

# Addendum 6

**City of Canton, Ohio**  
Purchasing Department  
218 Cleveland Ave. SW, 4<sup>th</sup> floor  
Canton, Ohio 44702

Sugarcreek Water Treatment Plant and Wellfield Improvements

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**Item/Project**

Water Department

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**Responsible Department**

Thursday June 9, 2022 at 2:00 PM local time

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**Bids Due On or Before**

## **Bid Proposal Submitted By:**

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**Company Name**

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**Street Address**

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**City**

**State**

**Zip**

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**Contact Person**

**Phone No.**

**Email Address**

**Addendum No. 6**  
**June 3, 2022**

**LEGAL NOTICE**

1. **The Engineer's estimate for the base bid.** REPLACE "\$30,243,000.00" with "\$33,500,000.00".

**INSTRUCTIONS TO BIDDERS**

2. **Page ITB-4, F. Estimate of Cost.** For Item 1, in the first sentence REPLACE "\$30,243,000.00" with "\$33,500,000.00".
3. **Page ITB-16, Q. Date for Substantial Completion/Date for Final Competition/ Liquidated Damages.** 1. A Date of Overall Project Substantial Completion. REPLACE "913 calendar days" with "1,095 calendar days".

**OWNER -CONTRACTOR AGREEMENT**

4. **Page OCA-3, Part 3.2 Date of Substantial Completion.** REPLACE "*913 calendar days*" with "*1,095 calendar days*".

**SCOPE OF BIDS**

5. **Page BF-4, Bid Item No. 3: Water Treatment Plant...** For a) viii) 11. REPLACE "*For the high service pumps...and bearings replaced.*" with "For the high service pumps 1-5, the Contractor shall remove the piping and valves from the pump to the discharge elbow at the floor, and install new piping, valves, and electric ball check valves as shown on the plans. High service pumps 2-5 discharge head / motor stand shall be removed and refurbished by the Pump Service Company under Bid Item No 28. The Contractor shall coordinate and perform the work specifically not included by the Pump Service Company as described in Section 43 21 14.02 under this Item."
6. **Page BF-5, Bid Item No. 4: Wellfield Well Pumps,...** For a) vi. REPLACE "*Installation of well support systems for the well pump and motor.*" with "For wellfield pumps and casing modifications, the Contractor shall perform all work related to the support systems of the well pump and motor for Wells No. 8 and No. 9 and modifications to existing cross-bracing support system for Well No. 10. The wellfield pump casings shall be refurbished by the Pump Service Company. The Contractor shall coordinate and perform the work specifically not included by the Pump Service Company as described in Section 43 21 14.01 under this Item."
7. **Page BF-12, Bid Item No. 27: Allowance 8 – Pump Service Company (Wellfield).** For Paragraph a), ADD "This item shall include the disinfection of Wells #1-10 only. Disinfection and leakage testing of all piping from the discharge of the well pump shall be included in Bid Item No. 4."

8. **Page BF-14, Bid Item No. 40, Alternate 5 – Painting of Filter Pipe Gallery, Connected Hallways, and Stairwell E&F.** Under a) Description, the call outs for the rooms are not correct. This item is intended for the painting of the Filter Rooms only. REPLACE “(Room 108, 108A, & 108B)” with “(Filter Rooms 212, 213, 217, and 218). This item shall include painting of ceiling, concrete columns, concrete beams, and walls (structural glazed tile areas do not require painting). Painting of Filter Operating Gallery Rooms 211 and 214, Filter No. 5 Access 215, and Filter No. 6 Access 216 shall be included in Bid Item 3. For the Filter Gallery, painting of the concrete walls, ceiling and floors is not included in this item only the painting of the existing piping is included in Bid Item 3.”

#### **APPENDIX D SPECIFICATIONS**

9. **Page 8, Table of Contents.** In the Appendix Section, ADD “PCB Test Results Appendix V”.

10. **Page 20, Section 01 11 00 – Summary of Work.** Part 1.2 B 5. ADD the following:

“n. Sequence for proposed electrical room gear, distribution and MCCs upgrade:

- 1) Install the two new 750KVA outdoor transformers TR-1A & TR-2A at locations shown on the plans. One of the two transformer’s primary shall be temporarily fed from the spare 5KV breaker at the existing 5KV switchgear utilizing temporary 3 #2, 1 #2G, 5KV cables. Adjust the spare 5KV breaker setting per the transformer’s primary full load amp data as required.
- 2) Install the new 480V MCC-A on the west wall as shown on the plans. (Remove the HVAC controls and disconnects on the west wall per the demo sheets).
- 3) Install the secondary feeders between the new transformers TR-1A & TR-2 and the new MCC-A as shown on the plans. All feeder wiring to be megger tested.
- 4) Energize the new transformers TR-1A & TR-2A.
- 5) Perform MCC-A start-up.
- 6) Install the new stepdown transformers T1 through T7 and associated wiring as shown on the plans.
- 7) Install the feeders between the transformers T1, T2, T6 & T7 and the new 208Y/120V, three phase power panels throughout the facility as shown on the plans. All feeder wiring to be megger tested.
- 8) Install temporary partial feeders between the T3, T4 & T5 and the existing 208Y/120V, three phase panels located in the west and east aerator buildings and the garage utilizing the existing underground feeders. Once the new duct banks are installed the new feeders between the transformers T4, T5 & T6 and the existing 208Y/120V panels shall be installed as shown on the plans and the existing feeders shall be removed.
- 9) Disconnect and remove the existing 208V switchboard/transformer and the associate wiring/conduit as shown on the plans.
- 10) Install the new 5KV switchgear against the east wall as shown on the plans (remove the existing piping on the west wall as shown on the demo plans).
- 11) Install the new underground 5KV service duct bank between the AEP pole and the new 5KV switchgear as shown on the plans. All 5KV conductors to be hipot tested.
- 12) Install the new 5KV feeders between the new 5KV gear and the two new outdoor transformers TR-1A & TR-2A as shown on the plans (remove the existing temporary primary feeders).
- 13) Install temporary 5KV feeder between the new 5KV gear and the existing 5KV MCC on north wall (High Service Pumps, 1, 2 & 3 starters) to maintain operation of the pumps.

- 14) Intercept the two existing 5KV wellfield feeders inside the electrical room and temporarily extend them to the new 5KV gear (to maintain the well pump operation).
  - 15) Install the new 5KV feeder between the existing generator and the new 5KV gear as shown on the plans.
  - 16) Disconnect and remove the existing 5KV gear and the 5KV MCC housing the High Service Pumps 4 & 5 starters and associated wiring as shown on the demo plans.
  - 17) Install the new 5KV MCCs in place and the new 5KV feeders between the new 5KV MCCs and the High Service Pumps as shown on the plans.
  - 18) Disconnect and remove the existing 5KV MCC housing the starters for High Service Pumps 1, 2 & 3 on north wall and associated wiring as shown on the demo plans.
  - 19) Install the new High Service Pump #2 VFD and distribution equipment on the north wall as shown on the plans
  - 20) Install the new underground 5KV feeders duct bank between the new 5KV gear and the wellfield, new pad mounted transformers TR1 through TR10 as shown on the plans. Due to lead times, the work at each well after rehabilitation may need to be reuse the existing 5KV and Pump Control and SCADA panels temporarily until new 5KV transformer can be powered from new underground 5KV feeder system.
  - 21) Install the wellfield electrical including new MCCs and secondary service duct banks as shown on the plans.
  - 22) Disconnect and remove all existing overhead feeders to the wellfield and associated electrical systems as shown on the demo plans.
  - 23) Install all remaining electrical systems as shown on the plans.
  - 24) The final sequence of construction phasing must be developed by the Contractor and reviewed by the Owner/Engineer for approval. All shutdowns must be kept at minimum and schedules must be coordinated and approved by the Owner/Engineer. Refer to the specification for additional requirements.
- o. Wellfield Transformers and Oil Filled Switches
- 1) PCB Test Results. On May 24, 2022, the Owner had all Wells #1-#10 pole mounted transformers and the oil filled switch for Well #8 tested for PCB. The test results, included in Appendix V, showed that the PCB levels of the oil in transformers may require special handling. For the all the original switches for Wells #1-7, the Contractor shall assume presence of PCB. The oil filled switch at Well #8 was tested for PCB and was below detection limits.
  - 2) Contractor shall meet requirements for special handling using an Environmental Remediation Firm, Enviroserve, 7640 Whipple Ave NW, North Canton, Ohio 44720, kenkozak@enviroserve.com or equal. ”
11. **Page 22, Section 01 11 00 – Summary of Work.** Update days for Substantial Completion and Final Acceptance. Addendum 1 revised days to match Instruction to Bidders.
    - Part 3.1 E, REPLACE “913 calendar days” with “1,095 calendar days”.
  12. **Page 51, Section 01 14 00 – Work Restrictions.** Part 3.5 D. 19. k, DELETE “Remove and replace existing mandoor and frame to first floor Filter Pipe Gallery Annex including door hardware”. Door 100B shall remain with hardware replaced.

