EASTSOUND SEWER AND WATER DISTRICT
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

ADDENDUM NO. 3 (22 pages total)
Issue Date: March 11, 2025

03-11-2025

General: Recitations of each and every section of the bid documents impacted by this addendum are not given. The described changes impact all relevant portions of the bid documents whether specifically cited below or not.

CONTRACT CLARIFICATIONS:

1. **General Contractor Questions:**

   Q: I was looking at the sludge containment box for the phase 2 bid and had a couple of questions. What type of lift mechanism is required? Small Hook Lift/ Standard Hook Lift/ Chain Roll Off? What configuration of rear door? Tailgate Style / Double Rear Doors / Single Rear Door?

   A: **The sludge containment box (waste container) is to be compatible with an endless chain hoist system as requested by San Juan Sanitation. In addition, a single rear door is preferred. Example information has been uploaded to the project website: https://wilsonengineering.com/bidding-documents.aspx/ See *Sludge Containment Box – Example Configuration Info*.**

   Q: As it relates to the ESWD WWTP Upgrade Phase 2 Project, the Bid Submittal Checklist (Section 00 43 93) has some discrepancies with Submittal Procedures (Section 01 33 00 1.03 A. B. C.). Please advise/clarify which Section's instructions we should use when submitting the bid.

   A: **Section 00 43 93 is correct. Section 01 33 00 has been revised, and is attached. In addition, Forms 6100-3 & 6100-4 have been uploaded to the project website: https://wilsonengineering.com/bidding-documents.aspx/**

2. **Permits:**
   Please note that the work will be subject to the following permits:
   - **San Juan County Building Permit** (permit # BUILD-24-0370)
   - **Ecology Construction General Stormwater Permit** (permit # WAR??, NOI ID #50611)

   Both of these permits will be transferred from the District to the Contractor after award. The Contractor will be responsible for compliance with each of these permits and for services, as needed, to finalize and close-out each permit when work is completed. For the Building Permit, work is to include coordinating County inspections when needed, and keeping permit open for duration of project. For the Stormwater Permit, work is to include all discharge monitoring and reporting services as needed, and keeping permit open for duration of project.

3. **Prebid Meeting:**
   The prebid meeting notes and sign-in sheet information has been uploaded to the project website: https://wilsonengineering.com/bidding-documents.aspx/

4. **Material Testing:**
   See Section 01 45 00 Quality Control Testing Services. Please note that the Contractor will be responsible for coordination and scheduling of all testing work. Contractor will also be responsible for notifying both the Owner and the Engineer when scheduling testing work.

5. **Quarry Material:**
   For specified imported structural fill materials, including Bid Items 12-17, the sand equivalent may vary up to 10% below WSDOT specifications. However, the upper 4-inches of crushed surfacing which is to be placed under the new HMA pavement (see Sheet C6.3 Detail 3), must meet all WSDOT specification requirements, including sand equivalent requirements.

6. **Existing Train #1 and Train #2 Information:**
   Existing Train 1 & 2 information has been uploaded to the project website:
   https://wilsonengineering.com/bidding-documents.aspx/
   This is the best available information for the existing Train #1 and Train #2 basins. This is provided as reference information to Bidders. Information includes the following:
   - 1979 Train #1 – Floor Plans and Sections
   - 1996 Train #2 – Aeration/Clarifier/Chlorine Contact Basins – Plan & Elevations

7. **2W Bladder Tanks:**
   As required per note 22, sheet C1.1, the two existing balder tanks will need to be removed and reinstalled at the new location (southwest corner of District's property). Contractor is to schedule the bladder tank down time during the same period when the Dewatering Facility is off-line (Stage 1 item E., per sheet C0.9 – WWTP Interim Plan of Operation). Contractor is to limit the bladder tank down time to 1-week (max). Coordinate work as needed. Also, note that the Contractor is to permanently isolate and remove the abandoned 1" water supply for the original bladder tank location.

8. **Existing Light Fixtures – Train #1 and Train #2 Area:**
   Note that all light fixtures in the Train #1 & #2 buildings are newly installed. When ready, the Contractor is to carefully remove these light fixtures and hand over light fixtures to the Owner. Coordinate with the District.

9. **Train #1 and Train #2 – Outer Metal Wall Demolition Information:**
   Note that the existing outer metal walls of Train #1 and #2 may be used as forms for the new concrete ringwalls. However, after new concrete ringwalls are cured, the Contractor is to remove the upper exposed portion of the outer metal walls (portion above finish grade). The metal is to be cut below grade, removed, and disposed of. All exposed concrete surfaces are to be finished per Section 03 30 00, 3.08 Finishing Formed Surfaces.

10. **Spare Solenoid Valves:**
    Contractor is to provide the following spare solenoid valves to the Owner:
    a) Quantity:1 - 1/2" ASCO Red-Hat General Purpose Valve 104R
    b) Quantity:1 - 3/4" ASCO Red-Hat General Purpose Valve 104R
    c) Quantity:1 - 1" ASCO Red-Hat General Purpose Valve 105R or 104R
    d) Quantity:3 - 1 1/4" ASCO Red-Hat General Purpose Valve 104R
    e) Quantity:3 - 2" ASCO Red-Hat General Purpose Valve 104R

11. **Demolition Area Photos:**
    Select photos of the proposed demolition areas (including Dewatering Building, Train #1 Building, and Train #2 Building) have been uploaded to the project website: https://wilsonengineering.com/bidding-documents.aspx/

SPECIFICATIONS:

SECTION 01 33 00 – SUBMITTAL PROCEDURES

Remove and replace.

- Clarification: 1.03 Submittal Schedule has been revised to match the Bid Submittal Checklist in Section 00 43 93.

SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS

- Section 1.03, A., 7. Adjust reference to **2021** (not 2015) WSEC.

SECTION 02 41 00 – DEMOLITION

- Section 3.01.C: Add the following structures to be removed (demolished):
  12. Existing metal building structure over/around the Dewatering Facility Area.
  13. Existing concrete stem wall footings around the entire cluster of buildings for the Dewatering Facility, Train #1, and Train #2.

SECTION 04 60 00 – BASIN BOTTOM AND OTHER GROUT

- Section 2.02, D: Adjust to state the following:
  2.02, D. Basin Bottom Grout (However, see sheet S3.1 for Clarifier Pedestal Topping)
  1. Portland cement grout shall be used to provide slopes. It shall be one part Portland cement to two parts clean sand with a minimum **5,000 psi** (not 4,000 psi) 28-day compressive strength.

SECTION 07 92 0 – JOINT SEALANTS

- Section 2.01.A: Rephrased to allow submission of alternative equivalent joint sealer.

SECTION 10 73 05 FRP LAUNDER COVERS

- Clarification that FRP Launder Covers for Train #3 are to be provided with the Biological Treatment System to ensure compatibility.

SECTION 12 35 53 – STEEL LAB CASEWORK

- Section 2.01: BMC Metal-ARC Lab Casework is an additional approved lab casework manufacturer.

SECTION 14 55 30 – SLUDGE BOX & COVER SYSTEM

- Section 2.011 – Waste Container:
  Adjust item A. to include the following information:
  A. Provide two (2) waste containers. Each waste container shall be designed for hauling dewatered sludge, and shall have nominal 20-cubic yard capacity. It is also critical that the Contractor confirms that the proposed waste containers will fit in the specified location, and can be maneuvered in and out without conflicting with adjacent structures. Rotate new guide rail alignment slightly, if needed. Coordinate with Owner.
  Add item F:
  F. Each waste container is to be compatible with an endless chain hoist system. In addition, each waste container is to be configured with a single rear door.

SECTION 26 80 00 – INSTRUMENTATION AND CONTROL SYSTEMS

Adjust as Noted:

3. Instrumentation as shown on the drawings, and specified herein:

   a. Analog Indicator

   TO BE PROVIDED BY THE BIOLOGICAL TREATMENT SYSTEM SUPPLIER (PER SECTION 46 53 00)

   1) One Flow Indicator at Influent Pump Station

   b. Dissolved Oxygen (DO) Meters

   1) Four complete DO sensing systems, two for each Treatment system.

EASTSOUND WWTP UPGRADE – PHASE 2 26 80 00 INSTRUMENTATION AND CONTROL SYSTEMS
EASTSOUND SEWER AND WATER DISTRICT PAGE 6 OF 20

Adjust as Noted:

8. Level switches shall be Orenco, MF series or Anchor Scientific Inc. 'Eco-Float' Model G PART#GP60N0NC. Include cable mounting kit and/or float stem and all required accessories, or equal.

B. Dissolved Oxygen Monitoring system

TO BE PROVIDED BY THE BIOLOGICAL TREATMENT SYSTEM SUPPLIER (PER SECTION 46 53 00)

1. Provide complete Dissolved Oxygen (DO) monitoring systems to be installed in the treatment cell aeration zones. Qty: 2 systems per cell.

2. Probe: Hach LDO series 0-20 PPM range, 10 meter cable with quick disconnect plug

3. NEMA 4X enclosure with corrosion resistant finish.

4. Controller: Hach controller Model SC4500, 0-20 PPM range, 4-20 mA output, 120VAC power.

5. Pole mount kit with service bracket and all required accessories for installation on treatment cell handrail.

6. Rainproof sunproof cover.

C. Hydrogen Sulfide Sensor

1. Install Owner provided sensor from Phase 1 of the project.

TO BE PROVIDED BY THE BIOLOGICAL TREATMENT SYSTEM SUPPLIER (PER SECTION 46 53 00)

SECTION 46 53 00 – BIOLOGICAL TREATMENT SYSTEM:

Provide Additional Instrumentation as shown on Sheets C3.1 and C3.4:

- Add pH sensor to the Aeration Basin #1 (for Train #1, #2, and #3)
- Add ORP sensor to Anoxic Basin #1 (for Train #1, #2, and #3)
- Provide bracket and accessories as needed to mount sensor and removable PVC extension pole for sensor immersion in basin.
- Share one Hach SC4500 Controller for D.O. and pH sensors located in Aeration Basin #1
- Share one Hach SC4500 Controller for D.O. and ORP sensors located in Aeration Basin #2 & Anoxic Basin #1. Note: Locate sensor bracket and accessories close to the partition wall, to minimize distance from the two sensors.

Adjust Required Services as Noted:

The District's Programmer (as defined in Bid Item #7 - SCADA/PLC Programmer Services) is to include services, as needed, to configure and calibrate instrumentation for Trains #1, #2, and #3. Clarification: The Biological Treatment System Supplier is to provide all specified equipment/instrumentation/components and to support the District's Programmer, as needed.

DRAWINGS:

Sheet C3.1:

- The DO & pH sensors are to be individual sensors mounted side by side, as shown.
- The DO sensor in Aeration Zone #2 has been relocated to the end of the basin.
- An ORP sensor has been added to the front of Anoxic Zone #1.
- The inlet pipe alignment has been slightly adjusted to match Train 2.

Sheet C3.3:

- New concrete curbs for partition embedment added.
- (2) 45-degree bends each added to RAS and WAS piping to raise IE 1.0-ft to avoid conflict with newly proposed concrete curbs.

Sheet C3.4:

- The DO & pH sensors are to be individual sensors mounted side by side, as shown.
- The DO sensor in Aeration Zone #2 has been relocated to the end of the basin.
- An ORP sensor has been added to the front of Anoxic Zone #1.
- The inlet pipe alignment has been slightly adjusted to match Train 1.

Sheet C3.6:

- New concrete curbs for partition embedment added.
- (2) 45-degree bends each added to RAS and WAS piping to raise IE 1.0-ft to avoid conflict with newly proposed concrete curbs.

Sheet A1.1:

- The east wall of the new dewatering building is intended to be 16’-3”. The 4’-0” offset distance between the north wall and the vent should not be added to the 16’-3” wall length.

