Goodwyn Mills Cawood
1906 E Three Notch Street
Andalusia, AL 36421
T. 334-222-2699

TRANSMITTAL COVER SHEET

DATE: **FEBRUARY 5, 2026**

TO: **ALL CONTRACTORS**

FROM: **DUSTIN TILL**

PROJECT: **CWSRF WWTF IMPROVEMENTS**
WATER WORKS AND SEWER BOARD OF THE CITY OF DADEVILLE
SRF PROJECT NO: CS010867-03
GMC PROJECT NO: CMGM240012

RE: **ADDENDUM #3**

PLEASE COMPLETE BELOW AND RETURN IMMEDIATELY.

Patsy Stinson
Email: patsy.stinson@gmcnetwork.com

I, the undersigned, hereby acknowledge receipt of this Addendum.

_____ _____
Authorized Representative of Contractor Date

_____ _____
Company Name Telephone

_____
Contractor's License Number (if applicable)

ADDENDUM NUMBER 3

CWSRF WWTF IMPROVEMENTS
FOR THE
WATER WORKS AND SEWER BOARD OF THE CITY OF DADEVILLE
SRF PROJECT NO. CS010867-03
GMC PROJECT NO. CMGM240012

1. General

1.1 The following revisions are hereby added as Addendum No. 3 to the referenced Project Manual and Plans and shall be considered when preparing bids.

2. Revisions to Project Manual

2.1 Specification 40 05 59 – Stainless Steel Slide Gates has been added and is included as an attachment to this addendum.

2.2 Specification 26 03 00 – Controls and Systems Integration has been added and is included as an attachment to this addendum.

2.3 Number of days to completion in Bid Form corrected to 180 days and is included as an attachment to this addendum.

3. Clarifications

3.1 During the repair and lining of the aeration basins, the contractor shall take down one (1) train at a time. After the lining of those basins has been completed, the contractor shall put them back online and may start the lining of the second train.

4. Questions

4.1 **Question: Does the owner want the demolished blower hauled off or left on site with the previously demolished equipment (Sheet X-301)?**
Answer: The responsibility for disposal of the existing blower is on the Contractor.

4.2 **Question: Is there a specified/recommended slide gate supplier (Sheet D-302)?**
Answer: Specification 40 05 59 – Stainless Steel Slide Gates is included as an attachment to this addendum and indicates approved manufacturers. Lanier Burton (Lanier.Burton@cpspipe.com) with Consolidated Pipe & Supply has been informed of the slide gates for this project.

4.3 **Question: Can the existing blower be taken out of service and removed ahead of equipment delivery (X-301)?**
Answer: Yes, the existing blower to be demolished is not in operation and can be removed ahead of equipment delivery.

4.4 **Question: What material is the existing water line that is to be relocated for the new dewatering system (X-701)?**
Answer: The pipe material is unknown but assume the existing 1" water line is Schedule 80 PVC.

4.5 **Question: Note 1 on Drawing D-302 refers to Spec Section 09 96 00. Please advise if Spec Section 09 80 10 is applicable for this project.**
Answer: Specification 09 80 10 – Protective Lining for Concrete shall be used for coating of the concrete walls.

4.6 **Question: Should roof panels for the Pre-Engineered Canopy comply with Spec Section 07 41 13 or 13 31 22 ?**
Answer: Roof panels for the Pre-Engineered Canopy shall comply with Specification 13 31 22 – Pre Engineered Metal Canopy System.

4.7 **Question: Confirm a 20-Year Weathertightness Warranty is not required for the Pre-Engineered Canopy referenced in Paragraph 1.6 of Spec Section 13 31 22.**
Answer: A 20-Year Weathertightness Warranty is not required.

4.8 **Question: Does any pipe shown on drawing D-701 require insulation or heat trace?**
Answer: No, the pipe shown on D-701 does not require insulation or heat trace

4.9 **Question: Note no. 1 on Drawing D-302 requires that the concrete walls be coated per Spec 09 96 00. This spec appears to be for metal surfaces. Can Spec Section 09 80 10 Protective Lining for Concrete be used for the work shown on drawing D-302?**
Answer: Specification 09 80 10 – Protective Lining for Concrete shall be used for coating of the concrete walls.

4.10 **Question: Is there a dimensional drawing available for the Aeration Basins and the Aerobic Digesters depicted on Drawing D-302 or do the bidders need to field measure these structures?**
Answer: Record drawings of the aeration basins and digesters are attached to this Addendum.

4.11 **Question: What is the thickness of the concrete wall indicated for partial demolition on X-701?**
Answer: The thickness of the concrete wall is 8".

4.12 **Question: Is there a geotechnical report or any undercut / compaction requirements for the equipment foundation for S-702?**
Answer: A geotechnical report is not available for this project. 6" of #57 stone compacted to 98% standard proctor shall be installed under the concrete pad.