13. **Page 301, Section 05 00 00 – Grating and Miscellaneous Metals.** Part 2.2 J, ADD the following:  
 “1. All fasteners immersed in chlorinated water shall be 316 stainless steel chemically treated with passivation process per ASTM A380 or vinyl ester resin FRP bolts per ASTM D7290.  
 2. All fasteners immersed in fluoridated water shall be Hastelloy C per ASTM F468.”
14. **Page 316, Section 05 05 23 – Anchors.** Part 2.1, After F ADD the following:  
 “G. Fasteners for Immersion Service in Chlorinated Water (Aerators, Filters, Clearwells, and Chlorine Contact Tank).  
 1. For 2.1 A through 2.1F, all fasteners immersed in chlorinated water shall be 316 stainless steel chemically treated with passivation process per ASTM A380.  
 H. Fasteners for Immersion Service in Fluoridation Chamber and HSP Clearwell 1 & 2.  
 1. For 2.1 A through 2.1F, all fasteners immersed in fluoridated water shall be Hastelloy C per ASTM F468.”
15. **Page 510, Section 08 45 23, Fiberglass Sandwich Panel Assemblies.**  
 ▪ Part 2.2 F. Energy Performance, paragraph 1. For the U-Factor, REPLACE “0.23 BTU/sq ft” with “0.25 BTU/sq ft”.  
 ▪ Part 2.4 D. Grid Core, paragraph 3. For the grid pattern, REPLACE “12 by 24 inches” with “12 by 12 inches”.
16. **Page 545-546, Section 08 80 00 – Glazing.** Part 2.2 Glass Products.  
 ▪ Part 2.2 A. 4. a. HS-1: ¼-inch thick, blue tint, heat strengthened (PPG Vistacool Azuria) ADD “(All glass lites unless otherwise noted.)”  
 ▪ Part 2.2 A. 5. Provide Kind FT (fully tempered) where safety glass is, REPLACE “indicated” with “required by code (OBC/IBC)”  
 ▪ Part 2.2 B. 5. a. for Outboard Lite, REPLACE “(TG-1)” with “(TG-2)”  
 ▪ Part 2.2 B. 5. n. After Color Selected by Owner, ADD “Color shall be tinted light blue as indicated on the Drawings.”  
 ▪ Part 2.2 B. 6. o. DELETE in its entirety. There is not any Ceramic Coated Spandrel Glass on this project.
17. **Page 1058, Section 26 12 00, Medium Voltage Transformers.**  
 ▪ Part 2.1 B.5, REPLACE “*Basic Impulse Insulation Level. 150KV*” with “Basic Impulse Insulation Level 95KV”.  
 ▪ Part 2.1 B. 13. Accessories, after f, ADD the following:  
 “g. For the two 750KVA transformers TR-1A & TR-2A, to protect the transformer winding against the high rate of voltage rise (dV/dT) from the source side vacuum circuit breakers, the transformer primary shall have a suitable size RC Snubber circuit located on the primary of the transformer terminal unless the manufacturer can provide documentation stating that the transformer is able to withstand these transient voltages and avoid harmful resonant frequencies. Manufacturer shall perform transient switching analysis study to show the size of the Resistance and Capacitance in the RC Snubber circuit in actual system conditions.”

18. **Page 1391, Section 40 05 13 – Process Piping General.** Part 2.2 A. 3. Bolts. After b, ADD the following:  
“c. Fasteners for Immersion Service in Chlorinated Water (Aerators, Filters, Clearwells, and Chlorine Contact Tank).  
1). For 2.1 A through 2.1F, all fasteners immersed in chlorinated water shall be 316 stainless steel chemically treated with passivation process per ASTM A380.  
d. Fasteners for Immersion Service in Fluoridation Chamber and HSP Clearwell 1 & 2.  
1). For 2.1 A through 2.1F, all fasteners immersed in fluoridated water shall be Hastelloy C per ASTM F468.”
19. **Page 1437, Section 40 05 23 – Process Valves.** Part 2.2 F. 7. Ball Check Valves with Electric Hydraulic Operator. In l. Manufacturer., 2 a. DELETE “(Base Bid)”.
20. **Page 1516, Analytical Instruments.** Part 3.6 A. REPLACE “Backwash Analyzer” with “Gravity Filter Backwash Monitoring System for Sugar Creek WTP (Bid Item 37 and Bid Item 38 for NE and NW WTP Analyzers are not included in schedule below)”.
21. **Page 1525, Section 40 91 01 – Pressure Measurement.**
- Part 4. A – Pressure Transmitter Schedule reissued in Addendum No. 3, DELETE the high service pumps discharge pressure transmitters with Tag No. PIT-718, PIT-728, PIT-738, PIT-748, PIT-758 from the table. (The Pressure Transmitters They are already shown on the bottom of the same table as PIT-781, PIT-782, PIT-783, PIT- 784, and PIT-785.
  - Part 4. A – Pressure Transmitter Schedule reissued in Addendum No. 3, for PIT-736 REPLACE “PIT-736” with “PIT-763”, REPLACE “Air Scour Blower #2” with “Air Scour Header”, and DELETE “Vendor Supplier”. This PIT shall be provided by the Contractor.
22. **Pages 1619-1626, Section 40 95 33 – SCADA Upgrade.**
- Part 2.1 A. SCADA Software, For 1. a. ADD the following to the end of paragraph “it shall include Factory Talk View SE medium bundle, unlimited display server with ten clients (for PLCs 1 through 10 HMI panels)”
  - Part 2.1 A. SCADA Software, For 1. b. ADD the following to the end of paragraph “it shall include Factory Talk View SE redundant server, unlimited display, and Factor Talk View SE, three add-on clients (for three desk top workstations)”
  - Part 2.2 I. PLC & RTU Panels, For Paragraph 4, REPLACE “The filter control consoles...color OITs.” with “All new PLCs 1 through 10 shall be provided with industrial HMI panels and all RTUs 1 through 10 shall be provided with 7” OITs. Refer to Parts 2.2. K and 2.2 L for the HMI and OIT requirements.”
  - Part 2.2-K. HMI Panels (PLCs 1 thru 10), At the end of Paragraph 3, ADD the following: “Hope Industrial 22” panel mounted, NEMA 4/12, monitor/touch screen or approved equal shall be accepted in lieu of the Arison 21.5” monitor and the keyboard. The HMI monitors/panels for the filter control consoles (PLCs 1 through 6) shall be mounted on a Hoffman style pedestal, 60” high with slopped top, attached to the floor, adjacent to each respective filter control console as required.”

