



HIGHFILL

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To: Prospective Bidders

Copies:

Date: February 23, 2024

Proj. No.: SUR2201

Subject: Addendum No. 1
Surf City WWTF Digester/Sludge Holding Tank
Surf City, NC
Owner: Town of Surf City

ADDENDUM NO. 1

BID DATE: ~~February 29, 2024 @ 2:00 PM~~ March 7, 2024 @ 2:00 PM

REVISED BID DATE: March 7, 2024 @ 2:00 PM

Please be advised of the following changes in the plans and specifications for this project:

Item 1.1: Bid date has been extended to **March 7, 2024 at 2:00 PM**. No change in location.

Item 1.2: Blower and Jet aeration/mixing equipment shall be provided by a single manufacturer.

Questions received and Engineer's response:

Item 1.3: I see (246) timber piles are in the specs at 30TONS allowable compression, and 5TONS allowable tension load capacities. Please let me know if we can quote this scope utilizing HELICAL PIERS in place of the timber piles. The load capacities for helical piers can be monitored as we advance them, unlike timber Piles where there is no economical way to monitor the load capacities as they are being advanced, Helical piers depths and load capacities are constantly monitored. Also there are no spoils or pile driving vibrations with helical piers. Please let me know if our engineers can review the Geotechnical report and see if we can be more economical and efficient.

- **Helical piles shall not be considered. Foundation shall be installed as designed.**

Item 1.4: Do you have a spec section that we could reference for the Digester pump control panel similar to what Section 333211 provided for the decant pump control panel?

- **Utilize Section 33 32 11 for decant pump control panel requirements. Panel for interconnect pumps shall be modified to only operate the single interconnect pump at each tank.**

Item 1.5: Reference SPEC 01 60 00: Domestic Products: Where the project's special provisions or Supplementary Conditions require "Buy American," except where specified otherwise, domestic products are required and interpreted to mean products mined, manufactured, fabricated, or produced in United States or its territories. Is this project AIS?

- AIS is not required.

Item 1.6: The geotechnical report and the drawings for this project indicate that the timber pile are anticipated to be approximately 40-45 feet long and driven to hard strata. Specification 31 62 19 – Timber Pile includes the following paragraph on unit prices:

1.03 UNIT PRICES

- A. General: See Division 1 Section "Unit Prices" for piles affected by unit prices.
- B. The Contract Sum: Base the Contract Sum on number and dimensions of piles indicated from tip to cutoff, plus not less than 12 inches of overlength for cutting piles at cutoff elevations.
- C. Work of this Section is affected as follows:
 - 1. Additional payment for pile lengths in excess of that indicated, and credit for pile lengths less than that indicated, will be calculated at unit prices stated in the Contract, based on net addition or deduction to total pile length as determined by Architect measured to nearest 12 inches.
 - a. Additional payment for splices required to extend pile lengths in excess of that indicated will be calculated at unit prices stated in the Contract.
 - 2. Additional payment for number of piles in excess of that indicated, and credit for number of piles less than that indicated, will be calculated at unit prices stated in the Contract.
 - 3. Unit prices include labor, materials, tools, equipment, and incidentals for furnishing, driving, cutting off, capping, and disposing of cutoffs.
 - 4. Test piles that become part of permanent foundation system will be considered as an integral part of the Work.
 - 5. No payment will be made for rejected piles, including piles driven out of tolerance, defective piles, or piles damaged during handling or driving.

The current bid form does not include a unit price bid item and quantity for timber piles. Will this be addressed by the forthcoming addendum.

- **Remove Sections 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure from the project manual and replace with the attached sections. Refer to new Sections attached.**

Item 1.7: Does Build America Buy America (BABA) apply to the Project? During the Pre-Bid Conference it was stated the Project is not receiving SRF funding, and that compliance with AIS was not a requirement for this project. However, we need clarification based on the ARPA funding and the funding amount if BABA compliance factors into this project.

- **State-ARPA funding for this project does not require American Iron and Steel or Davis Bacon requirement.**

- Item 1.8:** The cast-in-place concrete specifications (03300-2.14-C) state to use 5,000 PSI concrete for the tank walls and slabs, but the drawing notes say that “All concrete is 4,500 PSI”. Please clarify the compressive strengths of concrete to be used throughout the project.
- **Concrete Specifications govern and 5,000 psi should be used as specified.**
- Item 1.9:** Please provide specifications for the miscellaneous metals (grating, railings, support framing, etc.) to be used for the metals / walkways / stairs added as part of this project.
- **All metals for walkways, stairs, etc. shall be Aluminum and as specified by the general notes on S2 and the various sections.**
- Item 1.10:** The drawings indicate that a Greenstreak 773 flat ribbed waterstop is to be used on the tank walls/mat foundation. Spec 03300-2.7-A indicates that a dumbbell style with center bulb is to be used as waterstop. Please indicate which waterstop profile is to be used.
- **Use the water stop indicated in the project specifications.**
- Item 1.11:** Dewatering – Spec Section 31 23 19-1.6-B references Contractor obtaining discharge permits if the Owner permits do not cover discharge of water. Please clarify the intent of this spec and if this is applicable. Obtaining an NPDES permit will impact schedule and sequencing.
- **NPDES permit applies for storm water, not construction activities. Water discharged from dewatering activities should be discharge in a non-erosive manner.**
- Item 1.12:** Dewatering - Can we discharge into the existing post-EQ basin or one of the other basins onsite, provided the water is clean, which it should be (the boring logs show we should be in clean sand at 2’ below subgrade)? Specs state it is acceptable to discharge clean, odorless water into a storm drain system. Is there a storm drain system onsite to accommodate this?
- **Clean water may be discharged to storm water ditches located on site.**
- Item 1.13:** Stockpiling - can we utilize the area designated as future expansion to stockpile topsoil and suitable excavated material?
- **Contractor may coordinate stockpile location with the Owner. Stockpiles shall have erosion control in place and shall not interfere with plant operations.**
- Item 1.14:** Please clarify which Bid Form Pay Item we apply the 16” diameter ductile iron pipe, fittings, and valves to.
- **Piping for jet mixing pump and aeration header shall be included in Pay item 3/3A of the attached bid form.**

- Item 1.15:** Please confirm that all ductile iron MJ yard pipe, fittings, and exposed flanged piping is to be epoxy lined for all piping systems/services.
- **All ductile iron pipe shall be epoxy lined.**
- Item 1.16:** Please clarify if there are any planned requirements for Bypass Pumping. The specifications contain a Bypass Pumping spec, but do not identify where Bypass Pumping is necessary/required.
- **Bypass Pumping specification was provided if determined to be needed. Bypass pumping is not anticipated for this project. Construction may not interfere with plant operations.**
- Item 1.17:** During the Pre-Bid Conference it was stated the intent of Pay Item #25 was to re-coat all existing, exposed, outdoor piping. This does not align with the general notes on Drawings C-1.0 and C-1.1 which limit this scope to the piping & appurtenances around the SBR Basins and Digester. Please issue some new drawings with photos, etc. of existing piping systems to be re-painted to help quantify the limits of this scope and the Bid Form Pay Item.
- **Coating shall include all exposed ductile iron piping. Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**
- Item 1.18:** Are all buried and exposed DIP fittings to be included in Pay Item 10 for labor, material, etc.?
- **Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**
- Item 1.19:** Sheet C 1.4: Is there any additional ductile iron pipe below the 10" 90 called out in Key Note 25?
- **No additional pipe is beyond the 90° bend.**
- Item 1.20:** Please confirm which Pay Item we charge the 8" diameter Stainless Steel air piping from the blower to the submerged Jet Aeration to?
- **Items associated with Aerobic Digester equipment should be included in Item 3 and 3A new bid form.**
- Item 1.21:** Can a section view of the 8" Air Piping (from Blower to submerged piping) be provided to better detail the pipe/fittings/and valves required?
- **Blower assembly shall be installed on a concrete pad that shall sit six inches above grade. No additional detail will be provided.**