4.13 **Question: Is a vapor barrier required on the equipment foundation for S-702?**
Answer: Yes

4.14 **Question: Is Nukote an approved manufacturer for 09 80 10 – Concrete Lining System?**
Answer: Nukote is not an approved lining system.

4.15 **Question: Are two (2) handwheel operated 24" x 24" slide gates included as shown on D-302?**
Answer: Yes, two (2) handwheel operated 24" x 24" slide gates need to be included, and are specified in Specification 40 05 59 – Stainless Steel Slide Gates.

4.16 **Question: Will the client be responsible for the initial draining of the aeration basins?**
Answer: The Contractor shall be responsible for pumping out and cleaning the basins to be lined.

4.17 **Question: For the Headworks Canopy shown on D-101, what is the desired material type and finish, the framing member sizes, and is it intended for delegated design?**
Answer: All relevant information for the Headworks Canopy can be found in Specification 13 31 22 - Pre Engineered Metal Canopy System.

4.18 **Question: Do the dark lines shown at the headworks canopy indicate any electrical or grounding scope associated with Add Alt #1 on E-101?**
Answer: There is no electrical scope for the canopy.

4.19 **Question: Is there any scope for repainting DIP at the aeration basins?**
Answer: No, there is no scope for painting DIP at the aeration basins.

4.20 **Question: Can you provide photos of the empty aeration basins, focusing on the walls to indicate extent of deterioration?**
Answer: There are no photos available of the basins completely emptied. Photos of the basins in operation which show the decay of the basins are shown below.

4.21 **Question: Is there a specified SCADA integrator for the project?**
Answer: SCADA information is outlined in Specification 26 03 00 – Controls and Systems Integration, which is attached to this Addendum. The system integrator is Disco.

4.22 **Question: Please clarify the scope of the Weir Wolf brush system at the clarifiers.**
Answer: The clarifier brush system consists of two (2) new brush assemblies that attach to the ends of the existing clarifier arms and are designed to clean the clarifier trough.

4.23 **Question: Will the new blower unit require a housekeeping pad?**
Answer: No, the new blower will utilize the existing concrete pad.

4.24 **Question: Are there any instructions for the disposal of the existing blower unit?**
Answer: The responsibility for disposal of the existing blower is on the Contractor.

4.25 **Question: Are the slide gaits to be repaired or replaced?**
Answer: Two (2) handwheel operated 24" x 24" slide gates will replace the existing ones, and are specified in Specification 40 05 59 – Stainless Steel Slide Gates.

5. Acknowledgement of Receipt

5.1 Receipt of Addendum shall be acknowledged in two ways:

5.1.1 Bidder acknowledges receipt of "Addendum No. 3" and date of "February 5, 2026" on the bid form.

AND

5.1.2 EMAIL GMC office immediately at patsy.stinson@gmcnetwork.com with the signed transmittal which confirms the addendum has been received and is legible.

6. Conclusion

6.1 This is the end of Addendum Number 3, dated Thursday, February 5, 2026.

BID FORM FOR CONSTRUCTION CONTRACT

CWSRF WWTF IMPROVEMENTS
WATER WORKS & SEWER BOARD OF THE CITY OF DADEVILLE
CWSRF PROJECT NO: CS010867-03
GMC PROJECT NO: CMGM240012
REVISED PER ADDENDUM #3

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.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Attn: Tom Zappone, Chairman
Water Works & Sewer Board of the City of Dadeville
826 East Columbus Street
Dadeville, AL 36853

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—ATTACHMENTS TO THIS BID

2.01 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;

D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids; and

E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids.

F. Accounting of Sales Tax Attachment to Proposal Form

G. EPA Form 6-100-2 – Even if subcontractor will not be utilized / If using DBE Supplier, please submit this form.

H. EPA Form 6-100-3 – Even if subcontractor will not be utilized / If using DBE Supplier, please submit this form.

I. EPA Form 6-100-4 – Even if subcontractor will not be utilized / If using DBE Supplier, please submit this form.

ARTICLE 3—BASIS OF BID

3.01 *Lump Sum Bids*

A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price(s), together with any Unit Prices indicated:

BASE BID

Item	Qty.	Unit	Description	Unit Price	Total Price
1	1	LS	Mobilization & General Conditions	$ LS	$
2	1	LS	Perform Surface Preparation, Repairs & Coating System at Aeration Basins	$ LS	
3	1	LS	Furnish & Install New Aeration Blower	$ LS	
4	1	LS	Furnish & Install New Sludge Dewatering Box (Includes Concrete Slab & Piping)	$ LS	
5	1	LS	Electrical / SCADA	$ LS	
6	1	LS	All Other Items	$ LS	
7	1	LS	Allowance - Materials Testing	$ LS	10,000.00
8	1	LS	Allowance - Owner's Contingency	$ LS	50,000.00
9	1	LS	Cleanup, Grassing, Mulching & Site Restoration	$ LS	