23. **Page 1706, Section 43 21 14.01 – Pumps, Wellfield Vertical Pump Rehabilitation.** Part 1.2 B. Work included under this Specification Section, in Paragraph 1. b. for the sentence that reads as follows: Well 8 and 9, casings are sinking, and a new steel-framed cross bracing system shall be, REPLACE “*provided by the Pump Service Company*” with “furnished and installed by the Contractor”, to support the weight of the pump, motor and casing. Well 10 has a cross-bracing system that will be removed and modified by the, REPLACE “*the Pump Service Company*” with “the Contractor”, to accommodate the lowering of the pump casing and new discharge piping. ADD “Contractor shall modify existing concrete footers as shown on plans to complete the work.”
24. **Page 1743, Section 46 31 11 – Chlorine Gas Feed Equipment.** Part 2.3 Pipe and Valves, Paragraph A. 1. Pipe, REPLACE “*a. Exposed Services...b. Buried Service...fittings*” with the following:  
 “a. Chlorine gas piping from 1-ton cylinder to chlorinator shall be CPVC schedule 80. Provide flexible tubing (PTFE or approved material) from the cylinder to the shut off valve on the gas supply to the chlorinator.  
 b. Chlorine solution piping, fittings and valves shall be PVC / CPVC schedule 80. Provide flexible tubing (PTFE or approved material) from the chlorinator discharge to the distributor manifold.”

#### APPENDIX D: DRAWINGS

25. **Sheet WC-15, New Raw Water Main Civil Jack and Bore Details.** In the Boring/Casing Pipe Detail,  
 ▪ In the title for the Section on the right, ADD “ For Electrical Conduits”  
 ▪ ADD arrow and the following note to the electrical conduits in casing pipe: “Electrical Conduit with spacers.”
26. **Sheet D-19, Main Building Demolition Second Floor.**  
 ▪ ADD Coded Note 20 with arrow pointing to Rear Hallway and Toilet Rooms.  
 ▪ ADD Coded Note 20, “20. For Room 206, 207, 208, 209, and 210, existing ceramic floor tile shall be removed.”
27. **Sheet P-25, Main Building Process Filter Gallery Annex Plan.**  
 ▪ For Fluoride and Chlorine Diffuser Detail Note, DELETE “*Titanium or approved equal resistance shall be provided.*”  
 ▪ For Fluoride and Chlorine Diffuser Detail Flexible Hose Assembly, for Fluoride REPLACE “*FHB-CLR-100-C-V*” with “*FTA-PP-050-C-V*”. (This is being used to provide removal of diffuser)  
 ▪ In Filter Gallery Annex Plan, there are multiple coded note 20s shown. For the Coded Note 20 shown on the 1” PP Fluoride Diffuser Feed, REPLACE “20” with “21” in this location only.  
 ▪ DELETE “*1” PP Fluoride Diffuser Feed*” (See new Coded Note 21).  
 ▪ ADD Coded Note 21, “21. Furnish and install double containment piping system from isolation valve at Fluoride chemical feed pumps to connection to diffuser dropleg ( Typ. 2). Double containment pipe system shall be ¾”x 3” Duo-Pro Polypropylene (PP) SDR-11 by Asahi/America or approved equal.”

28. **Sheet P-34, Chlorine Building Process Schematic.** For the drawing re-issued in Addendum No. 3,
  - ADD the following note and arrow to the discharge tubing to each chlorinator “1/2” flexible tubing (PTFE or approved material)”
  - ADD the following note and arrow to the buried floor sleeve, “2” flexible tubing (PTFE or approved material) from each chlorinator discharge to the distributor manifolds.”
29. **Sheet P-36, Fluoride Building Process Schematic.** REPLACE with the attached P-36. Revisions were made for piping materials and added notes.
30. **Sheet A-2, West Aerator Building Architectural Elevations. For General Note 2, ADD “Window type W-9”.** For General Note 2, ADD “Window type W-9”.
31. **Sheet A-5, East Aerator Building Architectural Elevations.** For New Work Note 6, ADD “Window type W-8”.
32. **Sheet A-6, Main & Filter Bldg Architectural First Floor Plan.** New Work Notes 11, REPLACE “*New ADA/Building...handrail.*” with “Clean and buff finish existing aluminum handrail and spindles.”
33. **Sheet A-7, Main & Filter Bldg Architectural Second Floor Plan.** New Work Notes 12, New ladder shall be, REPLACE “*Alum. Type 2A*” with “FRP”.
34. **Sheet A-9, Main Building Architectural Filter Gallery Annex Plan.** New Work Notes 7, REPLACE “*Clean existing handrails.*” with “Clean and buff finish existing aluminum handrail and spindles.”
35. **Sheet A-10, Main Bldg Architectural Second Floor Enlarged Plan.**
  - General Plan Notes B, REPLACE “*Room 205 floor finish shall be ...and grout.*” with “Room 205 and 205C floor finish shall be new ceramic/porcelain tile installed over existing terrazzo floor, and install ADA compliant ceramic tile transition strip at door 205B.”
  - General Plan Notes C, ADD “Remove existing ceramic floor tile and install new ceramic/porcelain tile with ADA compliant ceramic tile transition strip at door 206A and 206B.”
  - General Plan Notes D, After Room 200 A floor finish shall be new, REPLACE “*ceramic/porcelain tile*” with “epoxy terrazzo.”
  - ADD New Work Coded Note 12 with arrow pointing to Stair “A” handrailing and Second Floor Landing handrails
  - ADD New Work Coded Note 12, “12. Clean and buff finish existing aluminum handrail and spindles.”
36. **Sheet A-12, Main Building Architectural Elevator Wall Section.** ADD attached Sketch A-12. Provides elevation of new casework in Laboratory Room 203.
37. **Sheet A-16, Architectural Door Schedule and Details.** In Door & Frame Schedule, for Door 103 A – Electrical Room 103, for the Frame Details Jamb column REPLACE “5J” with “4J”. For 103A, the door and frame are aluminum.



38. **Sheet A-17, Architectural Room Finish Schedule.** Room Finish Schedule,
- For Room Number 200 – Lobby, for the Floors under the column Existing to Remain ADD “X”
  - For Room Number 200B - Hall, for the Floors under the column ADD “X”
  - For Room Number 212 – Filter No. 1 and 3, for the Walls under the column Paint Existing DELETE “X”; for the Ceiling under the column Paint Exposed Structure DELETE “X”, ADD “X” to Existing to Remain column.
  - For Room Number 213 – Filter No. 2 and 4, for the Walls under the column Paint Existing DELETE “X”; for the Ceiling under the column Paint Exposed Structure DELETE “X”, ADD “X” to Existing to Remain column.
  - For Room Number 217 – Filter No. 5, for the Walls under the column Paint Existing DELETE “X”; for the Ceiling under the column Paint Exposed Structure DELETE “X”, ADD “X” to Existing to Remain column.
  - For Room Number 218 – Filter No. 6, for the Walls under the column Paint Existing DELETE “X”; for the Ceiling under the column Paint Exposed Structure DELETE “X”, ADD “X” to Existing to Remain column.
39. **Sheet A-18, Architectural Window Elevations.**
- ADD the following General Note: “1. See New Work Notes on A-11 for Lobby Exterior Curtainwall System work and window elevations. All glass shall be IG-2. Provide IG-1 where required by code.”
  - For window W3, it is shown with two vertical panels. ADD the following note for Window W3: “For W3, The configuration shown is two vertical panels. Individual panels shall be run in a horizontal manner without bracing.”
  - For window W7 and W8, ADD the section symbol for Window Detail 8.
  - For window W9, ADD the section symbol for Window Detail 7.
40. **Sheet A-21, Main Bldg Architectural HSP RM Curtainwall Plan – Elevation.** ADD the following General Note: “1. See New Work Notes on A-11 for High Service Pump Room Curtainwall System work. All glass shall be IG-2. Provide IG-1 where required by code.”
41. **Sheet SD-13, Miscellaneous Details.**
- ADD the following General Notes,
    1. For all ladders immersed in chlorinated water, all anchors shall be 316 stainless steel chemically treated with passivation process per ASTM A380 or vinyl ester resin FRP per ASTM D7290.
    2. Fall-arrest system shown in the front elevations are required for all ladders that extend 24’ above grade or higher.”
  - ADD the following notes for FRP grating, ladders and cages.  
“Standard Duty FRP Grating, Ladders and Cages General Notes:
    1. All FRP ladders and cages shall be manufactured using the pultrusion manufacturing process with thermoset vinyl ester resin.
    2. Composition shall consist of glass fiber reinforced resin with 50% resin to glass ratio with a synthetic surface veil as the outermost layer of the exterior surface.
    3. Exterior installations shall contain an ultraviolet inhibitor.
    4. Ladders shall be fabricated using fiberglass polymer plastic pultruded profiles 1-3/4” x 1-3/4” square tubing. Rungs shall be round tube, safety yellow, 1-1/4” x 1/8” fluted or with epoxy grit. Rungs shall be 18” clear between rails.
    5. Crossover platforms shall be standard FRP grating where shown on plans.