Sheet S3.1:

Updated sheet S3.1 is attached. This sheet shows the addition of concrete curbs for steel embedments that will need to be placed directly on top of the existing concrete foundations for Train #1 and Train #2. Note: steel embedment elevations will be raised 1-ft higher to accommodate the new concrete curbs. Adjust steel dimensions, as needed, for partition walls, vertical embedment height, etc. Also, note that the following modifications will be needed:

- Saw cut trenches and remove existing grout/concrete in the existing pedestal, as needed, so new RAS & WAS piping can be installed. Bed piping with concrete. Seal all voids.
- Remove existing grout/concrete at center, as needed, so new clarifier torque tube anchor (instead of a J-Bolt) can be drilled and epoxied into the existing 12" thick concrete slab.
- Install new bottom center cone (from Biological Treatment System supplier), connect piping, connect torque tube assembly, and patch voids with concrete, as needed, so the final product matches the approved design configuration from the Biological Treatment System supplier.

Sheet E0.5:

Treatment system provider to supply new pH and ORP sensors and supports for existing Train No.3. Contractor to install new sensors and wire to existing Hach 4500 transmitters, and install new signal wiring from existing transmitters in existing signal conduit to spare PLC inputs in panel 'MCP' in Blower building.

Sheet E3.1:

This sheet indicates the new pH and ORP sensors to be supplied by the treatment system provider and installed by the Contractor, typical for Trains 1 and 2.

Sheet E3.2:

The interconnection diagram has been updated to indicate that the transmitters and instruments are provided by the treatment system provider for contractor installation, and the addition of the pH and ORP sensors.

Sheet E6.1:

Wiring schedule description updated for the pH and ORP sensors.

Sheet E7.6:

Analog input diagram updated for the pH and ORP sensors.

Sheet E7.7:

Analog input diagram re-arranged due to the pH and ORP sensors.

ATTACHMENTS INCLUDED ON FOLLOWING PAGES:

- Section 01 33 00 – Submittal Procedures (4 pages)
- Sheet C3.1 (1 page)
- Sheet C3.3 (1 page)
- Sheet C3.4 (1 page)
- Sheet C3.6 (1 page)
- Sheet S3.1 (1 page)
- Sheet E0.5 (1 page)
- Sheet E3.1 (1 page)
- Sheet E3.2 (1 page)
- Sheet E6.1 (1 page)
- Sheet E7.6 (1 page)
- Sheet E7.7 (1 page)

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

A. Summarize, but not necessarily a complete listing, submittals required of the Conditions of the Contract and the General Requirements.

B. General procedures for specification submittals. Specific requirements for submittals are included in the individual sections.

1.02 RELATED SECTIONS

A. Related work specified elsewhere:

1. Section 00 73 00 – Supplementary Conditions
2. Section 01 70 00 – Contract Closeout

1.03 SUBMITTAL SCHEDULE

This listing of submittals is a checklist for the Contractor's convenience and is not an exhaustive listing of provisions of any law or the requirements of these Contract Documents. The Owner reserves the right to amend this list.

A. With his bid, the Contractor shall furnish the following:

1. Bid Proposal (Section 00 41 00 BID PROPOSAL).
2. Bid Guarantee (Section 00 43 13 BID BOND or other type of Bid Guarantee).
3. Contractors Qualification (Section 00 45 13).
4. Non-Collusion Affidavit (Section 00 45 19).
5. Certification of Compliance with Wage Payment Statutes (Section 00 45 29).
6. Certification of Nonsegregated Facilities (See Section 00 53 00, page 24 of 25).
7. Notice to Labor Unions or Other Organization of Workers: Non-Discrimination in Employment (Section 00 53 00, page 25 of 25).

B. Within 1-hour of the bid, the Contractor shall furnish the following:

1. List of Subcontractors (Section 00 45 33 – LIST OF SUBCONTRACTORS).
2. Complete Bidders List (as described in Section 00 53 00, page 6 of 25).
3. DBE Program Subcontractor Performance Form (EPA Form 6100-3, Provided in Addendum 3) for all DBE subcontractors.
4. DBE Program Subcontractor Utilization Form (EPA form 6100-4, Provided in Addendum 3).

C. Within 24-hours of bid opening, Bidders so directed shall furnish the following:

1. Subcontractors Qualifications, (as described in Section 00 45 43 – SUBCONTRACTOR QUALIFICATIONS).

D. Prior to executing the Contract Agreement, (Section 00 52 00 – AGREEMENT FORM), the Contractor shall furnish the following:

1. Payment and Performance Bonds, (Section 00 61 13 – PERFORMANCE AND PAYMENT BONDS FORMS).

2. Insurance Certificates.

3. Prevailing wage rate requirements.

E. 10 days after execution of the Agreement, the Contractor shall furnish the following:

1. Construction schedule.

2. Requests for material substitutions.

3. Schedule of Values for the work.

F. After starting construction, each month the Contractor shall furnish the following:

1. Application for Payment on Owner approved form with breakdown of work performed organized in accordance with the Schedule of Values.

2. Updated construction schedule (submitted with each monthly pay request)

G. 14-days prior to beginning any work at the WWTP which will necessitate a shutdown, the Contractor shall furnish a bypass pumping and emergency response plan for the site.

H. Certified Payroll in accordance with current federal wage requirements of the Davis-Bacon Act, (per requirements of Section 00 73 00 SUPPLEMENTAL CONDITIONS).

I. With the final application for payment, the Contractor shall furnish the following:

1. Contractor's affidavit stating payment of subcontractors

2. Subcontractors' statements of being paid

3. Final location, by each property, of all items on private property for which payment is requested.

J. Before releasing retained funds, the Contractor shall furnish the following:

1. Record drawings and related contract closeout documents

2. Affidavits of Payment (wages, subcontractors, taxes, etc.)

1.04 GENERAL SUBMITTAL REQUIREMENTS

A. Identification of Submittals

1. Identify each submittal with Project title and number; clearly define location of submittal in the project and/or its location in the Contract Documents.

2. It is the responsibility of the Contractor to coordinate the work of the various trades involved with the work under this agreement. Contractor shall check all submittals by his subcontractors and mark them with his approval prior to submittal.

1.05 SUBMITTAL OF SHOP DRAWINGS & SAMPLES

A. General

1. Provide submittals in pdf format.

2. Submittal of shop drawings and samples shall be accompanied by a transmittal letter containing project name, Contractor's name, number of drawings and samples, titles and other pertinent data.

3. Shop drawings shall be at a convenient size. A space shall be provided in the lower right-hand corner for the review stamp.

4. The Contractor is responsible for obtaining and distributing required prints of shop drawings to his subcontractors and suppliers.

5. Contractor shall maintain a complete material list and file of approved submittals at the project site for use as reference by interested parties.

B. Samples

1. Form of Submittal: When samples are specified to be submitted, furnish two samples, except as noted herein, of sufficient size to indicate general visual effect or as otherwise specified in the specifications, and in as nearly the form in which the material will appear on the project as practicable; i.e., submit paint on samples of actual material for which they are specified as a finish; one set of reviewed and selected samples will be retained by the owner.

2. Review:

a. The Owner will check submitted samples against file samples and project requirements, will make final selection of colors and finishes from samples, and will approve sample for application on the project in conformance with the Specifications.

b. Should a submitted sample not be in conformance with the specifications, resubmit sample which conforms with the requirements of Contract Documents.

C. Catalog Cuts, Data & Brochures

1. Where indicated in the Specifications, catalog cuts and similar data will be accepted in lieu of shop drawings, provided they contain required information and are clearly printed. Submit manufacturer's descriptive data including catalog sheets for materials, equipment and fixtures, showing dimension, performance characteristics and capacities, wiring diagrams and controls, schedules, and other pertinent information as required.

D. Submittal of Product Certificates

1. Where manufacturer certificates are specified to be furnished attesting to conformance with specification requirements, submit certificates in triplicate prior to acceptance of the Work.

E. Test Reports

1. Submittal is classified either as "shop drawing" or "product data", depending upon whether the report is uniquely prepared for the project or a standard publication of regular product or workmanship control testing at the point of production (respectively).

2. Refer to individual sections of the Specifications for specific requirements; furnish 3 copies when required.

F. Warranties

1. Provide warranties, guarantees and/or maintenance agreements where the Specifications require a period longer than the Contractor warranty period.

G. Operation & Maintenance Data

Furnish instructions and data on materials and equipment installed in the work in accordance with requirements of the technical provisions of the specifications and assemble as specified below. These manuals shall be submitted prior to application for payment exceeding 90% of the total contract amount.

1. Provide four (4) hard copy sets and two (2) electronic copy sets of Operation and Maintenance Data. Each hard copy set shall be bound in separate commercial quality three-ring binders with durable and cleanable plastic covers. The words "Operation and Maintenance Manual (or Instruction)" along with the type of equipment covered shall be typed or neatly printed on the cover. The electronic copy sets shall be in PDF format and stored on either CD or flash drive units.

2. Each set shall be complete with an index and, as a minimum, cover the following items:

    a. Name, location and telephone number of manufacturer and product's model number.

    b. Name, location and telephone number of nearest supplier and spare parts warehouse.

    c. Start-up procedures and normal operating characteristics and instruction.

    d. Regulation, control, shut-down and emergency instructions.

    e. Recommended preventative maintenance procedures including a lubrication schedule with recommended lubricants.

    f. Trouble-shooting guide.

    g. Complete nomenclature and commercial number of all parts including exploded views of each assembly.

    h. List of recommended spare parts.

    i. Complete as-built elementary wiring and outline diagrams.

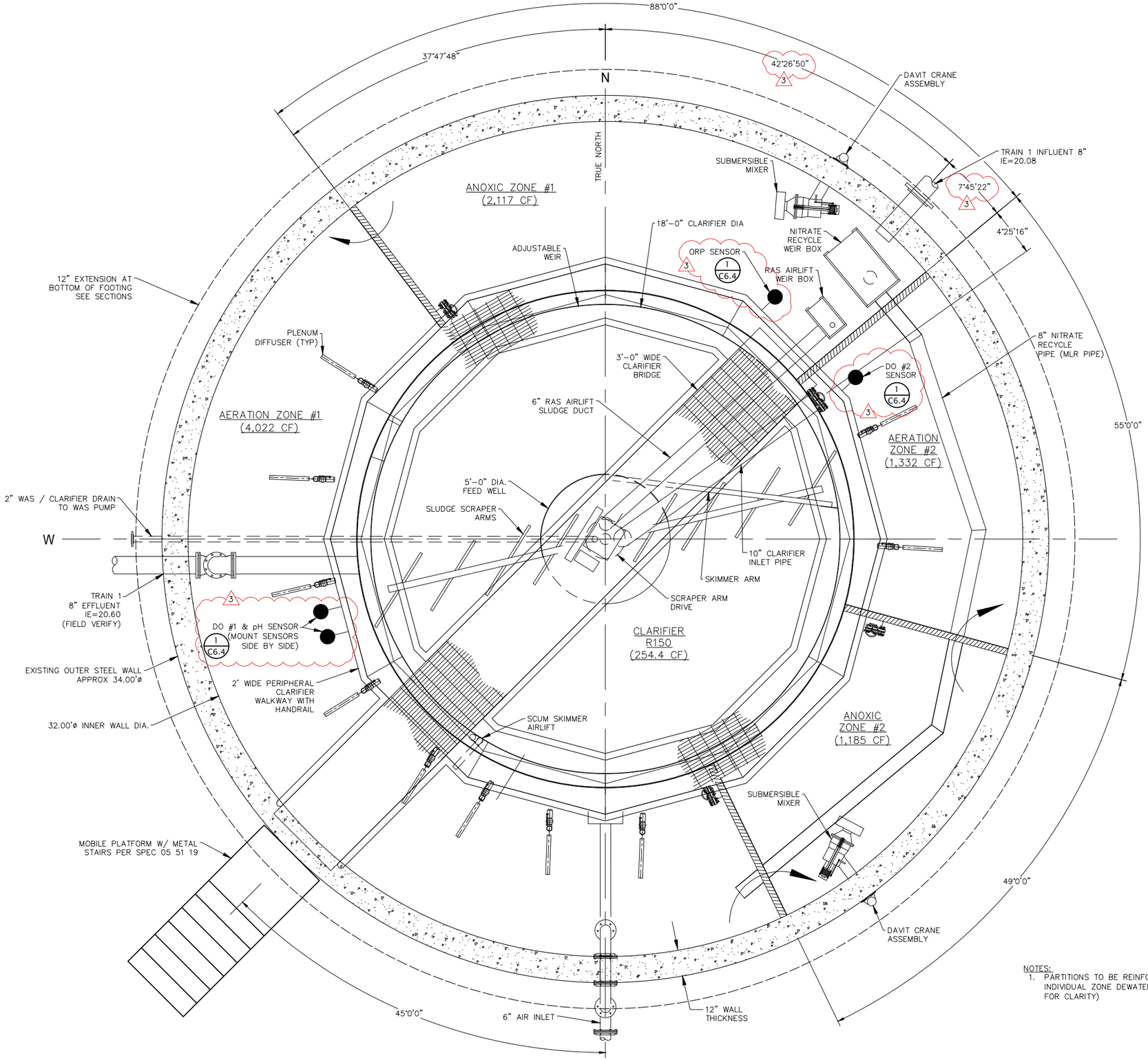
    j. Statements of warranty or guarantee.