TOTAL BASE BID $ _____

ADDITIVE ALTERNATE NO. 1

Item	Qty.	Unit	Description	Unit Price	Total Price
A1-1	1	LS	Furnish & Install Headworks Canopy	$ LS	$

TOTAL ALTERNATE NO. 1 BID $ _____

TOTAL BASE BID + ALTERNATE NO. 1 BID $ _____

ADDITIVE ALTERNATE NO. 2

Item	Qty.	Unit	Description	Unit Price	Total Price
A2-1	1	LS	Furnish and Install Clarifier Trough Cleaning Brushes	$ LS	$

TOTAL ALTERNATE NO. 2 BID $ _____

TOTAL BASE BID + ALTERNATE NO. 1 + ALTERNATE NO. 2 BID $ _____

ARTICLE 4—TIME OF COMPLETION

4.01 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.

4.02 Bidder agrees that the Work will be substantially complete within **[180]** calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **[210]** calendar days after the date when the Contract Times commence to run.

4.03 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder's Representations*

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. ~~Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the~~

~~Supplementary Conditions, with respect to the Technical Data in such reports and drawings.~~

5. ~~Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.~~

6. 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 the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. 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.

9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. 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.

2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:

a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

b. 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.

c. 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.

d. 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.

(Signature Page to Follow)

BIDDER hereby submits this Bid as set forth above:

Bidder:

_____

(typed or printed name of organization)

By: _____

(individual's signature)

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Date: _____

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest: _____

(individual's signature)

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Date: _____

(typed or printed)

Address for giving notices:

_____

_____

Bidder's Contact:

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Phone: _____

Email: _____

Address:

_____

_____

_____

Bidder's Contractor License No.: (if applicable) _____

SECTION 26 03 00 - CONTROLS AND SYSTEM INTEGRATION

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the requirements for the control equipment and system integrations for the referenced project as shown on the drawings and specified herein.

1.2 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Related work specified elsewhere includes:

1. Section 26

1.3 SUBMITTALS

A. Hardware Submittals: Before any components are fabricated, and/or integrated into assemblies or shipped to the job site, furnish to the ENGINEER, for their review, submittal documents in accordance with Section 013300. Submittals shall include full details, shop drawings, catalog cuts and such other descriptive matter and documentation as may be required to fully describe the equipment and to demonstrate its conformity to these specifications. Specifically, the CONTRACTOR shall submit the following materials:

1. Block diagram and operational description of the system showing all major components and their interconnections and interrelationships. Label each diagram and specify all external power and communications interfaces. All diagrams shall be in an 11 by 17 format. Required documentation sets shall be furnished in bound hardcopy and final documentation shall also be provided in electronic format on CD.
2. Drawings of equipment to be supplied shall include, as a minimum: overall dimension details for each panel, console, etc., including internal and external arrangements and door mounted operator devices with name plate designations. Wiring diagrams of equipment including field device connections shall be included and specific installation/wiring requirements identified.
3. Operational Description shall include the principal functions/capabilities of the PLC’s as configured /programmed. Included shall be a description of system communications.
4. Provide a detailed Bill of Materials along with descriptive literature identifying component name, manufacturer, model number, and quantity supplied.
5. Training Material

B. Test Outlines and Procedures Submittals: Test descriptions shall be in sufficient detail to fully describe the specific tests to be conducted to demonstrate conformance with this specification.

C. Operations and Maintenance Data: At a minimum, include the following information.

1. Operating and Calibration instructions.
2. PLC commented code.
3. Troubleshooting Information.
4. Wiring Diagrams with wire numbers and termination point.

1.4 COORDINATION

A. All programming and wire termination shall be performed by an approved systems integrator.

1.5 QUALITY ASSURANCE

A. The CONTRACTOR'S attention is directed to the fact that all specified instruments and controls must form a completely integrated system and, as such, the system integrator shall become familiar with requirements necessary to provide equipment specified for the system regardless of manufacture, and shall be responsible to the CONTRACTOR for the complete and satisfactory operation of the entire instrumentation and control system.

1. These specifications cover the intended function of the equipment, but do not necessarily cover all details necessary for a complete, operable and functional system. The manufacturer shall supply all devices and appurtenances necessary to provide a complete, operable and satisfactory system as indicated or specified.

B. CONTRACTOR shall use one of the approved Systems Integrators. The System Integrator shall be responsible for all final terminations from the new equipment and instruments to the I/O termination points. Electrical Contractor shall pull all wires to this point, label each wire, and provide this list to the System Integrator.

