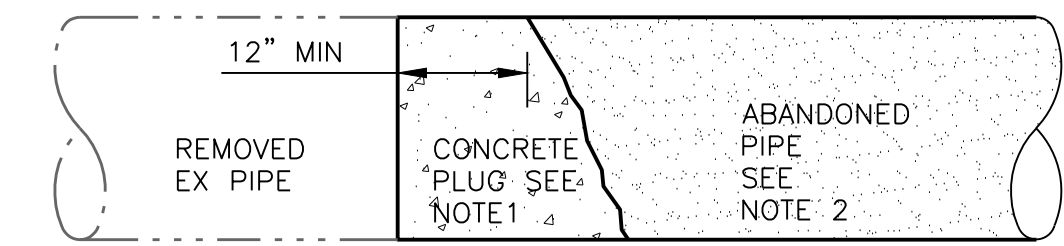
STANDARD CURB & GUTTER
DETAIL 9 VAR
NOT TO SCALE



- NOTES:
- FIELD APPLIED REINFORCED JOINT GROUT, INSIDE AND OUTSIDE, REINFORCED WITH 2x4 12 GAUGE WELDED WIRE FABRIC. SPOT WELD FABRIC TO STEEL BUTT STRAP.
 - DISTANCE BETWEEN FILLET WELDS SHALL BE MINIMUM OF 10 t_y OR 4", WHICHEVER IS GREATEST.
 - LAP DISTANCE SHALL BE MINIMUM OF 5 t_y OR 4" WHICHEVER IS GREATEST.
 - PROVIDE HAND HOLES FOR ACCESS FOR GROUTING.

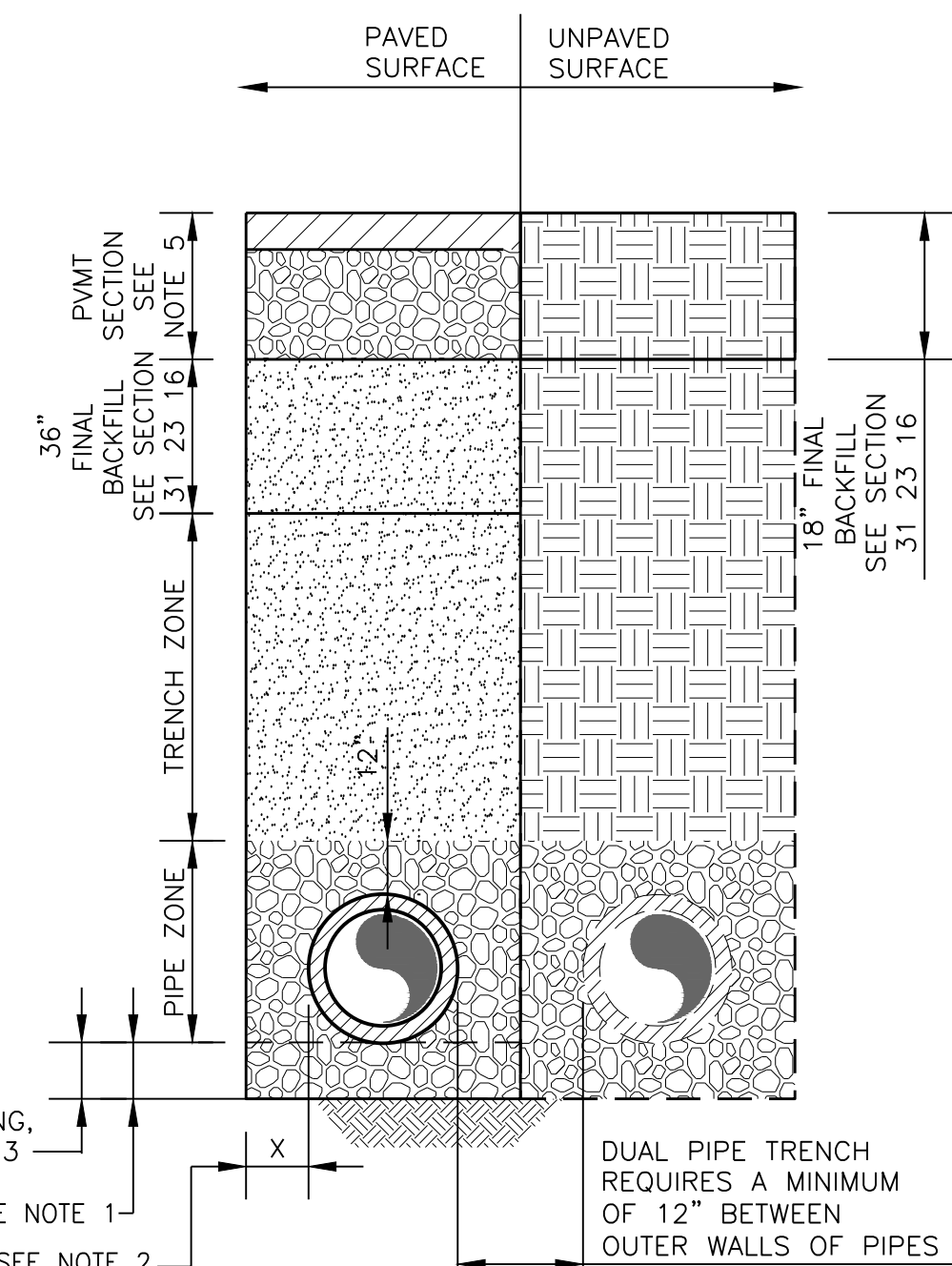
BUTT STRAP JOINT FOR STEEL PIPE
DETAIL 3 VAR
NOT TO SCALE

- PIPE TRENCH NOTES:
- BEDDING DIMENSION "Y" SHALL BE A MINIMUM OF 12" FOR PIPE SIZES GREATER THAN 24 INCHES AND A MINIMUM OF 6" FOR PIPES LESS THAN OR EQUAL TO 24 INCHES.
 - CLEARANCE DIMENSION "X" SHALL BE A MINIMUM OF 18" FOR PIPE SIZES GREATER THAN 36 INCHES AND A MINIMUM OF 6" AND A MAXIMUM OF 12" FOR PIPES LESS THAN OR EQUAL TO 36 INCHES.
 - PLACE BEDDING MATERIAL, COMPACT TO 95% RELATIVE COMPACTION FOR FIRM & UNIFORM BEDDING, & BRING TO GRADE OF THE BOTTOM OF PIPE.
 - BEDDING, PIPE ZONE AND TRENCH ZONE MATERIAL PER SPECIFICATION SECTION 312316.
 - PAVEMENT SECTION TO MATCH EXISTING OR PER DETAIL 1, SHEET GC003.

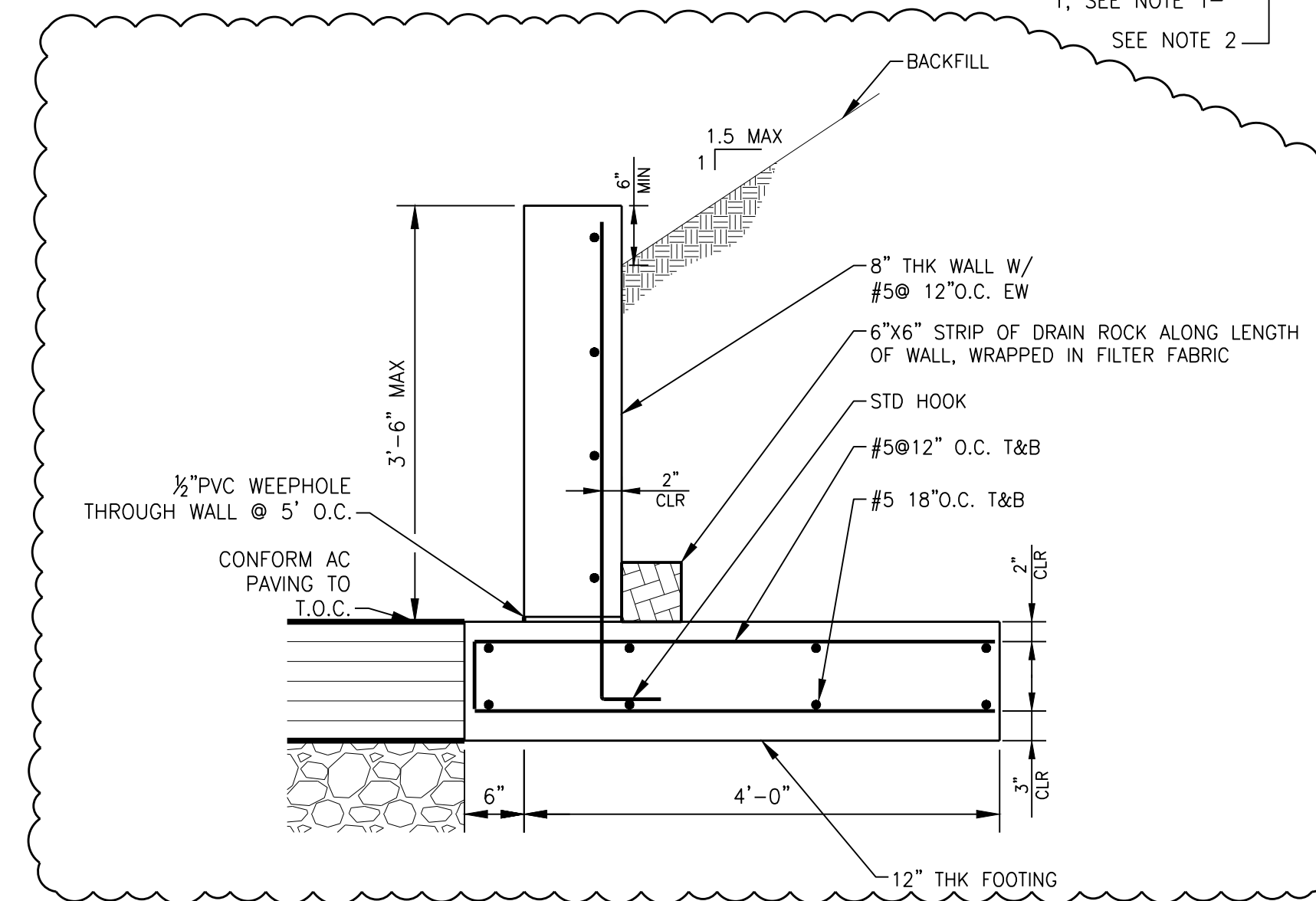


- NOTES:
- PIPE PLUGS SHALL BE INSTALLED WHERE INDICATED ON THE DRAWINGS.
 - ABANDONED PIPES 12" AND LARGER SHALL BE BROKEN EVERY 50' AND FILLED COMPLETELY WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).

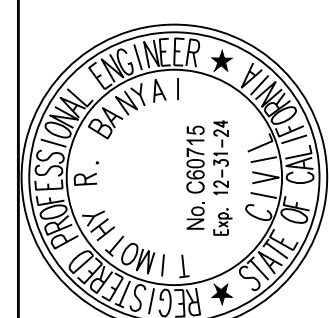
ABANDONED PIPE PLUGS
DETAIL 4 VAR
NOT TO SCALE



PIPE TRENCH
DETAIL 7 VAR
NOT TO SCALE

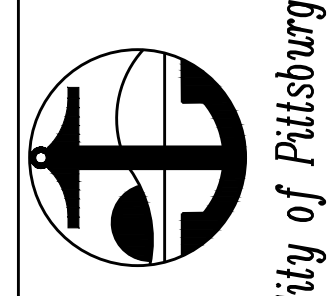


CONCRETE RETAINING WALL
DETAIL 10 VAR
NOT TO SCALE



PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
DATE:



WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION
CIVIL DETAILS 1

BY: DRAWN: SMB
ANS
CHECKED: TRB
REVIEWED: AWS
DATE: 1/19/2024
SCALE: AS SHOWN

DATE	REV	DESCRIPTION
03/24	01	ADDENDUM NO. 4

SHEET NO.
9 OF 232

DWG. NO.
GC001

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & C2 Improvm\CAD\Production\1040-50-22-01-GC001.dwg 3--28--24 11:32:21 AM polson

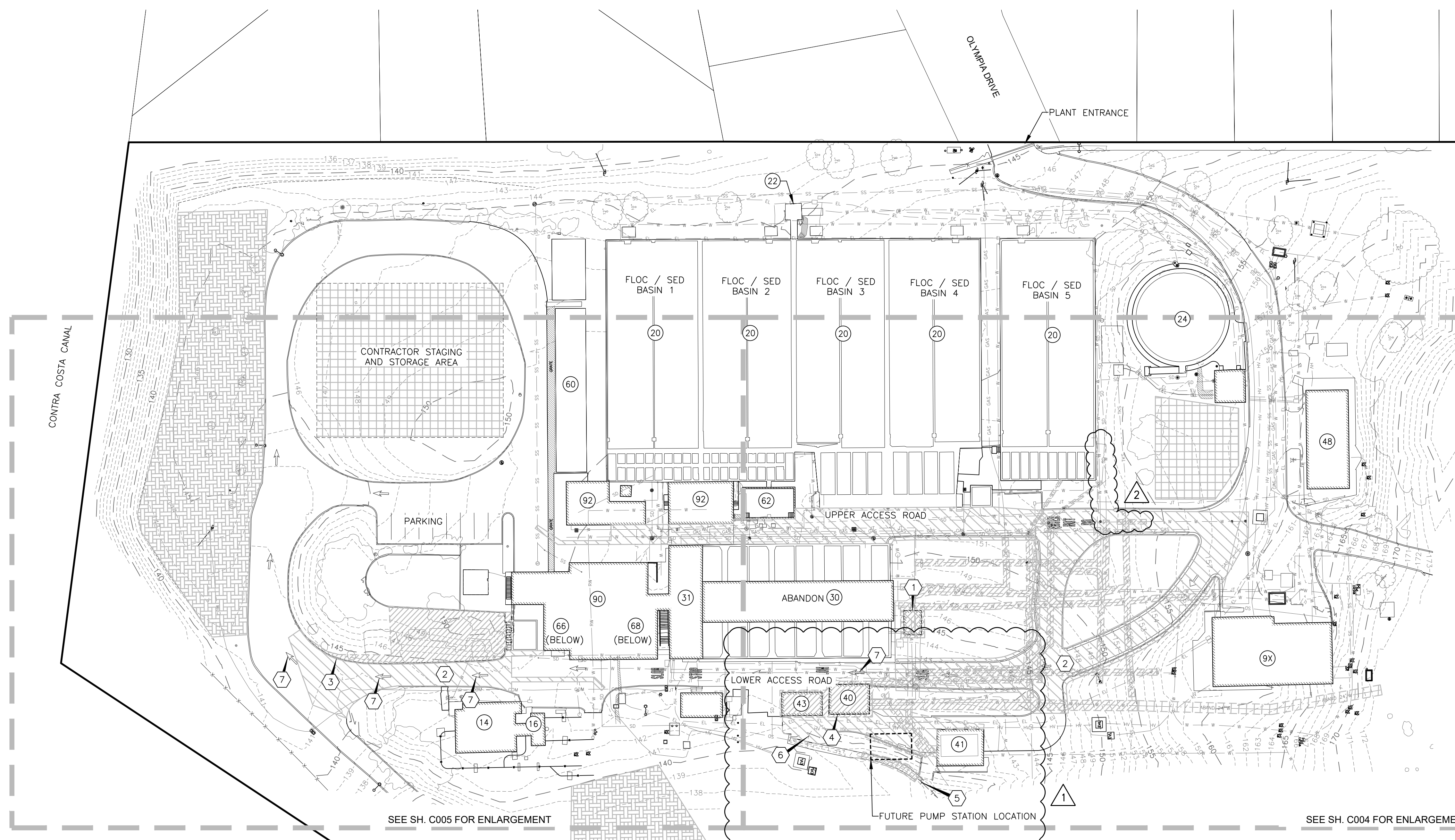
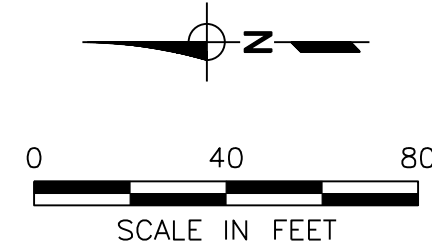


ORIGINAL PAGE SIZE: 22"x34"

\\GNS-F501\Wainut_Creek\Clients\1040_City of Pittsburg\50-22-01_Filter & C12_Improvm\CAD\Production\1040-50-22-01-C003.dwg 4-02-24 11:02:14 AM akhon



ORIGINAL PAGE SIZE: 22"x34"



EXISTING INJECTOR BUILDING
PHOTO 1

DEMOLITION NOTES:

- 1 CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EX. INJECTOR BUILDING. PROTECT EXISTING PIPING IN PLACE.
- 2 EXISTING ASPHALT ROAD TO BE REMOVED. CONTRACTOR TO REMOVE AND DISPOSE OF ALL ASPHALT ROADWAY AND CONCRETE CURB AND GUTTERS.
- 3 REMOVE EXISTING BRICK WALL. DELIVER SALVAGED BLOCKS TO OWNER. CONSTRUCT NEW RETAINING WALL PER STRUCTURAL DRAWINGS.
- 4 CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EXISTING BUILDING AND PUMP STATION COMPONENTS. REMOVE TOP SLAB AND PLUG INLET PIPE PER DETAIL 4, SHEET GC001. REST OF EXISTING CLEARWELL TO REMAIN. PERFORATE BOTTOM SLAB AND FILL WITH STRUCTURAL FULL (AB) TO GRADE. SEE SHEET D400.
- 5 REMOVE AND DISPOSE OF EXISTING DITCH WITHIN LIMITS SHOWN.
- 6 REMOVE AND DISPOSE OF EXISTING CURB AND ASPHALT PAVEMENT WITHIN LIMITS SHOWN.
- 7 REPLACE STRIPING REMOVED DURING CONSTRUCTION.

LEGEND:

- ASPHALT DEMOLISH
- BUILDING DEMOLISH
- STAGING AND STORAGE AREA
- PIPE TO BE ABANDONED IN PLACE
- ON SITE SOIL DISPOSAL LOCATIONS

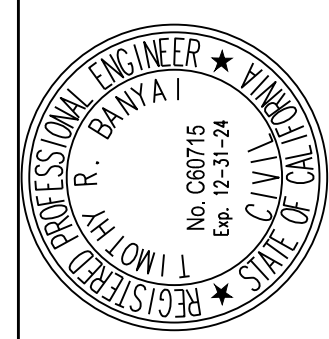
GENERAL NOTES:

1. FOR UTILITY DEMOLITION SEE ENLARGEMENT PLANS ON SHEETS C004 AND C005
2. UTILITIES SHOWN ARE FROM SURVEY, POTHOLE DATA AND AS-BUILT DRAWINGS. CONTRACTOR SHALL POTHOLE UTILITIES PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND SIZE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES THAT MAY AFFECT CONSTRUCTION.
3. SEE MECHANICAL PLANS AND "D" SERIES SHEETS FOR DEMOLITION INSIDE BUILDINGS AND MECHANICAL EQUIPMENT.

FACILITIES LEGEND:

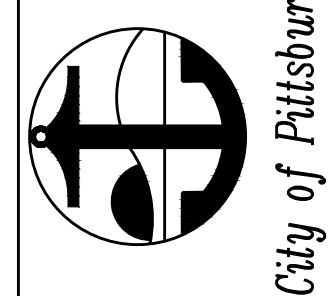
- (9X) HIGH LIFT PS2
- (14) CHLORINE DIOXIDE CONTACTOR
- (16) RAPID MIX
- (20) PRETREATMENT BASINS
- (22) SETTLED SLUDGE PUMP STATION
- (24) SLUDGE THICKENER
- (30) FILTERS
- (31) WTP OFFICES (TO REMAIN)
- (40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- (41) FILTERED WATER PUMP STATION 2 (SOUTH)
- (42) FILTERED WATER PUMP STATION 3 (NEW NORTH)
- (43) ABANDONED BUILDING
- (48) HIGH SERVICE BOOSTER STATION
- (50) REMOTE STORAGE
- (60) CHEMICAL STORAGE 1 (EXISTING)
- (62) CHEMICAL STORAGE 2 (EXISTING - AMMONIA)
- (64) CHEMICAL STORAGE 3 (NEW)
- (66) CHLORINE AND CHLORINE DIOXIDE ROOM
- (68) CHEMICAL METERING ROOM
- (90) OPERATIONS BUILDING
- (92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

ALTERNATE ADDITIVE BID ITEMS
 2 ALTERNATE ADDITIVE BID ITEM #2: RELOCATION OF NEW NORTH CLEARWELL AND FILTERED EFFLUENT PUMP STATION. SEE M400 FOR MECHANICAL DRAWINGS.