- Item 1.22:** Can a section view of the 8" Sludge Waste piping at elev 38.77 be provided to better detail the pipe/fittings/and valves required? It is shown in Plan View on Drawing C-1.4 but we are not able to locate a section view.
- **Refer to the attached detail for the waste sludge connection. Sheet C-1.4 will be revised to show a waste sludge connection centerline. Power shall be provided to flow meter as shown in revised Sheet E-0.1 and Sheet E-1.2 attached.**
- Item 1.23:** Can consideration be given to an alternate deep foundation system at the new Aerobic Digester? Specifically, would it be acceptable to propose a helical pile alternate to the specified timber piles?
- **Utilize timber piles as indicated in the contract bid documents.**
- Item 1.24:** Please confirm which type of form tie systems are to be used for the concrete walls. For ganged forms, is it acceptable to use either She-bolts with coil rod, or taper ties? If taper ties are acceptable, can we use friction fit plugs to seal the tie hole?
- **Form work and materials shall be by the delegated form work engineer as required by the project specifications.**
- Item 1.25:** Supplementary Conditions SC-10.03 indicate a Resident Project Representative (RPR) will be appointed for this Project. Is Contractor required to furnish any temporary field office/office trailer, office consumables, or other temporary onsite construction facilities for the exclusive use of the RPR?
- **No.**
- Item 1.26:** Can the starter wall ("starter curb") referenced in Detail 4/S8 be modified to indicate a nominal 4" raised keyway in lieu of a starter wall?
- **A contractor-requested modification to the starter wall will be reviewed by the EOR if requested by the contractor, subs or the formwork engineer. The modification above may be considered if all parties agree to the change.**
- Item 1.27:** The Timber Pile specification 31 62 19-1.03 indicates payment for the Timber Piles (additional payment for pile lengths or quantities in excess of that indicated, and credit for pile lengths or quantities less than that indicated) will be calculated at unit prices stated in the Contract; however, there is no unit price Pay Item on the Bid Form for Timber Piles. Please clarify how payment will be agreed upon for differing pile lengths or differing pile quantities.
- **Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**

- Item 1.28:** Contract Drawing S10 LEGEND and S11 LEGEND indicates 1-1/4" FRP grating for the new walkways. Contract Drawing S11 (and Section 1/S14) indicates 2" FRP grating. The existing walkway grating at the existing Digester is not FRP. Please confirm grating type and depth.
- **The grating shall be FRP with the size as shown on section 1/S14, i.e. 2". The legend will be revised to 2" FRP for the issued for construction drawings.**
- Item 1.29:** Can the Qualifications Statement (C-451), particularly all company financial information and experience requested in Sections 10, 11, 12, and 13 (including Schedules A, B, and C of same) be submitted post-bid by the apparent low, responsive Bidder in lieu of being submitted with the Bid at time of Bid Opening?
- **Provide Qualifications Statement (C-451) within 10 days of apparent low bid notification.**
- Item 1.30:** The proposed walkways and stair modifications shown on Drawing C-1.1 at the existing Aerobic Digester will conflict with an existing concrete pilaster (see attached photo). Please advise.
- **Extend landing four feet to clear pilaster and adjust stairs, piping and equipment placement accordingly. Revisions will be included in the issued for construction drawings.**
- Item 1.31:** How many plug valves should be installed on the decanter line from the digester to decanter PS.
- **One 10" DI MJ Plug Valve should be installed. Plug valve shown closest to the wall shall not be installed. Revisions will be included in the issued for construction drawings.**
- Item 1.32:** Please confirm all third-party Quality Control Construction Materials Testing (concrete, subgrade inspections, backfill and compaction testing, etc.) will be provided by others and paid for by Owner outside of this contract. Specification Section 01 40 00-1.5-B isn't clear on which entity (Owner or Contractor) is to employ and pay for the independent testing agency. Section 03300-3.17 and 31 23 00-3.9 appear to indicate these services are furnished and paid for by Owner.
- **All third-party Quality Control Construction Materials Testing shall be provided by Others and paid for by the Owner.**
- Item 1.33:** Specification Section 31 23 00 – Excavation and Fill (page 8) states to "place geotextile fabric over structural or granular fill prior to placing next lift of fill." Structural Fill is specified to be placed in lift thicknesses of 8" maximum depth. Is the intent to provide a layer of geotextile fabric every 8"?
- **Geofabric is only required for placement of structural fill.**
- Item 1.34:** Please clarify what size (2"?) the new air release valves are to be?
- **Provide ARVs sized as specified in the drawings.**

- Item 1.35:** Please clarify which Pay Item fabricated ductile iron wall castings are to be charge to?
- **Wall casting shall be provided in Pay Item 2. Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**
- Item 1.36:** Please clarify which Pay Item dismantling joints are to be charged to?
- **Dismantling joints shall be provided in Pay Item 6. Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**
- Item 1.37:** We are seeing significant discrepancies with the pipe units in the Bid Form.
- **Refer to attached revised Section 00410 – Bid Form and Section 01 20 00 – Price and Payment Procedure.**
- Item 1.38:** Specification Section 11 17 00 - Lifting Equipment calls for a 12-month period of Continuing Maintenance of loading dock equipment. Is this maintenance program intended for the Davit Cranes in this project? There are no loading docks in this project.
- **A 12-month period of continuing maintenance shall be provided for Davit Crane.**
- Item 1.39:** The Drawings call for 2,000-LBS davit crane bases, and the specifications call for 1,000-LBS davit cranes. Please confirm that this is the intent.
- **Davit crane shall have a capacity for 2,000 LBS at a reach of six feet.**
- Item 1.40:** The Lifting Equipment specification does not specify if there is to be a Davit Crane at each of the 4 crane bases, or if the intent is to have 1 Davit Crane and 4 bases with the plan to move the crane to the location where needed. Please clarify.
- **Provide a total of four davit cranes.**
- Item 1.41:** Can questions from all Bidders, and Engineers responses, be included with all Addenda?
- **All questions received from bidders thus far are provided in this addendum.**
- Item 1.42:** The Wastewater Pumping Stations call for the submersible pump discharge piping to be Schedule 40S 316 stainless steel discharge piping and the drawings show the pipe to be ductile iron pipe. Please clarify.
- **Discharge piping shall be ductile iron.**
- Item 1.43:** Will an Arc Flash Study be required for the Submersible Pumps as referenced in section 2.14 of Specification 33 32 11?
- **Yes, Arc flash studies are required for installed panels.**
- Item 1.44:** The liquid header of the jet aeration pipe is called out to be 14-inch diameter on the Drawings, but the supply piping is 16-inch diameter between the pump and Digester. Please confirm piping sizes or if a reducer is required?