6. All mechanical connections shall be made with 316 stainless steel chemically treated with passivation process per ASTM A380 bolts with nylon washers and nuts.
  7. Mounting details shall be as shown for Tubular Ladder Detail, this sheet.
  8. All cut ins, holes, or abrasions of FRP shall be sealed with compatible resin coating.
  9. Manufacturer shall be ULTRA, Inc. 414-461-5051 or approved equal.”
42. **Sheet H-2, Filter Building First Floor Plan HVAC Demolition.** For Coded Note 1, REPLACE “Existing intake...to be replaced.” with “Clean existing louver and screen. Remove and replace damper and operator.”
  43. **Sheet E-4, Overall Electrical Renovation Site Plan.**
    - In note for Aboveground Storage Tank, REPLACE “*Underground*” with “Aboveground”. The new tank is aboveground. This note also needs changed on Sheet E-5.
    - ADD Key Note 2 with arrow pointing to where the ductbank crosses State Route 21.
    - ADD Key Note 2, “2. Furnish and install casing pipe using Jack and Bore Methods and install electrical conduits per detail shown on WC-15.”
  44. **Sheet E-53, High Service Pump Rm Electrical Renovation Power Plan.** For High Service Pumps, Pump #3 Motor Horsepower REPLACE “500” with “450” and Pump #4 Motor Horsepower REPLACE “450” with “500”.
  45. **Sheet I-55, Northwest Electrical Instrumentation Plan.**
    - REPLACE “*Proposed new analyzer typical of 4*” with “Proposed new Gravity Backwash Monitoring System Analyzer (AIT) typical of 4”.
    - ADD the following General Note: “General Note 1. The work described on this sheet is for Bid Item 37 – Alternate 2. Contractor shall furnish and install Gravity Backwash Monitoring System Analyzers, mounting brackets and hardware, conduit, wiring, and terminations to applicable PLC Filter Control Panel at locations shown. Modifications to the SCADA system, PLC hardware, and HMI software to integrate the analyzers shall be included in this alternate.”
  46. **Sheet I-56, Northeast Electrical Instrumentation Plan.**
    - REPLACE “*Proposed new analyzer typical of 8*” with “Proposed new Gravity Backwash Monitoring System Analyzer (AIT) typical of 8”.
    - ADD the following General Note: “General Note 1. The work described on this sheet is for Bid Item 38 – Alternate 3. Contractor shall furnish and install Gravity Backwash Monitoring System Analyzers, mounting brackets and hardware, conduit, wiring, and terminations to applicable PLC Filter Control Panel at locations shown. Modifications to the SCADA system, PLC hardware, and HMI software to integrate the analyzers shall be included in this alternate.”

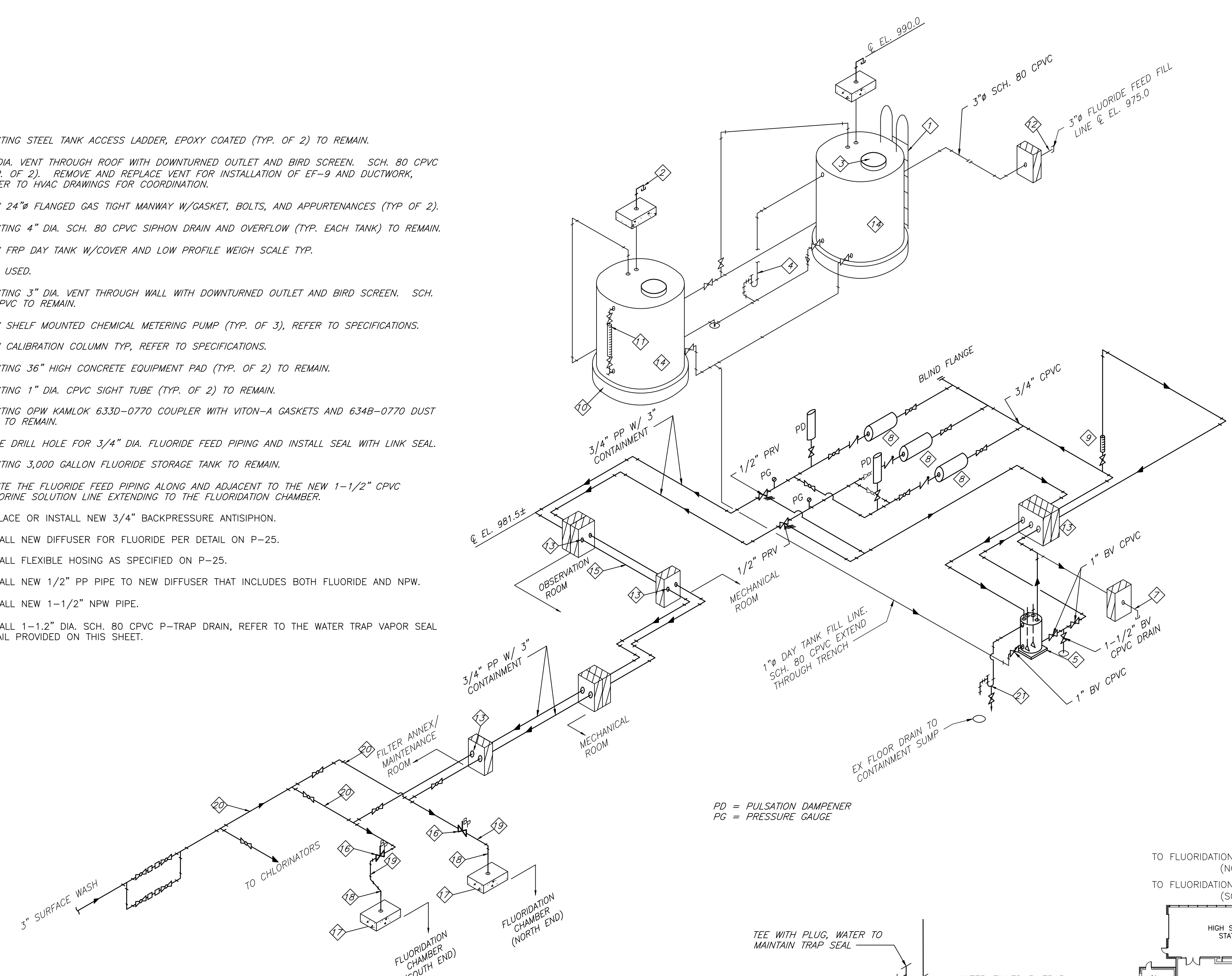
## APPENDIX

47. **Appendix V, PCB Testing Results.** ADD the attached PCB testing results.