PREPARED UNDER THE DIRECTION OF:
 TIMOTHY R. BANYAI, P.E.
 License No. 080715, Exp. 12/2024

ACCEPTED FOR USE:
 JOHN SAMUELSON, P.E.
 City Engineer
 License No. 67734, Exp. 06/2025



**WATER TREATMENT PLANT
 FILTER IMPROVEMENTS AND
 HYPOCHLORITE CONVERSION**
 OVERALL WTP DEMOLITION PLAN

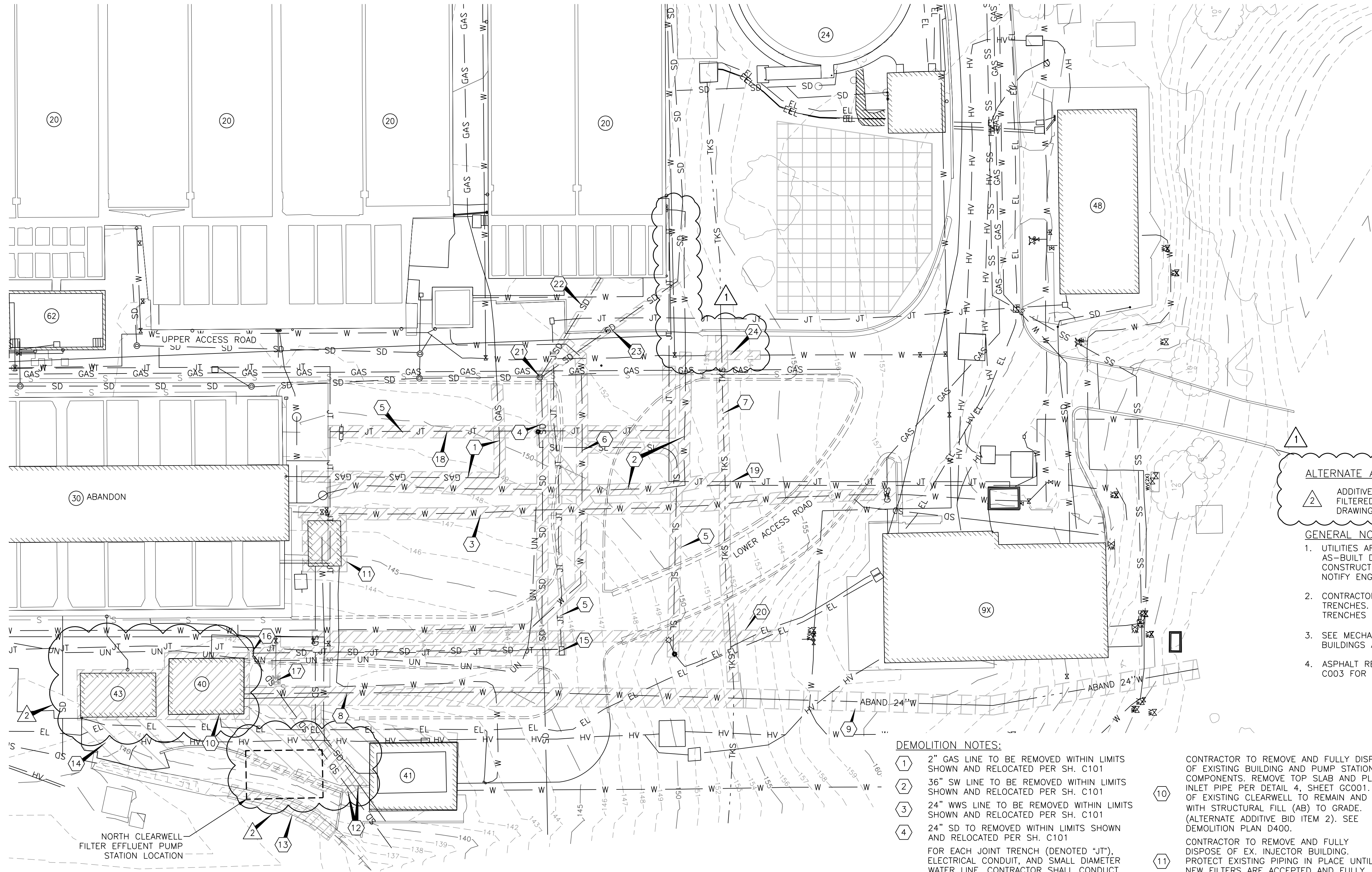
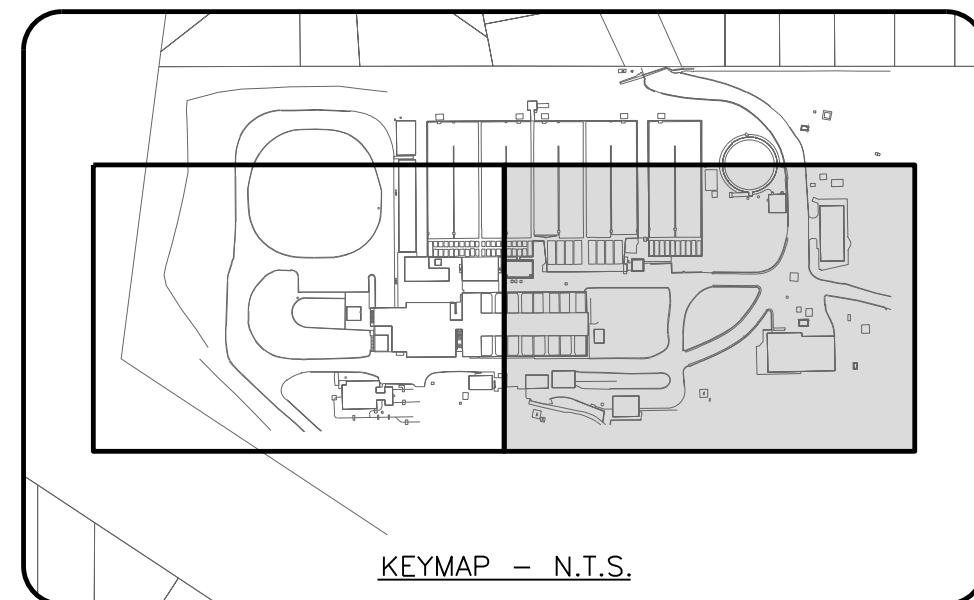
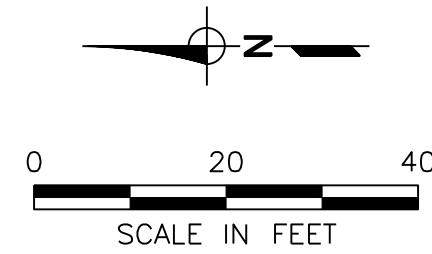
BY:	DATE:	DESCRIPTION:
KME	03/24	ADDENDUM NO. 3
KME	03/24	ADDENDUM NO. 4
REVIEWED:	DATE:	SCALE:
AWMS	1/19/2024	1" = 40'
SHEET NO. 15 OF 232		
DWG. NO. C003		

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
 0 1/2" 1"
 SCALE IN INCHES

\\GNS-F501\Wainut_Creek\Clients\1040_City of Pittsburg\50-22-01_Filter & C12_Improvm\CAD\Production\1040-50-22-01-C004.dwg 4-02-24 11:01:52 AM akhon



ORIGINAL PAGE SIZE: 22"x34"



LEGEND:

	DEMOLISHED
	PIPE TO BE ABANDONED IN PLACE
	STAGING AND STORAGE AREA
	EXISTING CURB AND GUTTER TO BE DEMOLISHED

ALTERNATE ADDITIVE BID ITEMS

2 ADDITIVE BID ITEM #2: RELOCATION OF NEW NORTH CLEARWELL AND FILTERED EFFLUENT PUMP STATION. SEE M400 FOR MECHANICAL DRAWINGS.

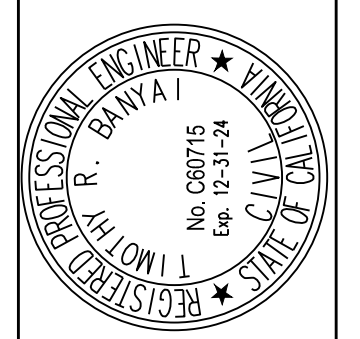
- GENERAL NOTES:**
- UTILITIES ARE BEST REPRESENTATIVE FROM SURVEY. POTHOLE DATA AND AS-BUILT DRAWINGS. CONTRACTOR SHALL POTHOLE UTILITIES PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND SIZE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES THAT MAY AFFECT DESIGN.
 - CONTRACTOR TO POTHOLE AND FIELD VERIFY UTILITIES LOCATED IN JOINT TRENCHES. ASSUMED UTILITIES PER ASBUILTS LOCATED IN JOINT TRENCHES CAN BE FOUND ON SHEET C104 AND C105.
 - SEE MECHANICAL PLANS AND "D" SERIES SHEETS FOR DEMOLITION INSIDE BUILDINGS AND MECHANICAL EQUIPMENT.
 - ASPHALT REMOVAL NOT SHOWN ON THIS PLAN FOR CLARITY. SEE SHEET C003 FOR LIMITS OF ROADWAY REMOVAL.

- DEMOLITION NOTES:**
- | | | |
|--|---|---|
| 1 2" GAS LINE TO BE REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | 10 CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EXISTING BUILDING AND PUMP STATION COMPONENTS. REMOVE TOP SLAB AND PLUG INLET PIPE PER DETAIL 4, SHEET GC001. REST OF EXISTING CLEARWELL TO REMAIN AND FILL WITH STRUCTURAL FILL (AB) TO GRADE. (ALTERNATE ADDITIVE BID ITEM 2). SEE DEMOLITION PLAN D400. | 15 REMOVE AND DISPOSE OF 110 LF EXISTING STORM DRAIN AND CATCH BASIN WITHIN LIMITS SHOWN. |
| 2 36" SW LINE TO BE REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | 11 CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EX. INJECTOR BUILDING. PROTECT EXISTING PIPING IN PLACE UNTIL NEW FILTERS ARE ACCEPTED AND FULLY OPERATIONAL. | 16 REMOVE AND DISPOSE OF EXISTING GRATED MANHOLE LID AND RINGS TO GRADE. |
| 3 24" WWS LINE TO BE REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | 12 REMOVE 45 LF OF 24" SD PIPE AND 30 LF OF 6" SD PIPE. REMOVE EXISTING PIPE UP TO EXISTING STRUCTURE 41 FOOTINGS. PROTECT FOOTINGS IN PLACE. FILL REMAINING PIPE WITH CLSM PER DETAIL 4, SHEET GC001. | 17 REMOVE EXISTING FIRE HYDRANT AND STORE FOR REUSE ON SITE. DISPOSE OF EXISTING PIPING AND VALVE. |
| 4 24" SD TO REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | 13 REMOVE AND DISPOSE OF EXISTING DITCH WITHIN LIMITS SHOWN. (ADDITIVE BID ITEM 4) | 18 TEMPORARILY REROUTE JT DURING CONSTRUCTION; SAMPLE AIR, POWDERED ACTIVATED CARBON, CATIONIC POLYMER, CHLORINE SOLUTION |
| 5 FOR EACH JOINT TRENCH (DENOTED "JT"), ELECTRICAL CONDUIT, AND SMALL DIAMETER WATER LINE, CONTRACTOR SHALL CONDUCT POTHOLING AND OTHER FIELD INVESTIGATIONS TO IDENTIFY SOURCE AND DESTINATION OF FLUID, POWER OR SIGNAL. CONTRACTOR SHALL COORDINATE WITH OWNER AND ENGINEER ON SUITABLE DEMOLITION AND RELOCATION APPROACH. SEE NOTE 2. | 14 REMOVE AND DISPOSE OF EXISTING CURB AND ASPHALT PAVEMENT WITHIN LIMITS SHOWN. (ADDITIVE BID ITEM 4) | 19 2" PVC SAMPLE LINE (TO LAB SINK) CONTRACTOR TO FIELD LOCATE AND COORDINATE WITH ENGINEER ON RELOCATION. |
| 6 30" RW LINE TO BE REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | 15 ABANDON EXISTING PIPE IN PLACE PER DETAIL 4, SHEET GC001. | 20 REMOVE AND DISPOSE OF 165 LF OF 10" DIP |
| 7 8" TKS LINE TO BE REMOVED WITHIN LIMITS SHOWN AND RELOCATED PER SH. C101 | | 21 REMOVE AND DISPOSE OF OF (E) SDMH |
| 8 REMOVE 175 LF OF 30" CML&C STEEL PIPE. | | 22 REMOVE AND DISPOSE 40 LF OF SD LATERAL |
| 9 | | 23 REMOVE AND DISPOSE 60 LF OF SD LATERAL |
| | | 24 4" WATER LINE TO BE REMOVED WITHIN LIMITS SHOWN AND REROUTED PER SH. C101 |

FACILITIES LEGEND:

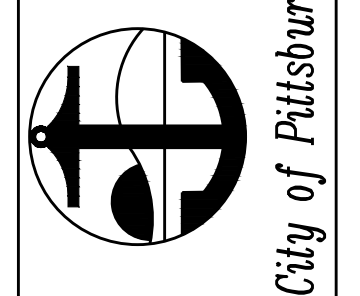
9X HIGH LIFT PS2	31 WTP OFFICES (TO REMAIN)	60 CHEMICAL STORAGE 1 (EXISTING)
14 CHLORINE DIOXIDE CONTACTOR	40 FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	62 CHEMICAL STORAGE 2 (EXISTING - AMMONIA)
16 RAPID MIX	41 FILTERED WATER PUMP STATION 2 (SOUTH)	64 CHEMICAL STORAGE 3 (NEW)
20 PRETREATMENT BASINS	42 FILTERED WATER PUMP STATION 3 (NEW NORTH)	66 CHLORINE AND CHLORINE DIOXIDE ROOM
22 SETTLED SLUDGE PUMP STATION	43 ABANDONED BUILDING	68 CHEMICAL METERING ROOM
24 SLUDGE THICKENER	46 HIGH SERVICE BOOSTER STATION	90 OPERATIONS BUILDING
30 FILTERS	50 REMOTE STORAGE	92 EQUIPMENT AND MATERIALS STORAGE BUILDINGS

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
 0 1/2" 1"
 SCALE IN INCHES



PREPARED UNDER THE DIRECTION OF:
 TIMOTHY R. BANYAI, P.E.
 License No. 60715, Exp. 12/2024

ACCEPTED FOR USE:
 JOHN SAMUELSON, P.E.
 City Engineer
 License No. 67734, Exp. 06/2025



**WATER TREATMENT PLANT
 FILTER IMPROVEMENTS AND
 HYPOCHLORITE CONVERSION**
 WTP DEMOLITION SITE PLAN (AREA 1)

BY: SMB	DESCRIPTION	DATE	REV
KME	APPENDIX NO. 4	03/24	01
CHECKED: TRB			
REVIEWED: AMS			
DATE: 1/19/2024			
SCALE: 1" = 20'			
SHEET NO. 16 OF 232			
DWG. NO. C004			

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & C2 Improv\CAD\Production\1040-50-22-01-C102.dwg 4-01-24 10:07:18 AM kerkert



PICTURE 1
EXISTING 24" BFV'S
(VIEW FROM EAST)



PICTURE 2
EXISTING 24" BFV'S
(VIEW FROM TOP)

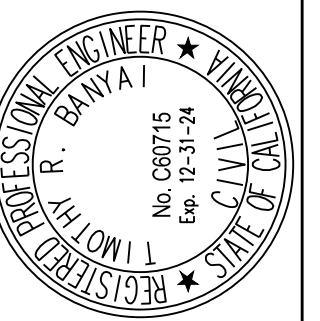
PIPE CONNECTION TABLE				
CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	42" SW SEE SHEET C110	36" SW WSP	42" SW WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
2	42" SW SEE SHEET C110	36" SW WSP	42" SW WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001

CHEMICAL KEY NOTES:

- 1 48" FLAT TOP SDMH 1
RIM: 151.04'
DEPTH: 18.24'
N: 2192314.9164
E: 6157019.4268

STORM KEY NOTES:

- 1 48" FLAT TOP SDMH 1
RIM: 151.04'
DEPTH: 18.24'
N: 2192314.9164
E: 6157019.4268

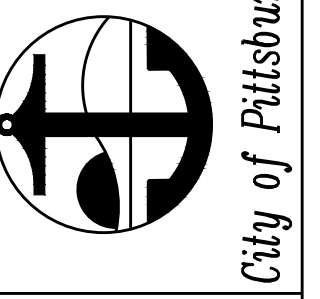


PREPARED UNDER THE DIRECTION OF:

TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/31/24

ACCEPTED FOR USE:

JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025



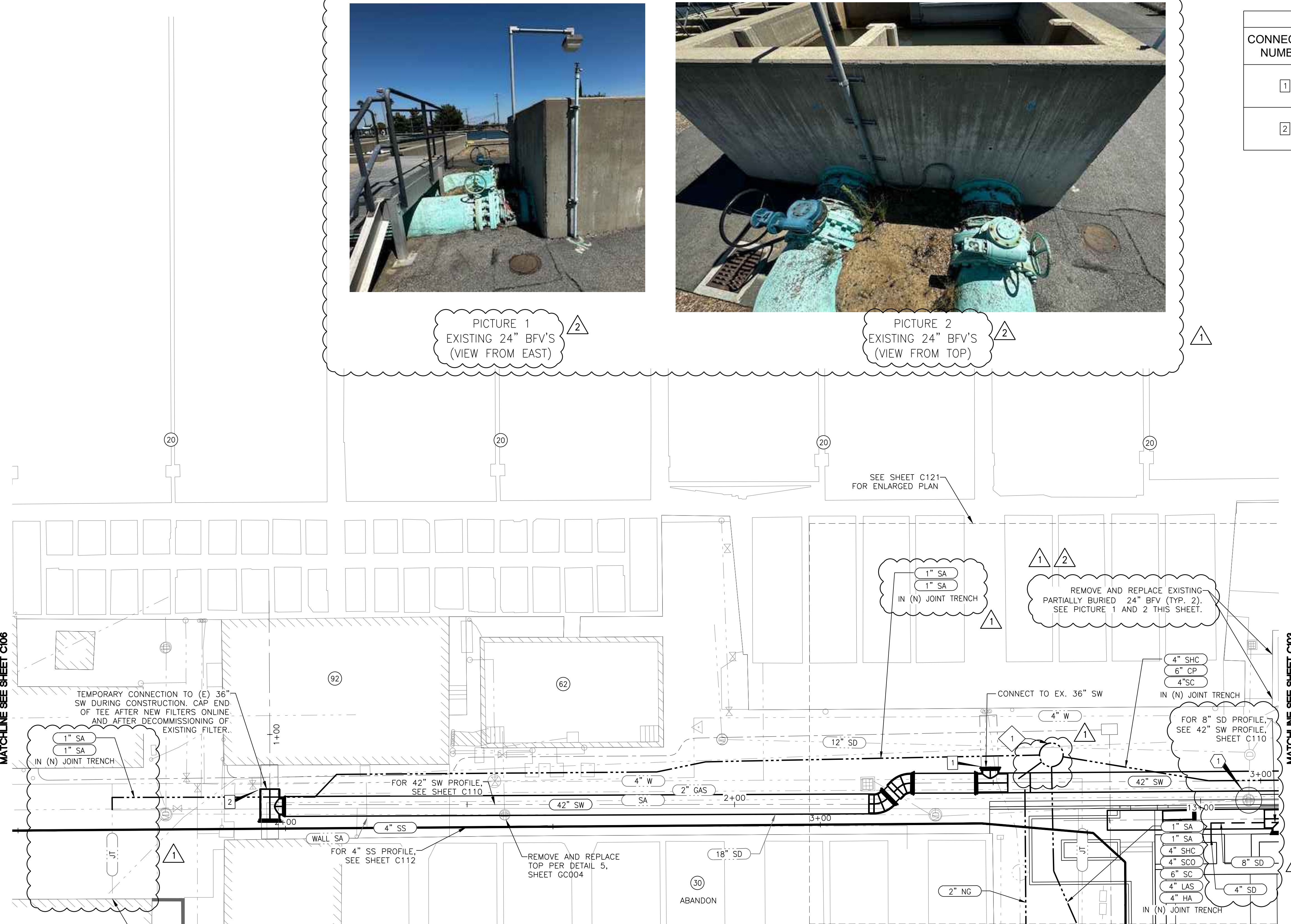
**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION**
YARD PIPING PLAN (AREA 1)

BY: DRAWN: SMB
KME
CHECKED: TRB
REVIEWED: AWS
DATE: 1/19/2024
SCALE: 1" = 10'

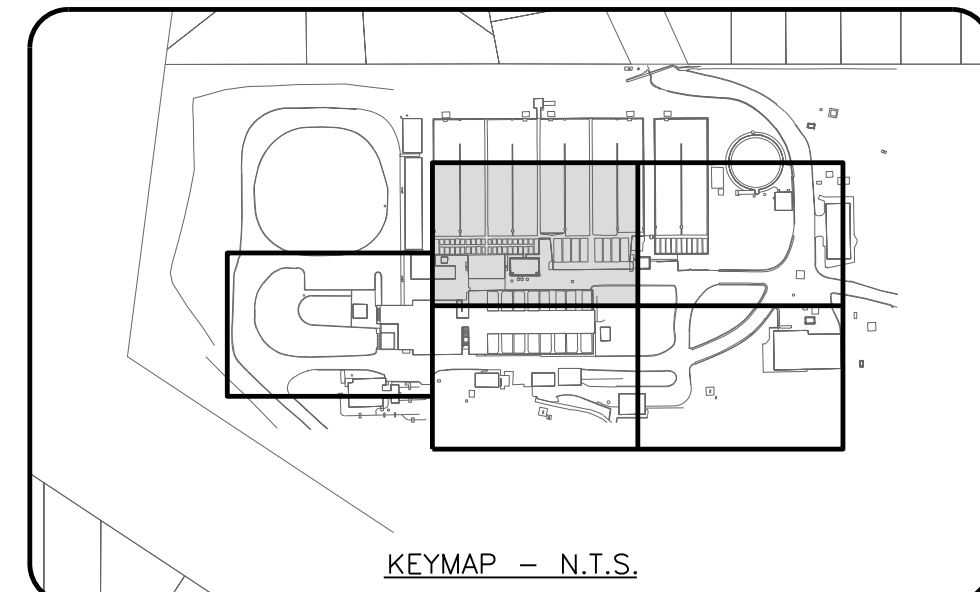
DATE	REV	DESCRIPTION
03/24	01	ADDENDUM NO. 3
03/24	02	ADDENDUM NO. 4

SHEET NO.
20 OF 232

DWG. NO.
C102

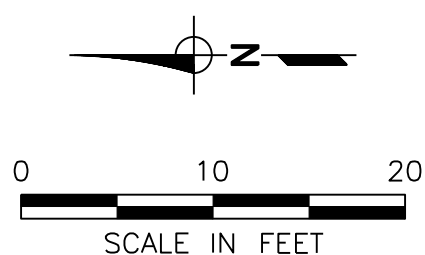


COORDINATE ROUTING OF (N) SAMPLE LINES INSIDE CHEMICAL METERING ROOM WITH OWNER AND ENGINEER



FACILITIES LEGEND:

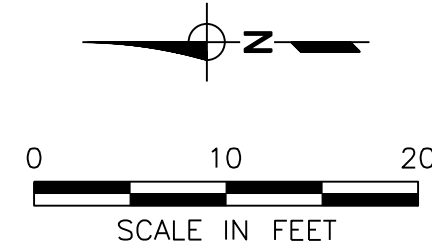
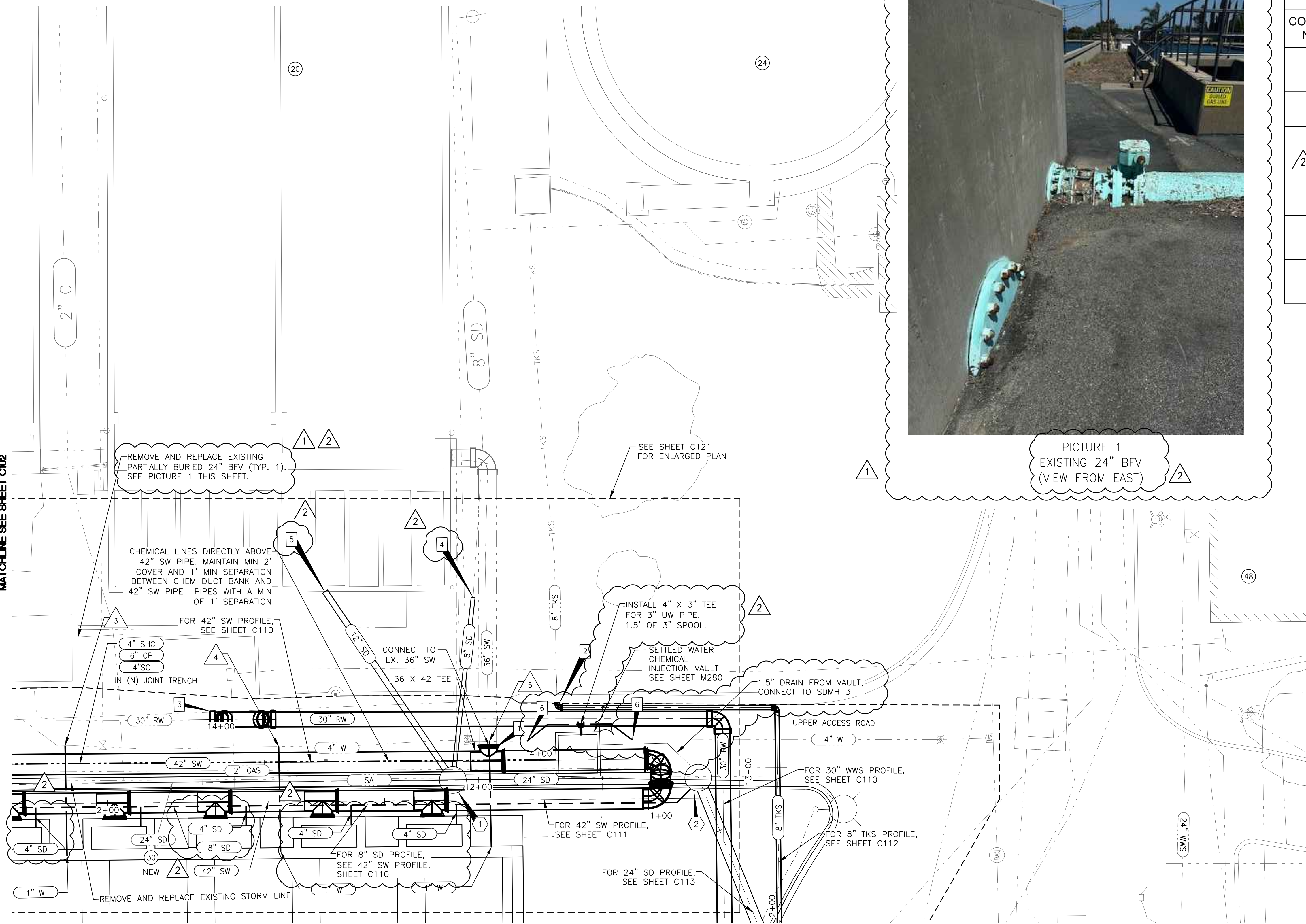
- (9X) HIGH LIFT PS2
- (14) CHLORINE DIOXIDE CONTACTOR
- (16) RAPID MIX
- (20) PRETREATMENT BASINS
- (22) SETTLED SLUDGE PUMP STATION
- (24) SLUDGE THICKENER
- (30) FILTERS
- (31) WTP OFFICES (TO REMAIN)
- (40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- (41) FILTERED WATER PUMP STATION 2 (SOUTH)
- (42) FILTERED WATER PUMP STATION 3 (NEW NORTH)
- (43) ABANDONED BUILDING
- (48) HIGH SERVICE BOOSTER STATION
- (50) REMOTE STORAGE
- (60) CHEMICAL STORAGE 1 (EXISTING)
- (62) CHEMICAL STORAGE 2 (EXISTING - AMMONIA)
- (64) CHEMICAL STORAGE 3 (NEW)
- (66) CHLORINE AND CHLORINE DIOXIDE ROOM
- (68) CHEMICAL METERING ROOM
- (90) OPERATIONS BUILDING
- (92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS



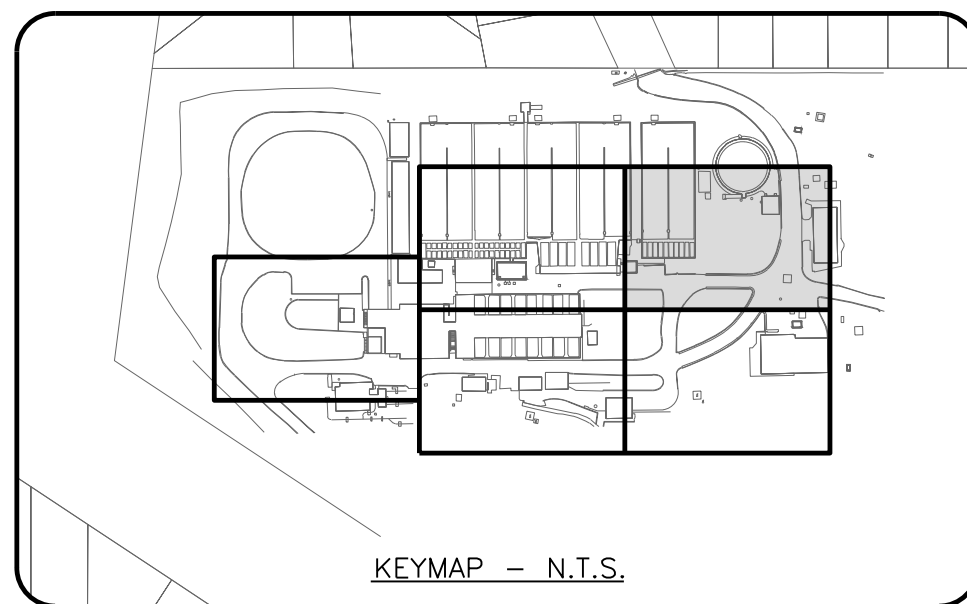
ORIGINAL PAGE SIZE: 22"x34"

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

MATCHLINE SEE SHEET C102



ORIGINAL PAGE SIZE: 22"x34"



FACILITIES LEGEND:

- (9X) HIGH LIFT PS2
- (14) CHLORINE DIOXIDE CONTACTOR
- (16) RAPID MIX
- (20) PRETREATMENT BASINS
- (22) SETTLED SLUDGE PUMP STATION
- (24) SLUDGE THICKENER
- (30) FILTERS
- (31) WTP OFFICES (TO REMAIN)
- (40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- (41) FILTERED WATER PUMP STATION 2 (SOUTH)
- (42) FILTERED WATER PUMP STATION 3 (NEW NORTH)
- (43) ABANDONED BUILDING
- (48) HIGH SERVICE BOOSTER STATION
- (50) REMOTE STORAGE
- (60) CHEMICAL STORAGE 1 (EXISTING)
- (62) CHEMICAL STORAGE 2 (EXISTING - AMMONIA)
- (64) CHEMICAL STORAGE 3 (NEW)
- (66) CHLORINE AND CHLORINE DIOXIDE ROOM
- (68) CHEMICAL METERING ROOM
- (90) OPERATIONS BUILDING
- (92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS



PICTURE 1
EXISTING 24" BFV
(VIEW FROM EAST)

PIPE CONNECTION TABLE				
CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	42" SW SEE SHEET C110	36" SW WSP	42" SW WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
2	8" TKS SEE SHEET C110	8" TKS DI	8" TKS DI	RESTRAINED JOINT CONNECTION WITH STRADDLE BLOCK
3	30" RW SEE SHEET C110	30" RW WSP	30" RW WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
4	NA	UNKNOWN	8" SD PVC	STORM MANHOLE & SEE NOTE 1
5	NA	UNKNOWN	12" SD PVC	STORM MANHOLE & SEE NOTE 1
6	NA	4" W DIP	4" W DIP	RESTRAINED JOINT CONNECTION WITH STRADDLE BLOCK

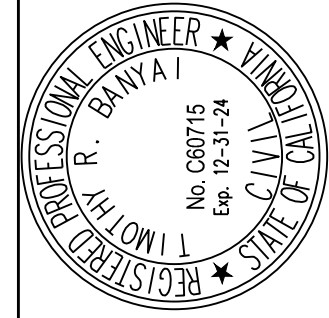
NOTE 1: CONTRACTOR TO POTHOLE & VERIFY PIPE MATERIAL PRIOR TO CONSTRUCTION. COORDINATE WITH ENGINEER ON CONNECTION

WATER KEY NOTES:

- 3 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192261.8002
E: 6157016.9436
- 4 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192223.2180
E: 6157016.0161
- 5 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192185.2508
E: 6157012.6446

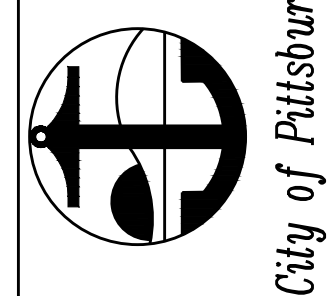
STORM KEY NOTES:

- 1 48" FLAT TOP SDMH 2
RIM: 152.55'
DEPTH: 19.95'
N: 2192191.8572
E: 6157009.3043
- 2 48" SDMH 3
RIM: 154.98'
DEPTH: 22.56'
N: 2192147.4979
E: 6157008.8298



PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025



**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION**
YARD PIPING PLAN (AREA 2)

BY: DRAWN: SMB
KME
CHECKED: TRB
REVIEWED: DWS
DATE: 1/19/2024
SCALE: 1" = 10'

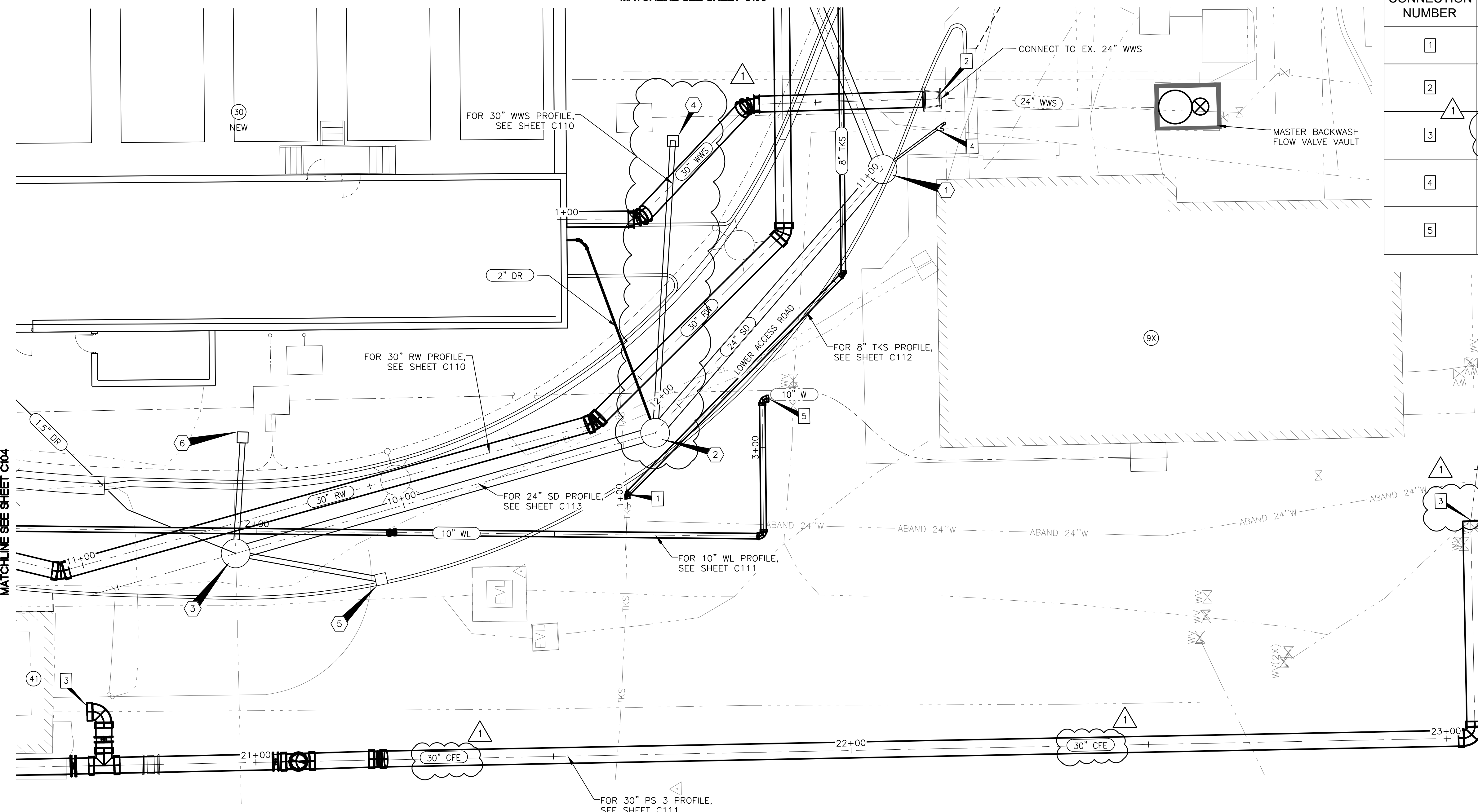
DATE	REV	DESCRIPTION
03/24	01	ADDENDUM NO. 3
03/24	02	ADDENDUM NO. 4

SHEET NO.
21 OF 232

DWG. NO.
C103

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

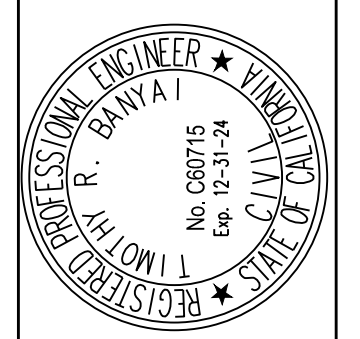
\\GNS-F501\Walnut Creek\Clients\1040 City of Pittsburg\50-22-01 Filter & C12 Improv\CAD\Production\1040-50-22-01-C105.dwg 4-02-24 11:00:45 AM akhan



PIPE CONNECTION TABLE				
CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	8" TKS SEE SHEET C110	8" TKS DI	8" TKS DI	RESTRAINED JOINT CONNECTION WITH STRADDLE BLOCK
2	30" WWS SEE SHEET C111	24" WWS WSP	30" WWS WSP	FOR CONNECTION INFO SEE DETAIL 3, SHEET GC001
3	30" PS 2 DISCHARGE SEE SHEET C111	30" CFE WSP	30" CFE WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
4	24" SD SEE SHEET C112	4" SD PVC	4" SD PVC	FOR CONNECTION INFO SEE DETAIL 23 ON SHEET GM007
5	10" WL	10" WL DIP	10" WL DIP	RESTRAINED JOINT CONNECTION WITH STRADDLE BLOCK

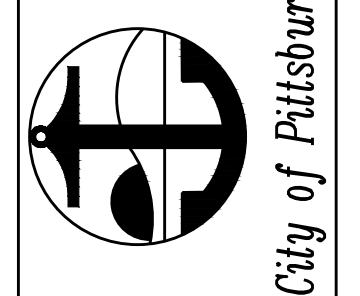
STORM KEY NOTES:

- 1 48" SDMH 4
RIM: 156.07'
DEPTH: 23.72'
N: 2192126.8520
S: 6156954.7814
- 2 48" SDMH 5
RIM: 152.07'
DEPTH: 19.57'
N: 2192165.9255
S: 6156911.2529
- 3 48" SDMH 6 (CAST IN PLACE)
RIM: 144.66'
DEPTH: 12.66'
N: 2192236.7979
S: 6156892.4169
- 4 STORM INLET
12" PVC
RIM: 151.75'
IE OUT: 148.90' SLOPE: 2.0%
- 5 STORM INLET
12" PVC
RIM: 146.84'
IE OUT: 143.50' SLOPE: 21.49%
- 6 STORM INLET
12" PVC
RIM: 141.38'
IE OUT: 139.15'
SLOPE: 5.28%



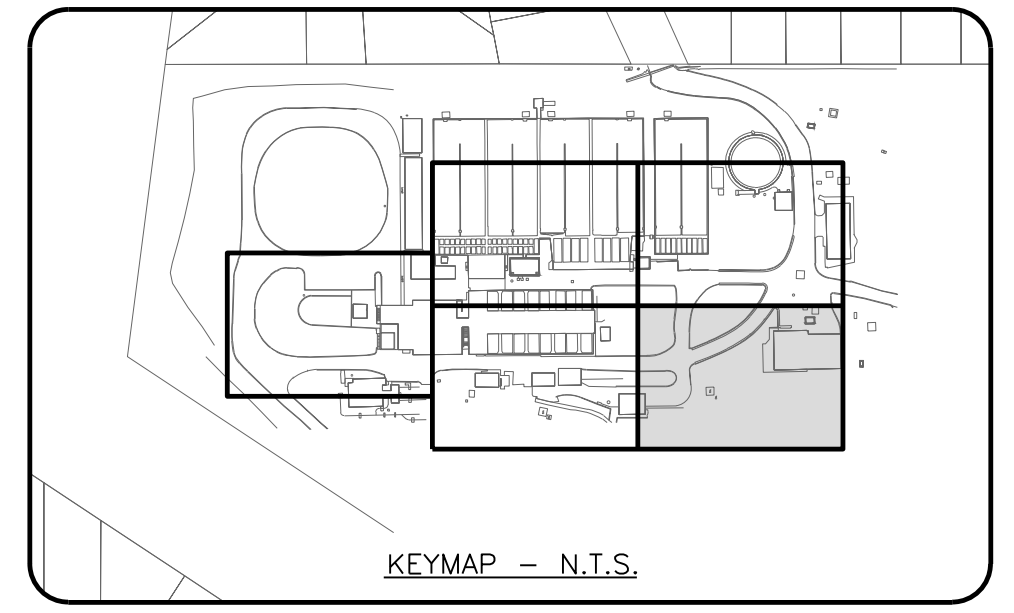
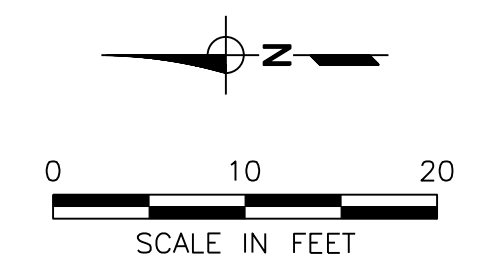
PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:



**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION
YARD PIPING PLAN (AREA 4)**

BY: KME	DESCRIPTION: APPENDUM NO. 4	DATE: 03/24	REV: 01	SCALE: 1" = 10'
DRAWN: SMB	CHECKED: TRB	REVIEWED: AWS	DATE: 1/19/2024	
SHEET NO. 23 OF 232				
DWG. NO. C105				



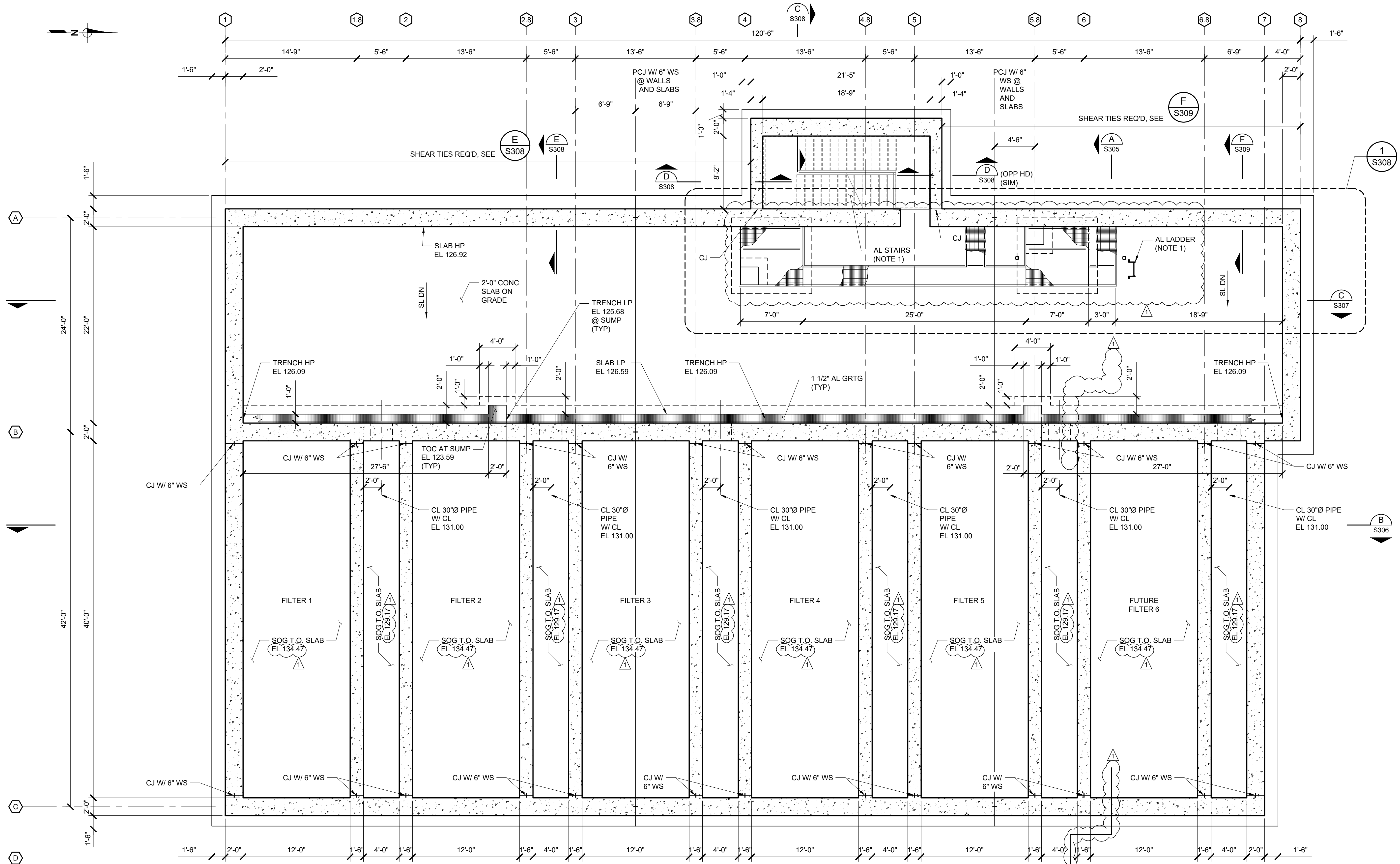
FACILITIES LEGEND:

- 9X HIGH LIFT PS2
- 14 CHLORINE DIOXIDE CONTACTOR
- 16 RAPID MIX
- 20 PRETREATMENT BASINS
- 22 SETTLED SLUDGE PUMP STATION
- 24 SLUDGE THICKENER
- 30 FILTERS
- 31 WTP OFFICES (TO REMAIN)
- 40 FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- 41 FILTERED WATER PUMP STATION 2 (SOUTH)
- 42 FILTERED WATER PUMP STATION 3 (NEW NORTH)
- 43 ABANDONED BUILDING
- 48 HIGH SERVICE BOOSTER STATION
- 50 REMOTE STORAGE
- 60 CHEMICAL STORAGE 1 (EXISTING)
- 62 CHEMICAL STORAGE 2 (EXISTING - AMMONIA)
- 64 CHEMICAL STORAGE 3 (NEW)
- 66 CHLORINE AND CHLORINE DIOXIDE ROOM
- 68 CHEMICAL METERING ROOM
- 90 OPERATIONS BUILDING
- 92 EQUIPMENT AND MATERIALS STORAGE BUILDINGS

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

ORIGINAL PAGE SIZE: 22"x34"

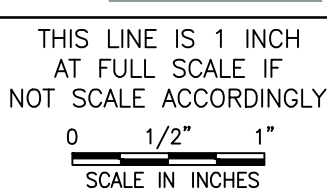
C:\Users\AndriePrior\Dropbox\AndriePrior\Drive-CADD from Sharepoint\2022 Projects\122044 - PWTP Filter Improvements\03 Addendum\Stru\S301.dwg 3-28-24 01:28:08 PM AndriePrior



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

NOTES:

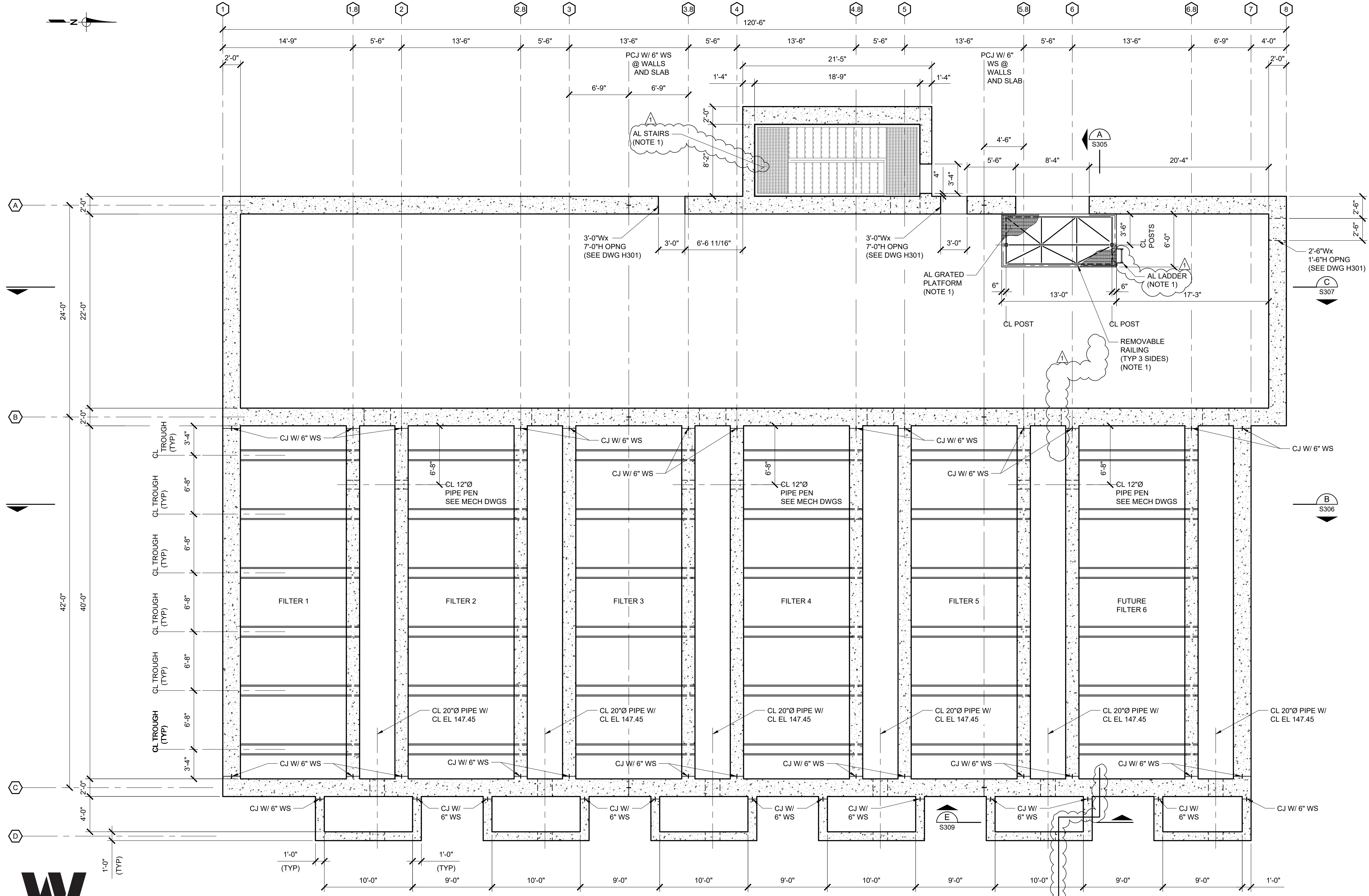
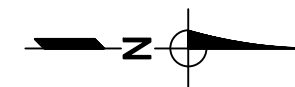
1. ALUMINUM STAIRS, RAILING, AND LADDER ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. CONCRETE JOINT LOCATIONS SHOWN ARE MINIMUM REQUIREMENTS. ADDITIONAL CONCRETE JOINTS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. CONCRETE CONSTRUCTION JOINTS SHALL NOT EXCEED 50 FEET MAXIMUM SPACING (TYPICAL). LOCATE CONCRETE JOINTS AT ARCHITECTURAL REVEALS WHERE POSSIBLE.



ORIGINAL PAGE SIZE: 22"x34"

PREPARED UNDER THE DIRECTION OF: DAISY YU, S.E. License No. 4872, Exp. 06/2025	
DATE: 1/19/24	
ACCEPTED FOR USE: JOHN SAMUELSON, P.E. City Engineer License No. 67734, Exp. 06/2025	
DATE:	
WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION FILTERS - BOTTOM PLAN	
BY: DMY DATE: 3/29/24	DESCRIPTION: ADDENDUM NO. 4
DRAWN: ADP	CHECKED: HJM/AZ
REVIEWED: DMY	DATE: 1/19/24
SCALE: AS SHOWN	
SHEET NO. 72 OF 232	
DWG. NO. S301	

C:\Users\AndriePrior\TUCAA Dropbox\AndriePrior\W Drive-CADD from Shorepoint\2022 Projects\122044 - PWTP Filter Improvements\03 Addendum\Stru\S302.dwg 3-28-24 12:25:44 PM AndriePrior

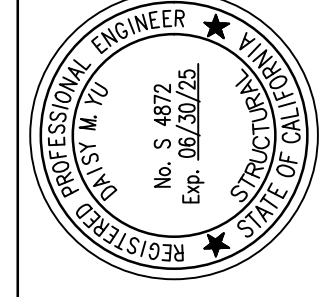


ORIGINAL PAGE SIZE: 22"x34"

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

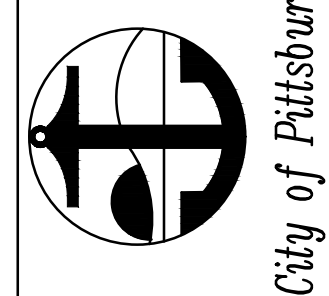
NOTE:
1. ALUMINUM STAIRS, RAILING, GRATED PLATFORM, AND LADDER ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.

THIS LINE IS 1/8" INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES



PREPARED UNDER THE DIRECTION OF:
Daisy Yu
DAISY YU, S.E.
License No. 4872, Exp. 06/2025
DATE: 1/19/24

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:



**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION**
FILTERS - INTERMEDIATE PLAN

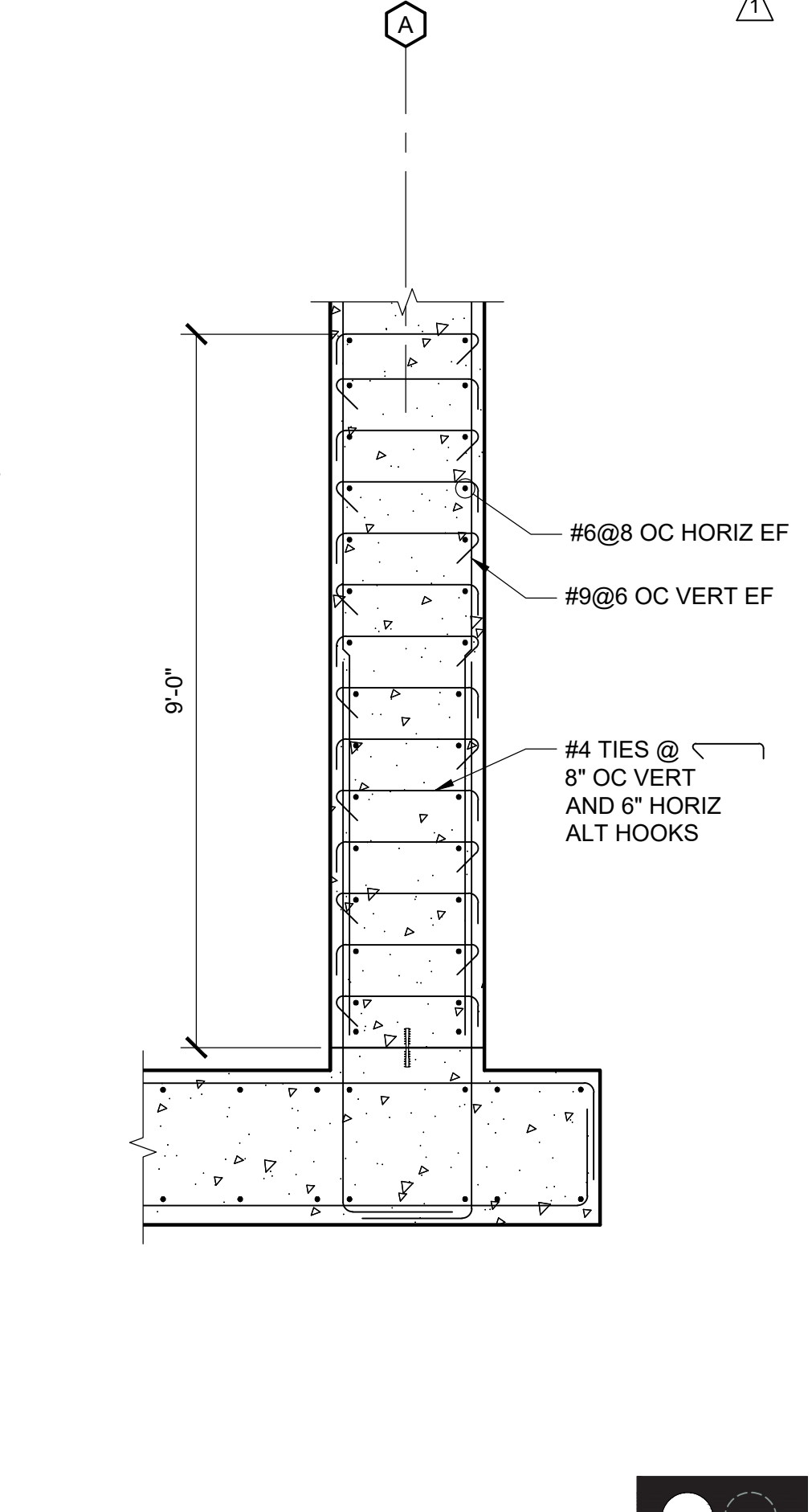
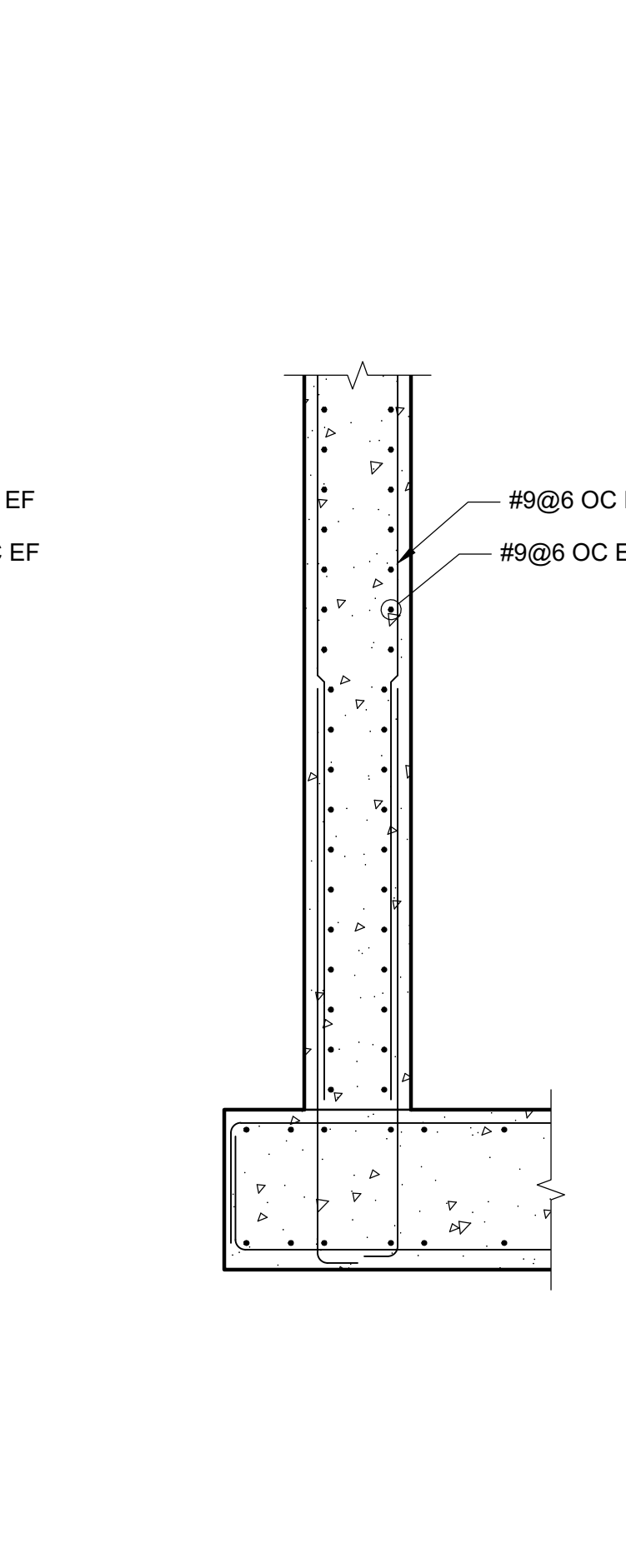
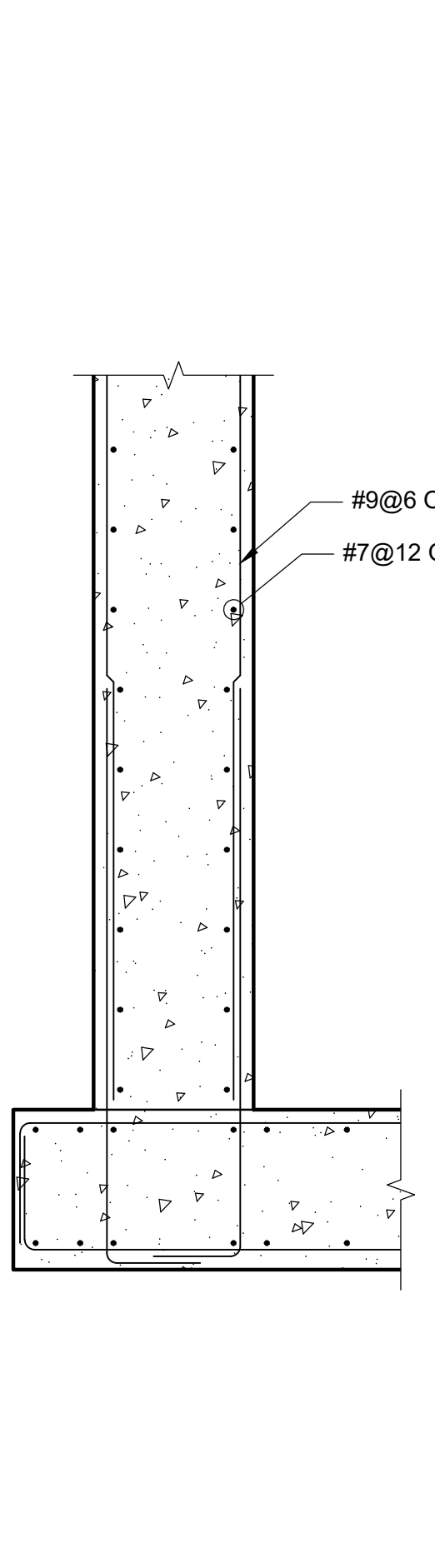
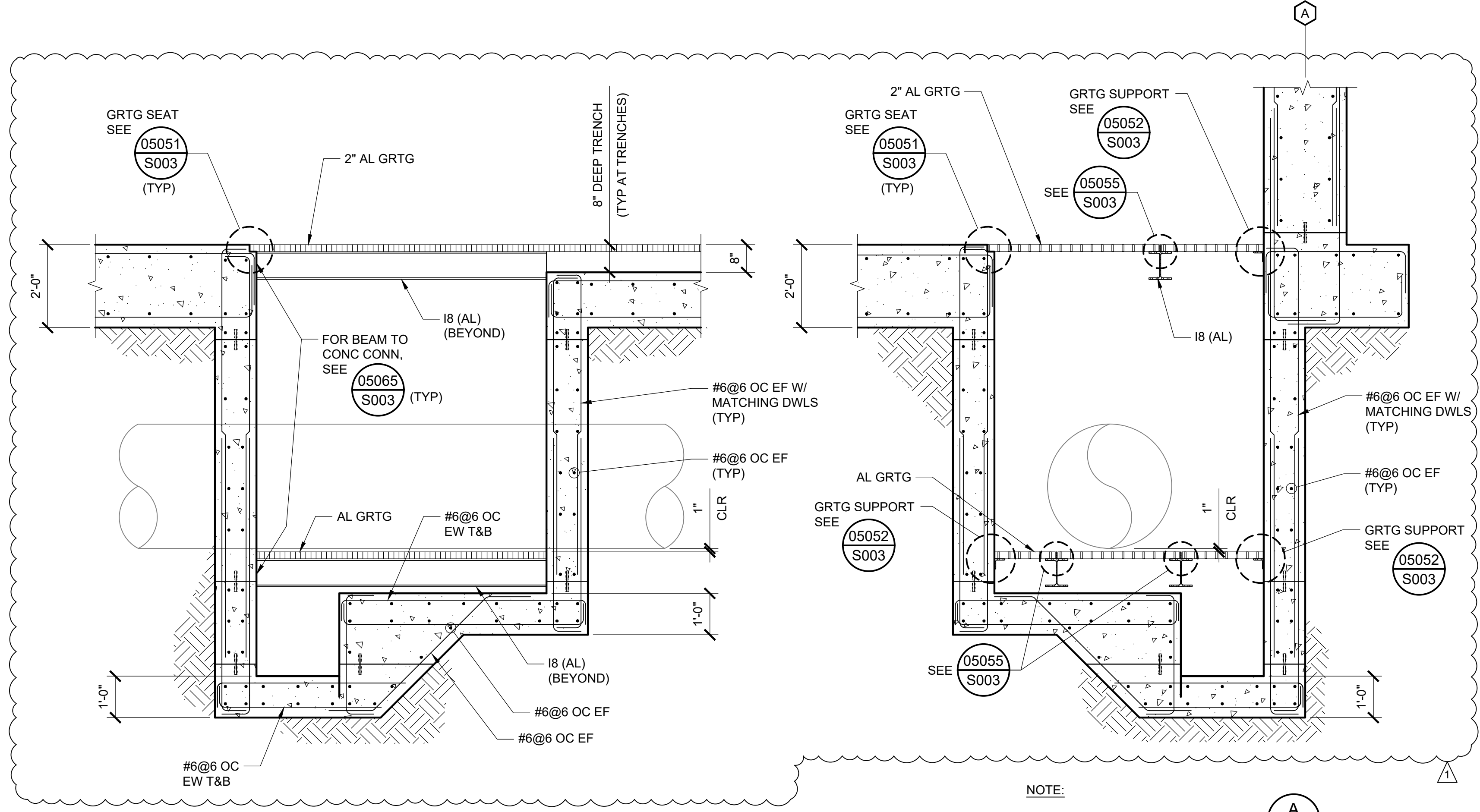
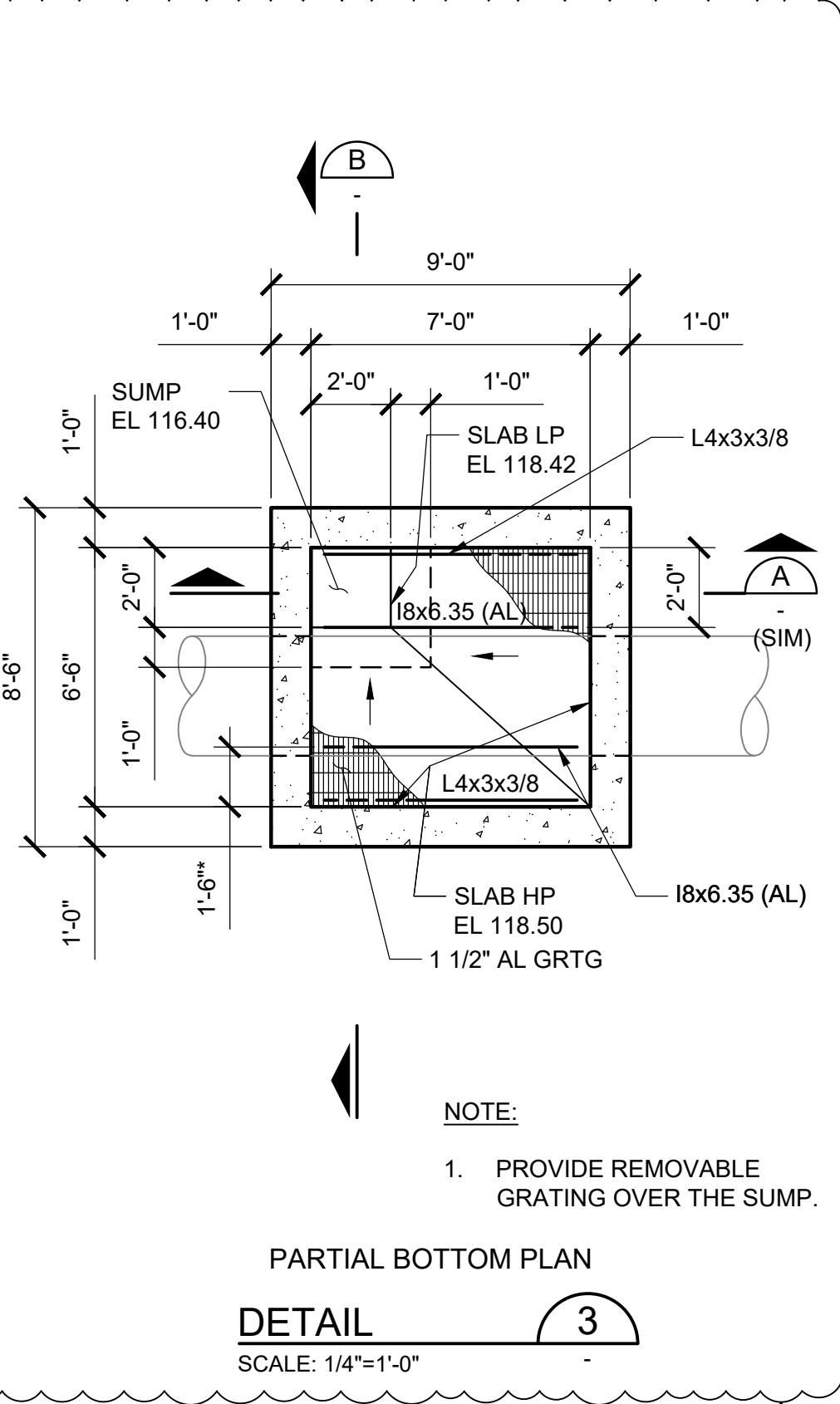
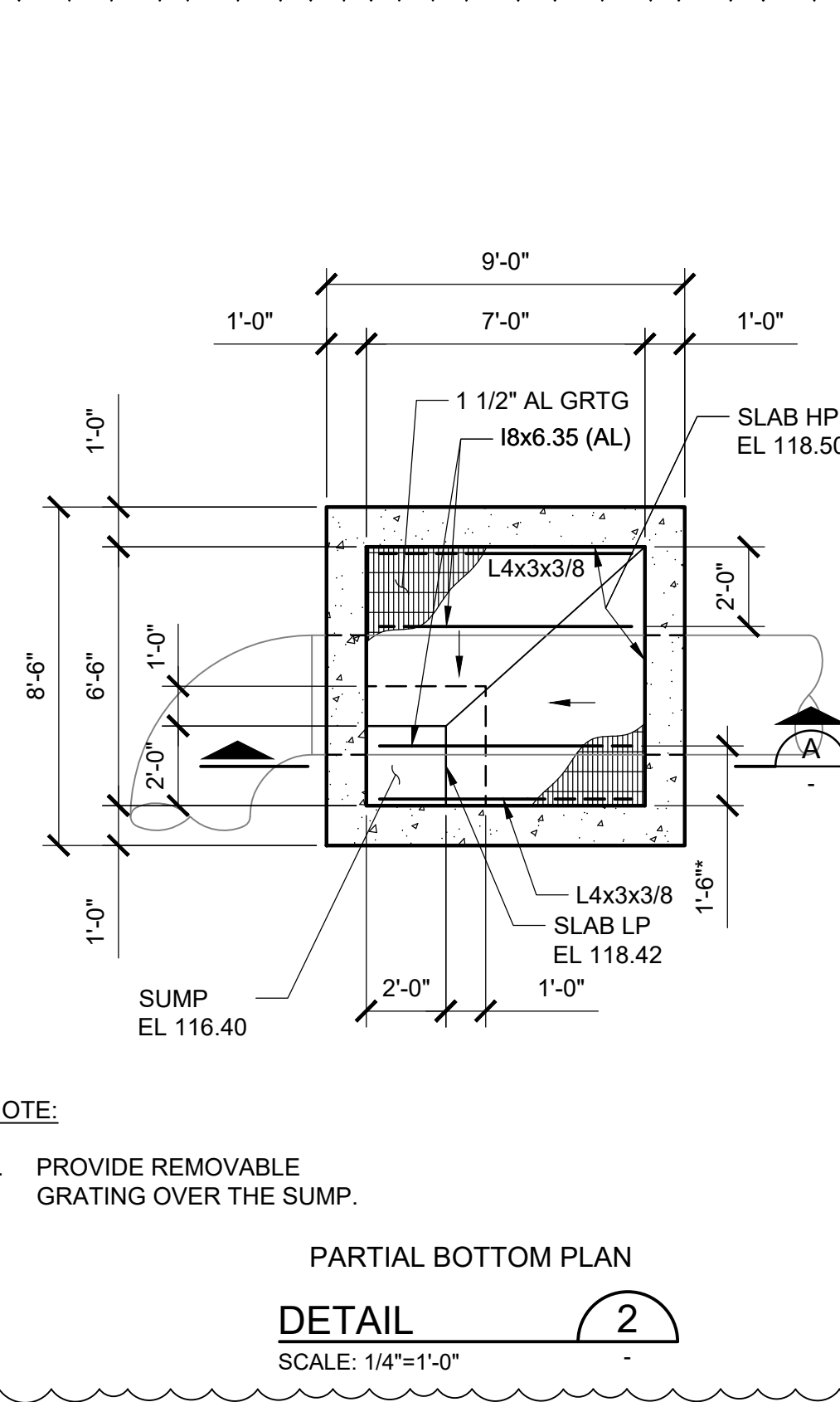
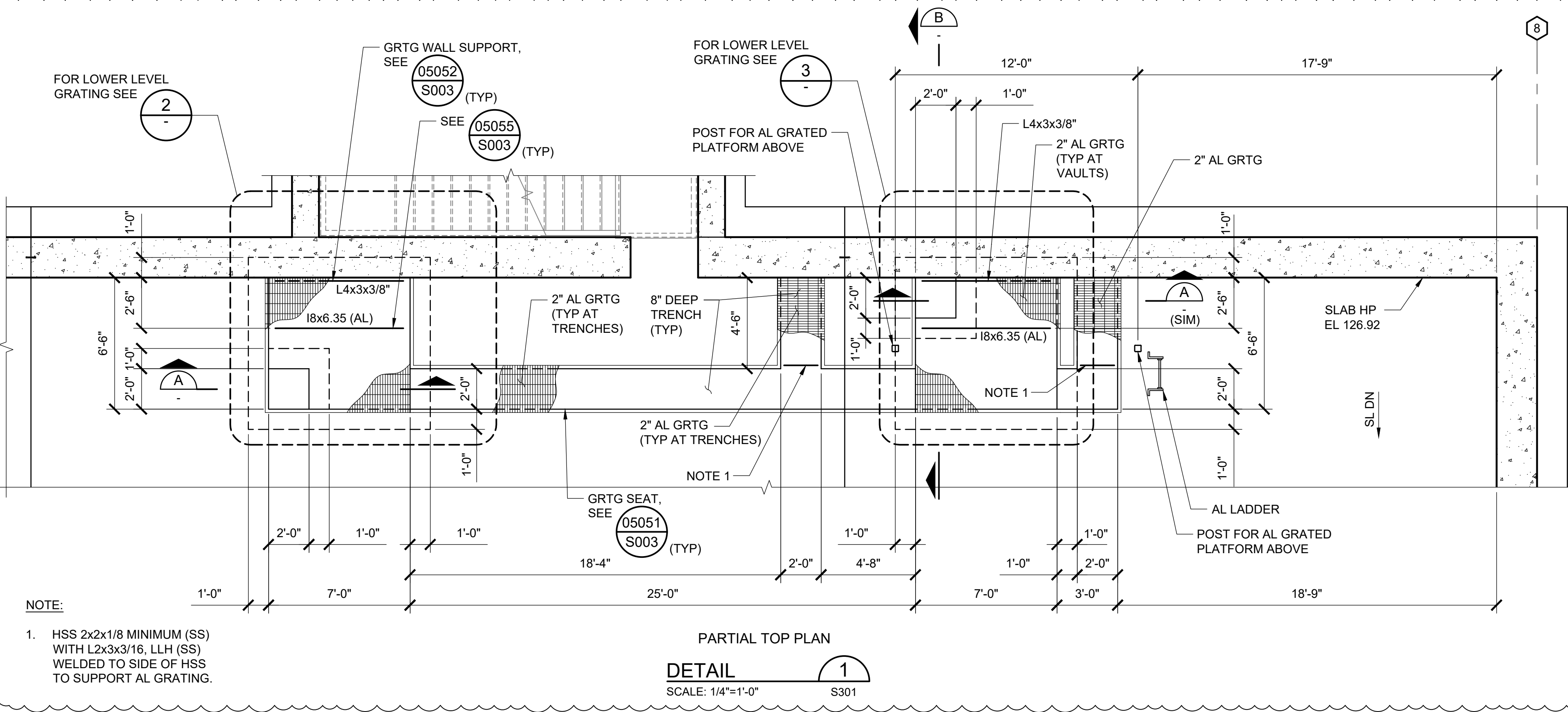
BY: DRAWN:ADP
DMY
CHECKED:HJM/AZ
REVIEWED:DMY
DATE: 1/19/24
SCALE: AS SHOWN

