



ADDENDUM NUMBER 2

BRILLIANT CWSRF WWTF IMPROVEMENTS
FOR THE TOWN OF BRILLIANT
GMC PROJECT NO. CBHM230054(4)

1. General

- 1.1 The following revisions are hereby added as Addendum No. 2 to the referenced Project Manual and Plans and shall be considered when preparing bids.

2. Revisions to Project Manual

- 2.1 Refer to Specification 46 51 13 – Floating Mechanical Aerators, Part 2.1 C. The motor size has been revised to 7.5 hp. The updated Specification is attached to this Addendum.
- 2.2 Val-Matic is an approved manufacturer for plug valves.
- 2.3 Val-Matic is an approved manufacturer for check valves.
- 2.4 Boerger is an approved manufacturer for the RAS/WAS pumps.
- 2.5 Pentair is an approved manufacturer for submersible centrifugal pumps.
- 2.6 JDV Corporation is an approved manufacturer for manual bar screens.
- 2.7 Komline is an approved manufacturer for floating mechanical aerators.
- 2.8 Specification 40 05 78 – Combination Air Valves for Wastewater Service has been added and is included as an attachment to this addendum.

3. Revisions to Plans

- 3.1 Sheets X-001 and D-401 have been updated and are hereby added as Addendum No. 2 and shall be considered when preparing proposals and for all work moving forward.

4. Questions

- 4.1 **Question: What is the depth of sludge required to be removed in the existing aeration chamber?**
Response: The depth of sludge in the existing aeration basin is estimated to be 3 feet
- 4.2 **Question: Does the existing aeration chambers have any process equipment that is required to be demoed?**
Response: The existing headworks at the southwest end of the aeration chamber is to be removed and disposed of by contractor, shown on Sheet X-001. A metal plate should be welded onto the influent opening between the aeration chamber and clarifier, as shown on Sheet D-401.
- 4.3 **Question: Is bypass piping anticipated for the construction of the headworks? If so, what is the flow?**
Response: Yes, bypassing will be necessary when constructing the new headworks. The monthly average flow is approximately 45,000 gpd and the peak flow is approximately 200,000 gpd.



- 4.4 **Question: Is there a waterline onsite? If so, what is the size and pressure?**
Response: Yes, there is a 6-inch water line connected to a spigot north of the existing aeration chamber. The estimated pressure is 50-60 PSI.
- 4.5 **Question: Is there a named integrator on this project or is any required? If no one is named and it is required who is Brilliant's current integrator?**
Response: No SCADA integration is required for this project.
- 4.6 **Question: Provide the quantity of sludge being removed from the aeration chamber and eq tank. Where is the sludge to be disposed of?**
Response: There is approximately 3,800 cft of sludge to be removed from the aeration chamber and eq tank. Sludge/mixed liquor can be pumped to the new aeration basin during start up.
- 4.7 **Question: Detail D-401 is called out on C-301 showing the 4" WAS at the existing digester but is not provided. Also, is the 4" WAS tying into the 4" RAS and if so can you provide a detail on this?**
Response: Detail B on Sheet C-301 should reference D-402. The 4-inch RAS line transitions to a WAS line at the tee connection.
- 4.8 **Question: How thick is the slab we are to drill 12" holes into at the bottom of the aeration chamber?**
Response: Record drawings of the aeration chamber are unavailable. Assume a slab thickness of 12 inches.
- 4.9 **Question: Will there be any rock blasting?**
Response: No rock blasting is expected for this project.
- 4.10 **Question: Do you have a written specification for the air release valves?**
Response: Specification 40 05 78 – Combination Air Valves for Wastewater Service is included as an attachment to this addendum.
- 4.11 **Question: Does the access road need to be improved?**
Response: No significant improvements to the existing access road are required. Any damage caused to the road during construction must be repaired and the road shall be returned to pre-construction condition.

5. **Acknowledgement of Receipt**

- 5.1 Receipt of Addendum No. 2 shall be acknowledged in two ways:
- 5.1.1 Note on Page 1A of the Proposal Form – Bidder acknowledges receipt of "Addendum No. 2" and date of "May 21, 2026".
- AND**
- 5.1.2 EMAIL the completed transmittal cover sheet to celina.beck@gmcnetwork.com to Acknowledge receipt of the Addendum.

6. **Conclusion**

- 6.1 This is the end of Addendum No. 2, dated Thursday, May 21, 2026.