## GENERAL CLARIFICATIONS

48. **Sheet E-78, Electrical Wiring Diagrams 2.** All constant speed well pumps shall be provided with power factor (P.F.) correction capacitors and the related contactors as shown on each respective well pump MCC one-line diagram.
49. **Electrical for Valve and Meter Vaults.** For the finished water meter vault (PLC-7), finished water surge relief vault (PLC-5), east raw water metering vault (PLC-8) and west raw water metering vault (PLC-9) Electrical Work see sheet E-59 and E-60.
50. **Wall Penetrations.** New wall penetrations for piping shall be provided by the Contractor where required. Existing penetrations may only be used if Contractor can sequence work accordingly to maintain Plant Operations during Construction. Existing vents in the Fluoride Building shall be modified to suit installation of new roof mounted HVAC equipment.
51. **Page 1501, Instruction of Operating Personnel.** All training described in 3.8 A Field Training shall be included in Bid Item No. 3. Only B. Factory Training, if requested, is included in Bid Item 33, Allowance 14 – Additional SCADA Programming.
52. **Pipe Supports.** For Pipe support materials please refer to both Section 40 05 13 Part 3.2 E and Section 40 05 18 Part 2.3 and 2.4. Pipe support materials vary based on location and pipe material.
53. **Stop Logs Floor Cuts.** For floor cut outs shown on Sheet S-5, furnish and install cover plate refer to Sheet SD-9, Detail 7.
54. **Asphalt Pavement Thickness.** The 6" of 301 bituminous aggregate base is for the entrance drive, asphalt around plant buildings and Proposed Service Road. See D-2 for existing access road section which is assumed throughout the site.
55. **Sheet C-16 - WTP Civil Proposed Yard Piping.** Coded Note 38 indicates that the 1.5" SCH 80 PVC Chlorine line is a conduit for a ¾" SCH80 PVC Chlorine carrier pipe. This carrier/conduit combination is only required for the buried section of Chlorine Solution Line between the Main Building and West Aerator Building.

- 1 EXISTING STEEL TANK ACCESS LADDER, EPOXY COATED (TYP. OF 2) TO REMAIN.
- 2 4" DIA. VENT THROUGH ROOF WITH DOWNTURNED OUTLET AND BIRD SCREEN. SCH. 80 CPVC (TYP. OF 2). REMOVE AND REPLACE VENT FOR INSTALLATION OF EF-9 AND DUCTWORK, REFER TO HVAC DRAWINGS FOR COORDINATION.
- 3 NEW 24"Ø FLANGED GAS TIGHT MANWAY W/GASKET, BOLTS, AND APPURTENANCES (TYP OF 2).
- 4 EXISTING 4" DIA. SCH. 80 CPVC SIPHON DRAIN AND OVERFLOW (TYP. EACH TANK) TO REMAIN.
- 5 NEW FRP DAY TANK W/COVER AND LOW PROFILE WEIGH SCALE TYP.
- 6 NOT USED.
- 7 EXISTING 3" DIA. VENT THROUGH WALL WITH DOWNTURNED OUTLET AND BIRD SCREEN. SCH. 80 PVC TO REMAIN.
- 8 NEW SHELF MOUNTED CHEMICAL METERING PUMP (TYP. OF 3), REFER TO SPECIFICATIONS.
- 9 NEW CALIBRATION COLUMN TYP, REFER TO SPECIFICATIONS.
- 10 EXISTING 36" HIGH CONCRETE EQUIPMENT PAD (TYP. OF 2) TO REMAIN.
- 11 EXISTING 1" DIA. CPVC SIGHT TUBE (TYP. OF 2) TO REMAIN.
- 12 EXISTING OPW KAMLOK 633D-0770 COUPLER WITH VITON-A GASKETS AND 634B-0770 DUST CAP TO REMAIN.
- 13 CORE DRILL HOLE FOR 3/4" DIA. FLUORIDE FEED PIPING AND INSTALL SEAL WITH LINK SEAL.
- 14 EXISTING 3,000 GALLON FLUORIDE STORAGE TANK TO REMAIN.
- 15 ROUTE THE FLUORIDE FEED PIPING ALONG AND ADJACENT TO THE NEW 1-1/2" CPVC CHLORINE SOLUTION LINE EXTENDING TO THE FLUORIDATION CHAMBER.
- 16 REPLACE OR INSTALL NEW 3/4" BACKPRESSURE ANTISIPHON.
- 17 INSTALL NEW DIFFUSER FOR FLUORIDE PER DETAIL ON P-25.
- 18 INSTALL FLEXIBLE HOISING AS SPECIFIED ON P-25.
- 19 INSTALL NEW 1/2" PP PIPE TO NEW DIFFUSER THAT INCLUDES BOTH FLUORIDE AND NPW.
- 20 INSTALL NEW 1-1/2" NPW PIPE.
- 21 INSTALL 1-1.2" DIA. SCH. 80 CPVC P-TRAP DRAIN, REFER TO THE WATER TRAP VAPOR SEAL DETAIL PROVIDED ON THIS SHEET.