DATE	REV	DESCRIPTION
3/29/24	1	ADDENDUM NO. 4

SHEET NO.
73 OF 232

DWG. NO.
S302

C:\Dropbox (TJCAA)\W Drive- CADD from Sharepoint\2022 Projects\122044 - PMP Filter Improvements\03 Addendum\Stru\S308.dwg 3--28--24 04:34:16 PM BeeVue



ORIGINAL PAGE SIZE: 22"x34"

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY

0 1/2" 1" SCALE IN INCHES

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION FILTERS - PARTIAL PLAN AND SECTIONS

BY: DRAWN:ADP
DMY

DATE: 3/29/24

DESCRIPTION: ADDENDUM NO. 4

CHECKED:DMY/AZ
REVIEWED:DMY

DATE: 1/19/24

SCALE: AS SHOWN

PREPARED UNDER THE DIRECTION OF:
DAISY YU, S.E.
License No. 4872, Exp. 06/2025

DATE: 1/19/24

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025

City of Pittsburg

DATE: 3/29/24

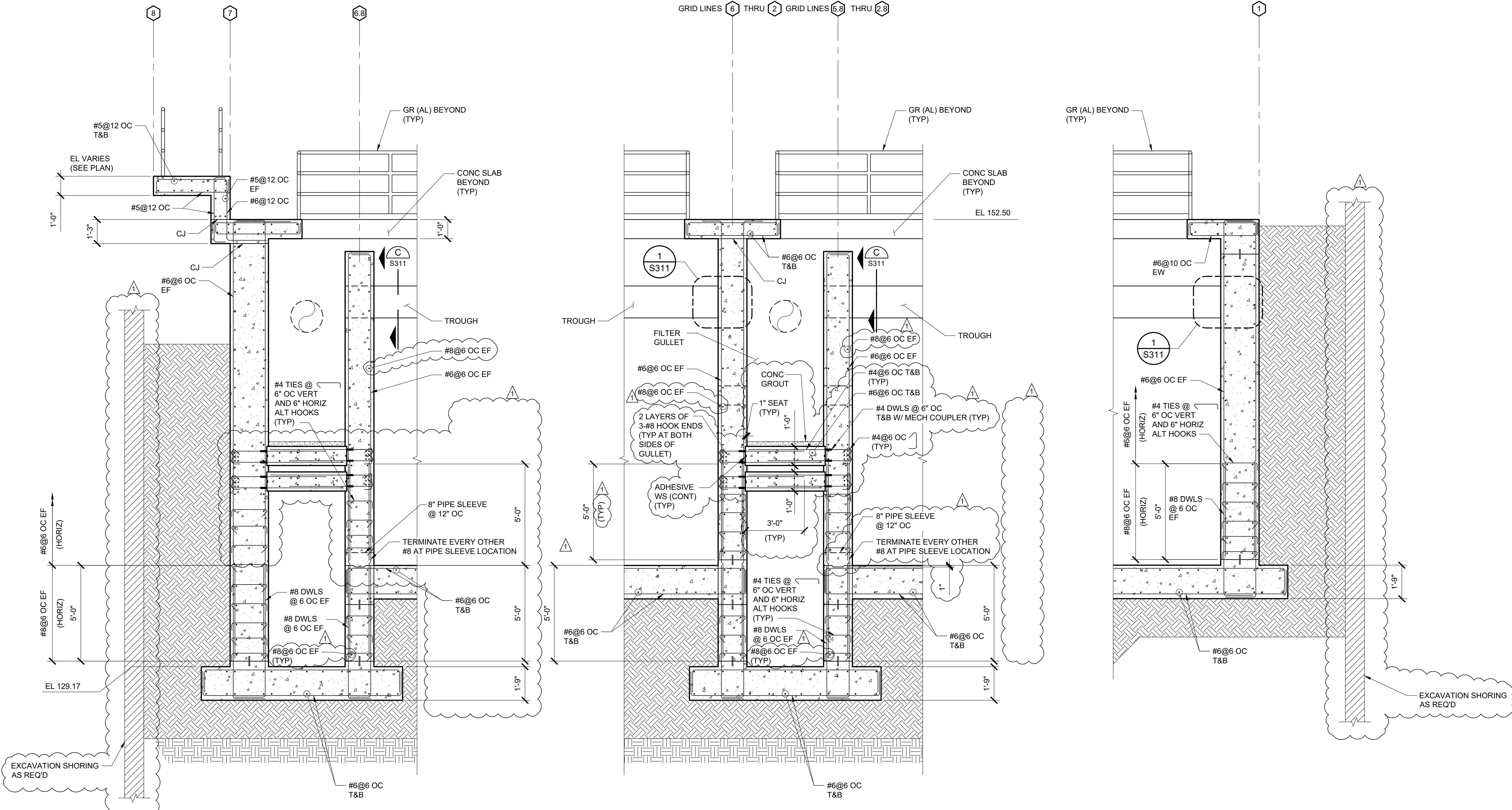
REVISIONS:

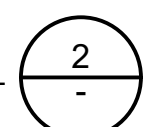
NO.	DATE	DESCRIPTION

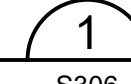
SHEET NO. 79 OF 232

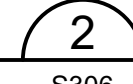
DWG. NO. S308

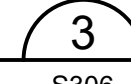
C:\Users\Andria\Prior\Dropbox\Andria\Prior\W Drive-CADD from Sharepoint\2022 Projects\122044 - PWTF Filter Improvements\03 Addendum\Stru\S310.dwg 3-28-24 07:19:21 PM AndriaPrior



NOTE:
1. FOR BALANCE OF INFORMATION, SEE DETAIL 

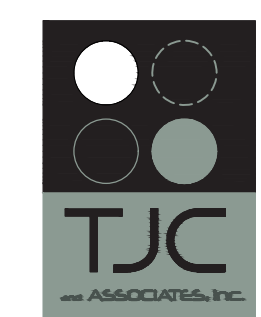
DETAIL 
SCALE: 3/8"=1'-0" S306

DETAIL 
SCALE: 3/8"=1'-0" S306

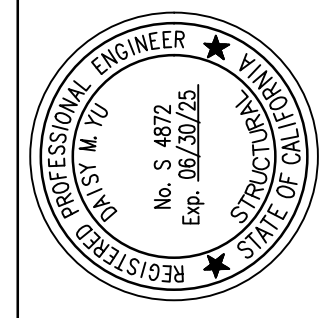
DETAIL 
SCALE: 3/8"=1'-0" S306



ORIGINAL PAGE SIZE: 22"x34"

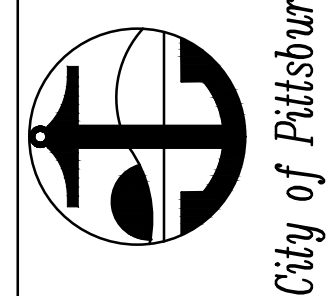


THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES



PREPARED UNDER THE DIRECTION OF:
Daisy Yu
DAISY YU, S.E.
License No. 4872, Exp. 06/2025
DATE: 1/19/24

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:



WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION
FILTERS - DETAILS

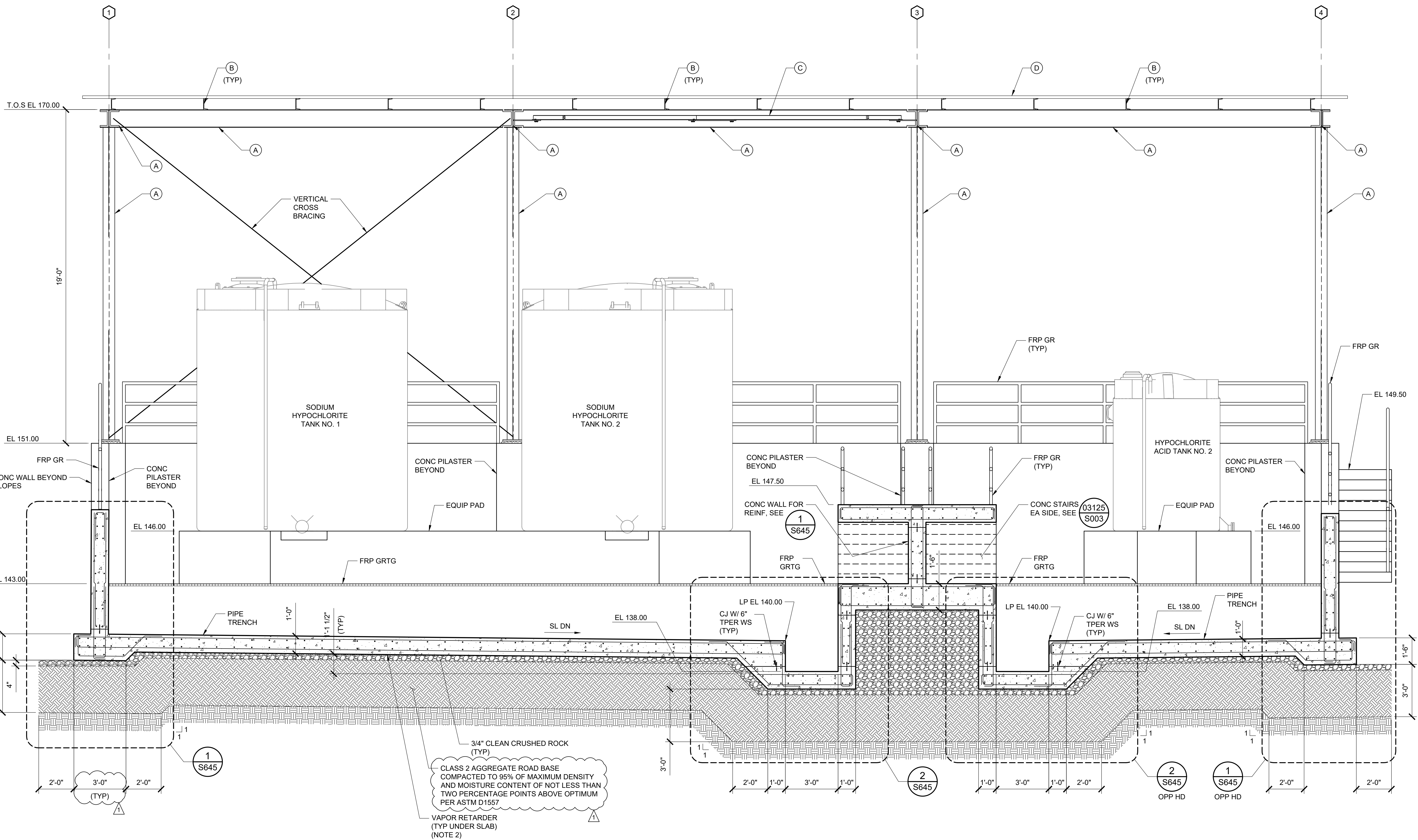
BY: DRAWN:ADP
DMY
CHECKED:HJM
REVIEWED:DMY
DATE: 1/19/24
SCALE: AS SHOWN

DATE	REV	DESCRIPTION
3/29/24	1	ADDENDUM NO. 4

SHEET NO.
81 OF 232

DWG. NO.
S310

C:\Users\AndriaPrior\TUCAA Dropbox\Andria Prior\W Drive-CADD from Sharepoint\2022 Projects\122044 - PWTIP Filter Improvements\03 Addendum\Stru\S643.dwg 3-28-24 05:37:08 PM AndriaPrior



3/4" CLEAN CRUSHED ROCK (TYP)
 CLASS 2 AGGREGATE ROAD BASE COMPACTED TO 95% OF MAXIMUM DENSITY AND MOISTURE CONTENT OF NOT LESS THAN TWO PERCENTAGE POINTS ABOVE OPTIMUM PER ASTM D1557
 VAPOR RETARDER (TYP UNDER SLAB) (NOTE 2)

SECTION A
 SCALE: 3/8"=1'-0" S641, 642

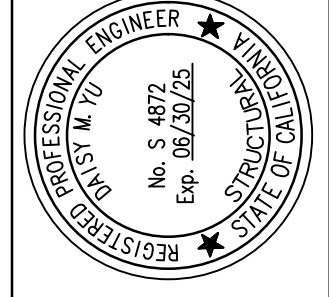
- KEY NOTES:**
- (A) PRIMARY STRUCTURAL FRAMING, AS REQUIRED BY DESIGN.
 - (B) SECONDARY STRUCTURAL FRAMING, AS REQUIRED BY DESIGN.
 - (C) HORIZONTAL BRACING AS REQUIRED BY DESIGN.
 - (D) STANDING SEAM METAL DECK, AS REQUIRED BY DESIGN. SEE ARCHITECTURAL DRAWINGS.

- NOTES:**
1. METAL BUILDING SYSTEM IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. METAL BUILDING SYSTEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. VAPOR RETARDER SHALL BE 0.01 THICK AND HAVE A PERMEANCE OF 0.1 PERM OR LESS.