C. Individual Responsibilities

1. System Integrator

a. The system integrator shall have the authority to organize the data layout within each individual device used in the user interface system. This said data layout will be based on the device provider’s listing of available data points for monitor and control. The system integrator will dictate the data used and the layout needed to facilitate the most efficient system possible. This efficient system methodology will be to minimize the number of queries needed to retrieve the necessary information. The system integrator may also require the separation of status and control registers to more easily facilitate expansion and/or changes to the data structure.
b. The system integrator does not have the authority to change the program algorithm for the subsystem device. The actual functionality of the system is under direct control of the ENGINEER and the pertinent specifications. The system integrator is responsible for contacting each device provider and attaining the listing of data available and then communicating with the provider the proper organization of data in the system.

2. Device Providers

a. Device providers must generate a listing of all pertinent data available for monitor and control within the user interface system. It is the device provider's responsibility to be in contact with the system integrator to ensure proper operation within the integrators scope of work. The device provider has direct control over the program algorithm for the portion of the system the said device is specified.

D. Approved System Integrator/Supplier(s):

1. DISCO

E. All components shall be from the same manufacturer and supplied by a single source, the system integrator.

PART 2 - PRODUCTS

2.1 PROGRAMABLE LOGIC CONTROLLER (PLC)

A. Product Description: The Programmable Logic Controller with the required memory and functional capacity to perform the specified sequence of operation with the scheduled input and output points as shown on the drawings.

B. Configuration:

1. Single Processor Systems: Include processor, power supply, random access erasable-programmable read only memory input/output modules, communication modules and remote interface modules.
2. Remote Input/Output Unit: Include input/output modules, interface modules, communication modules, and power supply for system inputs and outputs.
3. Modules are to be supplied as specified unless system requirements dictate the use of alternative modules.

2.2 TELEMTRY UNIT

A. General:

1. The System Integrator shall make use of readily available products with a proven history of reliable service when used in municipal water and wastewater applications. All equipment shall be new and of the latest design unless specified or indicated otherwise.
2. The SCADA PLC controller is an intelligent, modular unit, capable of both data acquisition and local data processing. It shall monitor and control local equipment in a stand-alone mode as well as being an intelligent node in a distributed system.
3. The RTU operates over an ambient temperature range of -40°C to +75°C (-40°F to 201°F) with relative humidity 5 to 95% (non-condensing).
4. All materials, equipment, and devices shall meet the requirements of UL where UL standards are established for those items and the requirements of NFPA-70.
5. All electrical components of the system shall operate on 120 VAC, 60 Hz, single phase power source expect as otherwise noted. Any other devices necessary to obtain proper

operation of the instrumentation and control system from these energy sources shall be furnished with the system.

6. Instrumentation equipment and enclosures shall be suitable for the environmental conditions specified. All system elements shall operate properly in the presence of telephone lines, power lines and electrical equipment.
7. All work and materials shall comply with the National Electrical Code (N.E.C) and applicable local regulations and ordinances. Where required by applicable codes, panel assemblies, materials and equipment shall be approved, identified, labeled or listed by Underwriters' Laboratories or other testing organization acceptable to the governing authority.
8. The SCADA PLC controller shall use a truly "open architecture" design using "off-the-shelf" components and a non-proprietary communications protocol.
9. The SCADA PLC controller shall be configured and programmed with standard programming languages such as Relay Ladder Logic (RLL), IEC 61131-3 programming standard and/or ANSI C. Programs shall be developed and downloaded either directly to the PLC controller using a standard RS-232/RJ-45 interface cable, or remotely through the cellular communication network or media such as phone lines, fiber optic cables, copper wire dedicated lines, or wireless radios.

2.3 PLC-BASED I/O SUBSYSTEM ENCLOSURES

A. It is the intent of this specification to modify minimum requirements for a solid-state programmable logic controller designed to provide high reliability for this application.

1. The PLC-based Telemetry Units are supplied for the sites indicated.
2. The internal wiring of the controller is to be fixed, with the logic functions it must perform in a given application to be programmed into its memory.
3. The controller shall be supplied with the CPU, input/output scanner, inputs, outputs, memory, power supply, and all power and interface cables necessary to function as a complete and operable programmable controller system.
4. RTU's are constructed using "off-the-shelf" programmable logic controllers (PLC's) with modems, surge arrestors, relays, power supplies, and enclosures as required for a fully functioning and fully operational system.
5. All field wiring terminations are made to terminal strips capable of accommodating up to #12 AWG wire. Terminal strips shall be mounted using DIN rails. Terminal strips are manufactured by Phoenix Contact, Allen-Bradley, Square D or equal. Printed labels are used to designate terminal numbers for each terminal.
6. A limit switch is mounted on the door of the RTU enclosure. The limit switch is wired to a non-relay-isolated input of the RTU to provide a "RTU Door Open" signal.
7. All analog inputs, shall be protected from surges using three separate levels of surge/transient suppression. The first level of protection shall be via a 1/4 Amp 3AG size fast acting fuse. Secondary and tertiary protection shall be fulfilled using combination gas discharge and metallic oxide varistor (MOV) surge protection with current limiting resistors. Terminals shall be installed to allow each of the four analog inputs and outputs to be configured for 2-wire or 4-wire process transmitters and to produce either 4 to 20 mA or 1 to 5 VDC outputs to the PLC and any future display or signal conversion devices. Terminals shall be installed adjacent to the analog surge protection to provide 24 VDC for connections of future 2-wire transmitters.
8. All digital inputs, shall be isolated from field wiring through terminal strips and mechanical relays. Minimum contact rating for relays shall be 10 Amps at 250 VAC.