SECTION 40 05 78 - COMBINATION AIR VALVES FOR WASTEWATER SERVICE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Combination air valves for wastewater treatment facilities.
- B. Related Requirements:
 - 1. Section 09 96 00 - High Performance Coatings
 - 2. Division 40 - Process Interconnections

1.2 REFERENCE STANDARDS

- A. American Water Works Association:
 - 1. AWWA C512 - Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.
- B. ASME International:
 - 1. ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250.
- C. ASTM International:
 - 1. ASTM A126 - Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 - 2. ASTM A536 - Standard Specification for Ductile Iron Castings.
- D. International Organization for Standardization:
 - 1. ISO 9001 - Quality Management Systems.

PART 2 - PRODUCTS

2.1 COMBINATION AIR VALVES FOR WASTEWATER SERVICE

- A. Manufacturers:
 - 1. DeZurik.
 - 2. Val-Matic
 - 3. A.R.I
 - 4. H-TEC
 - 5. Approved Equal

B. Description:

**GOODWYN MILLS CAWOOD, LLC.
GMC PROJECT NO. CBHM230054**

**COMBINATION AIR VALVES FOR
WASTEWATER SERVICE
40 05 78 - 1 of 4**

1. Type:
 - a. Automatic, float operated.
 - b. Body: Single.
2. Comply with AWWA C512.
3. Size: As indicated on Drawings.
4. Suitable for sewage service.

C. Materials:

1. Body and Cover: Stainless steel with stainless steel screws, unless indicated in the plan set.
2. Float, Seat, and Trim: Stainless steel.
3. Seats: Buna-N.
4. Seals: Buna-N.

D. End Connections - Single Body:

1. Size 4 Inches and Smaller:
 - a. Threaded, NPT.
 - b. 1-Inch Valves: Furnish 2-inch inlet.
2. Backwash Accessories: NPT connections.

E. Valve Body Connections:

1. Threaded, NPT.
2. Cleanout: 2 inches.
3. Drain: 1 inch.

F. Accessories:

1. Backwash accessories, including inlet shutoff valve, blowoff valve, rubber supply hose, and quick-disconnect couplings.

2.2 FINISHES

- A. Prepare piping appurtenances for field finishes as specified in Section 09 96 00 - High-Performance Coatings.

2.3 SOURCE QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for testing, inspection, and analysis.
- B. Provide shop inspection and testing of completed assembly.
- C. Certificate of Compliance:

1. If fabricator is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation examination.
- B. Verify that field dimensions are as indicated on Shop Drawings.
- C. Inspect existing flanges for nonstandard bolt hole configurations or design and verify that new pipe and flanges mate properly.

3.2 PREPARATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation preparation.
- B. Thoroughly clean end connections before installation.
- C. Close pipe and equipment openings with caps or plugs during installation.
- D. Cleaning: Clean surfaces to remove foreign substances.

3.3 INSTALLATION

- A. According to manufacturer instructions.
- B. Provide access for operation, removal, and maintenance, and to avoid discharge to occupied areas or other equipment.

3.4 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.
- B. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.
- C. Inspect for interferences and proper supports.
- D. Testing:
 1. As specified in Section 40 05 51 - Common Requirements for Process Valves.

2. Demonstrate operation without undue noise or vibration.

E. Equipment Acceptance:

1. Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.
2. Make final adjustments to equipment under direction of manufacturer's representative.
3. Repair damaged coatings with material equal to original coating.

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

3.5 CLEANING

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

B. Keep interior of air release valves clean as installation progresses.

END OF SECTION 40 05 78

SECTION 46 51 13 - FLOATING MECHANICAL AERATORS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes: Floating mechanical aerators.
- B. Related Requirements:
 - 1. Section 09 96 00 - High Performance Coatings: Surface preparation and coating requirements.
 - 2. Section 26 05 13 - Common Motor Requirements for Water and Wastewater Equipment: Electric motors and accessories normally supplied as part of equipment assemblies.