3. Operation and Maintenance Manuals shall be submitted in at least draft form for Engineer's review with Shop Drawings, Catalog Cuts and other material submittal data. Final drafts, incorporating Engineer's comments, shall be submitted prior to Contractor's application of payment for 75 percent or more of the work.

4. Contractor shall maintain a complete file of all Engineer reviewed Operation and Maintenance Manuals at the project site for use as a reference by interested parties.

*****END OF SECTION*****

NO.	REVISIONS	BY	DATE
3	DISCRETE PROBES	MCS	3/4/2025



NOTES:
1. PARTITIONS TO BE REINFORCED FOR INDIVIDUAL ZONE DEWATERING. (NOT SHOWN FOR CLARITY)

N

2 0 2 4
SCALE HORIZONTAL SCALE FEET

Call 811 two business days before you dig

BID SET

WILSON ENGINEERING
WILSONENGINEERING.COM

JEFFREY CHRISTNER 38886 STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

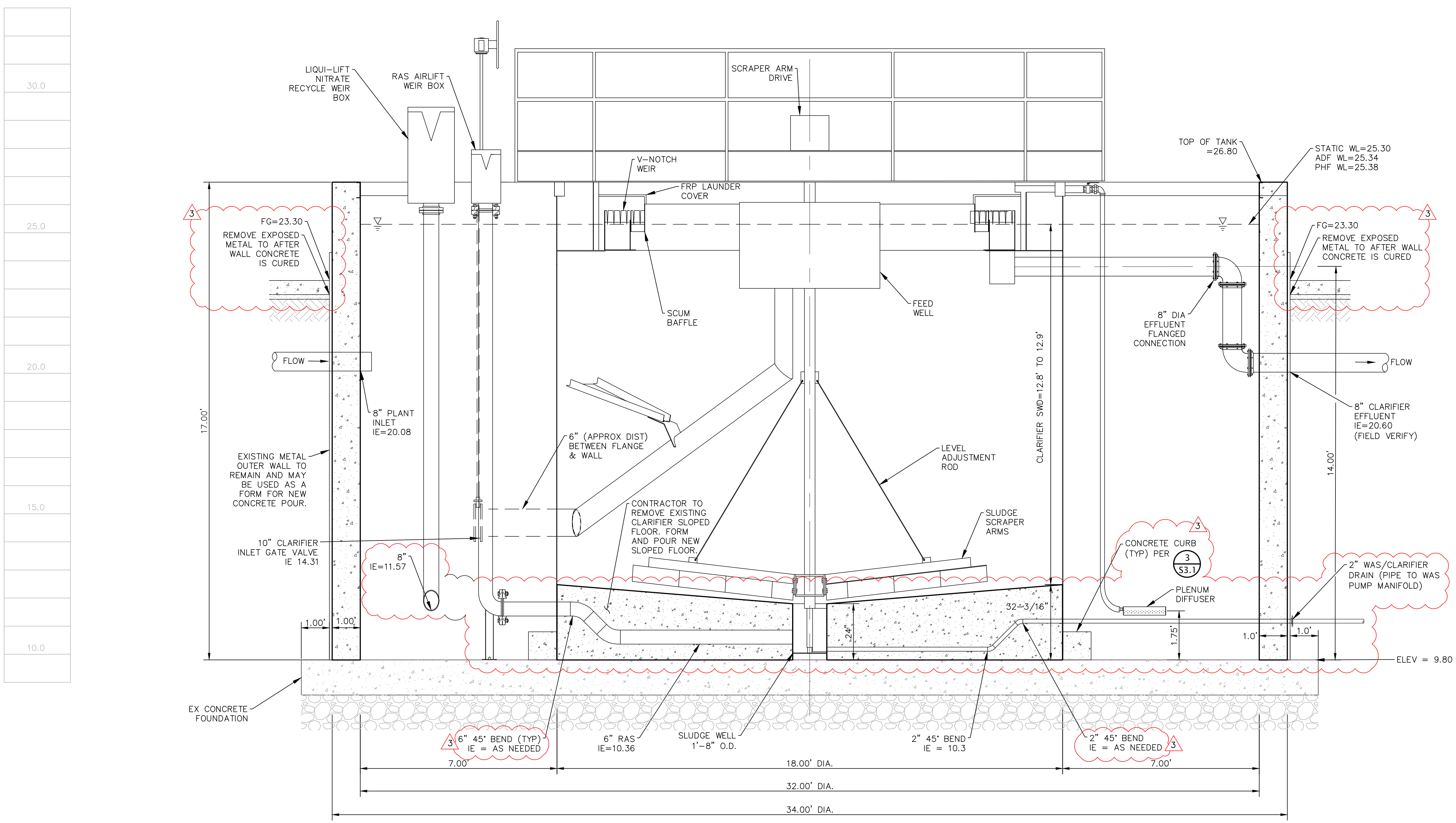
DESIGNED BY	DRAWN BY	CHECKED BY
JGC	MCS	AWL

EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
TRAIN 1 PLAN

DATE	SCALE	JOB NUMBER
3-4-2025	AS SHOWN	2023-123

SHEET C3.1
PAGE 29 OF 91

NO.	REVISIONS	BY	DATE
3	PARTITION EMBEDMENT	MCS	3/6/2025



B SOUTH-FACING SECTIONAL ELEVATION

2 0 2 4
SCALE HORIZONTAL SCALE FEET

Call 811 two business days before you dig

BID SET

WILSON ENGINEERING
WILSONENGINEERING.COM

JEFFREY G. CHRISTNER, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER

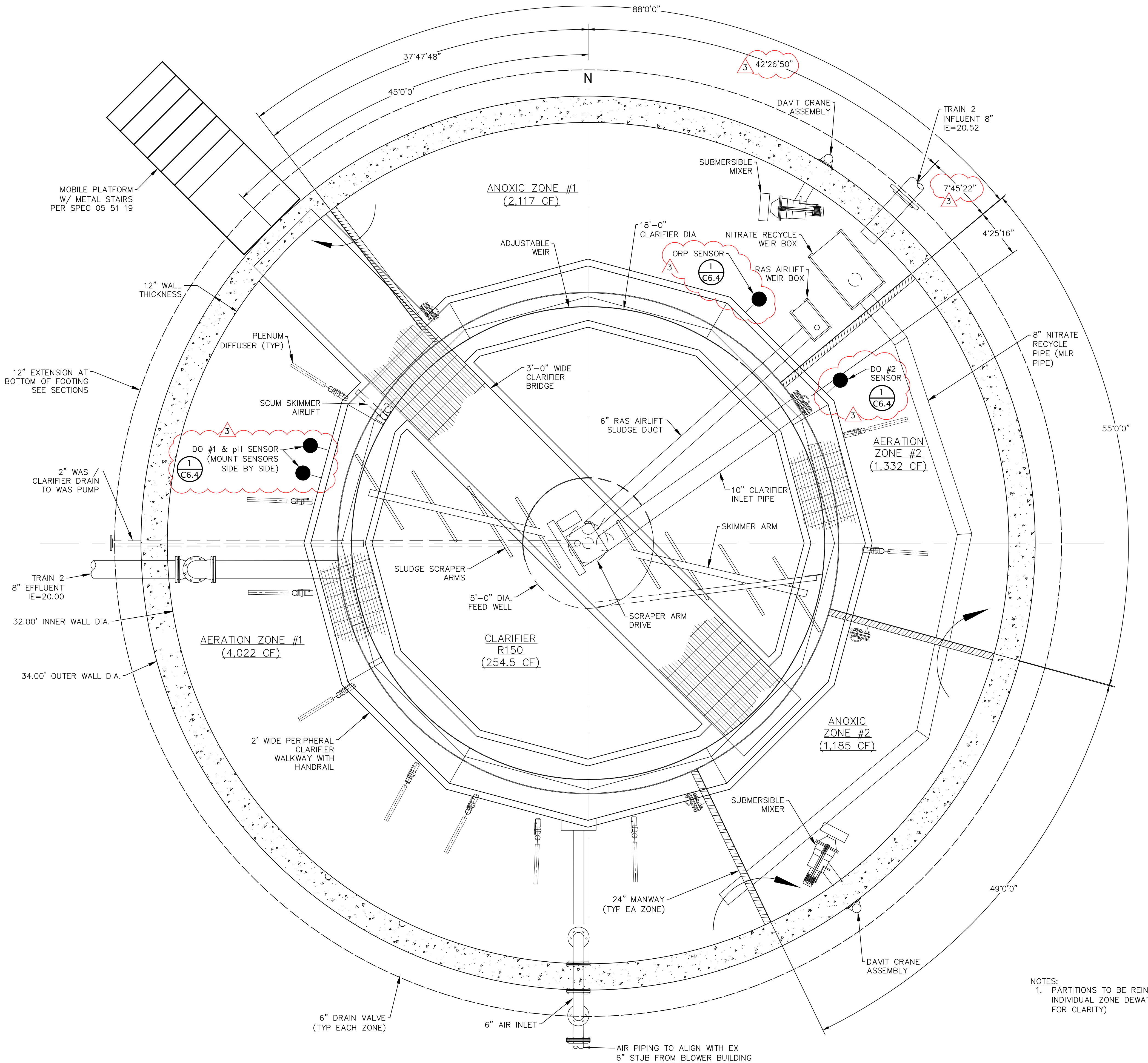
DESIGNED BY JJC
DRAWN BY MCS
CHECKED BY AWL

EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
TRAIN 1 SECTION B

DATE 3-4-2025
SCALE AS SHOWN
JOB NUMBER 2023-123

SHEET C3.3

PLOT SETTINGS: AutoCAD PDF (General Documentation).pc3, ANSI full bleed B (17.00 x 11.00 Inches), Portrait, 1:2, WE APWA_UNSCREENED.ctb
W:\2023\2023-123 ESWD WWTP UPGRADE PHASE 2 – DESIGN\DWG\V2020_2023-123 C3.1-C3.3 WWTP CELL 1.DWG – 3/11/2025 11:09 AM – Matthew Strittmatter



NOTES:
1. PARTITIONS TO BE REINFORCED FOR INDIVIDUAL ZONE DEWATERING. (NOT SHOWN FOR CLARITY)