9. All digital outputs, shall be isolated from field wiring through terminal strips and electro-mechanical relays with contact ratings of 10 Amps at 250 VAC minimum.
10. Communications Protocol

    a. In order to ensure future expandability of the system all communications shall be via Modbus RTU. No other protocol shall be acceptable.

B. PLC Hardware

1. The Programmable Logic Controller and Components will be supplied by the systems integrator in the locations indicated on the plans, to the meet the following specifications at minimum:

    1) Modifications to the existing PLC for integration of new VFD. Existing control functionality shall be utilized for new VFD.

2.4 Required I/O:

A. In addition to the I/O and data shown on the plan sheets, the following I/O and data shall be gathered by the SCADA system and made available at the HMI system for each of the types of devices or processes indicated:

1. VFD

    a. VFD running
    b. VFD failed
    c. VFD frequency

2. Discharge pressure

    a. High discharge alarm

2.5 Manufacturers

A. PLC

1. As manufactured by Schneider Electric.
2. Or Approved Equal.

B. Input/Output Modules

1. Components as manufactured by Schneider Electric.
2. Or Approved Equal.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Install the work of this Section in strict accordance with the original design and the manufacturer's recommended installation procedures as approved by the ENGINEER, anchoring all components firmly into position for long life under hard use

B. Unload, unpack and transport equipment to prevent damage or loss.

C. Replace damaged components as directed by ENGINEER.

D. Protect from dust and other harmful materials.

E. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

3.3 INTERFACE WITH OTHER PRODUCTS

A. Provide all required cables, cords, and connective devices for interface with other control system components.

B. Coordinate size and configuration of enclosure to meet project requirements.

3.4 STARUP SERVICE

A. Upon final completion of all components determine date of start-up jointly with ENGINEER, OWNER and CONTRACTOR.

3.5 CLEANING

A. Clean units as recommended by manufacturer.

END OF SECTION 26 03 00

SECTION 40 05 59 - STAINLESS STEEL SLIDE GATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Stainless-steel slide gates.

1.2 REFERENCE STANDARDS

A. American Water Works Association:

1. AWWA C542 - Electric Motor Operators for Valves and Slide Gates.
2. AWWA C561 - Fabricated Stainless Steel Slide Gates.

1.3 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.

B. Coordinate Work of this Section with Work of other Sections.

1.4 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit manufacturer's product information for system materials and component equipment.

C. Shop Drawings:

1. Indicate system materials and component equipment.
2. Submit installation and anchoring requirements, fasteners, and other details.
3. Indicate gate identification number, location, service, type, size, design pressure, operator details, stem details, and loads.
4. Detail drawings are required. General arrangement drawings and catalog cuts are not acceptable as shop drawings.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1. Certify that installation is completed according to manufacturer's instructions.

E. Manufacturer's Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

F. Source Quality-Control Submittals: Indicate results of factory tests and inspections.

G. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

H. Manufacturer Reports:

1. Certify that equipment has been installed according to manufacturer's instructions.
2. Indicate activities on Site, adverse findings, and recommendations.

I. Qualifications Statements:

1. Submit qualifications for manufacturer and licensed professional.

1.5 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for closeout procedures.

B. Project Record Documents: Record actual locations of installed slide gates and components.

C. Operation and Maintenance Data: Submit maintenance instructions for equipment and accessories.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for maintenance materials.

B. Spare Parts:

1. Furnish one set of manufacturer's recommended spare parts.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

C. Store and protect materials according to manufacturer's instructions.

1.8 EXISTING CONDITIONS

A. Field Measurements:

1. Verify field measurements prior to fabrication.
2. Indicate field measurements on Shop Drawings.

1.9 WARRANTY

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for warranties.

B. The Manufacturer and Contractor shall furnish a warranty extending twelve (12) months after substantial completion date.

C. Furnish five year manufacturer's warranty that clear plastic stem covers will not crack, discolor, or become opaque.

PART 2 - PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

A. Seating/Unseating Pressure:

1. Measurement: From maximum water surface to centerline of gate.

B. Minimum Vertical Loading: 50 percent of force on the gate from operating head acting on horizontal centerline of gate, multiplied by effective gate area, plus weight of slide and stem.