1.2 REFERENCE STANDARDS

- A. National Electrical Manufacturers Association:
 - 1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data:
 - 1. Submit manufacturer's product information for system materials and component equipment.
 - 2. Submit electrical characteristics and connection requirements.
 - 3. Submit installation requirements and other details.
- C. Shop Drawings:
 - 1. Indicate size and configuration of aerator assembly, mountings, weights, and accessory connections.
 - 2. Indicate system materials and component equipment.
- 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. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

- G. Source Quality-Control Submittals: Provide certified wet & dry testing of the complete unit at the manufacturer's facility.
 - 1. Section 01 40 00 - Quality Requirements: Requirements for testing, inspection, and analysis.
- H. Manufacturer Reports:
 - 1. Certify that equipment has been installed according to manufacturer's instructions.
 - 2. Indicate activities on Site, adverse findings, and recommendations.
- 1.4 COORDINATION
 - A. Coordinate Work of this Section with Work of other Sections.
- 1.5 CLOSEOUT SUBMITTALS
 - A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.
 - B. Project Record Documents: Record actual locations of installed aerators and components.
- 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 materials according to manufacturer's instructions.
 - D. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection 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 shall furnish a warranty extending twelve (12) months after substantial completion date of the project.

PART 2 - PRODUCTS**2.1 FLOATING MECHANICAL AERATORS****A. Manufacturers:**

1. Aqua-Aerobic® (Endura® Series Aqua-Jet® Aerator)
2. Evoqua® (Aqua-Lator® Surface Aerator)
3. Komline
4. Or Approved Equal

B. Schedule:

1. AER3010
2. AER3020

C. Performance and Design Criteria:

1. Motor size: 7.5 hp

D. Aerator Drive Motor

1. The motor shall be an Endura® series and deliver 7.5 horsepower and shall be wired for 230 volt, 60 cycle, and 3 phase service. The electrical classification shall be rated for Class I Division II Group D, rated for a temperature code T2A (280 Degree C).
2. The motor shall be vertical P base design, totally enclosed; fan cooled (T.E.F.C.), and generally rated for severe chemical duty, and shall have a 1.15 service factor. Motor shall also be suitable for use with a variable frequency drive (VFD). Submerged motors are not acceptable.
3. The motor shall in all cases equal or exceed standard NEMA specifications. The motor windings shall be non-hygroscopic, and insulation shall equal or exceed NEMA Class "F".
4. A condensate drain shall be located at the lowest point in the lower end-bell housing.
5. All motor frame parting surfaces shall be deep registered and Permatex (or equal) sealed.
6. All through bolts, nuts, and screws shall be of type 18-8 stainless steel.

7. Each motor will have a raincap constructed of cast iron or non-corrosive 304 stainless steel. Painted or plated carbon steel raincaps will not be acceptable.
8. A stainless steel nameplate shall be provided with each motor and shall be securely fastened thereto. The voltage, speed, insulation class, amperage, service factor, wiring diagram, motor serial number, and the manufacturer's name and address shall be steel stamped or otherwise permanently marked. The motor shall be an Aqua-Aerobic Systems, Inc., "Endura" model supplied by Teco-Westinghouse or a "Centaur" model supplied by Baldor-Reliance Electric or Nidec (formerly US Motors). The motors shall incorporate design enhancements that provide operation for three years without routine maintenance (greasing).

E. Motor Shaft

1. Unit shall have a one-piece motor shaft continuous from the top motor bearing, through the lower bearing and down to and through the propeller. This shaft will have a minimum diameter of 1-1/4 inches and manufactured from 17-4 PH stainless steel, or comparable stainless steel having a minimum yield strength of 100,000 psi on units 3 HP and larger. The maximum allowable full length shaft run out shall be limited to 0.006 inches T.I.R.

F. RPM

1. Units shall operate at the lowest RPM offered in the size by the manufacturer. In no case shall nominal RPM exceed 1800 for units meeting the one-piece shaft specified above. Units featuring one-piece shaft shall operate nominally at 1800 RPM in the size range of 1Hp to 15HP, or at a nominal maximum speed of 1200 RPM for units in the 20HP to 75HP size range, and 900 RPM for units 100HP and larger.

G. Motor Bearings

1. Motor bearings shall be regreasable. Sealed bearings are not acceptable. Top bearing shall be shielded on the bottom side only. Bottom bearing shall be open.
2. The top and bottom motor bearings shall be of the combined radial and axial thrust type and shall be packed at the factory with "high performance" grease.
3. The lower motor bearing inner race shall be locked to the motor shaft via a special washer and locking nut arrangement. The shaft shall be threaded just below the lower bearing and shall have a keyway cut into the motor shaft. This keyway shall accept a tab from the I.D. of the locking washer, and the locking nut shall have recesses to accept a tab from the O.D. of the locking washer to prevent the nut from backing off. Snap ring type bearing retainers will not be acceptable.
4. Bearings shall be designed for an L-10 rating life of at least 100,000 hours.