2 0 2 4
SCALE HORIZONTAL SCALE FEET

Call 811 two business days before you dig

BID SET

NO.	REVISIONS	BY	DATE
3	DISCRETE PROBES	MCS	3/4/2025

WILSON ENGINEERING
WILSONENGINEERING.COM

JEFFREY G. CRISTNER, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY JCC | DRAWN BY MCS | CHECKED BY AWL

EASTSOUND SEWER AND WATER DISTRICT

SAN JUAN COUNTY, WASHINGTON

WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

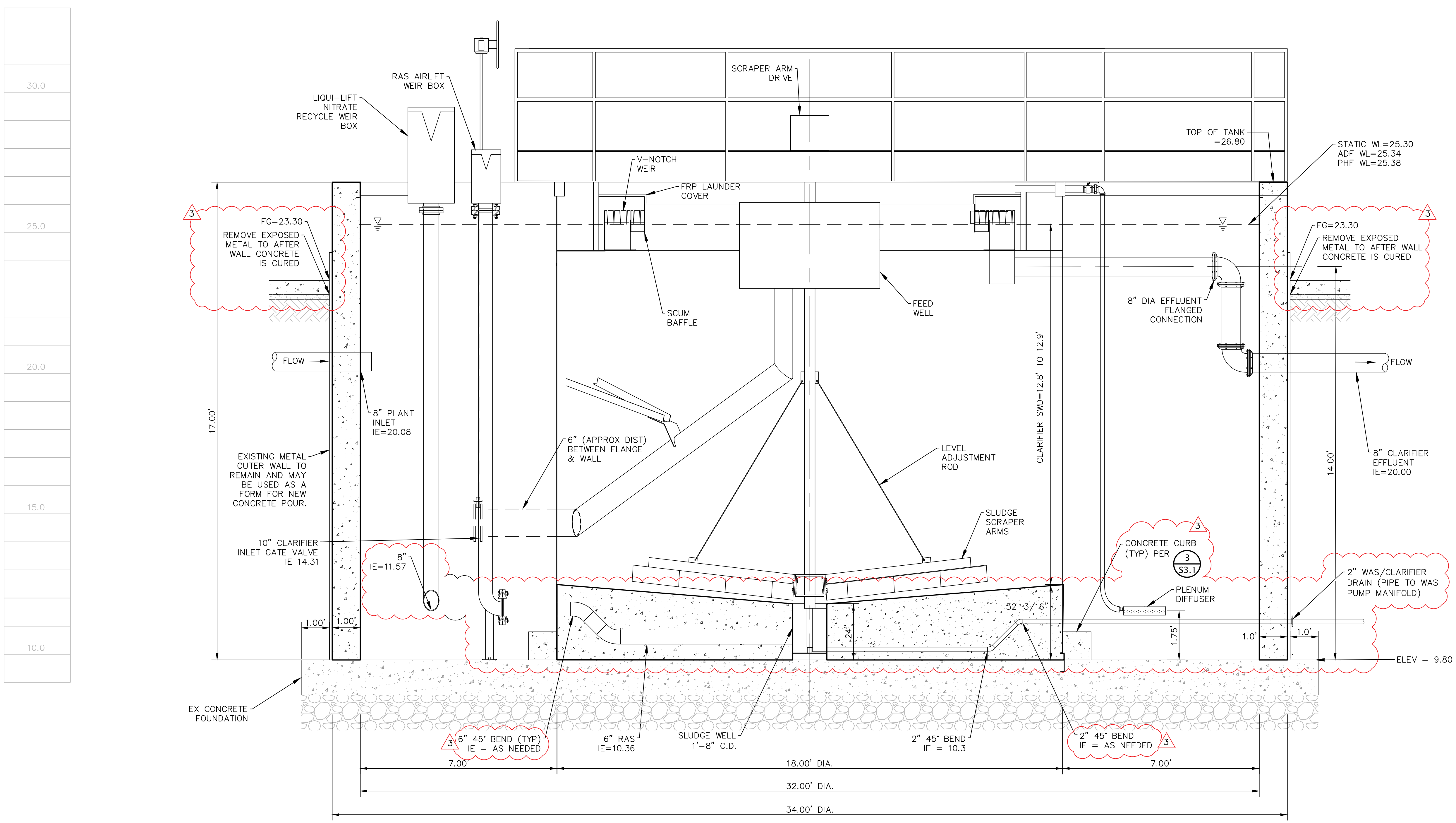
TRAIN 2 PLAN

DATE 3-4-2025 | SCALE AS SHOWN | JOB NUMBER 2023-123

SHEET C3.4

PLOT SETTINGS: AutoCAD PDF (General Documentation).pc3, ANSI full bleed B (17.00 x 11.00 Inches), Portrait, 1:2, WE APWA_UNSCREENED.ctb
W:\2023\2023-123 ESWD WWTP UPGRADE PHASE 2 - DESIGN\DWG\V2020_2023-123 C3.4-C3.6 WWTP CELL 2.DWG - 3/7/2025 2:05 PM - Matthew Strittmatter

NO.	REVISIONS	BY	DATE
3	PARTITION EMBEDMENT	MCS	3/6/2025



(B) SOUTH-FACING SECTIONAL ELEVATION

SCALE 2 0 2 4 FEET
HORIZONTAL SCALE

Call 811 two business days before you dig

BID SET

WILSON ENGINEERING
WILSONENGINEERING.COM

JEFFREY G. CHRISTNER, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 36886

DESIGNED BY JCC | DRAWN BY MCS | CHECKED BY AWL

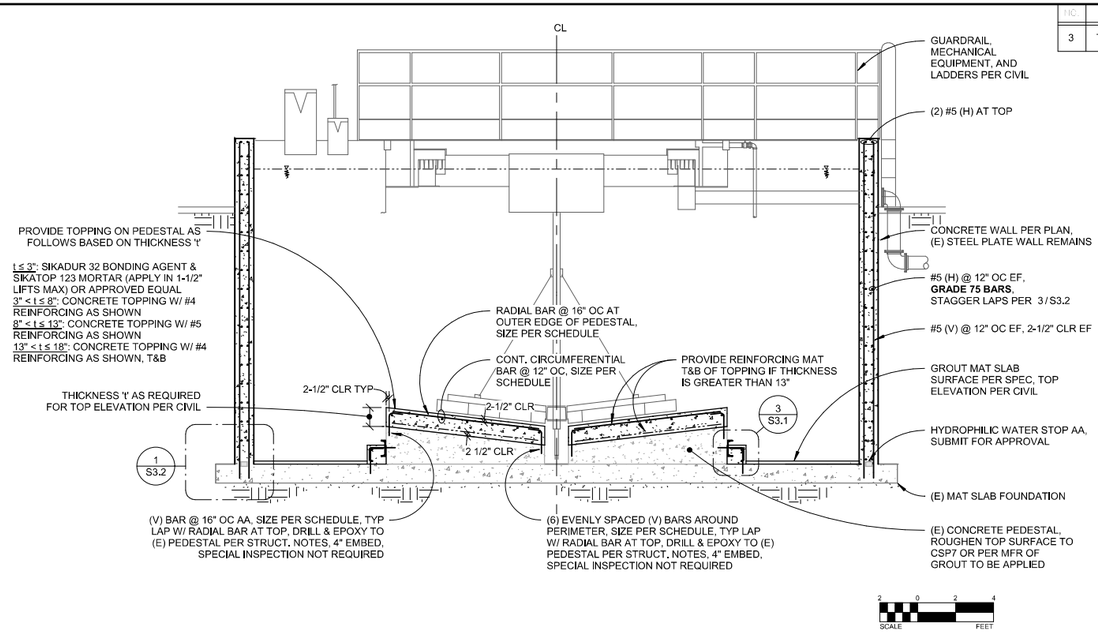
EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY, WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE - PHASE 2
TRAIN 2 SECTION B

DATE 3-4-2025 | SCALE AS SHOWN | JOB NUMBER 2023-123

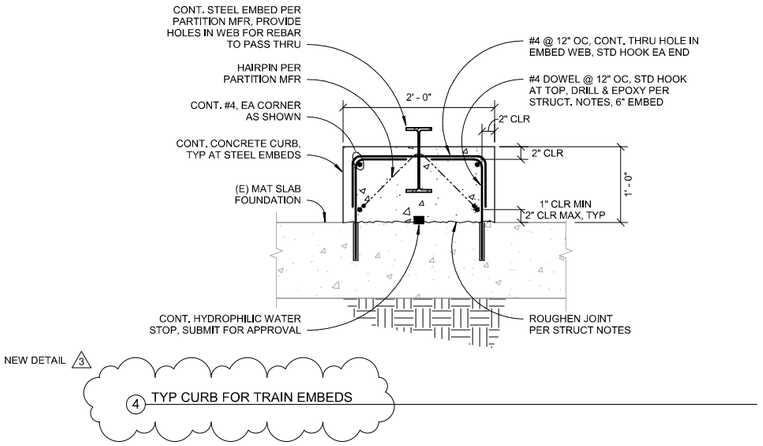
SHEET C3.6

3/6/2025 2:15:22 PM

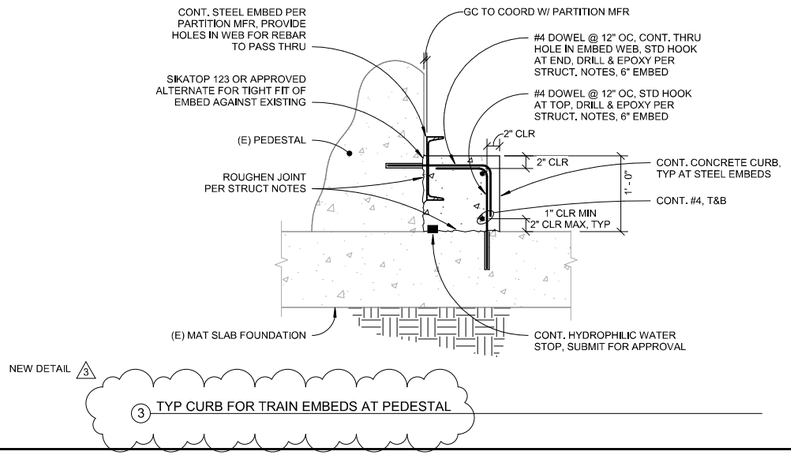
NO.	REVISIONS	BY	DATE
3	TRAIN PARTITION CURBS	TDH	3/6/2025



2 TYP TRAIN #1 & #2 SECTION



4 TYP CURB FOR TRAIN EMBEDS



3 TYP CURB FOR TRAIN EMBEDS AT PEDESTAL

1 TYP TRAIN #1 AND #2 PLAN

BID SET

WILSON ENGINEERING
WILSONENGINEERING.COM

KINGWORKS STRUCTURAL ENGINEERS
600 Dupont St, Suite B
Bellingham, WA 98225
360.714.8260
www.king-works.com

Verify Scale:
Enclosing box measures 1/2 inch tall x 2 inch wide when drawings are printed at full scale.

DESIGNED BY	DRAWN BY	CHECKED BY
THeidersdorf	CKinney	THeidersdorf

EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
TRAIN 1 & 2 PLAN & SECTION