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
 0 1/2" 1"
 SCALE IN INCHES

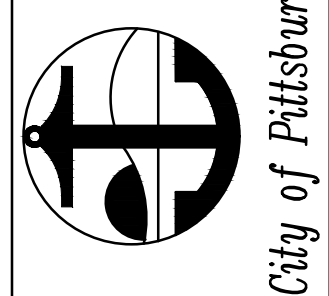


ORIGINAL PAGE SIZE: 22"X34"



PREPARED UNDER THE DIRECTION OF:
 Daisy Yu, S.E.
 License No. 4872, Exp. 06/2025
 DATE: 1/19/24

ACCEPTED FOR USE:
 JOHN SAMUELSON, P.E.
 City Engineer
 License No. 67734, Exp. 06/2025
 Date:



**WATER TREATMENT PLANT
 FILTER IMPROVEMENTS AND
 HYPOCHLORITE CONVERSION**
 CHEMICAL STORAGE AREA - SECTIONS 1

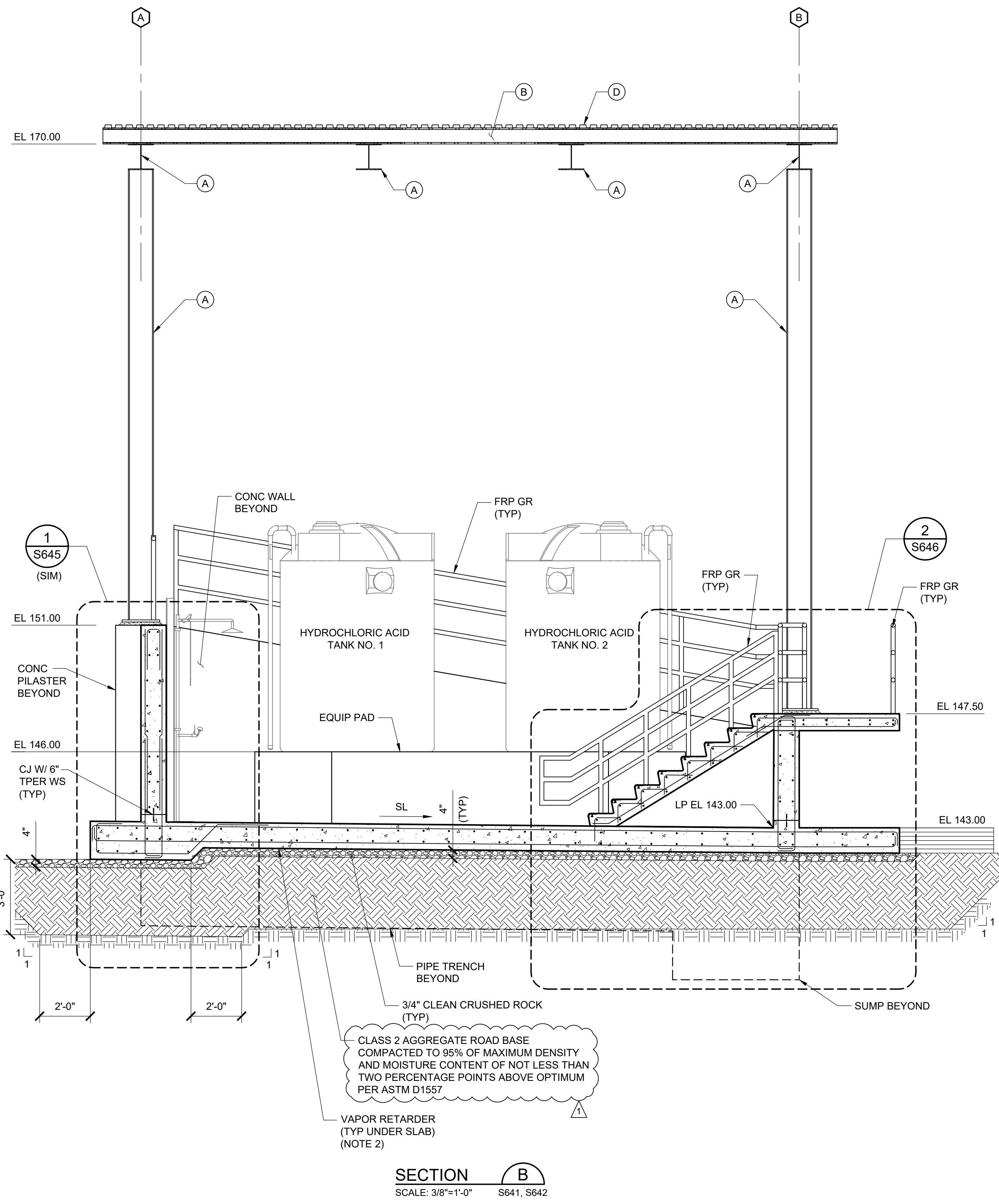
BY: DRAWN: ADP
 DMV
 CHECKED: HJM
 REVIEWED: DMV
 DATE: 1/19/24
 SCALE: AS SHOWN

DATE	REV	DESCRIPTION
3/29/24	1	ADDENDUM NO. 4

SHEET NO.
89 OF 232

DWG. NO.
S643

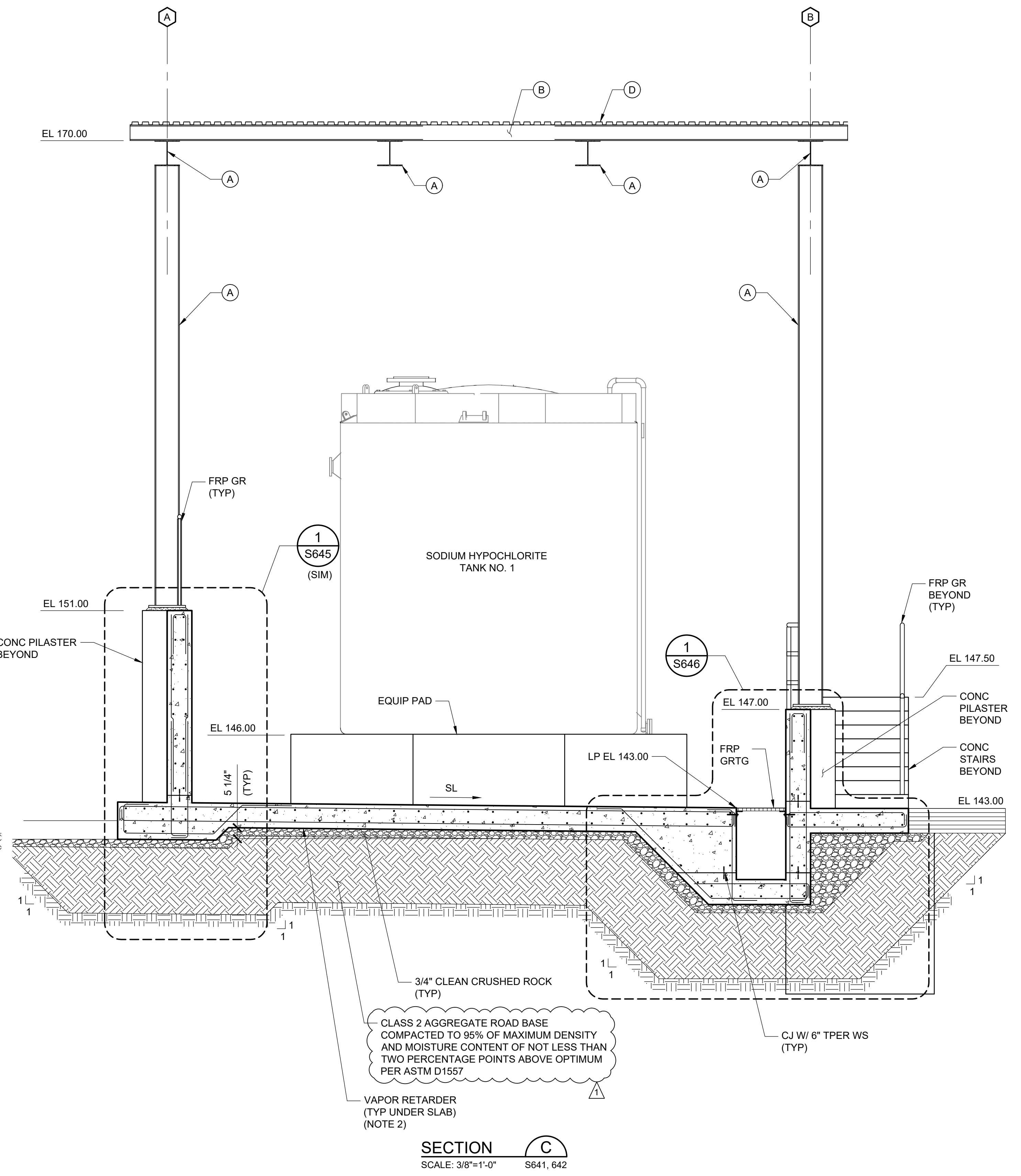
C:\Users\AndriaPrior\TJCAA Dropbox\Andria Prior\W Drive-CADD from Shorepoint\2022 Projects\122044 - PWTP Filter Improvements\03 Addendum\Stru\S644.dwg 3-28-24 05:40:55 PM AndriaPrior



CLASS 2 AGGREGATE ROAD BASE
COMPACTED TO 95% OF MAXIMUM DENSITY
AND MOISTURE CONTENT OF NOT LESS THAN
TWO PERCENTAGE POINTS ABOVE OPTIMUM
PER ASTM D1557

VAPOR RETARDER
(TYP UNDER SLAB)
(NOTE 2)

SECTION B
SCALE: 3/8"=1'-0" S641, S642



CLASS 2 AGGREGATE ROAD BASE
COMPACTED TO 95% OF MAXIMUM DENSITY
AND MOISTURE CONTENT OF NOT LESS THAN
TWO PERCENTAGE POINTS ABOVE OPTIMUM
PER ASTM D1557

VAPOR RETARDER
(TYP UNDER SLAB)
(NOTE 2)

SECTION C
SCALE: 3/8"=1'-0" S641, 642

- KEY NOTES:**
- (A) PRIMARY STRUCTURAL FRAMING, AS REQUIRED BY DESIGN.
 - (B) SECONDARY STRUCTURAL FRAMING, AS REQUIRED BY DESIGN.
 - (C) HORIZONTAL BRACING AS REQUIRED BY DESIGN.
 - (D) STANDING SEAM METAL DECK, AS REQUIRED BY DESIGN. SEE ARCHITECTURAL DRAWINGS.

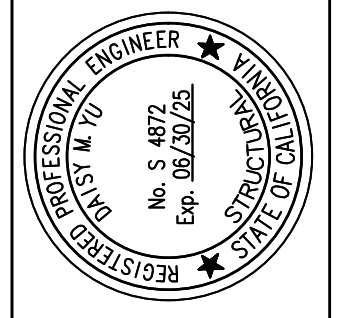
- NOTES:**
1. METAL BUILDING SYSTEM IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. METAL BUILDING SYSTEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. VAPOR RETARDER SHALL BE 0.01 THICK AND HAVE A PERMEANCE OF 0.1 PERM OR LESS.



ORIGINAL PAGE SIZE: 22"X34"

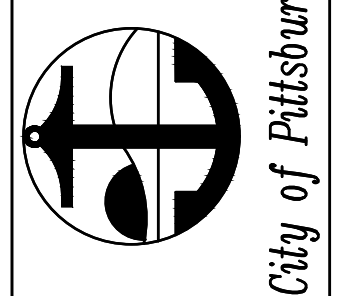
THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY

0 1/2" 1"
SCALE IN INCHES



PREPARED UNDER THE DIRECTION OF:
Daisy Yu
DAISY YU, S.E.
License No. 4872, Exp. 06/2025
DATE: 1/19/24

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:



**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION**
CHEMICAL STORAGE AREA - SECTIONS 2

BY	ADP
DMY	
CHECKED	HJM
REVIEWED	DMY
DATE	1/19/24
SCALE	AS SHOWN

DATE	REV	DESCRIPTION
3/29/24	1	ADDENDUM NO. 4

SHEET NO.
90 OF 232

DWG. NO.
S644

C:\Dropbox (TJCAA)\W Drive-CADD from Sharepoint\2022 Projects\122044 - PWP Filter Improvements\03 Addendum\Inst\360.dwg 3-26-24 10:07:15 AM BeeVue

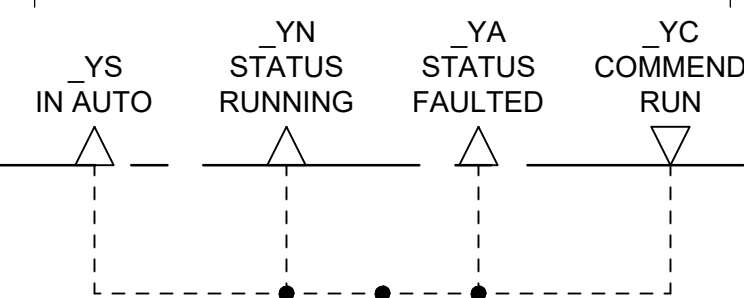
FCP-PAC REMOTE I/O

FCP3

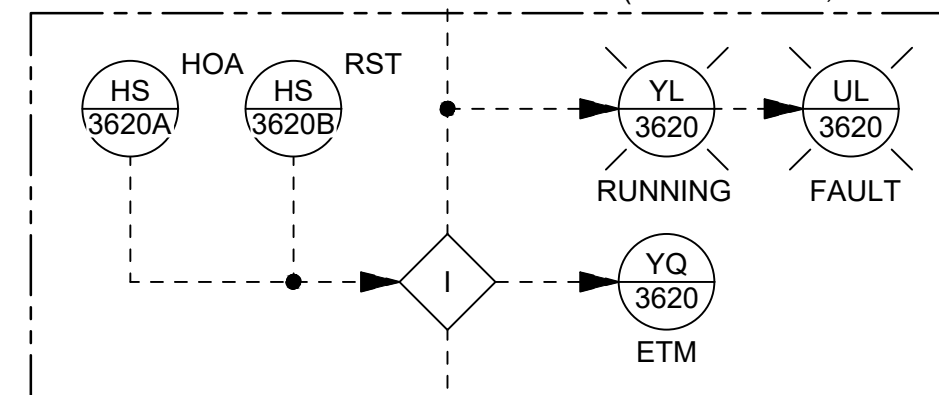
NOTES:

- OTHER CHEMICALS INJECTED AT RAPID MIX:
2" CP, 1 1/2" PAC (NOT USED), 2" LA, 1" HA, 2 1/2 A/NP (NOT USED), 1" LAS, 1" CC (NOT USED).
- THIS DRAWING SHOWS PROJECT SPECIFIC INJECTION LOCATIONS, NOT ALL PLANT INJECTION LOCATIONS.
- REFERENCE I300 FOR VAULT FLOOD MONITORING AND RELATED PUMP CONTROL AND DRAIN PIPING.
- LOCATED IN THE FILTER GALLERY.
- WHERE APPLICABLE, CHEMICAL TUBING SIZES SHOWN ON THIS DWG. REFER TO CIVIL AND MECH DWGS FOR CONTAINMENT PIPE SIZES.
- REFER TO MECH DWGS FOR VALVES AND APPURTENANCES AT CCMH1 AND ALL (N) INJECTION POINTS.
- REFER TO MECH DWGS FOR LOCATIONS OF TIE-INS OF (N) SHC PIPING TO (E) PIPING. CONTRACTOR VERIFY SIZES OF (E) PIPING.

P3620
(TYPICAL FOR P3610 & P3630)

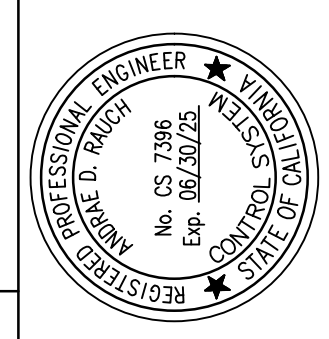
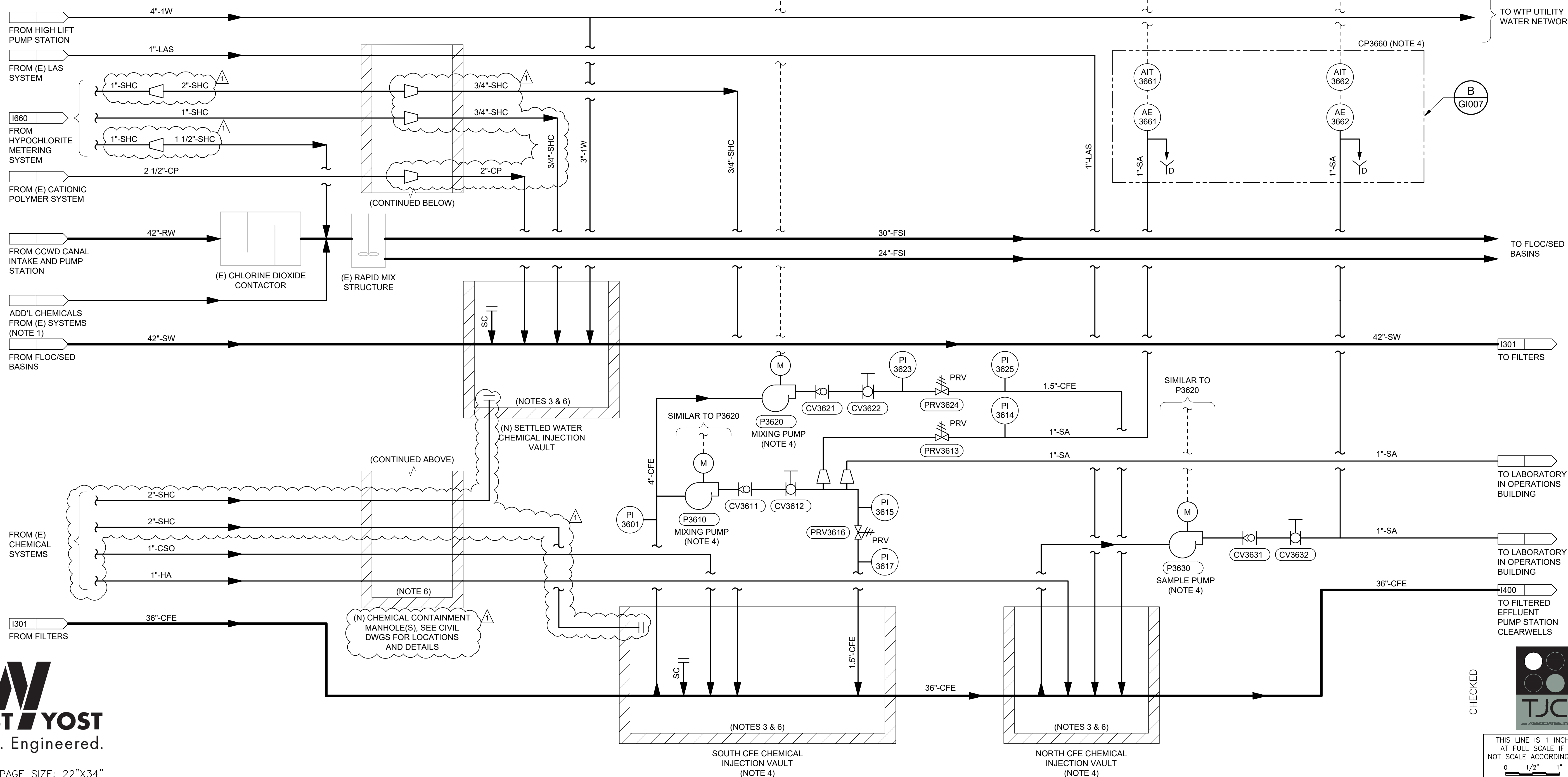


CP3620 (TYPICAL OF 3, NOTE 4)



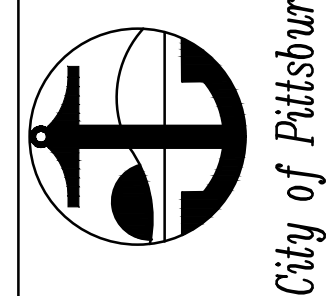
AI3661
FILTERED
EFFLUENT
TURBIDITY

AI3662
FREE
CHLORINE
RESIDUAL



PREPARED UNDER THE DIRECTION OF:
Andre Rauch
ANDRAE RAUCH, P.E.
License No. 7396, Exp. 06/2025
DATE: 1/19/24

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
DATE:



**WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION**
P&ID - NEW AND MODIFIED
CHEMICAL INJECTION LOCATIONS

BY: ADR	DESCRIPTION: ADDENDUM NO. 4
DATE: 3/26/24	REVIEWED: MAJE
CHECKED: ADR	DATE: 1/19/24
DRAWN: ADP	SCALE: NTS

DATE: 3/26/24	REVISION: 1	DESCRIPTION: 1
DATE: 3/26/24	REVISION: 2	DESCRIPTION: 2
DATE: 3/26/24	REVISION: 3	DESCRIPTION: 3
DATE: 3/26/24	REVISION: 4	DESCRIPTION: 4
DATE: 3/26/24	REVISION: 5	DESCRIPTION: 5
DATE: 3/26/24	REVISION: 6	DESCRIPTION: 6
DATE: 3/26/24	REVISION: 7	DESCRIPTION: 7
DATE: 3/26/24	REVISION: 8	DESCRIPTION: 8
DATE: 3/26/24	REVISION: 9	DESCRIPTION: 9
DATE: 3/26/24	REVISION: 10	DESCRIPTION: 10

SHEET NO.
178 OF 232
DWG. NO.
1360



ORIGINAL PAGE SIZE: 22"x34"

CHECKED

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

**SECTION 07 72 33
ALUMINUM ACCESS HATCHES**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Access hatches with fall protection grates. Provide protection grates for access hatches 24-inch square opening and greater, unless shown otherwise on Drawings or specified.
- B. For sizes and locations of the access cover, Paragraph 3.02.