C. Gate Reinforcement: As required for deflection not greater than 1/360 of span or 1/16-inch, whichever is less.

D. Operating Head:

1. Safety Factor: Design gate to operate under specified operating head with safety factory of four in accordance with the latest revision of AWWA C561.

2.2 STAINLESS-STEEL SLIDE GATES

A. Manufacturers:

1. Hydro Gate
2. Golden Harvest
3. RW Gate Company
4. Waterman Industries
5. Whipps
6. Or Approved Equal

B. Description:

1. Comply with AWWA C561.
2. Self-contained stainless-steel slide gate, with extended frame, yoke, lifting stem attached to yoke, lift and lift support, stem, stem guide, and stem block.
3. Size: As indicated on Drawings.
4. Operating Head: As indicated on Drawings.
5. Closure: As indicated on Drawings.
6. Opening: As indicated on Drawings.

7. Mounting: As indicated on Drawings.

C. Gates:

1. Configuration:

   a. One piece.
   b. Removable.

2. Material:

   a. Type 304 stainless steel and Type 304L for welded components
   b. Comply with AWWA C561.

3. Minimum Material Thickness: 1/4 inch.
4. Size: As indicated on Drawings.

D. Yokes:

1. Material: Stainless Steel.
2. Mounting: Bolted or welded to gate frame.
3. C-channel shaped members for rigidity. Angles are not acceptable for yoke members.

E. Seats and Seals:

1. The seats and seals shall be removable and replaceable, UV stabilized UHMWPE and shall be fastened with 316 stainless steel attachment bolts. The UHMWPE seals shall be self-adjusting by means of a rubber compression cord.
2. Rubber J-seals or P-seals along the sides are not acceptable.
3. The invert seal on upward opening gates shall be EPDM and shall be fastened to the flush bottom invert member with 316 stainless steel attachment bolts.
4. Maximum Clearance between Seating Faces: 0.004 inch when gate is fully closed.

F. Frames:

1. Configuration: One piece with gussets or sandwich type guides to accommodate unseating head. Spigot-back frames are not acceptable.
2. Mounting: As indicated on Drawings.
3. Material: Type 304 stainless steel.
4. Thickness: 1/4 inch.
5. Wall mounted guides shall have a minimum weight of 9 lbs/ft. Guides for embedded frames or in-channel mounted frames shall have a minimum weight of 6.5 lbs/ft.
6. Guide extensions shall be of the C-channel shape or similar for rigidity and shall have a minimum weight of 6 lbs/ft. Angles are not acceptable for guide extensions.

G. Lifting Devices:

1. Description: Stem, lifting nut, supports, bushings, stem cover, position indicator, and gear-assisted handwheel, handwheel, gear-assisted crank, crank, or electric-motor actuator as indicated in Gate Schedule.
2. Powered Lift Devices:

a. As specified in Section 40 05 57 – Actuators for Process Valves and Gates.
b. Comply with AWWA C541 and AWWA C542.

H. Manual Lifting Devices:

1. Material: Ductile iron housing with bronze lift nut and stainless steel input shaft
2. Furnish grease fitting in the housing unless sealed unit is provided.
3. Furnish ball or roller bearings above and below lifting nut and to support the input shaft.
4. Suitable for operation with portable operator
5. Minimum gear ratio of 2:1
6. For non self-contained gates, the pedestal shall be constructed of 304L or 316L stainless steel with a base plate and adaptor plate with a minimum thickness of 1/2-inch.
7. Lifting Stem:

a. Material: Type 304 stainless steel.
b. Configuration:

1) Rising unless otherwise shown
2) Removable. Bolted to gate (slide) with a minimum of two bolts per stem connector

c. Thread:

1) Machine rolled, full depth Acme, double lead with 16 microinch finish or better. Stub threads are not acceptable.
2) Cut threads are not acceptable.

d. Diameter: 1-1/2 inch (minimum).
e. Fully lubricated.

8. Stem Covers: Provide rising stem gates with clear polycarbonate covers, capped, vented, and of a length to allow full travel of gate.

2.3 FINISHES

A. Stainless-Steel Surfaces: Mill finish. Welds and weld burn passivated in accordance with ASTM A380. If bead blasting is utilized, the entire slide and entire frame shall be bead blasted.

2.4 ACCESSORIES

A. Hardware: Type 316 stainless steel.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation examination.

B. Verify that facilities are ready to receive slide gates.

3.2 PREPARATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation preparation.

B. Clean surfaces according to manufacturer's instructions.

3.3 INSTALLATION

A. Install slide gates according to manufacturer's instructions.

B. Ensure that products are installed plumb, true, and free of warp or twist.

C. Locate operators to avoid interference with handrails and other Work. Contractor to coordinate with gate manufacturer.