DATE	SCALE	JOB NUMBER
1-16-2025	AS SHOWN	Wilson: 2023-123 KW: 23093

SHEET S3.1
PAGE 64 OF 91

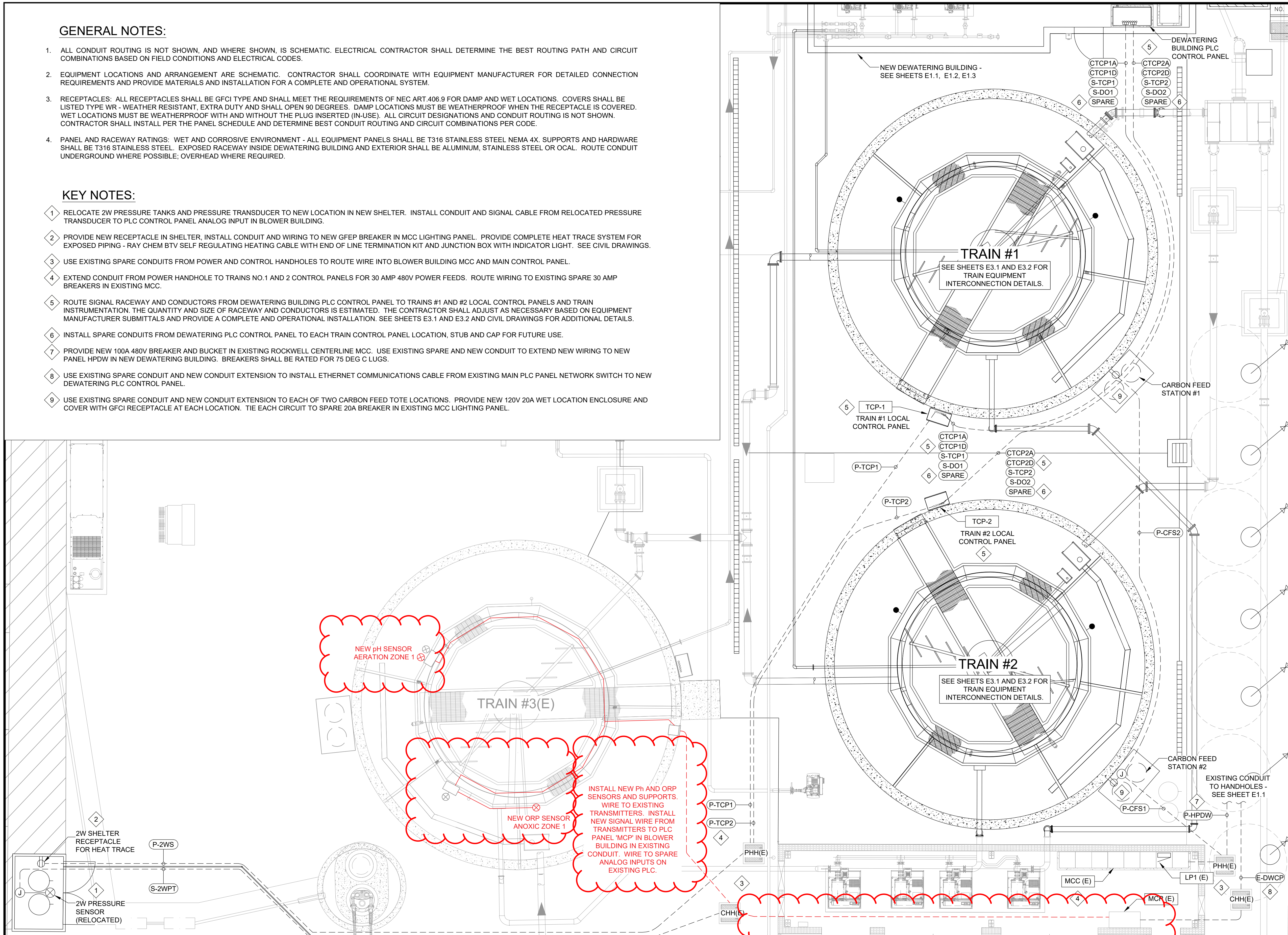
\\KWSERVER\KW Operations\Projects\23093 Wilson Eastsound WWTP Phase II\DRAWINGS_SPECS\WORKING\250214 KW 23093 Eastsound WWTP Phase II r24.rvt

GENERAL NOTES:

1. ALL CONDUIT ROUTING IS NOT SHOWN, AND WHERE SHOWN, IS SCHEMATIC. ELECTRICAL CONTRACTOR SHALL DETERMINE THE BEST ROUTING PATH AND CIRCUIT COMBINATIONS BASED ON FIELD CONDITIONS AND ELECTRICAL CODES.
2. EQUIPMENT LOCATIONS AND ARRANGEMENT ARE SCHEMATIC. CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURER FOR DETAILED CONNECTION REQUIREMENTS AND PROVIDE MATERIALS AND INSTALLATION FOR A COMPLETE AND OPERATIONAL SYSTEM.
3. RECEPTACLES: ALL RECEPTACLES SHALL BE GFCI TYPE AND SHALL MEET THE REQUIREMENTS OF NEC ART.406.9 FOR DAMP AND WET LOCATIONS. COVERS SHALL BE LISTED TYPE WR - WEATHER RESISTANT, EXTRA DUTY AND SHALL OPEN 90 DEGREES. DAMP LOCATIONS MUST BE WEATHERPROOF WHEN THE RECEPTACLE IS COVERED. WET LOCATIONS MUST BE WEATHERPROOF WITH AND WITHOUT THE PLUG INSERTED (IN-USE). ALL CIRCUIT DESIGNATIONS AND CONDUIT ROUTING IS NOT SHOWN. CONTRACTOR SHALL INSTALL PER THE PANEL SCHEDULE AND DETERMINE BEST CONDUIT ROUTING AND CIRCUIT COMBINATIONS PER CODE.
4. PANEL AND RACEWAY RATINGS: WET AND CORROSIVE ENVIRONMENT - ALL EQUIPMENT PANELS SHALL BE T316 STAINLESS STEEL NEMA 4X. SUPPORTS AND HARDWARE SHALL BE T316 STAINLESS STEEL. EXPOSED RACEWAY INSIDE DEWATERING BUILDING AND EXTERIOR SHALL BE ALUMINUM, STAINLESS STEEL OR OCAL. ROUTE CONDUIT UNDERGROUND WHERE POSSIBLE; OVERHEAD WHERE REQUIRED.

KEY NOTES:

1. RELOCATE 2W PRESSURE TANKS AND PRESSURE TRANSDUCER TO NEW LOCATION IN NEW SHELTER. INSTALL CONDUIT AND SIGNAL CABLE FROM RELOCATED PRESSURE TRANSDUCER TO PLC CONTROL PANEL ANALOG INPUT IN BLOWER BUILDING.
2. PROVIDE NEW RECEPTACLE IN SHELTER, INSTALL CONDUIT AND WIRING TO NEW GFEP BREAKER IN MCC LIGHTING PANEL. PROVIDE COMPLETE HEAT TRACE SYSTEM FOR EXPOSED PIPING - RAY CHEM BTV SELF REGULATING HEATING CABLE WITH END OF LINE TERMINATION KIT AND JUNCTION BOX WITH INDICATOR LIGHT. SEE CIVIL DRAWINGS.
3. USE EXISTING SPARE CONDUITS FROM POWER AND CONTROL HANDHOLES TO ROUTE WIRE INTO BLOWER BUILDING MCC AND MAIN CONTROL PANEL.
4. EXTEND CONDUIT FROM POWER HANDHOLE TO TRAINS NO.1 AND 2 CONTROL PANELS FOR 30 AMP 480V POWER FEEDS. ROUTE WIRING TO EXISTING SPARE 30 AMP BREAKERS IN EXISTING MCC.
5. ROUTE SIGNAL RACEWAY AND CONDUCTORS FROM DEWATERING BUILDING PLC CONTROL PANEL TO TRAINS #1 AND #2 LOCAL CONTROL PANELS AND TRAIN INSTRUMENTATION. THE QUANTITY AND SIZE OF RACEWAY AND CONDUCTORS IS ESTIMATED. THE CONTRACTOR SHALL ADJUST AS NECESSARY BASED ON EQUIPMENT MANUFACTURER SUBMITTALS AND PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION. SEE SHEETS E3.1 AND E3.2 AND CIVIL DRAWINGS FOR ADDITIONAL DETAILS.
6. INSTALL SPARE CONDUITS FROM DEWATERING PLC CONTROL PANEL TO EACH TRAIN CONTROL PANEL LOCATION, STUB AND CAP FOR FUTURE USE.
7. PROVIDE NEW 100A 480V BREAKER AND BUCKET IN EXISTING ROCKWELL CENTERLINE MCC. USE EXISTING SPARE AND NEW CONDUIT TO EXTEND NEW WIRING TO NEW PANEL HPDW IN NEW DEWATERING BUILDING. BREAKERS SHALL BE RATED FOR 75 DEG C LUGS.
8. USE EXISTING SPARE CONDUIT AND NEW CONDUIT EXTENSION TO INSTALL ETHERNET COMMUNICATIONS CABLE FROM EXISTING MAIN PLC PANEL NETWORK SWITCH TO NEW DEWATERING PLC CONTROL PANEL.
9. USE EXISTING SPARE CONDUIT AND NEW CONDUIT EXTENSION TO EACH OF TWO CARBON FEED TOTE LOCATIONS. PROVIDE NEW 120V 20A WET LOCATION ENCLOSURE AND COVER WITH GFCI RECEPTACLE AT EACH LOCATION. TIE EACH CIRCUIT TO SPARE 20A BREAKER IN EXISTING MCC LIGHTING PANEL.



ELECTRICAL SITE PLAN

SCALE: 1" = 5' AT FULL SCALE

HORIZONTAL SCALE (FEET)

Call 811 two business days before you dig

BID SET

ZTEK ENGINEERING, 123 Ohme Garden Rd, Suite C1, Wenatchee, WA 98801

WILSON ENGINEERING — WILSONENGINEERING.COM

DESIGNED BY: BZ | DRAWN BY: BZ | CHECKED BY: BZ

EASTSOUND SEWER AND WATER DISTRICT

SAN JUAN COUNTY, WASHINGTON

WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

ELECTRICAL SITE PLAN

DATE: 01-24-2025 | SCALE: AS SHOWN | JOB NUMBER: 2023-123

SHEET E0.5

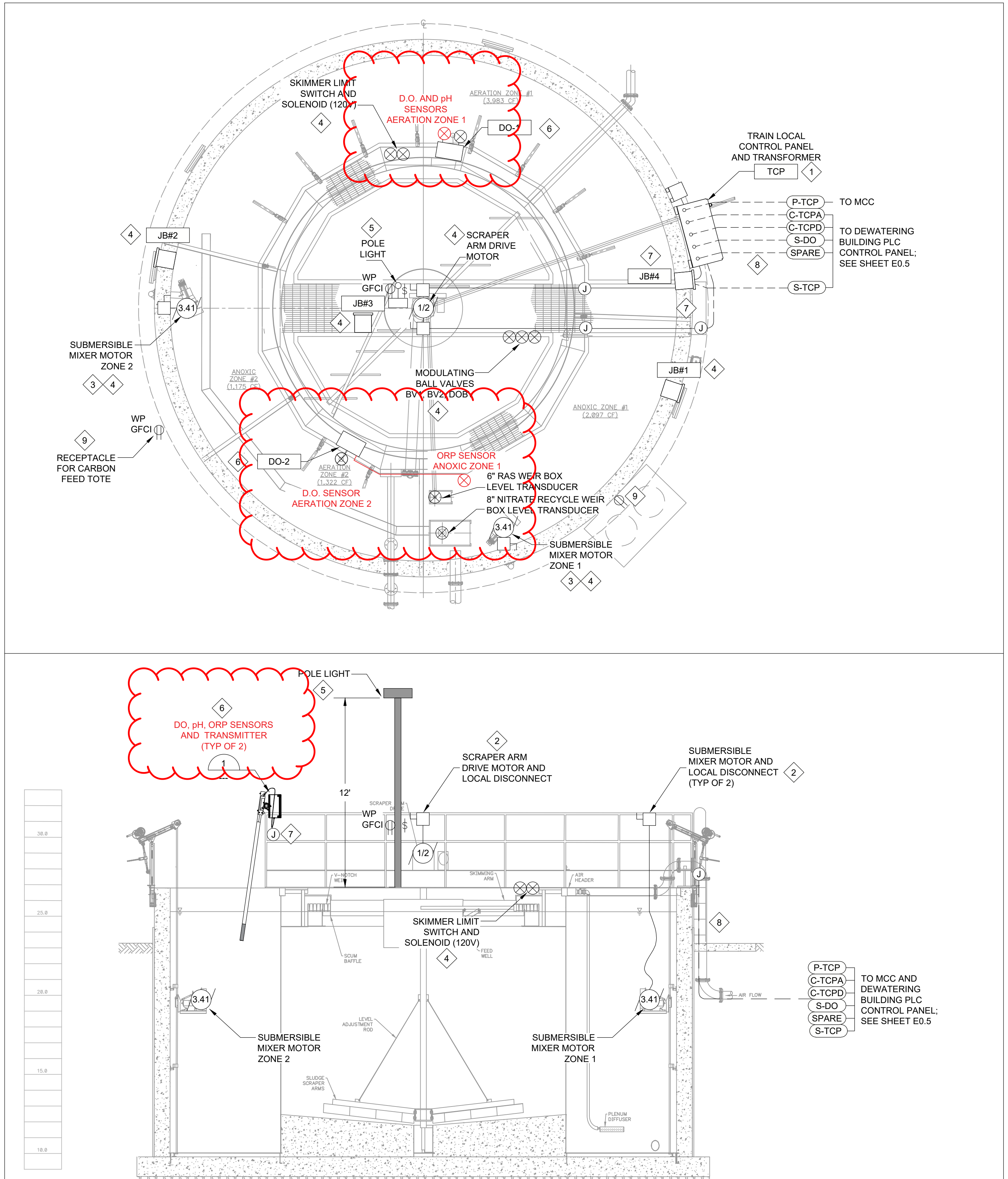
NO.	REVISIONS	BY	DATE

GENERAL NOTES:

1. ALL CONDUIT ROUTING IS NOT SHOWN, AND WHERE SHOWN, IS SCHEMATIC. ELECTRICAL CONTRACTOR SHALL DETERMINE THE BEST ROUTING PATH AND CIRCUIT COMBINATIONS BASED ON FIELD CONDITIONS AND ELECTRICAL CODES.
2. EQUIPMENT LOCATIONS AND ARRANGEMENT ARE SCHEMATIC. CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURER FOR DETAILED CONNECTION REQUIREMENTS AND PROVIDE MATERIALS AND INSTALLATION FOR A COMPLETE AND OPERATIONAL SYSTEM.
3. PANEL AND RACEWAY RATINGS: WET AND CORROSIVE ENVIRONMENT - ALL EQUIPMENT PANELS SHALL BE T316 STAINLESS STEEL NEMA 4X. SUPPORTS AND HARDWARE SHALL BE T316 STAINLESS STEEL. EXTERIOR EXPOSED RACEWAY SHALL BE ALUMINUM, STAINLESS STEEL OR OCAL. ROUTE CONDUIT UNDERGROUND WHERE POSSIBLE; OVERHEAD WHERE REQUIRED.
4. INSTALL NEW AND COMPLETE TREATMENT TRAIN ELECTRICAL AND CONTROL SYSTEM PER MANUFACTURER REQUIREMENTS. THIS INCLUDES CONTROL PANEL, JUNCTION BOXES MOTORS, SENSORS, SWITCHES AND ALL OTHER EQUIPMENT REQUIRED BY THE MANUFACTURER. PROVIDE MOTOR DISCONNECTS AS REQUIRED BY CODE. THE QUANTITY AND SIZE OF RACEWAY AND CONDUCTORS IS ESTIMATED. THE CONTRACTOR SHALL ADJUST AS NECESSARY BASED ON EQUIPMENT MANUFACTURER SUBMITTALS AND PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION

KEY NOTES:

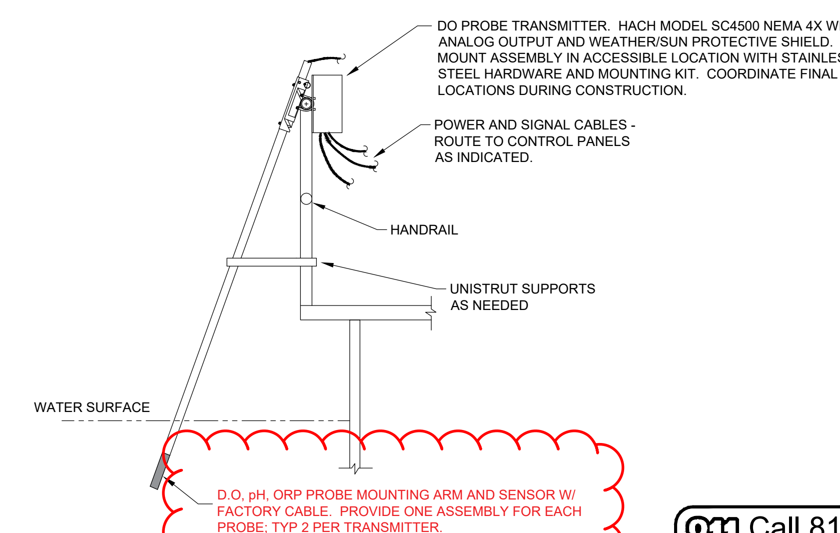
1. TREATMENT SYSTEM PROVIDER SHALL PROVIDE COMPLETE TREATMENT SYSTEM PER SPECIFICATIONS. CONTROL PANEL SHALL ACCEPT 480V 3 PHASE 30A INPUT AND INCLUDE ALL WIRING AND CONTROLS FOR THE COMPLETE TREATMENT SYSTEM. FEATURES SHALL INCLUDE BUT NOT BE LIMITED TO:
   1. NEMA 4X TYPE 316 STAINLESS STEEL ENCLOSURE SIZED FOR THE APPLICATION. INCLUDE DRIP SHIELD FOR OUTDOOR PANELS.
   2. NEMA FULL VOLTAGE MOTOR STARTERS FOR BOTH CLARIFIER DRIVE MOTOR AND TWO SUBMERSIBLE MIXERS.
   3. SEAL FAIL AND OVERTEMP SENSOR FOR SUBMERSIBLE MOTOR PROTECTION.
   4. 480-120V 5 kVA T316SS STEP DOWN TRANSFORMER FOR CONTROL CIRCUITS. MOUNT NEAR CONTROL PANEL.
   5. HARD WIRED RELAY LOGIC CONTROL CIRCUITS FOR SYSTEM CONTROL AND PROTECTION.
   6. ALARM LIGHT AND HORN WITH SILENCE PUSH BUTTON.
   7. INDICATOR LIGHTS, PUSH BUTTONS, HAND-OFF-AUTO SWITCHES FOR MOTOR CONTROL.
   8. WIRING TERMINALS FOR FIELD MOUNTED DEVICES INCLUDING TORQUE SWITCHES, LIMIT SWITCHES, SOLENOIDS AND ANY OTHER REQUIRED DEVICES.
   9. DRY RELAY CONTACTS FOR CUSTOMER CONNECTION INCLUDING: RUN AND FAIL FOR EACH MOTOR, SEAL FAIL AND OVERTEMP FOR MIXER, ALARM AND SHUTDOWN FOR CLARIFIER.
   10. PANEL HEATER WITH FAN TO PREVENT BUILDUP OF CONDENSATION IN PANEL.
   11. 120V CIRCUITS FOR POLE LIGHT AND RECEPTACLE.
   12. NEMA 4X T316 SS JUNCTION BOXES FOR INTERCONNECTION OF FIELD DEVICES.
   13. ALL PANELS AND COMPONENTS SHALL BE UL LISTED.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE LOCAL MOTOR DISCONNECTS FOR DRIVE MOTOR AND MIXERS. NEMA 4X TYPE 316 STAINLESS STEEL OR FIBERGLASS.
3. ROUTE SEAL FAIL AND OVERTEMP MOTOR WIRING BACK TO CONTROL PANEL SENSOR. COMBINE WIRING IN CONTROL RACEWAY AS REQUIRED.
4. CONTRACTOR SHALL INSTALL ALL TREATMENT SYSTEM COMPONENTS PROVIDED BY MANUFACTURER AND PROVIDE WIRING AND RACEWAY BACK TO TREATMENT CONTROL PANEL. RATINGS, RACEWAY AND CONDUCTORS SHOWN ARE ESTIMATED; ADJUST DURING SUBMITTAL PERIOD BASED ON TREATMENT SYSTEM EQUIPMENT SUBMITTAL REQUIREMENTS.
5. CONTRACTOR SHALL PROVIDE POLE LIGHT ON PLATFORM TO MATCH TRAIN NO.3. SECURE TO HANDRAIL WITH STAINLESS STEEL HARDWARE. PROVIDE 4" SQUARE ALUMINUM POLE 12' TALL WITH RECEPTACLE, PHOTOCELL AND LOCAL ON/OFF SWITCH. LITHONIA LIGHTING #DSX0-LED-P3-30K-T3M-MVOLT-SPA-DNAXD WITH PHOTOCELL, OR APPROVED EQUAL.
6. PROVIDE (2) HACH SC4500 TRANSMITTERS WITH DO pH AND ORP SENSORS FOR EACH TRAIN AS SHOWN ON THE DRAWINGS. MOUNT TO TOP OF WALL WITH FACTORY HARDWARE TO ALLOW FOR TRANSMITTER ACCESS AND CLEANING. TRANSMITTERS AND INSTRUMENTS PROVIDED BY TREATMENT SYSTEM SUPPLIER FOR CONTRACTOR INSTALLATION. SEE SPECIFICATIONS.
7. PROVIDE JUNCTION BOXES AS REQUIRED TO ROUTE ALL POWER AND SIGNAL CIRCUITS TO TRAIN CONTROL PANEL AND PLC CONTROL PANEL. MAINTAIN SEPARATION OF AC AND DC SIGNAL CIRCUITS. CONDUIT ROUTING AND CIRCUIT COMBINATIONS SHALL BE FIELD-LOCATED BY CONTRACTOR.
8. STUB SPARE CONDUITS ABOVE GROUND NEAR TREATMENT CELL WALLS. CAP FOR FUTURE USE.
9. PROVIDE 20A 120V GFCI RECEPTACLE FOR CARBON FEED POWER. MOUNT TO S.S UNISTRUT SUPPORT ATTACHED TO TREATMENT CELL WALL. WET LOCATION IN-USE COVER. SEE SITE PLANS FOR LOCATIONS.



TRAINS NO.1 AND 2 - ELECTRICAL PLAN AND ELEVATION (TYP OF 2)

SCALE: 1" = 4' AT FULL SCALE

SCALE 4 0 4 8 FEET HORIZONTAL SCALE



1 DO PROBE ELEVATION DETAIL

SCALE: NONE

Call 811 two business days before you dig

BID SET

ZTEK ENGINEERING
123 Ohme Garden Rd, Suite C1
Wenatchee, WA 98801

WILSON ENGINEERING
WILSONENGINEERING.COM

EASTSOUND SEWER AND WATER DISTRICT

SAN JUAN COUNTY, WASHINGTON

WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

TRAINS NO.1 AND 2 – ELECTRICAL PLAN AND ELEVATION

DESIGNED BY BZ | DRAWN BY BZ | CHECKED BY BZ

DATE 01-24-2025 | SCALE AS SHOWN | JOB NUMBER 2023-123

SHEET E3.1

CABLE LEGEND

- - - - -	AC CONDUIT AND WIRING
———	DC CONDUIT AND WIRING

KEY NOTES:

- (M) DEVICE FURNISHED BY TREATMENT SYSTEM MANUFACTURER FOR CONTRACTOR INSTALLATION.
- (C) DEVICE FURNISHED AND INSTALLED BY CONTRACTOR BASED ON TREATMENT SYSTEM MANUFACTURER REQUIREMENTS AND CONTRACT DOCUMENTS.
- (E) EXISTING EQUIPMENT