- Pipe diameter reduces from 16-inch to 14-inch at bend.

Item 1.45: The Valve Schedule in the Aeration Equipment Schedule calls for one (1) 16-inch plug valve, but the drawings show two (2) each 16-inch plug valves in the jet aeration piping. Please clarify.

- Provide two 16-inch plug valves as shown in the drawings.

Item 1.46: The Valve Schedule for the Jet Aeration Equipment calls for a 14-inch plug valve, but there is no 14-inch plug valve in the piping on the jet aeration system shown. Please clarify.

- Provide two 16-inch plug valves as shown in the drawings. No 14-inch plug valves are required.

Item 1.47: The Valve Schedule for the Jet Aeration Equipment calls for two (2) each 10-inch valves for the decant control. There is one (1) 10-inch valve shown on the drawings. Please clarify.

- Provide one 10-inch plug valve on the decant line between the tank and digester decanter tank.

Item 1.48: The blower spare parts for the Jet Aeration Equipment call for "One Blower". Please clarify if the requirement is to provide one additional complete blower package per the specifications with all accessories, or, if it is just the blower without motor, valves, silencers, enclosure, etc.

- Blower manufacturer shall provide a spare blower and motor.

Item 1.49: Is the electrical ductbank that will be necessary to route the power/control from the Control Building to the new Digester required to be concrete encased and/or reinforced? The drawings do not show a ductbank nor can we locate any notes/details in the drawings or specs regarding details of ductbanks.

- Concrete encasement not required.

Item 1.50: Can the limits of disturbance be shifted out to the East? With a sloped excavation for the new Digester Decanter Tank, we will be well beyond the limits shown on Contract Drawing C-1.1. It looks like on the drawings that the limits where it's tight are not involved with the wetland limit.

- Limits of disturbance may not be shifted. Utilize shoring as required.

Item 1.51: Section 03300 pages 10 and 11 call for 3 different mix designs for the footings, slab and wall but sheet S-2 in the concrete notes call for 4,500PSI concrete. Please verify which is the correct strength.

- Question answered above.

- Item 1.52:** What concrete mix will require the silica flume and the corrosion inhibiting admixtures?
- **Mix design and proportions should follow the specification as defined in Section 03 30 00. Mix design shall be reviewed during submittals.**
- Item 1.53:** Please verify the slump on the mix, Section 03300 calls for a 4" slump but sheet S-2 calls for a 6 to 8" slump (achieved with super plasticizer).
- **Specifications govern, 4-inch slump is required. If the contractor proposes a higher slump to meet their placement by pump or required for a specific pump, EOR will review the request during the submittal process.**
- Item 1.54:** On the formed finished walls is manual rubbing required or is a concrete coating (Thuroseal) acceptable?
- **Manual rubbing is required.**
- Item 1.55:** What is the budget estimate for the project?
- **Budget range is \$5,000,000 to \$6,000,000.**

No further changes at this time.

Please acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may constitute grounds for the rejection of your Bid.

HIGHFILL INFRASTRUCTURE ENGINEERING, P.C.

Jeffrey Ray, P.E.



Attachments:

- A – Section 00 41 00 – Bid Form
- B – Section 01 20 00 – Price and Payment Procedure
- C – 4/MD-1.0 - Waste Sludge Connection Detail (Shall be included in Issued for Construction set)
- D – Revised Sheet E-0.1 and Sheet E-1.2 (Shall be included in Issued for Construction Set)

BID FORM

Project: **WWTF Digester/Sludge Holding Tank**
Contract: **Contract 1**
Bid From: _____

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Mailing address:

**David Price
Director of Utilities
214 W. Florence Way
Hampstead, NC 28443**

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

UNIT PRICE BID SCHEDULE – BASE BID					
Pay Item No.	Item Description	Est. Qty.	Units	Unit Price Bid	Extended Total
1	Mobilization (2% Max)	1	LS		
2	Aerobic Digester/Decanter Tank	1	LS		
3	Aerobic Digester Equipment	1	LS		
4	Digester Interconnect Pump	2	EA		
5	Decanter Pump	2	EA		
6	Ductile Iron Piping, Fittings & Valves	1	LS		
7	3" PVC Water Service	300	LF		
8	Combination Air Release Valve	2	EA		
9	Yard Hydrant	1	EA		
10	Davit Crane	4	EA		
11	Electromagnetic Flow Meter	1	LS		
12	Valve Vault	1	LS		
13	Stairs and Walkways	1	LS		
14	Bollards	8	EA		
15	Miscellaneous Concrete	10	CY		
16	Gravel Driveway	1	LS		
17	Select Backfill	50	CY		
18	Undercut of Unsuitable Soils & Replacement with Stone	110	CY		
19	Erosion Control Measures	1	LS		
20	Electrical	1	LS		
21	SCADA Allowance	1	LS	\$20,000	\$20,000
22	Contingency Allowance	1	LS	\$50,000	\$50,000

Total of Unit Price Bid – Base Bid \$ _____

Low bidder shall be selected based on base bid amount.

Owner will select the following add/deduct items based on available funds.

The following is an Add/Deduct for providing equipment provided by Fluidyne for the Aerobic Digester

UNIT PRICE BID SCHEDULE – AEROBIC DIGESTER WITH FLUIDYNE EQUIPMENT					
Pay Item No.	Item Description	Est. Qty.	Units	Unit Price Bid	Extended Total
3A	Aerobic Digester w/ Equipment Provided by Fluidyne	1	LS		

Total Add/Deduct \$ _____

The following is an Adder to coat existing piping at the WWTP.

UNIT PRICE BID SCHEDULE – COATING EXISTING PIPING					
Pay Item No.	Item Description	Est. Qty.	Units	Unit Price Bid	Extended Total
23	Coating Existing Piping-SBR & Aerobic Digester	1	LS		
24	Coating Existing Piping-UV Disinfection, Effluent PS, & Headworks	1	LS		

Total Adder \$ _____

The following is an Add/Deduct for timber pile installation.