1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
 - 1. Section 01 33 00 – Submittal Procedures
 - 2. Section 01 60 00 – Product Requirements
 - 3. Section 09 96 00 – High Performance Coatings

1.3 DESIGN REQUIREMENTS

- A. Structural: Unless specified otherwise on the Drawings, design access hatch for the greater of the following two loading conditions:
 - 1. Standard Weight Design Requirements: Design access hatch with a minimum 1/4-inch aluminum plate, reinforced to withstand a live load of 300 pounds per square foot for a maximum deflection of 1/150 of the span.
 - 2. Traffic Loading Design Requirements: Design access hatch with a minimum 1/4-inch aluminum diamond pattern plate, reinforced to withstand an HS-20 highway load with a wheel load of 16 kips for a maximum deflection of 1/150 of the span.
- B. Performance
 - 1. Smooth and easy opening and closing with controlled operation throughout the entire arc of opening and closing, regardless of ambient temperature.
 - 2. Design lifting mechanism to retard downward motion of the cover when closing to prevent quick closing and slamming.
 - 3. Provide nut rail at underneath the hatch for attachment of lifting chains for submersible pumps.
 - 4. Each leaf shall operate independently of the others. Any single leaf/safety grate shall be opened without opening the others.
 - 5. Frame to be supplied with two lengths of aluminum nutrail on the long side of the access hatches, which shall be factory-installed in the hatch frame. The nutrail shall accommodate the fastening of upper guiderail brackets, cable holders, and other wetwell items as indicated on the Drawings. Any access hatch that is not factory supplied with two lengths of nutrail shall not be accepted as equal.
 - 6. Covers shall be equipped with a stainless steel hold open arm. Doors shall automatically lock open in the 90-degree position. The hold open arm shall be fastened to the frame with a 1/2-inch grade 316 stainless steel bolt.
 - 7. Access hatch shall be designed to insure that the fall-through protection system is in place before the door of hatch can be closed.

8. Each grate supplied with a locking device that will prevent unauthorized entry to the confined space.
9. Grate openings shall allow for visual inspection, limited maintenance and float adjustments while the safety grate fall through protection is left in place.
10. Each grate shall be provided with a permanent hinging system, which will lock the grate in the 90-degree position once opened.
11. Each cover shall be supplied with a Recessed Padlock Clip (RPC). RPC shall be supplied with its own separate hinged cover for Owner access to the Owner supplied padlock.

1.4 SUBMITTALS

- A. Comply with Section 01 33 00.

1.5 QUALITY ASSURANCE

- A. Equipment to be the product of a single manufacturer.
- B. Demonstrate at least 3 years of continuous successful experience in ten similar applications
- C. Welding shall be in accordance with ANSI/AWS 01-2-90 Structural Welding for Aluminum.

1.6 PRODUCT SHIPMENT, PROTECTION AND STORAGE

- A. Comply with Section 01 60 00.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: One of the following or equal:
 1. Bilco
 2. Thompson Fabrication Company.
 3. Halliday Products, Inc.
 4. Syracuse Castings West

2.2 ACCESS HATCHES

- A. Sizes: As indicated on the Drawings and scheduled in Paragraph 3.02 . Sizes indicated reflect the clear opening required for each hatch.
- B. Access Hatches
 1. Double leaf or single leaf as indicated on the Drawings.
 2. Provide each leaf with a minimum of two compression spring lifting mechanisms designed to prevent the entry of dirt and foreign matter into compression spring housing.
 3. Provide a recessed locking mechanism and flush lift handles.
 4. Leafs: Diamond pattern, milled aluminum, minimum 1/4-inch thickness, ASTM B221, Alloy 5086.
 5. Leaf Gaskets: EPDM or neoprene gasket, mechanically attached to the access hatch frame.
 6. Type 316 stainless steel hardware throughout.

- C. Hatch Hinges
 - 1. Heavy forged aluminum with a minimum 1/4-inch diameter stainless steel hinge pins provided, designed to pivot so the cover does not protrude into the channel frame.
 - 2. Specifically designed for horizontal installation.
 - 3. Through bolted to the covers with tamperproof Type 316 stainless steel lock bolts and through bolted to the frame with Type 316 stainless steel bolts and locknuts.
- D. Lifting mechanisms: Compression spring-type mechanism within a telescoping tube. Provide automatic hold-open arms with release handles. Attach lower tube of lifting mechanism to a flanged support shoe fastened to a formed a minimum 1/4-inch gusset support plate.
- E. Locking Mechanisms
 - 1. Exterior: Provide removable turn/lift handle with spring loaded ball detent to open the cover. Protect latch release by a flush, gasketed, removable screw plug.
 - 2. Interior: Provide Type 316 stainless steel snap lock with fixed handle mounted on the underside of the cover.
- F. Frame: Aluminum channel frame, 1/4-inch thickness, ASTM B221 alloy 6063-T5, with a perimeter anchor flange with anchor tabs around the perimeter.
- G. Provide a 1-1/2 inch drainage coupling, zinc plated and chromate sealed, in a corner of the channel frame.
- H. Finish
 - 1. Mill-finish, with System 2, Section 09 96 00, applied to the exterior of the frame.

2.3 FALL PROTECTION GRATE

- A. Underlying aluminum safety grates to allow inspection of the wet well or vault while providing fall-through protection. Safety grates shall meet the following:
 - 1. Designed to withstand a live load of 300 lb/ft² with a maximum deflection of 1/150 of the span.
 - 2. Fabricated from aluminum flat bars, ASTM B221, alloy 6061-T6.
 - 3. Openings between flat bars shall be not less than 4" x 4" to facilitate visual inspection.
 - 4. Provided with a hinging system that will lock the grate in the 90° open position.
 - 5. Provide an aluminum open arm with red vinyl grip.
 - 6. Paint safety grates safety orange.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install in accordance with the manufacturer's instructions.
- B. Install access hatch with frame set level and flush with the surrounding surface.
- C. Protect the exterior of hatch frames with System 2, Section 09 96 00.

3.2 VAULT DOOR SCHEDULE

Location	Qty	Opening Size	Design	Safety Grates	Style
Work Room Hatch A109	1	6 ft. x 4 ft. ⁽¹⁾	Standard Weight	Not required	Double Leaf, Spring Assisted
⁽¹⁾ Confirm size required and coordinate with precast vault manufacturer and access hatch manufacturer before ordering access hatch.					

END OF SECTION

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
PX00010	3	PULL ROPE	MCC30A	HHP4		
PX00020	3	PULL ROPE	MCC30B	HHP4		
P30000A	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000B	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000C	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000D	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30001A	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001B	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001C	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001D	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001E	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001F	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
PX30001	3	PULL ROPE	HHP6	HHP7		
P30002A	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
P30002B	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
P30002C	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
PX30002	3	PULL ROPE	HHP6	HHP7		
P30003A	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
P30003B	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
P30003C	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
PX30003	3	PULL ROPE	HHP6	HHP7		
P30006	2	(3)#3/0, (1)#6-G	MSB	MCC-A DISCONNECT	CONDOUT ROUTED TO NEW SERVICE ENTRANCE RATED DISCONNECT BOX VIA HH-P2, HH-P3, HH-P4, HH-P7	
PX30006	2	PULL ROPE	HHP2	HHP4		
P30007A	3	(3)#250KCMIL, (1)#3-G	MSB	MCCB (EX)		
P30007B	3	(3)#250KCMIL, (1)#3-G	MSB	MCCB (EX)		
PX30007A	2	PULL ROPE	HHP2	ELEC RM (OPS BLDG)		
PX30007B	2	PULL ROPE	HHP2	ELEC RM (OPS BLDG)		
P30008A	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30008B	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30008C	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
PX30008	2	PULL ROPE	RW PUMP STATION	FILTER BLDG (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30009	2	(3)#1, (1)#8-G	MSB	DP-E (EX)	VIA HHP5, HHP4, HHP7	
PX30109	3	PULL ROPE	MSB	CHEMICAL AND EQUIPMENT STORAGE BLDG	VIA HHP5, HHP4, HHP7	
P30010	1 1/4	(3)#1, (1)#8-G	MSB	DPF (EX)	VIA HHP5, HHP4, HHP7	
P30020	3/4	(3)#12, (1)#12-G	DP31A	CP3002		
P30020A	1 1/2	MFR CABLE	CP3002	P3002		
P30021	3/4	(3)#12, (1)#12-G	DP31B	CP3630		
P30021A	3/4	(3)#12, (1)#12-G	CP3630	P3630	SAMPLE PUMP	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
P30022	3/4	(3)#12, (1)#12-G	DP31B	CP3610		
P30022A	3/4	(3)#12, (1)#12-G	CP3610	P3610	MIXING PUMP 1	
P30023	3/4	(3)#12, (1)#12-G	DP31B	CP3620		
P30023A	3/4	(3)#12, (1)#12-G	CP3620	P3620	MIXING PUMP 2	
P30030	3/4	(3)#12, (1)#12-G	DP31B	CP3003		
P30030A	1 1/2	MFR CABLE	CP3003	P3003		
P30040	3/4	(3)#12, (1)#12-G	DP31A	CP3004		
P30040A	1 1/2	MFR CABLE	CP3004	P3004		
P30050	3/4	(3)#12, (1)#12-G	DP31B	CP3005		
P30050A	1 1/2	MFR CABLE	CP3005	P3005		
P30100	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 1 VALVES	
P30110	3/4	(3)#10, (1)#10-G	DP30A	V3010		
PX30110	3	PULL ROPE	PUMP REPAIR SHOP	MSB	VIA HHP5, HHP4, HHP7	
P30111	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3011	P30100	
P30112	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3012	P30100	
P30113	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3013	P30100	
P30114	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3014	P30100	
P30115	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3015	P30100	
PX30117	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30120	3/4	(3)#10, (1)#10-G	DP30A	V3020		
P30121	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3021	P30200	
P30122	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3022	P30200	
P30123	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3023	P30200	
P30124	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3024	P30200	
P30125	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3025	P30200	
PX30127	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30130	3/4	(3)#10, (1)#10-G	DP30A	V3030		
P30131	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3031	P30300	
P30132	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3032	P30300	
P30133	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3033	P30300	
P30134	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3034	P30300	
P30135	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3035	P30300	
PX30137	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30140	3/4	(3)#10, (1)#10-G	DP30A	V3040		
P30141	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3041	P30400	
P30142	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3042	P30400	
P30143	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3043	P30400	
P30144	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3044	P30400	
P30145	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3045	P30400	
PX30147	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30150	3/4	(3)#10, (1)#10-G	DP30A	V3050		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
P30151	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3051	P30500	
P30152	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3052	P30500	
P30153	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3053	P30500	
P30154	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3054	P30500	
P30155	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3055	P30500	
PX30157	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30160	3/4	(3)#10, (1)#10-G	DP30A	V3060		Wires - Additive Bid Item No. 1
P30161	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3061	P30600	Wires - Additive Bid Item No. 1
P30162	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3062	P30600	Wires - Additive Bid Item No. 1
P30163	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3063	P30600	Wires - Additive Bid Item No. 1
P30164	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3064	P30600	Wires - Additive Bid Item No. 1
P30165	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3065	P30600	Wires - Additive Bid Item No. 1
PX30167	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30200	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 2 VALVES	
P30210	3	(3)#250KCMIL, (1)#4-G	MCC30A	B3210	VIA CP-3210	
P30220	3	(3)#250KCMIL, (1)#4-G	MCC30B	B3220	VIA CP-3220	
P30300	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 3 VALVES	
P30330A	3/4	(3)#6, (1)#10-G	MCC30A	DP30A		
P30331A	3/4	(3)#6, (1)#10-G	MCC30A	DP31A		
P30331B	3/4	(3)#6, (1)#10-G	MCC30B	DP31B		
P30400	3/4	(3)#10, (1)#10-G	DP31B	TERMINAL BOX	FILTER 4 VALVES	
P30430A	3/4	(3)#6, (1)#10-G	MCC30A	XFMR30A		
P30430B	3/4	(3)#6, (1)#10-G	MCC30B	XFMR30B		
P30431A	3/4	(3)#6, (1)#10-G	MCC30A	XFMR31A		
P30431B	3/4	(3)#6, (1)#10-G	MCC30B	XFMR31B		
P30500	3/4	(3)#10, (1)#10-G	DP31B	TERMINAL BOX	FILTER 5 VALVES	
P30600	3/4	(3)#12, (1)#12-G	DP31B	TERMINAL BOX	FILTER 6 VALVES	Wires - Additive Bid Item No. 1
P30701	3/4	(3)#10, (1)#10-G	DP30A	ACU1		
P30702	3/4	(3)#10, (1)#10-G	DP30A	ACU2		
P30702	3/4	(3)#10, (1)#10-G	DP30A	ACU2		
P30710	3/4	(3)#10, (1)#10-G	DP30A	WH1		
P30720	3/4	(3)#10, (1)#10-G	DP31A	BRIDGE CRANE DISCONNECT		
P30720A	3/4	(3)#10, (1)#10-G	BRIDGE CRANE DISCONNECT	BRIDGE CRANE POWER FEEDS		
P30801	3/4	(3)#12, (1)#12-G	DP30A	EF1		
P30802	3/4	(3)#12, (1)#12-G	DP31B	EF2		
PX30010	3	PULL ROPE	MCC30A	HH-P4	VIA HH-P7	
PX30020	3	PULL ROPE	MCC30B	HH-P4	VIA HH-P7	
L30007	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3660		
L30009	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP4090		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
L30019	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3019	AIT3019	
L30029	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3029	AIT3029	
L30039	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3039	AIT3039	
L30049	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3049	AIT3049	
L30059	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3059	AIT3059	
L30060	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	ESCP3		
L30061	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	CP2		
L30062	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	CP3		
L30069	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3069	AIT3069	Wires - Additive Bid Item No. 1
L30100	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	FCP		
L30101	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	FCP2		
L30102	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	FCP3		
L30103	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	FECP		
L30311	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3101		
L30430A	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR30A	LP30A		
L30430B	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR30B	LP30B		
L30431A	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR31A	LP31A		
L30431B	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR31B	LP31B		
LX30500	3/4	PULL ROPE	LP30A	HH-P4		
L30600	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30B	ROADWAY EXTERIOR LIGHTS		
L30601	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30B	ROADWAY EXTERIOR LIGHTS		
L30803	3/4	(2)#12, (1)#12-G	LP30A	EF3		
C30006	3/4	(2)#14-C, (1)#14-G, (2)#14-S	FCP	LSH3006		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
C30020	3/4	(6)#14-C, (2)#14-S	FCP2	CP3002		
C30020A	2	MFR CABLES	CP3002	J-BOX		
C30020B	1	MFR CABLE	J-BOX	LSHH3002		
C30020C	1	MFR CABLE	J-BOX	LSH3002		
C30020D	1	MFR CABLE	J-BOX	LSL3002		
C30021	3/4	(4)#14-C, (2)#14-S	FCP3	CP3630		
C30022	3/4	(4)#14-C, (2)#14-S	FCP3	CP3610		
C30023	3/4	(4)#14-C, (2)#14-S	FCP3	CP3620		
C30030	3/4	(6)#14-C, (2)#14-S	FCP3	CP3003		
C30030A	2	MFR CABLES	CP3003	J-BOX		
C30030B	1	MFR CABLE	J-BOX	LSHH3003		
C30030C	1	MFR CABLE	J-BOX	LSH3003		
C30030D	1	MFR CABLE	J-BOX	LSL3003		
C30040	3/4	(6)#14-C, (2)#14-S	FCP2	CP3004		
C30040A	2	MFR CABLES	CP3004	J-BOX		
C30040B	1	MFR CABLE	J-BOX	LSHH3004		
C30040C	1	MFR CABLE	J-BOX	LSH3004		
C30040D	1	MFR CABLE	J-BOX	LSL3004		
C30050	3/4	(6)#14-C, (2)#14-S	FCP3	CP3005		
C30050A	2	MFR CABLES	CP3005	J-BOX		
C30050B	1	MFR CABLE	J-BOX	LSHH3005		
C30050C	1	MFR CABLE	J-BOX	LSH3005		
C30050D	1	MFR CABLE	J-BOX	LSL3005		
C30060	3/4	(2)#14-C, (2)#14-S	ESCP3	FSH3001		
C30061	3/4	(2)#14-C, (2)#14-S	ESCP3	FCP3		
C30100	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30112 , C30113 & C30116	
C30101	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30111, C30114, C30115	
C30110	3/4	(10)#14-C, (2)#14-S	FCP	V3010		
C30111	3/4	(10)#14-C, (2)#14-S	J-BOX	V3011	C30101	
C30112	3/4	(10)#14-C, (2)#14-S	J-BOX	V3012	C30100	
C30113	3/4	(10)#14-C, (2)#14-S	J-BOX	V3013	C30100	
C30112A	3/4	(1)DEVICENET CABLE	V3012	CS		
C30113A	3/4	(1)DEVICENET CABLE	V3013	CS		
C30114	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3014	C30101	
C30115	3/4	(10)#14-C, (2)#14-S	J-BOX	V3015	C30101	
C30116	3/4	(2)#14, (1)#14-G	J-BOX	SV3016	C30100.	
CX30117	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30120	3/4	(10)#14-C, (2)#14-S	FCP	V3020		
C30121	3/4	(10)#14-C, (2)#14-S	J-BOX	V3021	C30201	
C30122	3/4	(10)#14-C, (2)#14-S	J-BOX	V3022	C30200	
C30122A	3/4	(1)DEVICENET CABLE	V3022	CS		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
C30123A	3/4	(1)DEVICENET CABLE	V3023	CS		
C30123	3/4	(10)#14-C, (2)#14-S	J-BOX	V3023	C30200	
C30124	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3024	C30201	
C30125	3/4	(10)#14-C, (2)#14-S	J-BOX	V3025	C30201	
C30126	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3026	C30200. PWR & CNTRL.	
CX30127	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30130	3/4	(10)#14-C, (2)#14-S	FCP	V3030		
C30131	3/4	(10)#14-C, (2)#14-S	J-BOX	V3031	C30301	
C30132	3/4	(10)#14-C, (2)#14-S	J-BOX	V3032	C30300	
C30133	3/4	(10)#14-C, (2)#14-S	J-BOX	V3033	C30300	
C30132A	3/4	(1)DEVICENET CABLE	V3032	CS		
C30133A	3/4	(1)DEVICENET CABLE	V3033	CS		
C30134	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3034	C30301	
C30135	3/4	(10)#14-C, (2)#14-S	J-BOX	V3035	C30301	
C30136	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3036	C30300. PWR & CNTRL.	
CX30137	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30140	3/4	(10)#14-C, (2)#14-S	FCP	V3040		
C30141	3/4	(10)#14-C, (2)#14-S	J-BOX	V3041	C30401	
C30142	3/4	(10)#14-C, (2)#14-S	J-BOX	V3042	C30400	
C30142A	3/4	(1)DEVICENET CABLE	V3042	CS		
C30143A	3/4	(1)DEVICENET CABLE	V3043	CS		
C30143	3/4	(10)#14-C, (2)#14-S	J-BOX	V3043	C30400	
C30144	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3044	C30401	
C30145	3/4	(10)#14-C, (2)#14-S	J-BOX	V3045	C30401	
C30146	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3046	C30400. PWR & CNTRL.	
CX30147	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30150	3/4	(10)#14-C, (2)#14-S	FCP	V3050		
C30151	3/4	(10)#14-C, (2)#14-S	J-BOX	V3051	C30501	
C30152	3/4	(10)#14-C, (2)#14-S	J-BOX	V3052	C30500	
C30153	3/4	(10)#14-C, (2)#14-S	J-BOX	V3053	C30500	
C30152A	3/4	(1)DEVICENET CABLE	V3052	CS		
C30153A	3/4	(1)DEVICENET CABLE	V3053	CS		
C30154	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3054	C30501	
C30155	3/4	(10)#14-C, (2)#14-S	J-BOX	V3055	C30501	
C30156	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3056	C30500. PWR & CNTRL.	
CX30157	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30160	3/4	(10)#14-C, (2)#14-S	FCP	V3060		Wires - Additive Bid Item No. 1
C30161	3/4	(10)#14-C, (2)#14-S	J-BOX	V3061	C30601	Wires - Additive Bid Item No. 1