PD = PULSATION DAMPENER  
PG = PRESSURE GAUGE

6

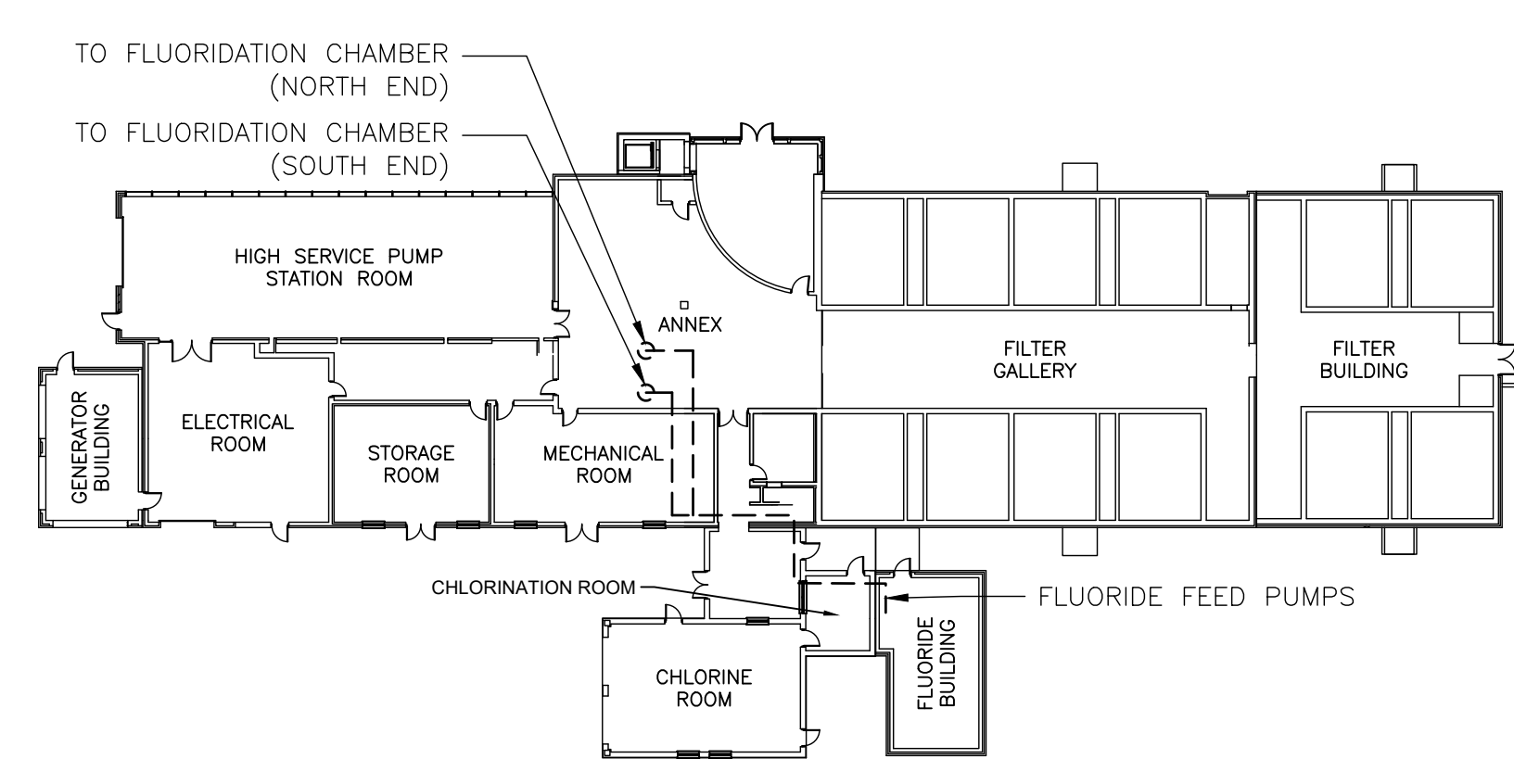
GENERAL NOTES FOR CHEMICAL PIPING

1. PIPING MATERIALS. CHEMICAL SUCTION PIPING SHALL BE RIGID, TYPE 1, SCHEDULE 80 CPVC PIPING UNLESS NOTED OTHERWISE. CPVC FITTINGS SHALL BE SOLVENT WELDED WITH SOLVENT AS RECOMMENDED FOR THE APPLICATION BY THE PIPE MANUFACTURER. PROVIDE FLANGES WHERE SHOWN, WITH 316 S.STL. BOLTS, NUTS, AND WASHERS. WHERE SHOWN, FLEXIBLE PIPING SHALL BE POLYPROPYLENE TUBING RECOMMENDED FOR THE APPLICATION BY THE TUBING MANUFACTURER. TYPE 316 STAINLESS STEEL HARDWARE IS NOT ACCEPTABLE WITHIN THE FLUORIDE ROOM WITH THE STORAGE AND DAY TANKS AND SHALL UTILIZE HARDWARE RESISTANT TO FLUOROSILICIC ACID.
2. UNION AND ADAPTERS. PROVIDE UNIONS OR TRUE UNION VALVES AT EQUIPMENT TO FACILITATE DISASSEMBLY FOR ROUTINE MAINTENANCE. PROVIDE ADAPTERS AS REQUIRED BETWEEN EQUIPMENT AND PIPING AND BETWEEN RIGID AND FLEXIBLE PIPING.
3. HANGERS AND SUPPORTS. PROVIDE HANGERS AND SUPPORTS RESISTANT TO CORROSION OF THE APPLICATION CHEMICAL, SPACED AT MINIMUM 4- FEET, AND AS RECOMMENDED BY THE PIPING MANUFACTURER. PROVIDE FOR EXPANSION AND CONTRACTION OF THE PIPING BETWEEN FIXED POINTS BY USING ELBOWS AND SLIDING SUPPORTS.
4. BALL VALVES. BALL VALVES SHALL BE TRUE UNION FULL PORT WITH SCHEDULE 80 CPVC, VITON SEALS, AND TEFLON SEATS.
5. SPECIAL VALVES. PRESSURE RELIEF AND BACK PRESSURE VALVES SHALL BE CPVC BODY WITH SEALS AND SEATS COMPATIBLE WITH THE APPLICATION CHEMICAL.
6. STOPPERS. PROVIDE LABORATORY TYPE RUBBER STOPERS TO SEAL FLEXIBLE TUBING WHERE IT PASSES THROUGH DAY TANK COVERS AND DRUMS.
7. INJECTION POINTS. PROVIDE INSERTION TYPE NOZZLES AT CHEMICAL INJECTION POINTS. TAP HORIZONTAL PIPES AT 120' FROM VERTICAL AND EXTEND NOZZLE INTO PIPE BY 1/3 PIPE DIAMETER.
8. CONTRACTOR IS RESPONSIBLE FOR ROUTING PIPING BETWEEN THE PROPOSED DAY TANK TO THE PUMP SKIDS AND FROM THE PUMP SKIDS TO THE DIFFUSER LOCATIONS SHOWN ON PROCESS DRAWINGS.
9. ALL TANKS AND TANK REFILLING ENTRY POINTS SHALL BE CLEARLY LABELED WITH THE NAME OF THE CHEMICAL CONTAINED IN ADDITION TO THE DIRECTION FLOW IS CONVEYED.