UNIT PRICE BID SCHEDULE – TIMBER PILE INSTALLATION					
Pay Item No.	Item Description	Est. Qty.	Units	Unit Price Bid	Extended Total
2A	Add/Deduct for Pile Lengths Installed Under or Beyond Depth Shown in Drawings.	1	VF		
2B	Additional Timber Piles Beyond Quantity Shown in Drawings	1	EA		

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers of materials and equipment;
 - D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - E. Contractor's State (NC) License No.: XXXXXXXXXX
 - F. Qualification Statement (C-451). Provide C-451 with 10 days of notification as apparent low bidder.
 - G. Provide NC Division of Water Infrastructure MBE/WBE (DBE) Compliance Supplement.
 - H. In accordance with GS 64-26(a), Bidders shall submit the E-Verify Affidavit to document that the work authorization of their employees has been verified through E-Verify. The Affidavit shall also document that the Bidders subcontractors comply with E-Verify.
 - I. Iran Divestment Act Certification

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

Area intentionally left blank

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By: _____
[Signature]

[Printed name]

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
[Signature]

[Printed name]

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____

Bidder's Classification: _____

Bidder's Limitation: _____

Employer's Tax ID No.: _____

LIST OF PROPOSED SUBCONTRACTORS

Work Category	Name and License No.	Corporate Address
	Name: _____ _____ State of Licensure: _____ License No.: _____	
	Name: _____ _____ State of Licensure: _____ License No.: _____	
	Name: _____ _____ State of Licensure: _____ License No.: _____	
	Name: _____ _____ State of Licensure: _____ License No.: _____	

LIST OF PROPOSED MATERIAL AND EQUIPMENT SUPPLIERS

Materials/Equipment*	Supplier/Manufacturer
Aerobic Digester Equipment	
Aerobic Digester Interconnect Pumps	
Decanter Tank Pumps	
Plug Valves	
Check Valves	

* List equipment to be rented.

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Allowances.
 - 2. Schedule of Values.
 - 3. Application for Payment.
 - 4. Change procedures.
 - 5. Unit prices.

1.2 Allowance

- A. Contingency Allowances:
 - 1. Contingency allowances shall be in accordance with the Standard General Conditions of the Construction Contract, Article 11.02.C Contingency Allowances, as modified by the Supplementary Conditions.
 - 2. Include in Contract a stipulated sum/price for use upon Owner's instruction as a contingency allowance.
 - 3. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead, and profit will be included in Change Orders authorizing expenditure of funds from this contingency allowance.
 - 4. Funds will be drawn from contingency allowance only by Change Order.
 - 5. At closeout of Contract, funds remaining in contingency allowance will be credited to Owner by Change Order.
- B. Testing and Inspection Allowances:
 - 1. Costs included in Testing and Inspecting Allowances:
 - a. Cost of engaging testing and inspecting agency.
 - b. Execution of tests and inspecting.
 - c. Reporting results.
 - 2. Costs not included in Testing and Inspecting Allowance but included in Contract Sum/Price:
 - a. Costs of incidental labor and facilities required to assist testing or inspecting agency.
 - b. Costs of testing services used by Contractor separate from Contract Document requirements.

- c. Costs of retesting upon failure of previous tests as determined by Engineer.

3. Payment Procedures:

- a. Submit one copy of inspecting or testing firm's invoice with next Application for Payment.
- b. Pay invoice upon receipt of payment by Owner.

1.3 SCHEDULE OF VALUES

- A. See the Standard General Conditions of the Construction Contract, Subparagraph 2.03.A.3, as modified by the Supplementary Conditions, for Schedule of Values requirements.

1.4 APPLICATION FOR PAYMENT

- A. See the Standard General Conditions of the Construction Contract, Article 15.01, Progress Payments, as modified by the Supplementary Conditions, for payment procedures and requirements.

1.5 CHANGE PROCEDURES

- A. See the Standard General Conditions of the Construction Contract, Article 11, Amending the Contract Documents; Changes in the Work, as modified by the Supplementary Conditions, for change procedures.

1.6 UNIT PRICES

- A. See the Standard General Conditions of the Construction Contract, Article 13.03 Unit Price Work, as modified by the Supplementary Conditions, for Unit Price Work requirements.
- B. Unit Quantities: Quantities indicated on Bid Form are for Contract purposes only. Actual quantities provided shall determine payment.
- C. Payment includes full compensation for furnishing required labor, materials, products, tools, equipment, plant and facilities, transportation, services, and incidentals; erection, application, and/or installation of the item of Work; including overhead and profit. The unit price provided shall be the only compensation for the complete installation.
- D. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer, multiplied by the unit price for Work incorporated in or made necessary by the Work.
- E. Measurement of Unit Price Work
 - 1. Measurements shall be made as necessary to allow quantification of the Work at the close of each day's construction. Measurements shall be made by the Contractor.
 - 2. The quantities to be paid for and their respective locations shall be recorded and agreed upon at the close of each week's construction by the Resident Project Representative, and the Contractor's personnel in charge. A quantity log will be maintained daily by the Contractor and agreed upon by the Resident Project Representative.

3. A copy of the log, which also signifies said agreement, shall be furnished to the Engineer's Project Representative daily by the Contractor.
4. The Contractor shall furnish the Owner with a weekly statement of the agreed-upon quantities and their respective locations.

1.7 FINAL PAYMENTS

- A. Final payments to the Contractor shall be made on the basis of actual quantities of Work completed, as determined by field measurements, in accordance with the following Unit Price Pay Items. Item numbers are referenced to the Bid Form.

Item 1. Mobilization: A lump sum payment less than or equal to 2% of the total Bid Price (to include all bonds, insurance, and mobilization of equipment) will be allowed for 'mobilization' as a progress payment line item. The required USDA project sign is included under this line item. The submittal application and associated costs of obtaining the building permit from Onslow County for construction is included under this line item. The actual cost of bonds and insurance (up to the maximum payment of 2%) will be considered in the initial payment request provided that cost documentation suitable to the Engineer is furnished by the Contractor. The outstanding balance of the mobilization pay item will be payable when the Work is 10% complete as indicated by the approved progress payments, less the cost of mobilization and stored materials.

Item 2. Aerobic Digester/Decanter Tank: Lump sum price for furnishing and installing Aerobic Digester and Decanting Tank. Lump sum price shall include furnishing all equipment, components, and labor required to properly install the concrete, forms, rebar, pilings, grating, pipe penetrations and associated supports as detailed in the Construction Drawings. The price shall also include site preparation, clearing, excavation, removing and hauling excess material (legally) from the site, backfilling, grading, shoring, dewatering associated with the installation of the concrete tanks and foundation, and as-built survey of improvements.

Item 2A/B. Aerobic Digester/Decanter Tank – Timber Pile Unit Prices: See Specification 31 62 19 – Timber Pile for Unit Price Description. Add/deduct per vertical foot driven and installed over or under the depth shown in the drawings as confirmed by ITL during construction.

Item 3. Aerobic Digester Equipment: Lump sum price for furnishing and installing all accessories and appurtenances required for a complete jet aeration and mixing system and floating supernatant decanter. The equipment is to be installed in the aerobic digester tank shown on the plans and in specification Section 46 73 21. System equipment includes, but not limited to, in-basin jet aeration and mixing manifolds including jet aeration nozzles, air & liquid piping, backflush piping, valves, air-flow meter, ductile iron pipe and valves, all required in-basin supports, external mounted dry pit horizontal jet mixing pump, positive displacement blower and floating supernatant decanter. Price shall also include modifying existing WTF software to incorporate new aerobic digester. Price shall include labor for startup.