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
C30162	3/4	(10)#14-C, (2)#14-S	J-BOX	V3062	C30600	Wires - Additive Bid Item No. 1
C30163	3/4	(10)#14-C, (2)#14-S	J-BOX	V3063	C30600	Wires - Additive Bid Item No. 1
C30162A	3/4	(1)DEVICENET CABLE	V3062	CS		
C30163A	3/4	(1)DEVICENET CABLE	V3063	CS		
C30164	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3064	C30601	Wires - Additive Bid Item No. 1
C30165	3/4	(10)#14-C, (2)#14-S	J-BOX	V3065	C30601	Wires - Additive Bid Item No. 1
C30166	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3066	C30600. PWR & CNTRL.	Wires - Additive Bid Item No. 1
CX30167	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30200	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30122, C30123 & C30126	
C30201	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30121, C30124, C30125	
C30210	3/4	(10)#14-C, (2)#14-S	FCP	CP3210	BLOWER PACKAGE NO. 1	
C30220	3/4	(10)#14-C, (2)#14-S	FCP	CP3220	BLOWER PACKAGE NO. 2	
C30300	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30132 , C30133, C30136	
C30301	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30131, C30134, C30135	
C30311	3/4	(8)#14-C, (2)#14-S	CP3101	FCP		
C30400	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30142, C30143, C30146	
C30401	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30141, C30144, C30145	
C30500	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30152, C30153, C30156	
C30501	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30151, C30154, C30155	
C30600	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30162, C30163, C30166	Wires - Additive Bid Item No. 1
C30601	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30161, C30164, C30165	Wires - Additive Bid Item No. 1
C30701	3/4	(2)#14-C, (1)#14-G, (2)#14-S	ACU1	THERMOSTAT		
C30702	3/4	(2)#14-C, (1)#14-G, (2)#14-S	ACU2	THERMOSTAT		
SX00010	1	PULL ROPE	HHS2	HHS3		
SX00020	1	PULL ROPE	HHS2	HHS3		
SX30001	1	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30002	1	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30003	3/4	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30004	1 1/4	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30005	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
SX30006	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
SX30007	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
S30007	1 1/4	(2)TSP-C, (1)TSP-S	FCP3	CP3660	CHEMICAL INJECTION VAULT SAMPLE	
S30008	2	(5)TSP-C, (1)TSP-S	FCP3	CP4090	AMMONIA INJECTION VAULT SAMPLE	
S30014	3/4	(1)TSP-C	J-BOX	FIT3014	S30100	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
S30017	3/4	(1)TSP-C	FCP2	LT3017		
S30018	3/4	(1)TSP-C	J-BOX	PDIT3018	S30100	
S30019	3/4	(1)TSP-C	J-BOX	CP3019	S30100	
S30024	3/4	(1)TSP-C	J-BOX	FIT3024	S30200	
S30027	3/4	(1)TSP-C	FCP2	LT3027		
S30028	3/4	(1)TSP-C	J-BOX	PDIT3028	S30200	
S30029	3/4	(1)TSP-C	J-BOX	CP3029	S30200	
S30034	3/4	(1)TSP-C	J-BOX	FIT3034	S30300	
S30037	3/4	(1)TSP-C	FCP2	LT3037		
S30038	3/4	(1)TSP-C	J-BOX	PDIT3038	S30300	
S30039	3/4	(1)TSP-C	J-BOX	CP3039	S30300	
S30044	3/4	(1)TSP-C	J-BOX	FIT3044	S30400	
S30047	3/4	(1)TSP-C	FCP3	LT3047		
S30048	3/4	(1)TSP-C	J-BOX	PDIT3048	S30400	
S30049	3/4	(1)TSP-C	J-BOX	CP3049	S30400	
S30054	3/4	(1)TSP-C	J-BOX	FIT3054	S30500	
S30057	3/4	(1)TSP-C	FCP3	LT3057		
S30058	3/4	(1)TSP-C	J-BOX	PDIT3058	S30500	
S30059	3/4	(1)TSP-C	J-BOX	CP3059	S30500	
S30064	3/4	(1)TSP-C	J-BOX	FIT3064	S30600	Wires - Additive Bid Item No. 1
S30067	3/4	(1)TSP-C	FCP3	LT3067		Wires - Additive Bid Item No. 1
S30068	3/4	(1)TSP-C	J-BOX	PDIT3068	S30600	Wires - Additive Bid Item No. 1
S30069	3/4	(1)TSP-C	J-BOX	CP3069	S30600	Wires - Additive Bid Item No. 1
S30100	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30014, S30018, S30019, S30114	
S30110	3/4	(1)TSP-C	FCP	V3010		
S30114	1 1/4	(2)TSP-C	J-BOX	FCV3014	S30100	
S30120	3/4	(1)TSP-C	FCP	V3020		
S30124	1 1/4	(2)TSP-C	J-BOX	FCV3024	S30200	
S30130	3/4	(1)TSP-C	FCP	V3030		
S30134	1 1/4	(2)TSP-C	J-BOX	FCV3034	S30300	
S30140	3/4	(1)TSP-C	FCP	V3040		
S30144	1 1/4	(2)TSP-C	J-BOX	FCV3044	S30400	
S30150	3/4	(1)TSP-C	FCP	V3050		
S30154	1 1/4	(2)TSP-C	J-BOX	FCV3054	S30500	
S30160	3/4	(1)TSP-C	FCP	V3060		
S30164	1 1/4	(2)TSP-C	J-BOX	FCV3064	S30600	Wires - Additive Bid Item No. 1
S30200	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30024, S30028, S30029, S30124	
S30210	1 1/4	(3)TSP-C, (1)TSP-S	CP3210	FCP	BLOWER PACKAGE NO. 1	
S30220	1 1/4	(3)TSP-C, (1)TSP-S	CP3220	FCP	BLOWER PACKAGE NO. 2	
S30300	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30034, S30038, S30039, S30134	
S30311	1 1/4	(3)TSP-C, (1)TSP-S	CP3101	FCP		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
S30400	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30044, S30048, S30049, S30144	
S30500	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30054, S30058, S30059, S30154	
S30600	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30064, S30068, S30069, S30164	Wires - Additive Bid Item No. 1
SX30010	1	PULL ROPE	FCP	OPS BLDG		
SX30020	1	PULL ROPE	FCP	OPS BLDG		
N30000	1	(2)Cat6-C	FCP	MSB		Refer to I011
N30002	1	(2)Cat6-C	FCP	MCC30A		Refer to I011
N30003	1	(2)Cat6-C	FCP	MCC30B		Refer to I011
N30101	1	(2)Cat6-C	FCP	FCP2		Refer to I011
N30102	1	(2)Cat6-C	FCP	FCP3		Refer to I011
N30103	1	(2)Cat6-C	FCP	FECP		Refer to I011
N30104	1	(1)MMF	FCP	FILTER BLDG (EX)	FILTER BLDG (EX) CLOSET OFFICE	
N30105	1	(1)MMF	FCP	MCPA	OPS BLDG	
NX30003	1 1/4	PULL ROPE	FCP	OPS BLDG		
NX30004	1 1/4	PULL ROPE	FCP	OPS BLDG		
C31001	3/4	(8)#14-C, (2)#14-S	CP3101	BACKWASH VALVE VAULT		
CX31001	3/4	PULL ROPE	HHS5	BACKWASH VALVE VAULT		
S31001	1 1/4	(3)TSP-C, (1)TSP-S	CP3101	BACKWASH VALVE VAULT		
SX31001	1 1/4	PULL ROPE	HHS5	BACKWASH VALVE VAULT		
S31001A	1 1/4	(2)TSP-C	BACKWASH VALVE VAULT	FCV3101		
S31001B	3/4	(1)TSP-C	BACKWASH VALVE VAULT	PDE/FIT3101		
P40501	2	(3)#1, (1)#6-G	MCC30A	VFD4010		
P40502	2	(3)#1, (1)#6-G	MCC30A	VFD4020		
P40503	2	(3)#1, (1)#6-G	MCC30B	VFD4030	CONNECT TO EXISTING MOTOR	
P40504	3	(3)#250KCMIL, (1)#4-G	MCC30A	VFD4040	CONNECT TO EXISTING MOTOR	
P40505	3	(3)#250KCMIL, (1)#4-G	MCC30B	VFD4050	CONNECT TO EXISTING MOTOR	
P40506	2	(3)#2/0, (1)#6-G	MCC30B	VFD4060		
P40501A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4010	P4010		
P40502A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4020	P4020		
P40503A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4030	P4030		
P40504A	3	(3)#250KCMIL, (4)#14-C, (2)#12-C, (1)#4-G, (2)#14-S	VFD4040	P4040	CONNECT TO EXISTING MOTOR	
P40505A	3	(3)#250KCMIL, (4)#14-C, (2)#12-C, (1)#4-G, (2)#14-S	VFD4050	P4050	CONNECT TO EXISTING MOTOR	
P40506A	2 1/2	(3)#2/0, (4)#14-C, (1)#6-G, (2)#14-S, (2)#12-S	VFD4060	P4060	CONNECT TO EXISTING MOTOR	
C40001	3/4	(10)#14-C, (2)#14-S	G4001	FECP	VIA HANDHOLE	
C40002	3/4	(10)#14-C, (2)#14-S	G4002	FECP	VIA HANDHOLE	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
CX40009A	3/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHP4		
CX40009B	3/4	PULL ROPE	SOUTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHP4		
C40501	3/4	(8)#14-C, (2)#14-S	VFD4010	FECP		
C40502	3/4	(8)#14-C, (2)#14-S	VFD4020	FECP		
C40503	3/4	(8)#14-C, (2)#14-S	VFD4030	FECP		
C40504	3/4	(8)#14-C, (2)#14-S	VFD4040	FECP		
C40505	3/4	(8)#14-C, (2)#14-S	VFD4050	FECP		
C40506	3/4	(8)#14-C, (2)#14-S	VFD4060	FECP		
L40005	3/4	(2)#12, (1)#12-G	LP30B	FIT4005		
L40006	3/4	(4)#12, (1)#12-G	LP30A	N CLEARWELL PS LTG AND REC		
S40003A	1 1/4	(1)TSP-C, (1)TSP-S	LIT4003A	FECP	VIA HANDHOLE	
S40003B	1 1/4	(1)TSP-C, (1)TSP-S	LIT4003B	FECP	VIA HANDHOLE	
SX40004A	1 1/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHS2		
S40004	1 1/4	(1)TSP-C, (1)TSP-S	PIT4004	FECP	VIA HANDHOLE	
SX40005A	1 1/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHS2		
S40005	1 1/4	(1)TSP-C, (2)TSP-S	FIT4005	FECP	VIA HANDHOLE	
SX40100	1 1/4	PULL ROPE	HHS3	HHP7	DUCT BANK SECTION 4	
S40501	1 1/4	(2)TSP-C, (1)TSP-S	VFD4010	FECP		
S40502	1 1/4	(2)TSP-C, (1)TSP-S	VFD4020	FECP		
S40503	1 1/4	(2)TSP-C, (1)TSP-S	VFD4030	FECP		
S40504	1 1/4	(2)TSP-C, (1)TSP-S	VFD4040	FECP		
S40505	1 1/4	(2)TSP-C, (1)TSP-S	VFD4050	FECP		
S40506	1 1/4	(2)TSP-C, (1)TSP-S	VFD4060	FECP		
P60100	3/4	(3)#6, (1)#10-G	MCC-B	XFMR600		
L60100	1 1/2	(3)#1, (1)#1-N, (1)#6-G	XFMR600	LP600		
L60101A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR PMP6610 & PMP6620	
L60101B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR PMP6610 & PMP6620	
L60101C	3/4	(2)#10, (2)#10-N, (2)#10-G	JB	JB	FOR PMP6610 & PMP6620	
L60101D	3/4	(2)#10, (2)#10-N, (2)#10-G	JB	JB	FOR PMP6610 & PMP6620	
L60102A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. FOR PMP6630 & PMP6640.	
L60102B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR PMP6630 & PMP6640	
L60102C	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	JB	FOR PMP6630	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
L60103A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60103B, L60103C.	
L60103B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	PULLBOX		
L60103C	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	VIA CONCRETE TRENCH. BECOMES L64030A & L60440A.	
L60104A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60104B, L60104C.	
L60104B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	PULLBOX		
L60104C	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	VIA CONCRETE TRENCH. BECOMES L60410A & L60420A.	
L60105A	1 1/4	(3)#8, (3)#8-N, (3)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60105B, L60105C. LP600 CKT. #1, #3, #5	
L60105B	1 1/4	(3)#8, (3)#8-N, (3)#10-G	PULLBOX	PULLBOX		
L60105C	1 1/4	(3)#8, (3)#8-N, (3)#10-G	PULLBOX	WIREWAY	VIA CONCRETE TRENCH.	
L60106A	1 1/4	(4)#8, (4)#8-N, (4)#10-G	LP600	PULLBOX	BECOMES L60106B, L60106C. LP600 CKT. #10, #12, #14, #16	
L60106B	1 1/4	(4)#8, (4)#8-N, (4)#10-G	PULLBOX	PULLBOX		
L60106C	1 1/4	(4)#8, (4)#8-N, (4)#10-G	PULLBOX	WIREWAY	VIA CONCRETE TRENCH.	
L60107	3/4	(1)#10, (1)#10-N, (1)#10-G	LP4 (EX)	CP-1		
L60108	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	JB	SPLITS TO L60108A, L60108B	
L60108A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	CHLORINE DIOXIDE GEN 1 PANEL		
L60108B	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	CHLORINE DIOXIDE GEN 2 PANEL		
L60109	3/4	(1)#10, (1)#10-N, (1)#10-G	LP600	CSCP		
L60110	1 1/2	(8)#10, (3)#8, (8)#10-N, (3)#8-N, (11)#10-G	PULLBOX	PULLBOX	SPLITS TO L60103B, L60104B, L60105B, L60106B, L60601A, AND L60602A.	
L60111	3/4	(1)#10, (1)#10-N, (1)#10-G	LP600	ESCP1	LP600 CKT. #21.	
LX60401	1	PULL ROPE	WIREWAY	JB	FOR FUTURE RECIRCULATION PUMP P6408. BECOMES LX60408.	
LX60408	1	PULL ROPE	JB	P6408	FOR FUTURE RECIRCULATION PUMP P6408	
L60410A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6410 RECEIPT		
L60410B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6410		
L60420A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6420 RECEIPT		
L60420B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6420		
L60430A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6430 RECEIPT		
L60430B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6430		
L60440A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6440 RECEIPT		
L60440B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6440		
LX60500	2	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
LX60501	2	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
LX60502	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
L60601	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR TEMPORARY METERING PUMP PMP6611, PMP6621 RECEPTACLE	
L60602	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR TEMPORARY METERING PUMP PMP6631, PMP6641 RECEPTACLE	
L60601A	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR TEMPORARY METERING PUMP PMP6611, PMP6621 RECEPTACLE. BECOMES L60611, L60621	
L60602A	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR TEMPORARY METERING PUMP PMP6631, PMP6641 RECEPTACLE. BECOMES L60631, L60641	
L60610	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6610		
L60611	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6611	FOR TEMPORARY METERING PUMP PMP6611 RECEPTACLE	
L60620	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6620		
L60621	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6621	FOR TEMPORARY METERING PUMP PMP6621 RECEPTACLE	
L60630	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6630		
L60631	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6631	FOR TEMPORARY METERING PUMP PMP6631 RECEPTACLE	
L60640	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6640		
L60641	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6641	FOR TEMPORARY METERING PUMP PMP6641 RECEPTACLE	
C60100	2	(70)#14-C, (16)#14-S	MCP	CSCP		
C60101A	2	(72)#14-C, (16)#14-S	CSCP	PULLBOX	BECOMES C60101B & C60102A	
C60101B	1 1/2	(56)#14-C	PULLBOX	JB	SPLITS TO C60101C, C60640, & C60640A	
C60101C	1 1/2	(42)#14-C	JB	JB	SPLITS TO C60101D, C60630, & C60630A	
C60101D	1 1/4	(28)#14-C	JB	JB	SPLITS TO C60620, C60620A, C60610, C60610A, & C60601	
C60102A	1 1/4	(14)#14-C, (16)#14-S	PULLBOX	PULLBOX	SPLITS TO C60103 & C60104	
C60103	3/4	(6)#14-C	PULLBOX	JB	VIA CONCRETE TRENCH. SPLITS TO C60103A & C60403	
C60103A	3/4	(4)#14-C	JB	JB	BECOMES C60405 & C60407	
C60104	1	(14)#14-C, (8)#14-S	PULLBOX	WIREWAY	VIA CONCRETE TRENCH. SPLITS TO C60410A, C60420A, C60430A, C60440A, AND C60402.	
C60105	1 1/4	(40)#14-C	CSCP	PULLBOX	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, PMP6641. SPLITS TO C60105A AND C60105B.	
C60105A	1	(20)#14-C	PULLBOX	JB	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621. BECOMES C60611, AND C60621.	
C60105B	1	(20)#14-C	PULLBOX	JB	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6631, PMP6641. BECOMES C60631, AND C60641.	
C60106	3/4	(2)#14-C	CSCP	TEE	CONTROL WIRES FROM CSCP TO ESCP1. BECOMES C60106A.	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
C60106A	3/4	(4)#14-C	TEE	TEE	CONTROL WIRES FOR ESCP1 AND EYEWASH SHOWER FSH6601. SPLITS TO C60106 AND C60601.	
C60106B	3/4	(10)#14-C	ESCP1	TEE	CONTROL WIRES FOR ESCP1, EYEWASH SHOWERS FSH6601, FSH6404, FSH6405, FSH6407. SPLITS TO C60106A, AND C60106C.	
C60106C	3/4	(6)#14-C	TEE	PULLBOX	CONTROL WIRES FOR EYEWASH SHOWERS FSH6404, FSH6405, FSH6407. SPLITS TO C60103 & C60104.	
C60110	2	(56)#14-C, (16)#14-S	PULLBOX	PULLBOX	SPLITS TO C60102A, C60105A, AND C60105B.	
CX60401	1	PULL ROPE	WIREWAY	JB	FOR FUTURE RECIRCULATION PUMP P6408. BECOMES CX60408.	
CX60408	1	PULL ROPE	JB	P6408	FOR FUTURE RECIRCULATION PUMP P6408	
C60402	3/4	(2)#14-C	WIREWAY	LSH6402		
C60403	3/4	(2)#14-C	JB	LSH6403		
C60404	3/4	(2)#14-C	WIREWAY	FSH6404		
C60405	3/4	(2)#14-C	JB	FSH6405		
C60406	3/4	(2)#14-C	WIREWAY	LSH6406		
C60407	3/4	(2)#14-C	JB	FSH6407		
C60410A	3/4	(2)#14-C	WIREWAY	CP6410		
C60420A	3/4	(2)#14-C	WIREWAY	CP6420		
C60430A	3/4	(2)#14-C	WIREWAY	CP6430		
C60440A	3/4	(2)#14-C	WIREWAY	CP6440		
CX60500	1	PULL ROPE	PULLBOX	STUB-UP	VIA HHP1	
CX60501	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
CX60502	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
C60601	3/4	(2)#14-C	PULLBOX	FSH6601		
C60610	3/4	(12)#14-C	JB	PMP6610		
C60610A	3/4	(2)#14-C	JB	PSH6610		
C60611	3/4	(10)#14-C	JB	PMP6611	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6611	
C60620	3/4	(12)#14-C	JB	PMP6620		
C60620A	3/4	(2)#14-C	JB	PSH6620		
C60621	3/4	(10)#14-C	JB	PMP6621	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6621	
C60630	3/4	(12)#14-C	JB	PMP6630		
C60630A	3/4	(2)#14-C	JB	PSH6630		
C60631	3/4	(10)#14-C	JB	PMP6631	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6631	
C60640	3/4	(12)#14-C	JB	PMP6640		
C60640A	3/4	(2)#14-C	JB	PSH6640		
C60641	3/4	(10)#14-C	JB	PMP6641	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6641	
S60100	4	(24)TSP-C, (4)TSP-S	MCP	CSCP		

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
S60101A	3	(16)TSP-C, (4)TSP-S	CSCP	PULLBOX	SIGNAL CABLES FOR METERING PUMPS PMP6610, PMP6620, PMP6630, PMP6640, AND CONTROL PANELS CP6410, CP6420, CP6430, CP6440. BECOMES S60101B & S60110.	
S60101B	2 1/2	(12)TSP-C	PULLBOX	JB		
S60101C	2	(9)TSP-C	JB	JB		
S60101D	2	(6)TSP-C	JB	JB		
S60102A	2	(4)TSP-C, (2)TSP-S	PULLBOX	PULLBOX	BECOMES S60102B	
S60102B	2	(4)TSP-C, (2)TSP-S	PULLBOX	JB	VIA CONCRETE TRENCH. SPLITS TO S60410, S60420, S60430, AND S60440.	
S60102C	1 1/4	(4)TSP-C	JB	JB	SPLITS TO S60102D, AND S60420B	
S60102D	1 1/4	(3)TSP-C	JB	JB	SPLITS TO S60102E, AND S60410B	
S60102E	1 1/4	(2)TSP-C	JB	JB	BECOMES S60102F	
S60102F	1 1/4	(2)TSP-C	JB	JB	SPLITS TO S60430B, AND S60440B	
S60103	2	(8)TSP-C	CSCP	PULLBOX	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, AND PMP6641. COMBINES TO S60110.	
S60103A	1 1/4	(4)TSP-C	PULLBOX	JB	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611 AND PMP6621. BECOMES S60611 AND S60621.	
S60103B	1 1/4	(4)TSP-C	PULLBOX	JB	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, AND PMP6641. BECOMES S60631 AND S60641.	
S60110	3	(12)TSP-C, (2)TSP-S	PULLBOX	PULLBOX	SIGNAL CABLES FOR TEMPORARY METERING PUMPS AND CP6410, CP6420, CP6430, AND CP6440. SPLITS TO S60102A, S60103A, AND S60103B.	
S60410	3/4	(1)TSP-C	JB	CP6410		
S60410A	3/4	(1)TSP-C	CP6410	JB	COMBINES TO S60102C	
S60410B	3/4	(1)TSP-C	JB	LT6410		
S60420	3/4	(1)TSP-C	JB	CP6420		
S60420A	3/4	(1)TSP-C	CP6420	JB	COMBINES TO S60102C	
S60420B	3/4	(1)TSP-C	JB	LT6420		
S60430	3/4	(1)TSP-C	JB	CP6430		
S60430A	3/4	(1)TSP-C	CP6430	JB	COMBINES TO S60102C	
S60430B	3/4	(1)TSP-C	JB	LT6430		
S60440	3/4	(1)TSP-C	JB	CP6440		
S60440A	3/4	(1)TSP-C	CP6440	JB	COMBINES TO S60102C	
S60440B	3/4	(1)TSP-C	JB	LT6440		
SX60500	1 1/4	PULL ROPE	PULLBOX	STUB-UP	VIA HH-S1	
SX60501	2	PULL ROPE	PULLBOX	STUB-UP	VIA HH-S1	

CONDUIT SCHEDULE						
Conduit Tag	Size [in.]	Fill	From	To	Comments	Bid Item Number
S60610	1 1/4	(2)TSP-C	JB	PMP6610		
S60610A	3/4	(1)TSP-C	JB	FE/FIT6610		
S60611	1 1/4	(2)TSP-C	JB	PMP6611	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6611	
S60620	1 1/4	(2)TSP-C	JB	PMP6620		
S60620A	3/4	(1)TSP-C	JB	FE/FIT6620		
S60621	1 1/4	(2)TSP-C	JB	PMP6621	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6621	
S60630	1 1/4	(2)TSP-C	JB	PMP6630		
S60630A	3/4	(1)TSP-C	JB	FE/FIT6630		
S60631	1 1/4	(2)TSP-C	JB	PMP6631	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6631	
S60640	1 1/4	(2)TSP-C	JB	PMP6640		
S60640A	3/4	(1)TSP-C	JB	FE/FIT6640		
S60641	1 1/4	(2)TSP-C	JB	PMP6641	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6641	
N60100	3/4	(1)Cat6-C	MCP	CSCP		

7

City of Pittsburgh
 WTP Filter Improvements and Hypochlorite Conversion
 March 21, 2024
 PRE-BID MEETING SIGN-IN SHEET



	Name:	Company:	Phone #:	Email:
1	DANNY HOLDREN	DVERAA	510 414 0179	BIDS @ DVERAA.COM
2	STEVE HAY	DLC	209 456 1185	STEVE@DUNHAMLET.CO.COM
3	Brian Guerini	Shimmick	707-217-9050	bguerini@shimmick.com
4	Brandon Demisa	Clean Harbors	707-771-6125	brandon.demisa@cleanharbors.com
5	Erick Medina	Kiewit	707 898 3859	erick.medina@kiewit.com
6	Keith Montgomery	Kiewit	707 400 4864	kcmontgomery@kiewit.com
7	Patrick Marone	JM Environmental	916 870 3506	pmarone@jmenv.com
8	MATT HARRIS	SHIMMICK	510 836 9303	matt.harris@shimmick.com
9	PAUL BAKER	PB ELECTRIC INC.	916 858-1342	paul@pbelectricinc.com
10	Mason Wascom	WASCOM PBElectric inc	916-858-1342	mason@pbelectricinc.com
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				