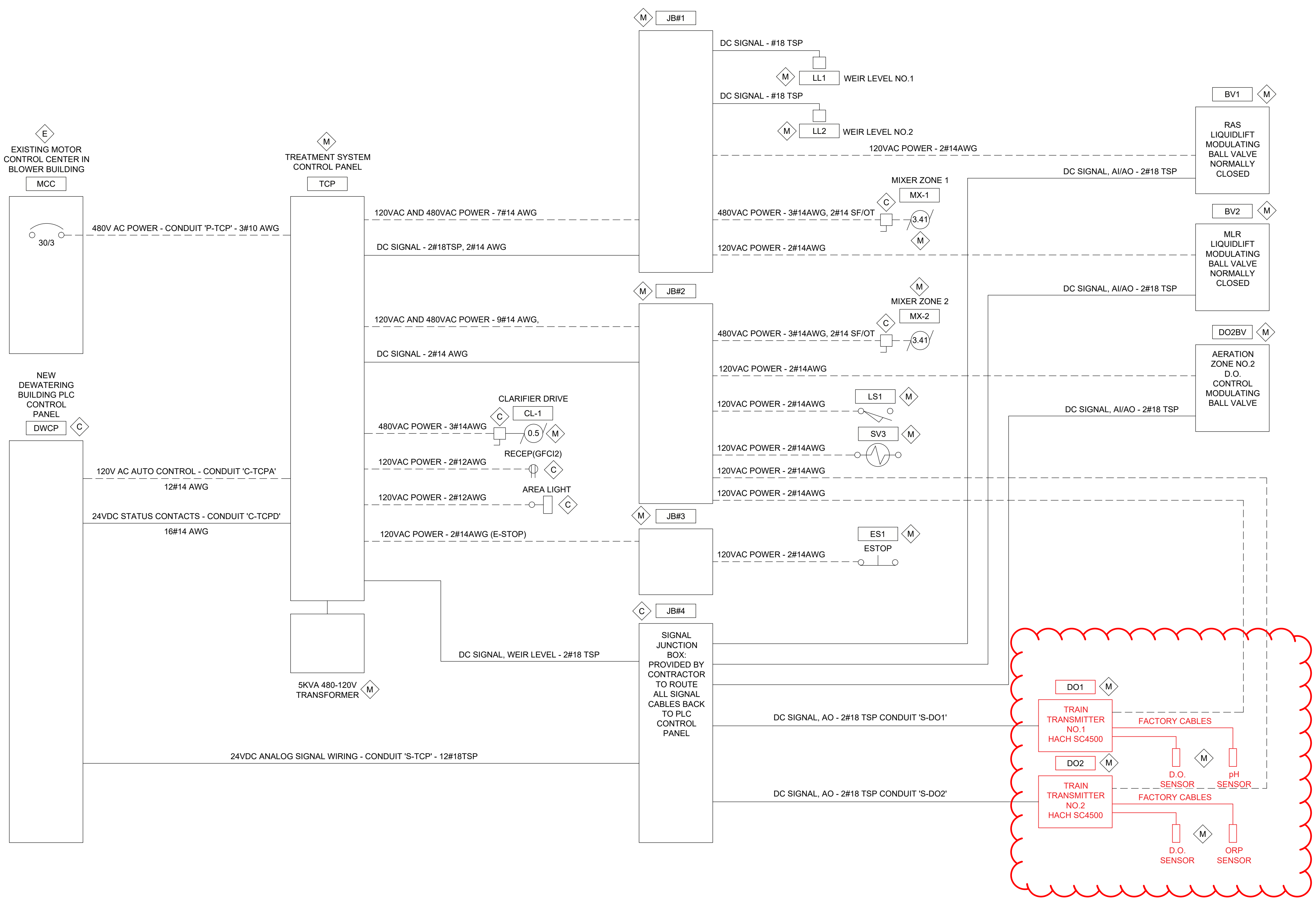
NOTE: ALL CONDUIT AND WIRING PROVIDED BY CONTRACTOR.

NOTE: PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAY, SIZE PER NEC.

GENERAL NOTES:

1. INSTALL NEW AND COMPLETE TREATMENT TRAIN ELECTRICAL AND CONTROL SYSTEM PER MANUFACTURER REQUIREMENTS. THIS INCLUDES CONTROL PANEL, JUNCTION BOXES MOTORS, SENSORS, SWITCHES AND ALL OTHER EQUIPMENT REQUIRED BY THE MANUFACTURER. PROVIDE MOTOR DISCONNECTS AS REQUIRED BY CODE. THE QUANTITY AND SIZE OF RACEWAY AND CONDUCTORS IS ESTIMATED. THE CONTRACTOR SHALL ADJUST AS NECESSARY BASED ON EQUIPMENT MANUFACTURER SUBMITTALS AND PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION.
2. THE INTERCONNECTION DIAGRAM ON THIS SHEET IS SCHEMATIC AND IS INTENDED TO SHOW LIMITED DETAILS FOR THE INTERCONNECTION OF THE TREATMENT SYSTEM COMPONENTS. CONTRACTOR SHALL CONFIRM ALL INSTALLATION REQUIREMENTS AND PROVIDE THE ELECTRICAL INSTALLATION FOR A COMPLETE AND OPERATIONAL SYSTEM AS REQUIRED BY THE EQUIPMENT MANUFACTURER AND THE CONTRACT DOCUMENTS.

NO.	REVISIONS	BY	DATE



TRAINS NO.1 AND 2 - INTERCONNECTION DIAGRAM (TYP OF 2)

SCALE: NONE

ZTEK ENGINEERING
123 Ohme Garden Rd, Suite C1
Wenatchee, WA 98801

WILSON ENGINEERING
WILSONENGINEERING.COM

Call 811 two business days before you dig

BID SET

DESIGNED BY BZ | DRAWN BY BZ | CHECKED BY BZ

EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY, WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
TRAINS NO.1 AND 2 – INTERCONNECTION DIAGRAM

DATE 01-24-2025 | SCALE AS SHOWN | JOB NUMBER 2023-123

SHEET E3.2

NO.	REVISIONS	BY	DATE

ZTEK ENGINEERING
123 Ohme Garden Rd, Suite C1
Wenatchee, WA 98801

ID	VOLTAGE	CONDUIT	WIRE QTY	SIZE	GND	FROM	TO	NOTES
P-UH1	480V	1"	3	#12 AWG	#12 AWG	POWER PANEL 'HPDW'	DEWATERING BUILDING UNIT HEATER	
P-DWP	480V	1"	3	#12 AWG	#12 AWG	DEWATERING SUMP STARTER PANEL	DEWATERING SUMP MOTOR - 1.8 HP	
P-DSP	480V	1"	3	#12 AWG	#12 AWG	480V POWER PANEL 'HPDW'	DEWATERING SUMP STARTER PANEL	
P-HPDW	480V	1"	3	#3 AWG	#8 AWG	NEW MCC BREAKER	DEWATERING BUILDING NEW PANEL 'HPDW'	
P-TCP1	480V	1"	3	#10 AWG	#10 AWG	EXISTING MCC BREAKER	TRAIN NO.1 CONTROL PANEL	480V 30AMP FEEDER
P-TCP2	480V	1"	3	#10 AWG	#10 AWG	EXISTING MCC BREAKER	TRAIN NO.2 CONTROL PANEL	480V 30AMP FEEDER
P-LLCP	480V	1"	3	#10 AWG	#10 AWG	480V POWER PANEL 'HPDW'	LEVEL LODOR CONTROL PANEL	480V 30AMP FEEDER
P-HSM	480V	1"	3	#12 AWG	#12 AWG	LEVEL LODOR CONTROL PANEL	HOIST MOTOR AND DISCONNECT	
P-C1M	480V	1"	3	#12 AWG	#12 AWG	LEVEL LODOR CONTROL PANEL	CONVEYOR MOTOR AND DISCONNECT	
P-LLM	480V	1"	3	#12 AWG	#12 AWG	LEVEL LODOR CONTROL PANEL	LEVEL LODOR MOTOR AND DISCONNECT	
P-TDW	480V	1"	3	#6 AWG	#10 AWG	480V POWER PANEL 'HPDW'	TRANSFORMER 'TDW'	480V-208Y/120V 30 KVA
P-LPDW	208/120V	1-1/2"	4	#1 AWG	#8 AWG	TRANSFORMER 'TDW'	LIGHTING PANEL 'LPDW'	100A PANEL FEED
P-VSP	208V	1"	3	#12 AWG	#12 AWG	LIGHTING PANEL 'LPDW'	EXISTING VERTICAL SCREW PRESS	EXISTING, REDUNDANT SPARE
P-PFP	120V	1"	2	#12 AWG	#12 AWG	LIGHTING PANEL 'LPDW'	POLYMER FEED PUMP RECEPTACLE	
P-VCP	120V	1"	2	#12 AWG	#12 AWG	LIGHTING PANEL 'LPDW'	VENTILATION CONTROL PANEL	
P-DWCP	120V	1"	2	#12 AWG	#12 AWG	LIGHTING PANEL 'LPDW'	DEWATERING BLDG PLC CONTROL PANEL	
P-EF1	120V	1"	2	#14 AWG	#14 AWG	VENTILATION CONTROL PANEL	EXHAUST FAN AND DISCONNECT	
P-2WS	120V	1"	2	#12 AWG	#12 AWG	MCC LIGHTING PANEL - GFEP	2W RECEPTACLE IN ENCLOSURE	FOR HEAT TRACE
P-CFS1	120V	1"	4	#12 AWG	#12 AWG	MCC LIGHTING PANEL	CARBON FEED STATION NO.1 RECEPTACLE	FEED PUMP
P-CFS2	120V	1"	2	#12 AWG	#12 AWG	MCC LIGHTING PANEL	CARBON FEED STATION NO.2 RECEPTACLE	FEED PUMP
P-ISMP	120V	1"	2	#12 AWG	#12 AWG	PANEL 'LPDW'	INFLUENT SAMPLER RECEPTACLE	INFLUENT SAMPLER POWER
P-AFS1	120V	1"	2	#12 AWG	#12 AWG	PANEL 'LPDW'	ALKALINITY FEED STATION RECEPTACLE	FEED PUMP
SPARE	AC	1"	---	---	PULL STRING	AS INDICATED	AS INDICATED	

POWER SCHEDULE

SCALE: NONE

ID	VOLTAGE	CONDUIT	WIRE QTY	SIZE	GND	FROM	TO	DESCRIPTION
C-AFS	120VAC	1"	2	#14 AWG	#14 AWG	AIR FLOW SWITCH	VENTILATION CONTROL PANEL	N.C. CONTACT FOR AIR FLOW STATUS
C-UH1	24VDC	1"	AS REQ'D	AS REQ'D	AS REQ'D	THERMOSTAT	UNIT HEATER	THERMOSTAT CONTROL WIRING
C-LBN	24VDC	1"	4	#14 AWG	#14 AWG	VENTILATION CONTROL PANEL	LIGHT BOX - DEWATER BLDG NORTH DOOR	INDICATOR LIGHTS
C-LBS	24VDC	1"	4	#14 AWG	#14 AWG	VENTILATION CONTROL PANEL	LIGHT BOX - DEWATER BLDG SOUTH DOOR	INDICATOR LIGHTS
C-DSP	24VDC	1"	10	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	DEWATERING SUMP STARTER PANEL	STATUS AND CONTROL SIGNALS - CONFIRM QTY
C-INT	24VDC	1/2"	4	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	DOOR INTRUSION SWITCHES	DOOR SWITCHES
C-SMK	24VDC	1/2"	4	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	SMOKE DETECTOR	DETECTOR POWER AND SIGNAL
C-LL	120VAC	1"	AS REQD	PER MANUF	PER MANUF	MOTION, TORQUE, ESTOP AS REQ'D	LEVEL LODOR CONTROL PANEL	CONTROL WIRING AS REQ'D BY MANUFACTURER
C-TCP1A	120VAC	1"	12	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	TRAIN NO.1 CONTROL PANEL	120V AC RELAY SIGNALS FOR AUTO CONTROL
C-DWP	120VAC	1"	6	#14 AWG	#14 AWG	DEWATERING SUMP FLOAT SWITCHES	DEWATERING SUMP STARTER PANEL	FLOAT SWITCHES
C-TCP1D	24VDC	1"	16	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	TRAIN NO.1 CONTROL PANEL	S&L RELAYS - DC INPUT STATUS SIGNALS
C-TCP2A	120VAC	1"	12	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	TRAIN NO.2 CONTROL PANEL	120V AC RELAY SIGNALS FOR AUTO CONTROL
C-TCP2D	24VDC	1"	16	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	TRAIN NO.2 CONTROL PANEL	S&L RELAYS - DC INPUT STATUS SIGNALS
C-VCP	24VDC	1"	4	#14 AWG	#14 AWG	VENTILATION CONTROL PANEL	DEWATERING BLDG PLC CONTROL PANEL	VENTILATION PANEL STATUS TO PLC
	---	---	1	#18TSP	SHIELD	VENTILATION CONTROL PANEL	DEWATERING BLDG PLC CONTROL PANEL	VENTILATION MOTOR AMPS
S-AE1	24VDC	1"	4	#14 AWG	#14 AWG	DEWATERING BLDG PLC CONTROL PANEL	GAS DETECTORS	24VDC POWER TO SENSORS
	---	---	2	#18TSP	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	GAS DETECTORS	GAS LEVEL 4-20 MA SIGNALS TO PLC
S-2WPT	24VDC	1"	1	#18TSP	SHIELD	2W SHELTER PRESSURE SENSOR	BLOWER BUILDING MAIN PLC CONTROL PANEL	RELOCATED SENSOR
S-LL	24VDC	1"	AS REQD	PER MANUF	PER MANUF	LEVEL SENSOR	LEVEL LODOR CONTROL PANEL	FM RATED FOR CLASS I, DIV2
S-DO1	24VDC	1"	4	#18TSP	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	DO TRANSMITTERS -TRAIN 1	TRAIN 1 DO, DO, ORP, pH
S-TCP1	24VDC	1-1/2"	12	#18TSP	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	ANALOG I/O TO TRAIN 1 DEVICES	2-DO, 2-BV1, 2-BV2, 2-DO2BV, 2-WEIR LEVEL, ORP, pH
S-DO2	24VDC	1"	4	#18TSP	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	DO TRANSMITTERS -TRAIN 2	TRAIN 2 DO, DO, ORP, pH
S-TCP2	24VDC	1-1/2"	12	#18TSP	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	ANALOG I/O TO TRAIN 2 DEVICES	2-DO, 2-BV1, 2-BV2, 2-DO2BV, 2-WEIR LEVEL, ORP, pH
E-DWCP	24VDC	1"	1	CAT6	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	BLOWER BUILDING MAIN PLC CONTROL PANEL	NETWORK CONNECTION
E-LLCP	24VDC	1"	1	CAT6	SHIELD	DEWATERING BLDG PLC CONTROL PANEL	LEVEL LODOR CONTROL PANEL	NETWORK CONNECTION
SPARE	DC	1"	---	---	PULL STRING	AS INDICATED	AS INDICATED	