D. Guides:

1. Surface and Flange Mounted:

a. Install guides with adhesive or expansion anchors.
b. Position guides at elevation as indicated on Drawings.

2. Recessed:

a. Position guides at elevation as indicated on Drawings.
b. Grout guides in place according to manufacturer's instructions.

E. Mounting

1. Non-shrink grout or a resilient gasket shall be used to seal between the gate frame and wall as recommended by the gate manufacturer. Resilient gaskets shall be used when there are wall thimbles.

F. Sealant (when mounted to wall thimble):

1. Apply 1/8-inch -thick layer of elastomeric sealant to back of frame.
2. Tighten nuts snug until sealant begins to flow beyond frame.
3. Remove excess sealant.
4. Cure sealant for minimum seven days.
5. Tighten nuts to their final positions.

G. Lubricants: Provide oil and grease as required for initial operation.

3.4 FIELD QUALITY CONTROL

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.

B. Inspection:

1. Verify alignment of gate and components.
2. Verify that gate operates smoothly and does not bind or scrape.

C. Testing:

1. Comply with AWWA C561.
2. Leakage: Not exceeding 0.05 gpm/ft of seal perimeter in the seating head and unseating head condition at the design head.

D. Manufacturer Services: Furnish services of manufacturer's representative experienced in installation of products furnished under this Section for not less than two (2) days on Site for installation, inspection, field testing, and instructing Owner's personnel in maintenance of equipment.

E. Equipment Acceptance:

1. Adjust, repair, modify, or replace components failing to perform as specified and re-inspect.
2. Make final adjustments to equipment under direction of manufacturer's representative.

F. Furnish installation certificate from equipment manufacturer's representative attesting equipment has been properly installed and is ready for startup and testing.

3.5 ADJUSTING

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for starting and adjusting.