Item 3A. Aerobic Digester Equipment Provided by Fluidyne: Lump sum price for furnishing and installing all accessories and appurtenances required for a complete jet aeration and mixing system and floating supernatant decanter as supplied by Fluidyne. The equipment is to be installed in the aerobic digester

tank shown on the plans and in specification Section 46 73 21. System equipment includes, but not limited to, in-basin jet aeration and mixing manifolds including jet aeration nozzles, air & liquid piping, backflush piping, valves, air-flow meter, ductile iron pipe and valves, all required in-basin supports, external mounted dry pit horizontal jet mixing pump, positive displacement blower and floating supernatant decanter. Price shall also include modifying existing WTF software to incorporate new aerobic digester. Price shall include labor for startup.

- Item 4. Digester Interconnect Pump:** By the number furnished and installed as shown. Unit price shall include all materials, equipment and labor required for the installation of the pump, base, floor plate, rails, rail supports, lifting chain, and pump control panel.
- Item 5. Decanter Pump:** By the number furnished and installed as shown. Unit price shall include all materials, equipment and labor required for the installation of the pump, base, floor plate, rails, rail supports, lifting chain, and pump control panel.
- Item 6. Ductile Iron Piping, Fittings & Valves:** Lump sum price. Pipe above grade shall include flanges, flanged fittings, dismantling joints, connection to existing piping, modification to existing piping to accommodate new piping, pipe supports, concrete pipe supports and all other accessories for the installation of above grade piping. Pipe installed below grade shall include furnishing and installing all pipe, mj fittings and appurtenances including excavation bedding stone, backfill, compaction, concrete blocking, dewatering, shoring, sheeting and bracing. Where existing piping and fittings are removed, price shall include legal disposal. Price shall include mj plug valves, flanged plug valves, check valves, and pressure gauges Price shall include all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation. Pipe and valves connected to jet aeration/mixer shall be paid for in Item 3/3A.
- Item 7. 3" PVC Water Service:** By the price per linear foot furnished and installed beginning to end, through valves and fittings. Unit price provided shall be the only compensation for the complete installation and includes furnishing and installing all pipe and appurtenances including excavation bedding stone, backfill, compaction, concrete blocking, dewatering, shoring, sheeting and bracing, support and reconnection of existing utilities, testing, and all other incidental work necessary to provide a complete and ready-to-use system, except for those items segregated.
- Item 8. Combination Air Release Valve:** Price per each furnished and installed. Price shall include combination ARV, connection, isolation valve, and all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation.
- Item 9. Yard Hydrant:** Price per each furnished and installed. Price shall include hydrant, concrete pad, stone and all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation.
- Item 10. Davit Crane:** Price per each furnished and installed. Price shall include crane, base, anchors, preparation of surface, drilling, and all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation.

- Item 11. Electromagnetic Flow Meter:** Price per each furnished and installed. Price shall include 4-inch electromagnetic flow meter, wired transmitter with display screen, flange with 4-inch threaded connection, 4-inch SS piping, camlock connection with cap, 4-inch SS ball valve, pipe support for ball valve and flow meter, and all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation.
- Item 12. Valve Vault:** Unit price per each precast concrete valve vault to be installed. Unit price includes excavation, bedding material, hatch, lock, backfill, surface restoration and all other materials and labor necessary for a successful and complete installation.
- Item 13. Stairs and Walkways:** Lump sum price to furnish and install new aluminum stairs and walkways. The price shall include all materials including supports, grating, handrails, columns, footings, concrete pads, chains. Price shall also include modifying, demolishing, and properly disposing of existing stairs and walkways as denoted in the drawings. Price shall also include concrete supports, testing and incidental items listed in Paragraph B below.
- Item 14. Bollards:** Price per each furnished and installed. Price shall include all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation.
- Item 15. Miscellaneous Concrete:** Price per cubic yard furnished and installed. Price shall include structural concrete, forms, rebar, ties and all materials, equipment, labor, and incidental items listed in Paragraph B below for complete installation. Concrete for stairs and walkways footings shall be paid in Item 18.
- Item 16. Gravel Driveway:** Lump sum price for installation of the gravel driveway turnaround. Price shall include placement of stone, geofabric, placement, compaction, dressing, site preparation, removal of remaining previous turn around stone, connection to the existing gravel driveway and all other materials and labor necessary for a successful and complete installation.
- Item 17. Select Backfill:** By the number of cubic yards as authorized for placement as backfill. The price shall include removal of unsuitable soils and replacement with select backfill as measured in-place to a width not to exceed the maximum authorized trench width. For pipe, the authorized trench width shall be equal to the nominal pipe diameter plus 2 feet, with a 3-foot minimum width. This item is to be used only when authorized by the Owner or Owner Representative.
- Item 18. Undercut of Unsuitable Soils & Replacement with Stone:** By the price per cubic yard as approved by Engineer/ Measurement shall be based on the actual quantities removed. Take measurements in the presence of the Engineer. Maintain daily log sheets of measured quantities. Log sheets must be signed by Engineer and submitted with payment request. Payment shall not be made for quantities that have not been field verified by the Engineer. Price shall include the complete removal and disposal of unstable soil including, but not limited to, excavating, loading, hauling, properly disposing of excavated material, and providing stone for backfill. Providing stone material for backfilling shall include, but not be limited to, material, loading, hauling, placing and compacting.

- Item 19. Erosion Control Measures:** Lump sum price for installation, maintenance, and removal of temporary erosion control measures including construction entrances, check dams, silt fence, diversion ditches, sediment traps, rock pipe inlet protection, wattles, erosion control matting, seeding and mulching. Up to 75% of price will be paid when all measures are in place, 15% will be paid for on-going maintenance, and 10% will be paid upon removal of measures and final stabilization of all areas. The lump sum price includes all materials, equipment and labor required to stabilize all disturbed areas with final cover acceptable to the Owner.
- Item 20. Electrical:** Lump sum price to furnish and install electrical improvements including modifying existing control panels and other existing electrical equipment. Price shall also include demolition and disposal, as directed, of existing equipment, conduits, controls panels, wiring, and including all necessary components to provide a complete and ready-to-use system for the aerobic digester and decanting tank.
- Item 21. SCADA Allowance:** Measurement shall not be made for this item. Work shall be performed by Town of Surf City preferred integrator: Custom Controls Unlimited, Inc., 2600 Garner Station Blvd. Raleigh, NC 27603. Furnish and install SCADA equipment to interface with the existing SCADA system including RTUs, PLCs, enclosure. Work includes terminating SCADA signal conductors at the RTU. Contractor is responsible for terminations at each piece of equipment.
- Item 22. Contingency Allowance:** Measurement shall not be made for this item. An allowance has been established for reimbursement of Owner-approved unforeseen conditions which may be encountered in the work during construction.
- Item 23. Coating Existing Piping-SBR & Aerobic Digester:** Lump sum price for coating existing exterior DI piping connected to the existing SBR and Aerobic Digester. Quantities shall include; 45 LF of 4-inch, 135 LF of 6-inch, 405 LF of 8-inch, 70 LF of 10-inch, 60 LF of 12-inch, 205 LF of 18-inch, and 165 LF of 24-inch pipe. Price shall include preparation, existing equipment protection, contamination protection, surface preparation, coating, protection breakdown, and labor necessary for a successful and complete installation.
- Item 24. Coating Existing Piping-UV Disinfection, Effluent PS & Headworks:** Lump sum price for coating existing exterior DI piping connected to the UV Disinfection and Headworks. Quantities shall include; 35 LF of 4-inch, 14 LF of 6-inch, 40 LF of 18-inch, 155 LF of 20-inch. Price shall include preparation, existing equipment protection, contamination protection, surface preparation, coating, protection breakdown, and all other materials and labor necessary for a successful and complete installation.