H. Diffusion Head

1. The design of the diffusion head shall be such that the liquid spray will discharge at angle of 90° to the motor shaft, and over a 360° pattern in the horizontal plane, and shall be a stainless steel monolithic casting.
2. The diffusion head casting shall act as a base for the aerator motor, and alignment of the motor to this base shall be controlled by machined index fittings that engage the P-base of the motor. Diffusion head/motor arrangements that are dependent upon bolt holes only for alignment will not be acceptable. All connecting bolts of the diffusion head shall be

- 316 stainless steel and have drilled heads, and shall be safety wired in place with stainless steel safety wire.
3. The diffusion head casting shall act as a thrust block to deflect the high velocity, pumped volume of the aerator from the vertical to the horizontal direction. In order to minimize vibration, and to provide adequate strength, the diffusion head casting shall weigh no less than 44 lbs. The bottom side of this casting shall have a 90°-radiused transition to effect the hydraulic change in direction with a minimum of head loss.
 4. The diffusion head shall absorb all normal and shock loads encountered by the propeller and transmitted to the diffusion head via the motor shaft and lower motor end-bell. The diffusion head shall distribute these forces into the float via webs that terminate in a flange or ring that is an integral part of the diffusion head. This flange shall mate with a similar flange that is an integral part of the float/volute to spread the stresses generated by the propeller uniformly around the float so that no point loading of the float is allowed. These flanges shall be machined flat to provide proper bearing surfaces. The alignment of the diffusion head flange to the float/volute shall be by use of a 360° index pilot.
 5. Specifically, diffusion head designs that employ studs and spacers, shoulder bolts or fiberglass are not allowed. Load bearing, machined flat, flange-to-flange connections will be mandatory.
 6. The diffusion head shall contain an anti-deflection journal insert to limit the radial deflection of the motor shaft.
 7. This anti-deflection journal insert shall be located in the lower extremity of the diffusion head, approximately one-half the distance between the motor base and the lower end of the shaft.
 8. The journal insert shall be machined from Delrin or molded from moly-filled urethane and shall be a minimum of 0.060" diameter or larger through the bore than the diameter of the motor shaft.
 9. Units featuring a one-piece unsupported shaft will not be acceptable.
 10. There shall be a fluid deflector located on the motor shaft immediately below the anti-deflection journal, which shall cover completely the anti-deflection journal insert and the lower portion of the diffusion head.
 11. This fluid deflector shall be molded from black neoprene and shall be press fit onto the motor shaft.
 12. Turndown Low Trajectory Diffuser (LTD): Each unit shall be furnished with a low trajectory diffuser fabricated from 304 stainless steel plates that easily joins together for mounting. This assembly shall be attached to the top of the diffusion head with 304 stainless steel bolted and hardware, and shall be used to create a lower spray profile to reduce windblown spray. This reduces the spray height and diameter and cross sectional area which reduces the effect of cooling. It also reduces the overall misting, which reduces the amount of possible blow back onto the motor.

I. Flotation

1. Flotation stability will be mandatory. Under no circumstances will unstable floatation designs requiring counter balancing, ballast of liquid, solid mass or submerged major fabricated assemblies to stabilize the operation of the aerator be allowed. Only aerators demonstrating stable operational characteristics, without rocking or oscillating will be acceptable.
2. All floats shall be constructed so that the internal void can be filled full of closed cell polyurethane foam having a minimum 2.0 lbs/ft³ density and shall be completely sealed water tight to prevent the foam from being in contact with the external environment.

3. The float construction shall be such that the volute will distribute the load of the entire motor, drive, diffusion head and volute static load plus, the entire dynamic load from the propeller thrust and radial forces by spreading these forces uniformly around the full 360° circumference of the float's central core. Point connected joints or point stressed connections will not be accepted.
4. Stainless Steel Float Assembly: Each unit shall be equipped with a modular float constructed of heavy duty 14-gauge, 304 stainless steel. All floats shall have six mooring points, spaced for 3 or 4-point mooring around the outer circumference. No mooring connections will be allowed to be attached to the upper or lower float covers. Only tension type connections perpendicular to the outer sidewall will be approved. All mooring connections shall be stainless steel.
5. The stainless-steel float shall be a minimum of 59-1/2 inches in diameter and 11 inches thick.
6. Each aerator unit shall have 570 lbs. reserve buoyancy to ensure stability and to provide support flotation required during aerator servicing. Floats shall be one- piece construction, i.e.; segmented floats are not acceptable.