6 FLUORIDE FEED SCHEMATIC  
SCALE: NONE

6 WATER TRAP VAPOR SEAL DETAIL  
SCALE: NONE

6 FLUORIDE PLAN SCHEMATIC  
SCALE: NONE



**BURGESS & NIPLÉ**  
100 WEST ERIE STREET  
PAINESVILLE, OHIO 44077

CITY OF CANTON, OHIO  
WATER DEPARTMENT  
SUGAR CREEK  
WATER TREATMENT PLANT &  
WELLFIELD IMPROVEMENTS

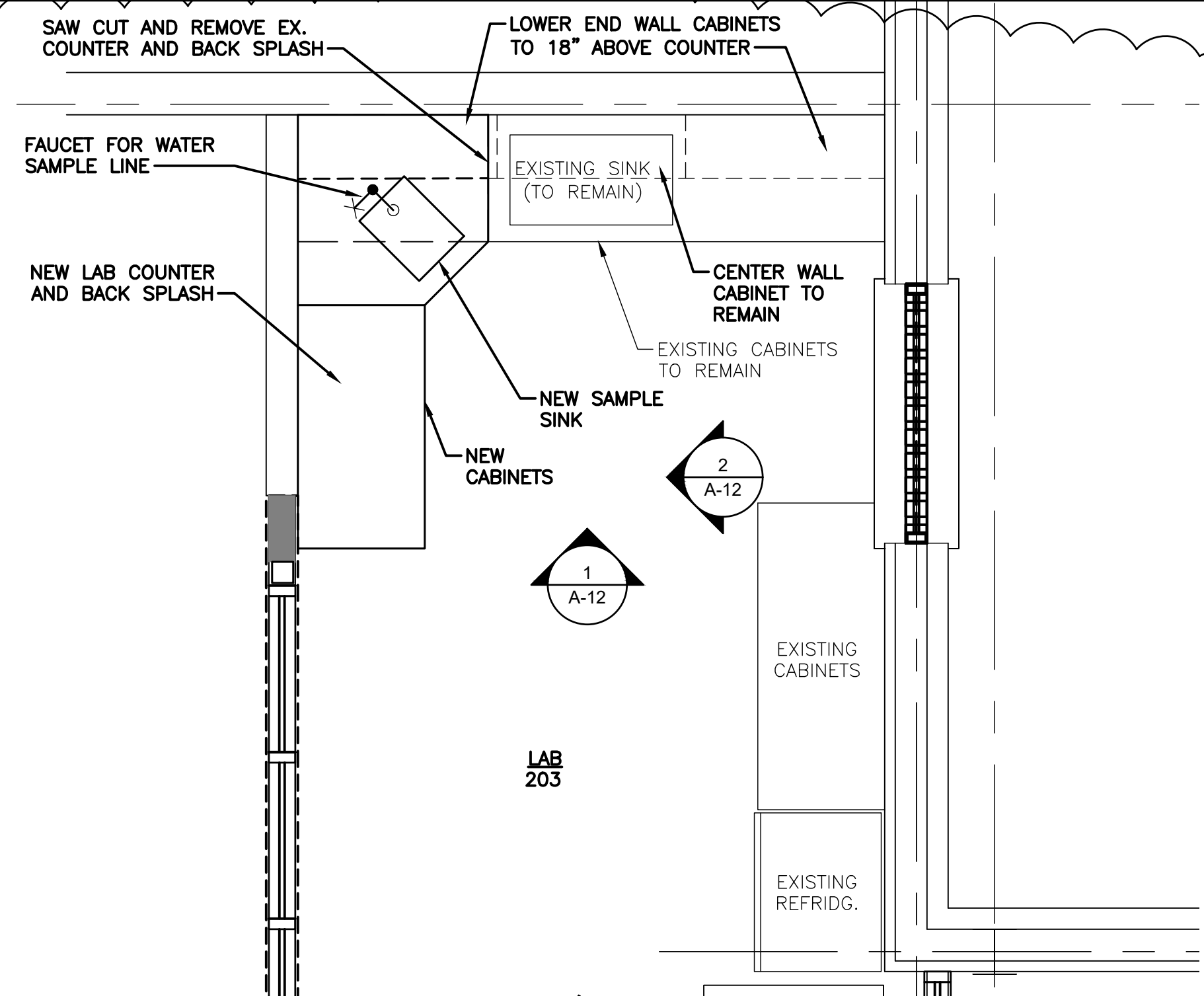
NO.	DESCRIPTION	DATE	REVISIONS
6	ADDENDUM NO.6	06/2022	
1	BID SET	04/2022	

JOB NO:	PR58982
DATE:	APR 2022
DESIGNED BY:	KAS
DRAWN BY:	KAS
CHECKED BY:	MMK
APPROVED BY:	CMS
SCALE:	NONE

FLUORIDE BUILDING  
PROCESS  
SCHEMATIC

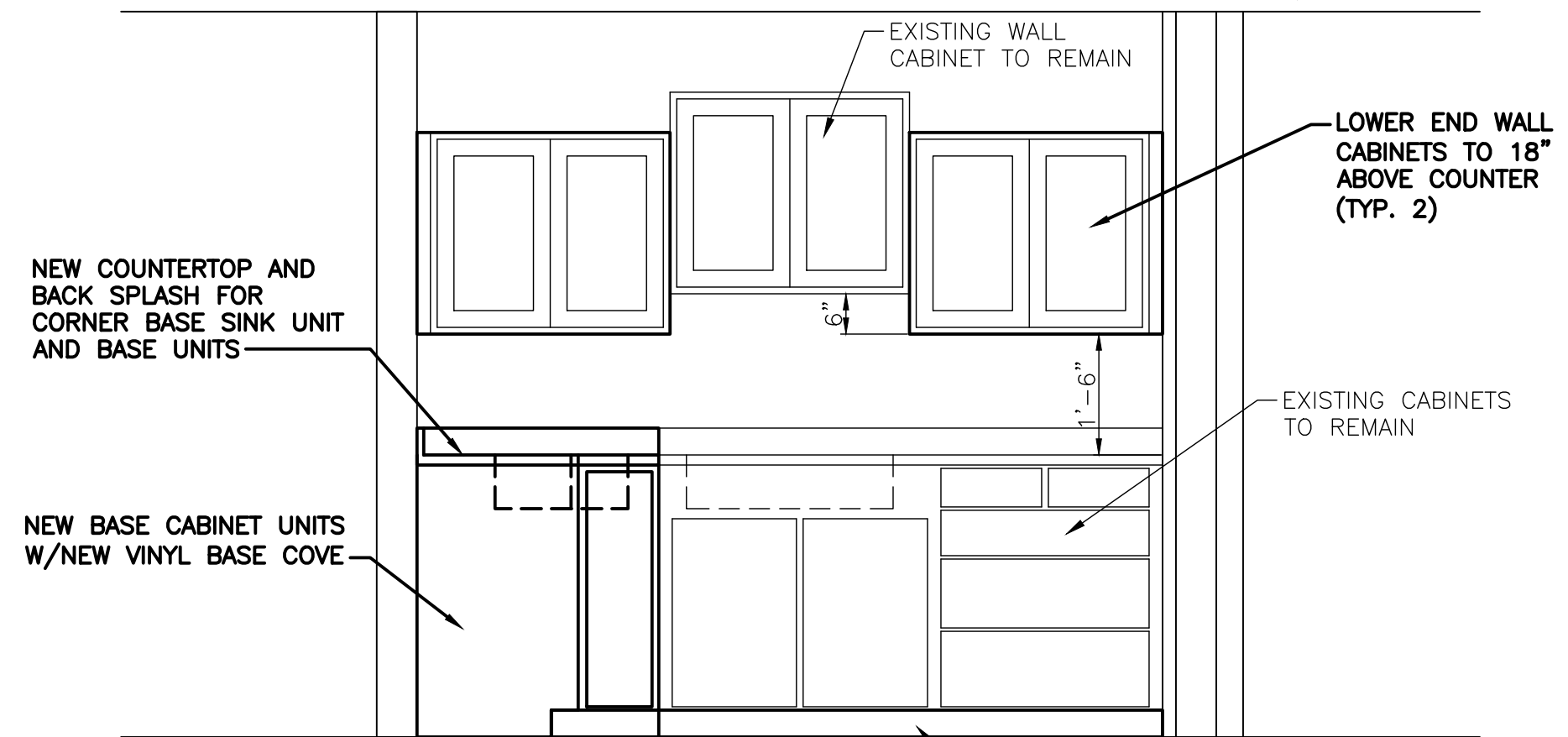
P-36

SHEET: OF



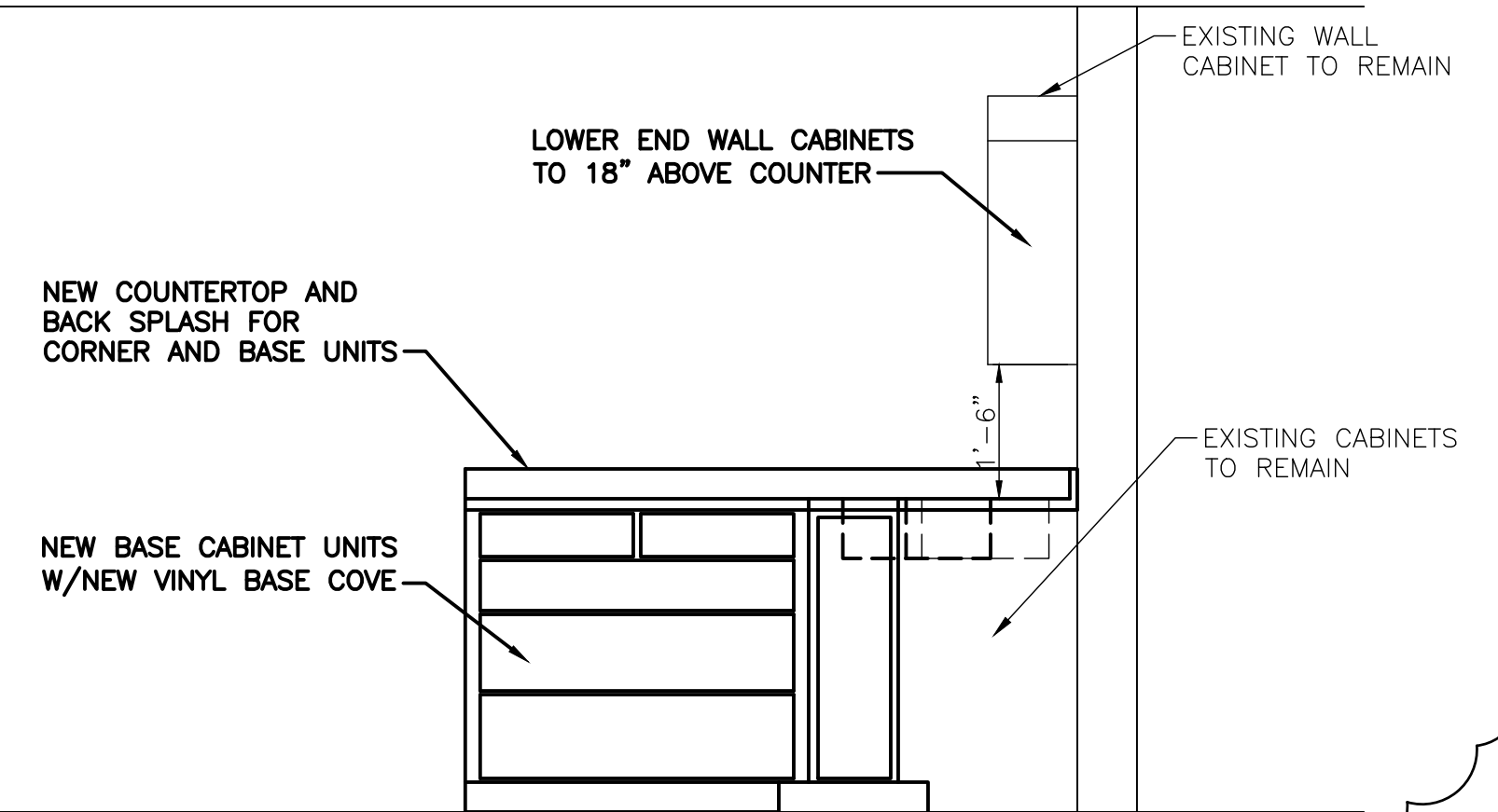
2 LAB PLAN FOR CABINETS

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



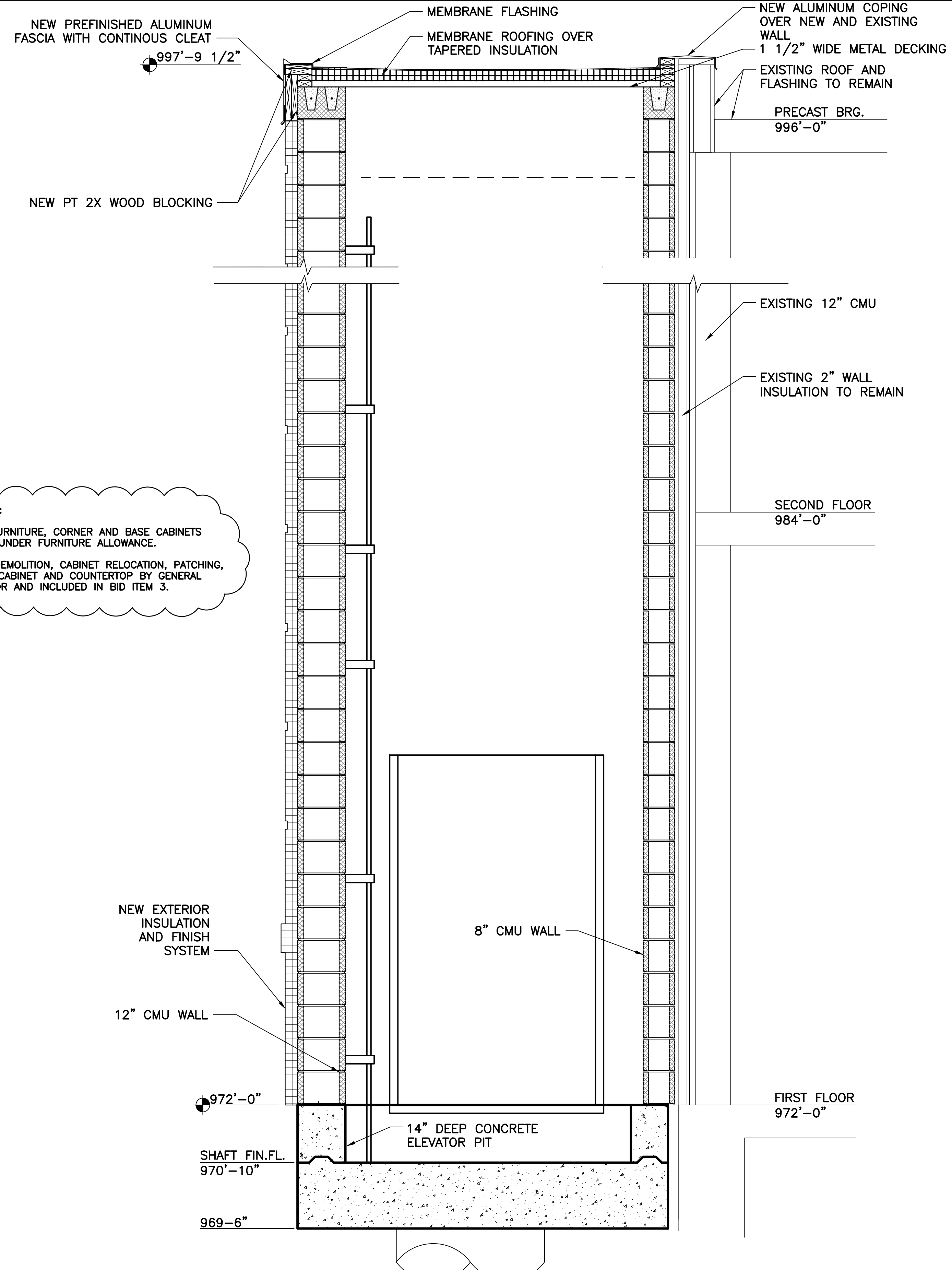
1 CABINET ELEVATION

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



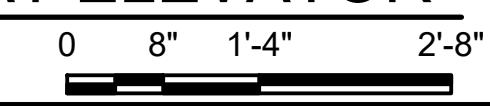
2 CABINET ELEVATION

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



3 WALL SECTION AT ELEVATOR

SCALE: 3/4" = 1'-0"



GENERAL NOTES:

1. CABINET FURNITURE, CORNER AND BASE CABINETS PROVIDED UNDER FURNITURE ALLOWANCE.
2. CUTTING, DEMOLITION, CABINET RELOCATION, PATCHING, AND NEW CABINET AND COUNTERTOP BY GENERAL CONTRACTOR AND INCLUDED IN BID ITEM 3.

**BURGESS & NIPLÉ**  
100 WEST ERIE STREET  
PAINESVILLE, OHIO 44077

CITY OF CANTON, OHIO  
WATER DEPARTMENT  
SUGAR CREEK  
WATER TREATMENT PLANT &  
WELLFIELD IMPROVEMENTS

REVISIONS		
NO.	DESCRIPTION	DATE
2	ADDENDUM NO. 6	06/2022
1	BID SET	04/2022

JOB NO: PR58982  
DATE: APR 2022  
DESIGNED BY: TB  
DRAWN BY: LMW  
CHECKED BY: LMW  
APPROVED BY: CMS  
SCALE: 3/4" = 1'-0"

MAIN BUILDING ARCHITECTURAL ELEVATOR WALL SECTION

A-12

SHEET: OF

APPENDIX V -  
PCB Testing  
Results



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524364      **Customer:** RESA Power  
**Date Received:** 05/24/22      4213 Kropf Ave SW  
**Date Sampled:** 05/24/22      Canton, OH 44706  
**Serial Number:** T1  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	<2.0 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524365      **Customer:** RESA Power  
**Date Received:** 05/24/22                      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22                      **Canton, OH 44706**  
**Serial Number:** T2  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	<2.0 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*





1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524366      **Customer:** RESA Power  
**Date Received:** 05/24/22      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22      **Canton, OH 44706**  
**Serial Number:** T3  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	60.8 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524367      **Customer:** RESA Power  
4213 Kropf Ave SW  