CONTROL AND SIGNAL SCHEDULE

SCALE: NONE

Call 811 two business days before you dig

BID SET

WILSON ENGINEERING
WILSONENGINEERING.COM

DESIGNED BY	DRAWN BY	CHECKED BY
BZ	BZ	BZ

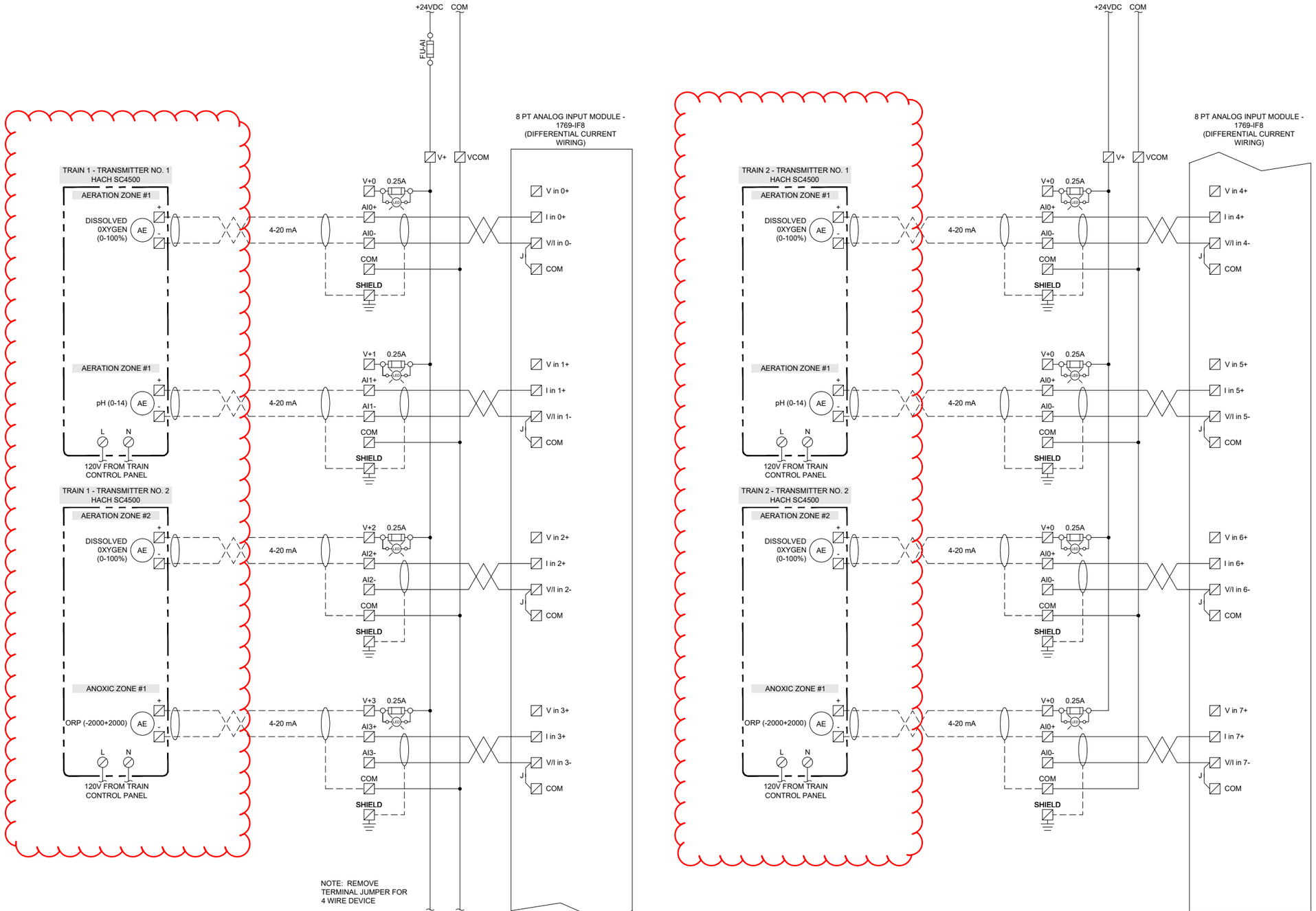
EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
CONDUIT AND CONDUCTOR SCHEDULES

DATE	SCALE	JOB NUMBER
01-24-2025	AS SHOWN	2023-123

SHEET	PAGE
E6.1	78 OF 91

GENERAL NOTES:

1. THESE SCHEMATICS SHOW FUNCTIONAL REQUIREMENTS OF THE PLC CONTROL PANEL. SYSTEM INTEGRATOR SHALL PROVIDE DETAILED CONTROL PANEL DESIGN AND DOCUMENTATION FOR A COMPLETE AND OPERATIONAL SYSTEM.



DEWATERING BUILDING PLC CONTROL PANEL - ANALOG INPUTS

SCALE: NONE

BID SET

NO.	REVISIONS	BY	DATE

ZTEK ENGINEERING
123 Ohme Garden Rd, Suite C1
Wenatchee, WA 98801

WILSON ENGINEERING
WILSONENGINEERING.COM

DESIGNED BY: BZ
DRAWN BY: BZ
CHECKED BY: BZ

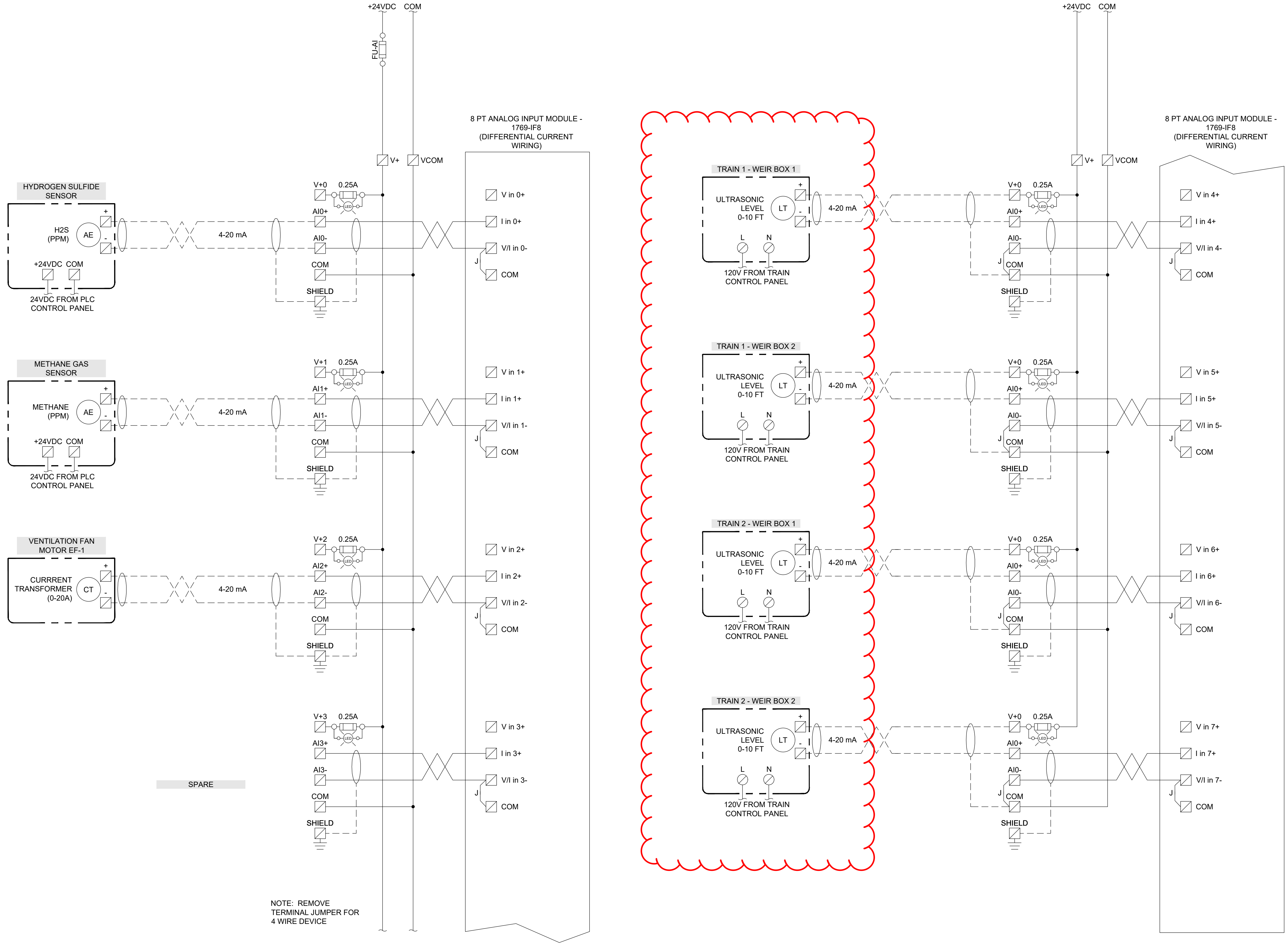
EASTSOUND SEWER AND WATER DISTRICT
SAN JUAN COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2
DEWATERING BUILDING PLC CONTROL PANEL – ANALOG INPUTS – SHEET 2

DATE: 01-24-2025
SCALE: AS SHOWN
JOB NUMBER: 2023-123
SHEET: E7.6
PAGE: 86 OF 91

Call 811 two business days before you dig

GENERAL NOTES:

1. THESE SCHEMATICS SHOW FUNCTIONAL REQUIREMENTS OF THE PLC CONTROL PANEL. SYSTEM INTEGRATOR SHALL PROVIDE DETAILED CONTROL PANEL DESIGN AND DOCUMENTATION FOR A COMPLETE AND OPERATIONAL SYSTEM.



DEWATERING BUILDING PLC CONTROL PANEL - ANALOG INPUTS

SCALE: NONE

NO.	REVISIONS	BY	DATE

ZTEK ENGINEERING
123 Ohme Garden Rd, Suite C1
Wenatchee, WA 98801

WILSON ENGINEERING
WILSONENGINEERING.COM

BRIAN L. ZIESMER — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 37463

DESIGNED BY BZ
DRAWN BY BZ
CHECKED BY BZ

EASTSOUND SEWER AND WATER DISTRICT

SAN JUAN COUNTY — WASHINGTON

WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

DEWATERING BUILDING PLC CONTROL PANEL – ANALOG INPUTS – SHEET 3

DATE 01-24-2025
SCALE AS SHOWN
JOB NUMBER 2023-123

SHEET E7.7
PAGE 87 OF 91

Call 811 two business days before you dig

BID SET