J. Propeller

1. The propeller shall be a two-blade, left-handed, marine type precision casting of stainless steel, 8-1/4-inch diameter, and shall be specifically designed for the application intended. It shall be a self-cleaning type that will not accumulate fibers, rags, stringy materials, etc. The propeller will have a diameter not allowing a greater clearance with the float volute of 3/8 inches.
2. Each propeller blade shall be pitched so that the pitch angle and rake angle are within ± 2 percent of the other blade(s).
3. The propeller shall be pitched so that the drive motor is loaded between 88% and 95% of full load nameplate horsepower.
4. Units using inclined screw impellers will not be acceptable.
5. The propeller must be attached to the motor shaft with a hardened stainless steel pin and set screw. No tapered, threaded shafts with nut fasteners will be acceptable.

K. Volute

1. The propeller shall operate in a float volute made of 304 stainless steel and shall be a minimum of 9 inches in diameter. It shall be round and true so that propeller blade tip clearance is uniform within the volute as it rotates. The volute shall have a minimum of 0.135-inch wall thickness, and a minimum of four full-length stainless-steel gussets shall be welded on a 90° spacing around the circumference of the volute between the top and bottom flanges.
2. The volute shall have a large machined flange at its top extremity that completely encircles the volute, and this flange shall match a similar flange on the bottom of the diffusion head to provide for a bolted, machined flange-to-flange fit to provide uniform distribution of the dynamic loads generated by the propeller and the static weight of the motor and drive. A 360° machined index in the upper flange shall provide concentric alignment of the propeller in the volute by engaging the inside diameter of the mating flange on the diffusion head. Bolt holes alone will not be acceptable to locate the important alignment of the propeller.
3. Fiberglass volutes, or carbon steel volutes that are fiberglass, steel or stainless steel lined are not acceptable.

L. Intake Cone

1. The intake cone shall be fabricated from 0.075-inch 304 stainless steel having a gradually expanding opening outward to the intake end. The length and inlet diameter shall be sufficient to provide uniform inlet hydraulics so that no increase in vibration is caused due to its shape or size. The minimum acceptable length is 6 inches and minimum inlet diameter is 12-1/4 inches.
2. The material used to fabricate the intake cone shall be structurally sufficient to support the weight of the entire aerator assembly when the aerator is freestanding on dry ground.
3. For maximum in-depth mixing efficiency, the intake cone shall be designed so that the suction lift from the aerator propeller is vertical from the liquid depth below the aerator. Unless specifically required for anti-erosion requirements, side or angle entry suction inlets will not be approved. Fiberglass intake cones are not allowed. All aerators 20 HP and larger must provide anti-vortex crosses welded inside the cones. Anti-erosion devices, if required, must be welded to the cone and cross assembly.

M. Balancing

1. The entire rotating assembly including the motor rotor, shaft, shaft accessories, and propeller shall be dynamically balanced to within 2.0 mils peak-to-peak horizontal displacement measured at the upper and lower motor bearing. Measurements shall be taken at a frequency equivalent to the motor RPM.
2. Transducer pickup points shall be at the motor bearings on the motor frame perpendicular to the motor shaft.
3. Measurements shall be taken with the motor in a vertical, shaft down position with the entire power section mounted on resilient pads.
4. Wet testing: The entire aerator assembly including the power section, and float assembly shall be run and hydraulically balanced under normal operational characteristics for observing and recording data.

N. Mooring

1. Cable Mooring System: A 3-point cable mooring system shall be supplied and installed as recommended by the manufacturer so the aerator may be permitted to rise and fall with some water level variations, but will have a minimum of lateral movement.
2. The maximum amount of anticipated water level variation is 1 foot.
3. The mooring cables shall be 7 x 19 construction, 304 stainless steel and 1/4-inch diameter. The power cable shall be attached to one of the mooring lines with a non-corrosive aerial support cable tie with spacer to prevent the electrical cable from touching the mooring cable. The aerial support cable ties shall be spaced a minimum of five feet on center to secure the electrical cable.
4. Mooring hardware (thimbles and clips) shall be of 316 stainless steel. Galvanized hardware is not acceptable.