B. Adjust slide gates to provide smooth operation.

3.6 DEMONSTRATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for demonstration and training.

B. Demonstrate equipment operation, routine maintenance, and emergency repair procedures to Owner's personnel.

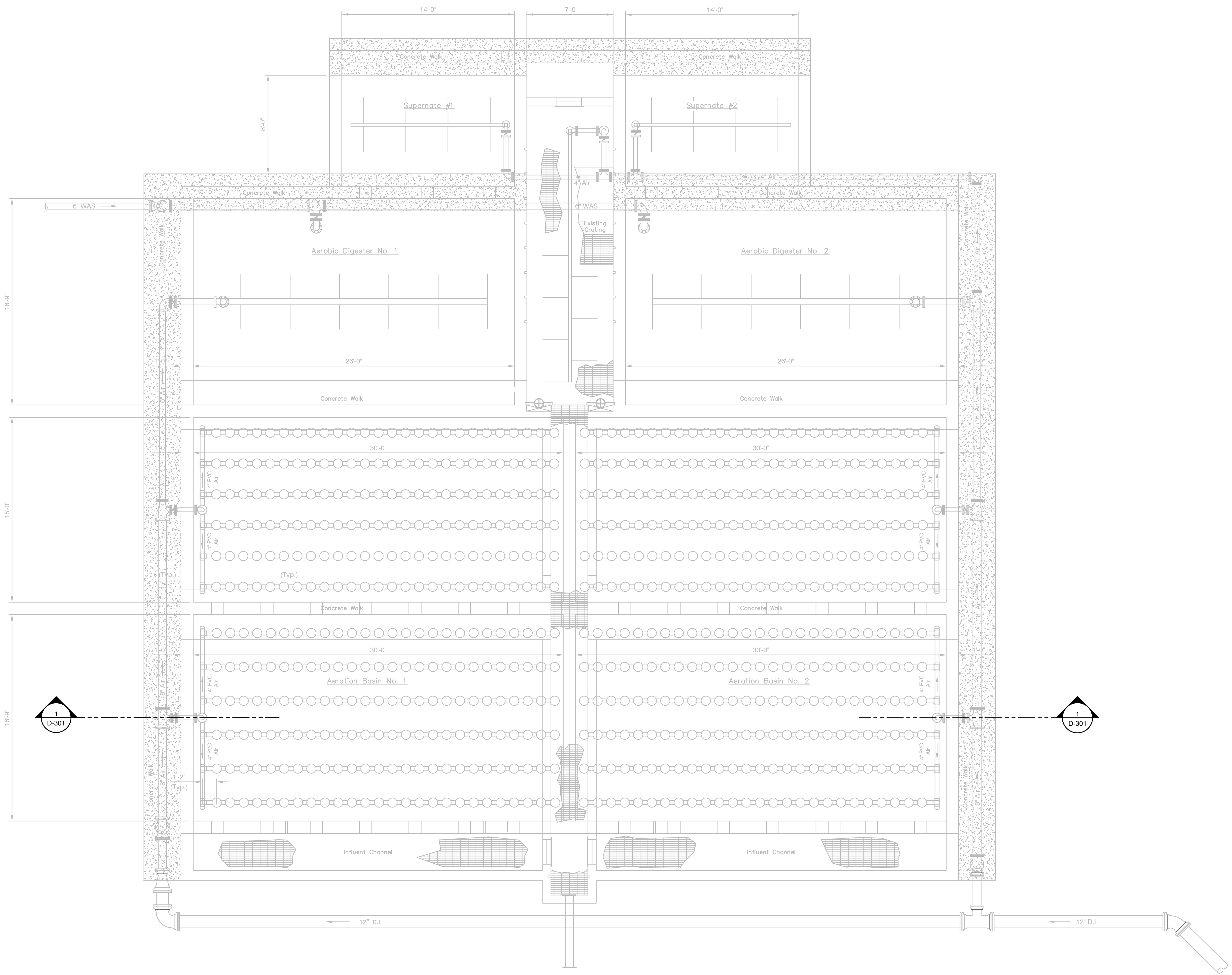
3.7 ATTACHMENTS

A. Slide Gate Schedule (see Drawings)

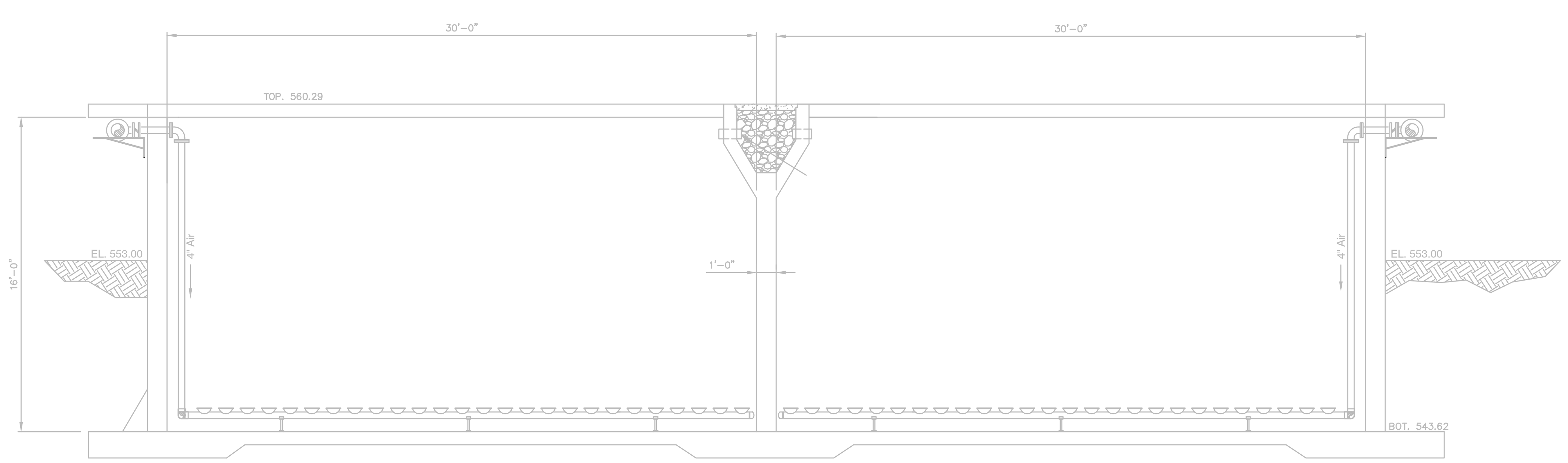
END OF SECTION 40 05 59

NOTES:

1. THIS SHEET IS INTENDED TO PROVIDE THE CONTRACTOR WITH THE LAYOUT AND DIMENSIONS OF THE AERATION BASIN. THE CONTRACTOR SHALL REMOVE THE ACCUMULATED SLUDGE AND SEDIMENT IN THE AERATION BASIN UNDER ALLOWANCE NO. 2.



1 D-301 **PLAN**
SCALE: 3/16" = 1'-0"



A D-301 **SECTION**
SCALE: 3/16" = 1'-0"

GMC

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ISSUE	DATE
90% Submittal	03.20.2024
Bid Set	04.26.2024
Conformed Set	
Project Manager:	JP
Engineer:	DT
Designer:	DT
Drawn By:	FK

WWTP FLOOD DAMAGE REHABILITATION

DADEVILLE, ALABAMA

GMC Project# CMGM230080

RECORD DRAWINGS
RECORD DRAWINGS BASED ON INFORMATION FURNISHED BY THE CONTRACTOR

AERATION BASIN PLAN & SECTION

D-301

PLOTTED: Jan 27, 2026 - 4:40pm