B. Incidental items

1. The following items shall be considered incidental to the Work and included in the price of the item to which they relate: Project signs, maintenance of existing conditions, demolition, removal and reinstallation of conflicting items, clearing and grubbing, shoring, sheeting and bracing, dewatering, excavation, backfill, compaction, concrete blocking, concrete supports, support and reconnection of existing utilities, traffic control, final grading, cleaning and waste management, planting, temporary facilities, installation of tracer wire for all plastic pipe, disinfection, testing, startup, and all other incidental work.

1.8 SUMMARY

- A. Payments noted above shall constitute full compensation for Work shown and required by the Drawings and Construction Specifications for this contract.
- B. The cost of other auxiliary operations and/or materials required to make a completed project shall be included in the appropriate lump sum or unit price bid.

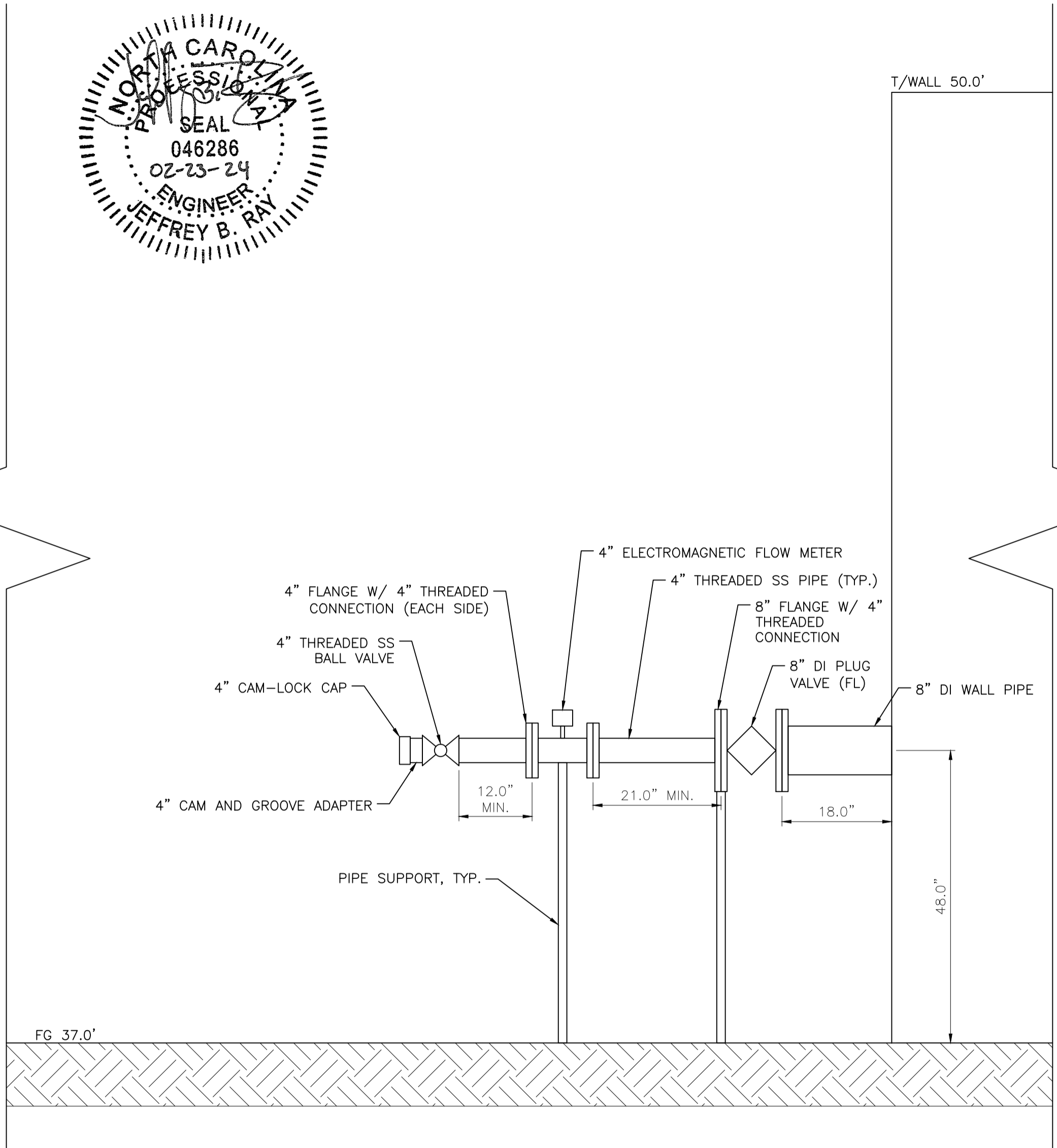
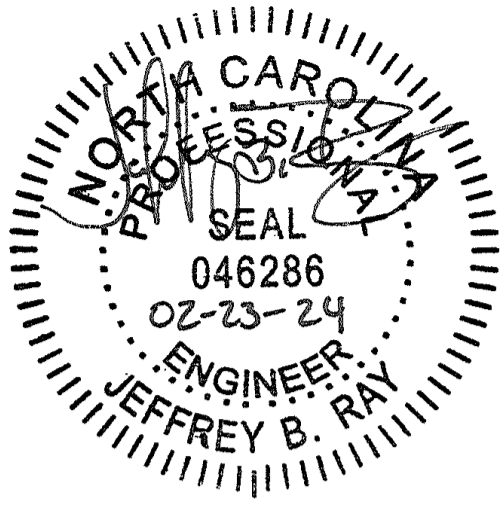
1.9 SALES TAX

- A. Requirements for sales tax are provided in the Supplementary Conditions.