O. Electrical Service Cable

1. Electrical service cable shall be provided and shall be a continuous length (non-spliced). The cable shall have three power conductors and a ground conductor.
2. Conductors shall be flexible type annealed copper stranded. Each conductor, including the ground conductor, shall be insulated. Cables containing an uninsulated ground conductor will not be acceptable.

3. The insulated conductors shall be assembled together with a non-hygroscopic filler material.
4. Outer jacket shall be high quality CPE, PVC, TPE or equal, and shall be rated at a conductor operating temperature of not less than 90°C.
5. The cable shall be rated for hard usage outdoor service and shall be resistant to oil, sunlight, ozone, grease, acids, water, abrasion and impact.
6. The electrical service cable shall be factory assembled to the motor conduit box with cord grip and strain relief grip. The cord grip shall include a Neoprene bushing providing a liquid tight seal. The strain relief grip shall be a 304 stainless steel wire mesh strain relief grip for the electrical cable at the motor to prevent the cable from pulling out of the conduit box.
7. Spiral Wrap Electrical Cable Protection: A polyethylene expandable spiral wrap abrasion protection sleeve shall be provided for wrapping around the electrical cable at the unit. The spiral wrap shall be weather resistant for a temperature range from minus forty degrees Fahrenheit to one hundred and twenty two degrees Fahrenheit, and protect the electrical cable from rubbing on the edge of the float.

P. Control Panel

1. Control Panel Assembly: A factory assembled UL listed control panel assembly shall be provided to control the operation of the aerators. The panel enclosure shall be rated for NEMA 4X and Stainless-Steel material, and shall be completely pre-wired and factory tested and include all following materials:
2. Motor - 240 VAC, 3 phase, 60 Hz
3. NEMA 4X 304 SS 1-door enclosure, painted white for outdoor location; 48"x36"x12" wall mounted.
4. Motor starters are provided as DOL, non-reversing starters
5. HOA Motor Control Switches
6. Dry contacts for Motor Running, Motor Off and Motor Fault
7. Motor Run Indicator light for Motor Running (Green)
8. ETMs and motor stagger timers (coordination of motor starts on power up) provided
9. UL 508A listed

2.2 SOURCE QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for testing, inspection, and analysis.
- B. Provide shop inspection and testing of completed assembly.

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 floating mechanical aerators.

3.2 INSTALLATION

- A. Install according to manufacturer's instructions.

3.3 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.
- B. Wet Startup: Run equipment with wastewater and verify proper alignment and operation.
- C. Manufacturer Services: Furnish services of manufacturer's representative experienced in installation of products furnished under this Section for not less than one day (8 hrs) on Site for installation, inspection, startup, field testing, and instructing Owner's personnel in maintenance of equipment.
- D. Equipment Acceptance:
 - 1. Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.
 - 2. Make final adjustments to equipment under direction of manufacturer's representative.
- E. Furnish installation certificate from equipment manufacturer's representative attesting that equipment has been properly installed and is ready for startup and testing.