**Date Received:** 05/24/22      **Canton, OH 44706**  
**Date Sampled:** 05/24/22  
**Serial Number:** T4  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	30.5 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524368      **Customer:** RESA Power  
**Date Received:** 05/24/22                      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22                      **Canton, OH 44706**  
**Serial Number:** T5  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	71.5 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524369      **Customer:** RESA Power  
**Date Received:** 05/24/22      4213 Kropf Ave SW  
**Date Sampled:** 05/24/22      Canton, OH 44706  
**Serial Number:** T6  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	79.2 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524370      **Customer:** RESA Power  
**Date Received:** 05/24/22                      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22                      **Canton, OH 44706**  
**Serial Number:** T7  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	56.7 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524371      **Customer:** RESA Power  
**Date Received:** 05/24/22      4213 Kropf Ave SW  
**Date Sampled:** 05/24/22      Canton, OH 44706  
**Serial Number:** T8  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	<2.0 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524372      **Customer:** RESA Power  
**Date Received:** 05/24/22      4213 Kropf Ave SW  
**Date Sampled:** 05/24/22      Canton, OH 44706  
**Serial Number:** T9  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	<2.0 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*



1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524373      **Customer:** RESA Power  
**Date Received:** 05/24/22      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22      **Canton, OH 44706**  
**Serial Number:** T10  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	2.7 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*





1201 Camden Ave, SW \* Canton, Ohio 44706  
Phone No: 330-454-4222

**Laboratory No.** 220524374      **Customer:** RESA Power  
**Date Received:** 05/24/22                      **4213 Kropf Ave SW**  
**Date Sampled:** 05/24/22                      **Canton, OH 44706**  
**Serial Number:** S8  
**Sample Matrix:** Oil

<b>Analysis</b>	<b>Method</b>	<b>Results</b>	<b>Detection Limits</b>	<b>Date of Analysis</b>
PCB	ASTM 4059	<2.0 PPM	2.0 PPM	05/25/22

Approved By: *Ron Jack*