PART 2– PRODUCTS – Not Used

PART 3– EXECUTION – Not Used

END OF SECTION

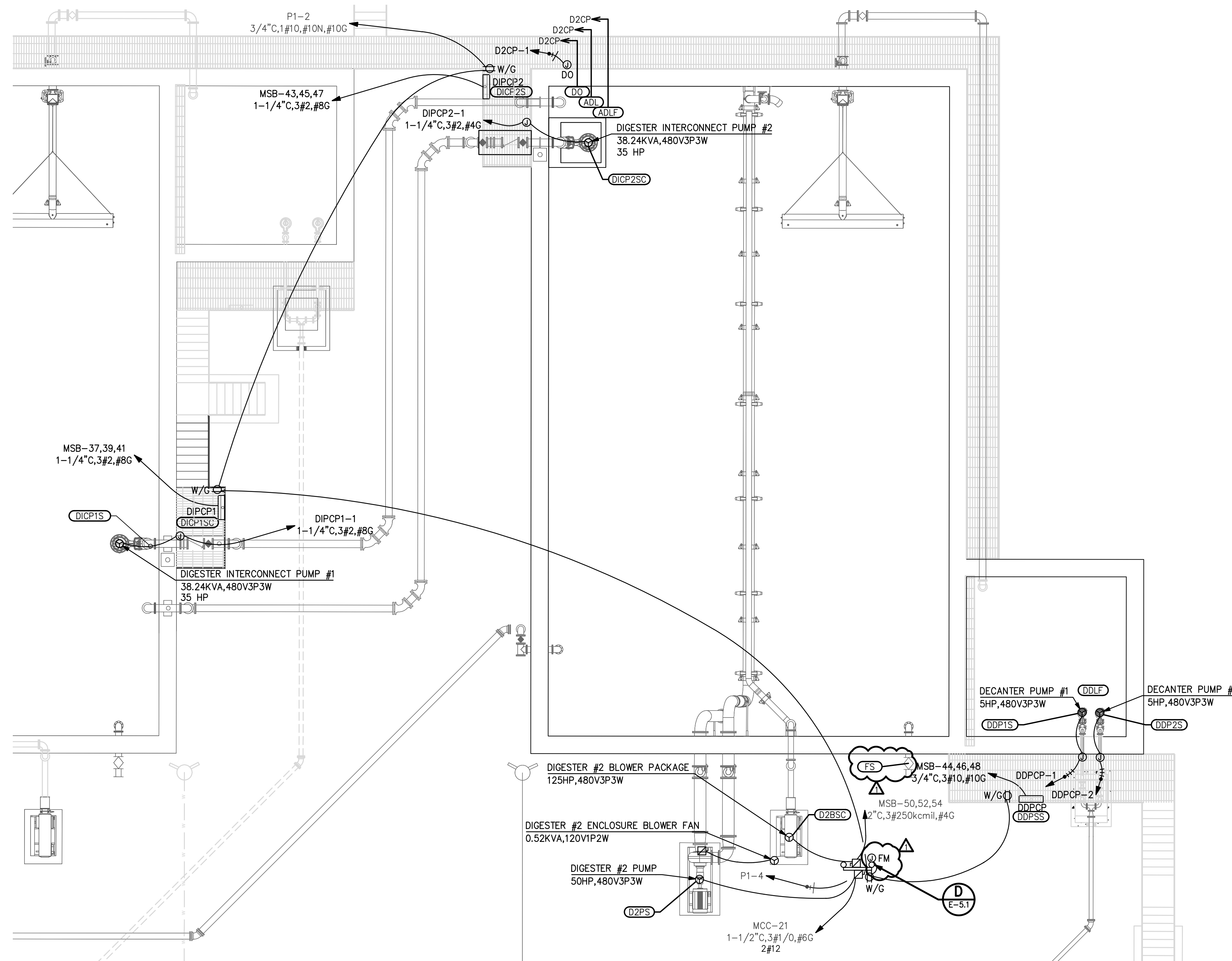


4 WASTE SLUDGE CONNECTION

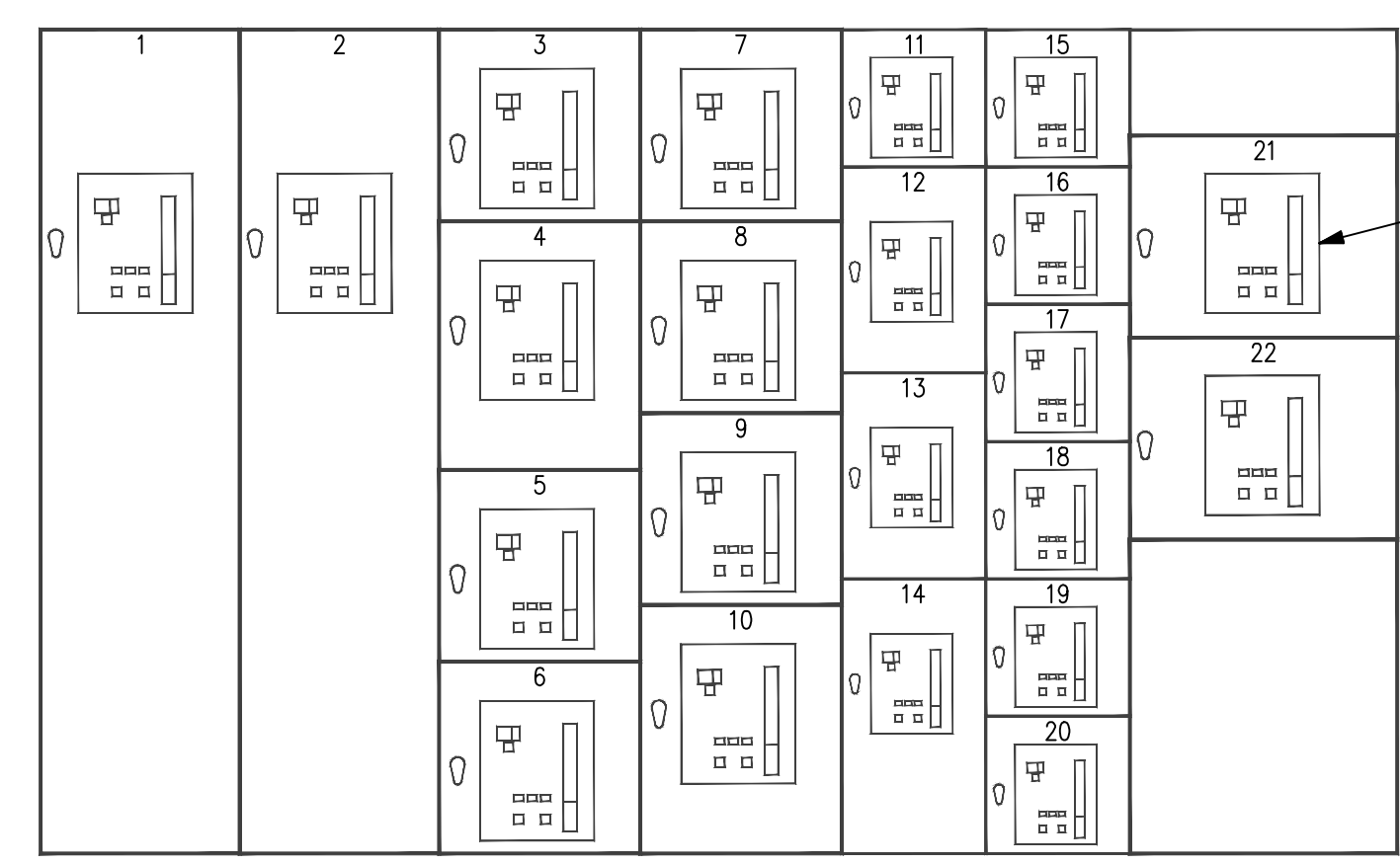
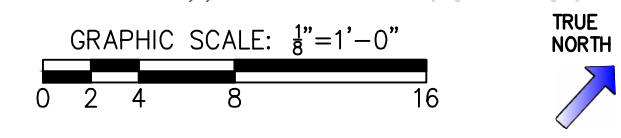
SCALE: N.T.S.