3.4 DEMONSTRATION

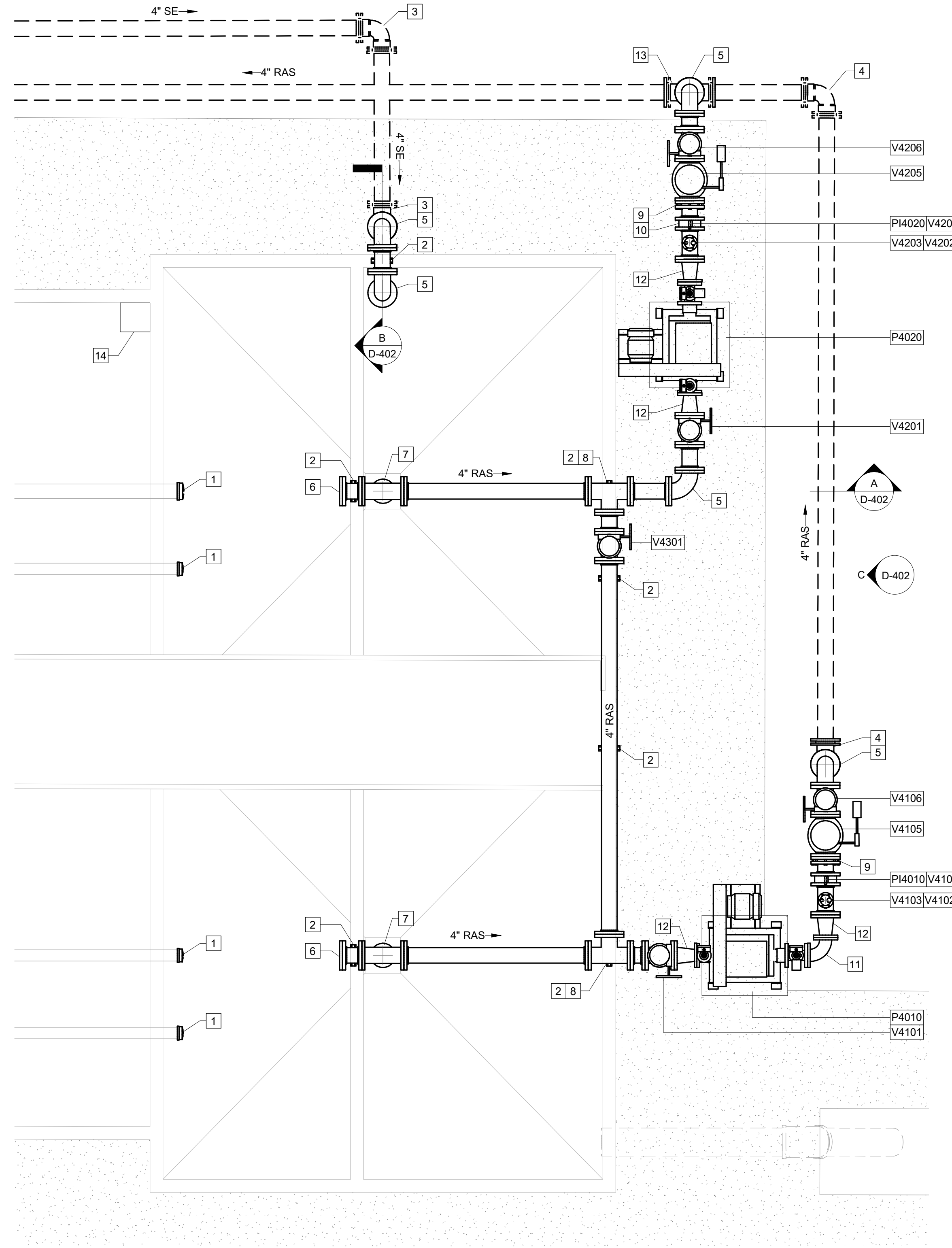
- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for demonstration and training.
- B. Demonstrate equipment startup, shutdown, routine maintenance, and emergency repair procedures to Owner's personnel.