NOTES:

1. ELECTRONIC FLOW METER SHALL BE SIEMENS SITRANS F M MAG 5100 W, OR EQUAL.
2. MOUNT WIRED SITRANS F M MAG 5000 TRANSMITTER, OR EQUAL, ADJACENT TO WASTE SLUDGE CONNECTION.
3. PROVIDE WALL MOUNTED SS WEATHER HOOD TO PROTECT TRANSMITTER FROM THE ELEMENTS



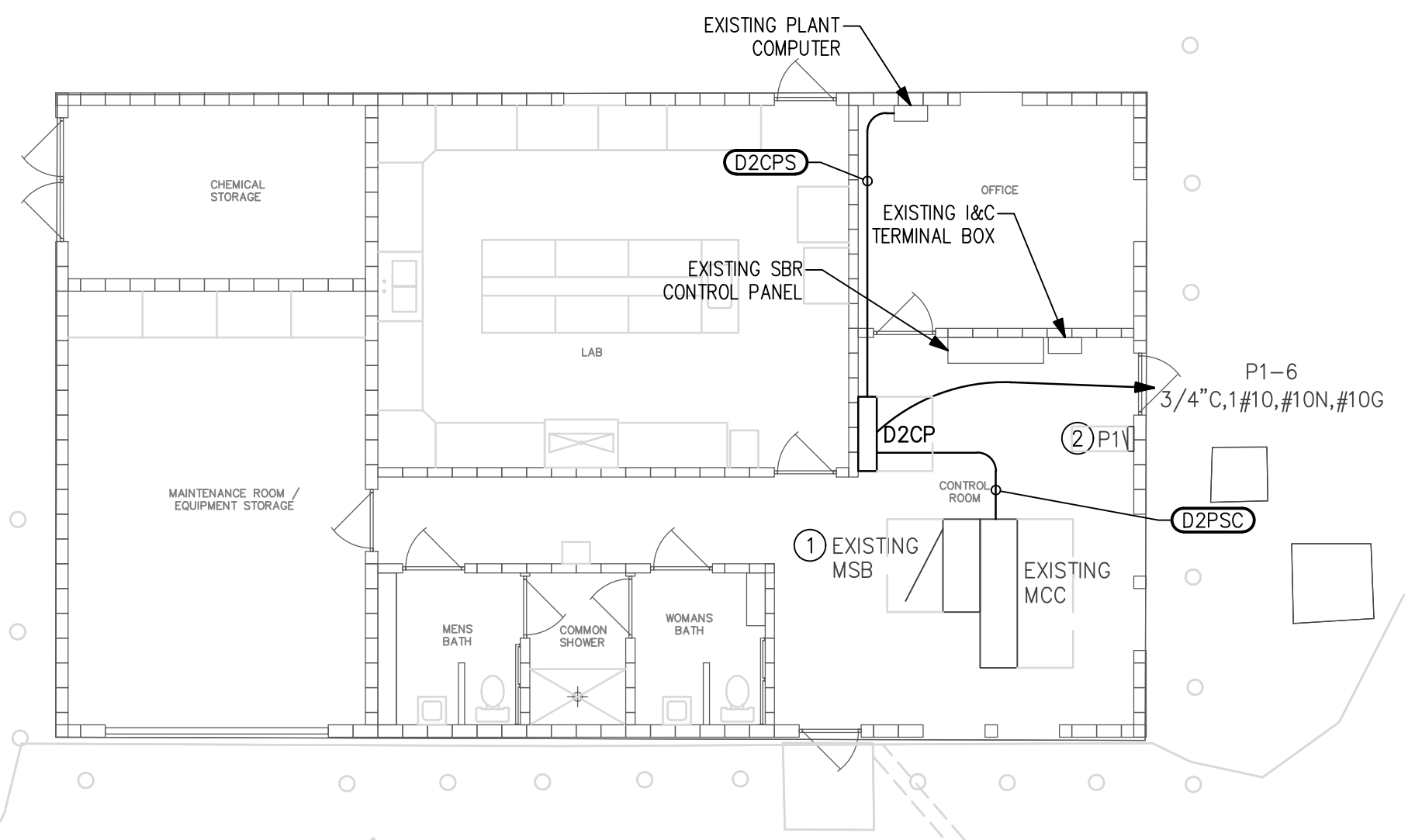
2 ELECTRICAL AEROBIC DIGESTER PLAN
SCALE: 1/8" = 1'-0"



USE EXISTING SPARE STARTER FOR DIGESTER #2 PUMP

KEYED NOTES:

- EXISTING SWITCHBOARD MSB: SQUARE D QED TYPE, 277/480V 3P4W. CATALOG #24377305-005, PLANT CODE #44. PROVIDE THE FOLLOWING BREAKERS:
 - NEW 3P 100AMP BREAKER IN SPACES 37,39,41 TO SUPPLY NEW CONTROL PANEL DIPC1.
 - NEW 3P 100AMP BREAKER IN SPACES 43,45,47 TO SUPPLY NEW CONTROL PANEL DIPC2.
 - NEW 3P 30AMP BREAKER IN SPACES 44,46,48 TO SUPPLY NEW CONTROL PANEL DDPC1.
 - NEW 3P 250AMP BREAKER IN SPACES 50,52,54 TO SUPPLY NEW DIGESTER #2 BLOWER PACKAGE.
- EXISTING PANEL P1: SQUARE D NQ02 TYPE, 120/208V 3P4W. CATALOG #NQ0208. PROVIDE NEW 1P 30AMP BREAKER IN POSITION 6 TO CONNECT NEW CONTROL PANEL D2CP.



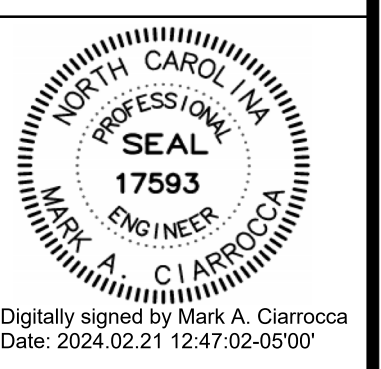
1 ELECTRICAL EXISTING CONTROL BUILDING PLAN
SCALE: 1/8" = 1'-0"

A EXISTING MCC CIRCUIT DIAGRAM
NO SCALE

CHEATHAM & ASSOCIATES, P.A.
CONSULTING ENGINEERS
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SURF CITY WWTF DIGESTER
CITY OF SURF CITY
SURF CITY, NC
ELECTRICAL
PLANS

PROJECT NO.
SUR2201
E-1.2



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Firm License No. C-2586

Engineering is our profession.
Service is our passion.

NO.	DATE	REVISION	BY
1	02/21/24	ADDENDUM: REVISION: ADD FLOW METER	MAC
2	12/01/23	ISSUED FOR BID	MAC