END OF SECTION 46 51 13

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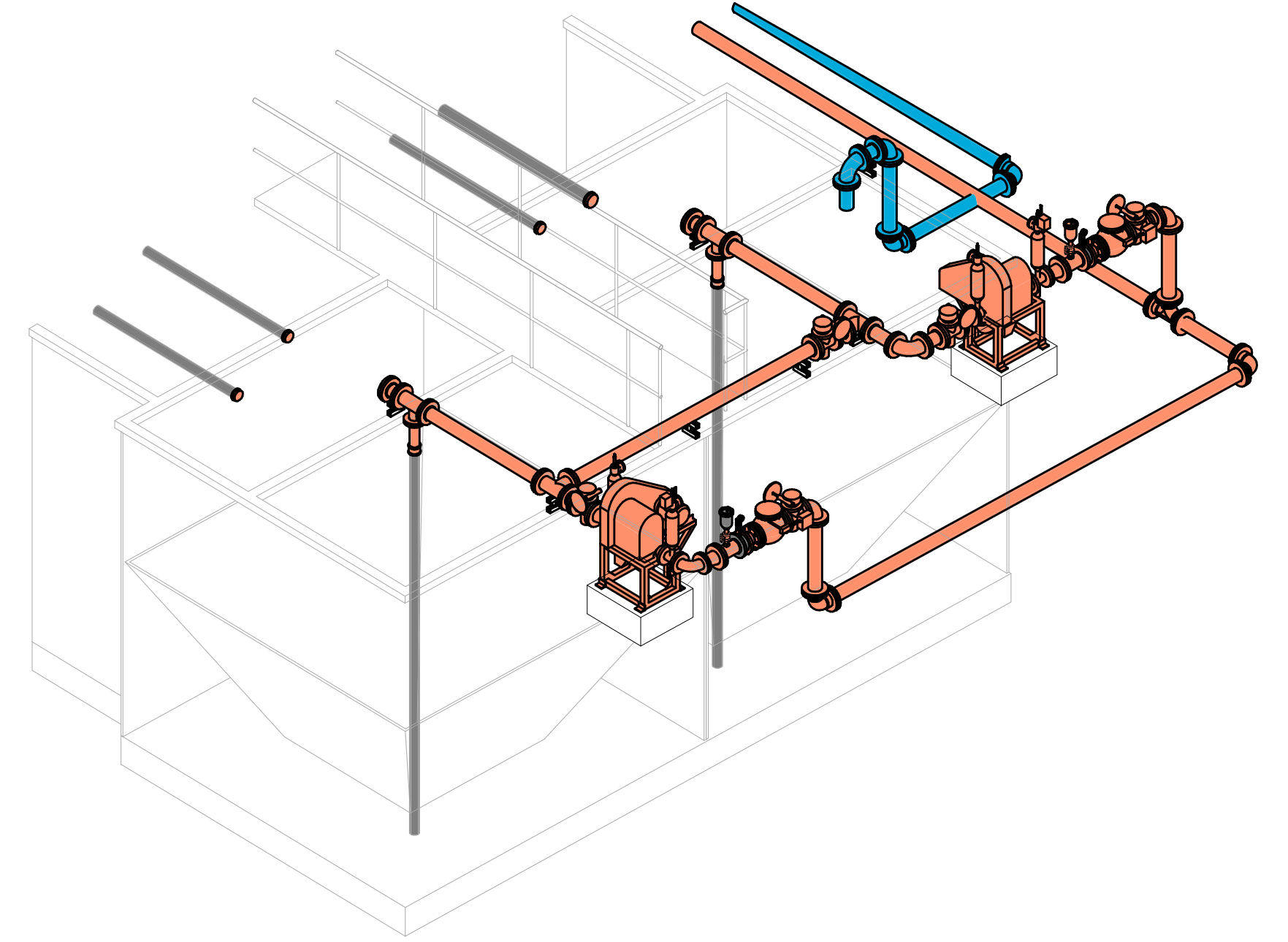
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4 PLAN
SCALE: 1/2" = 1'-0"



- NOTES:**
- CONTRACTOR TO VERIFY SIZE OF EXISTING SLUDGE WITHDRAWAL PIPE BEING CONNECTED INTO NEW SUCTION LINE.
- KEY NOTES:** #
- CAP
 - FABRICATED UNI-STRUT PIPE SUPPORT
 - 4" 90° MJ BEND
 - 4" 90° MJ BEND - RESTRAINED
 - 4" 90° FL BEND
 - BLIND FLANGE
 - 4" X 3" FL TEE
 - 4" FL TEE
 - RESTRAINED FLANGE ADAPTER
 - ANNULAR PRESSURE SEAL
 - 3" 90° FL BEND
 - 4" X 3" ECCENTRIC FL REDUCER
 - 4" MJ TEE - RESTRAINED
 - WELD METAL PLATE TO CAP INFLUENT FROM AERATION CHAMBER TO CLARIFIER

A ISOMETRIC
SCALE: NOT TO SCALE



CLARIFIERS - PLAN

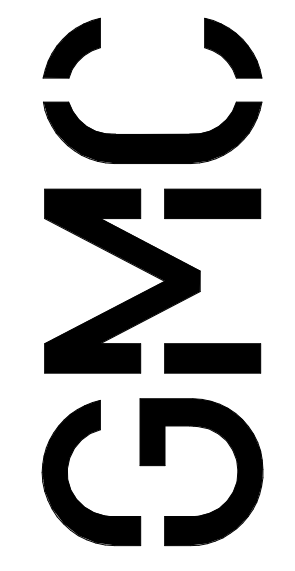
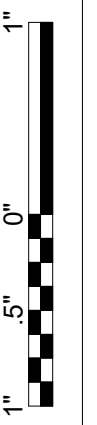
BRILLIANT CWSRF
WWTF IMPROVEMENTS

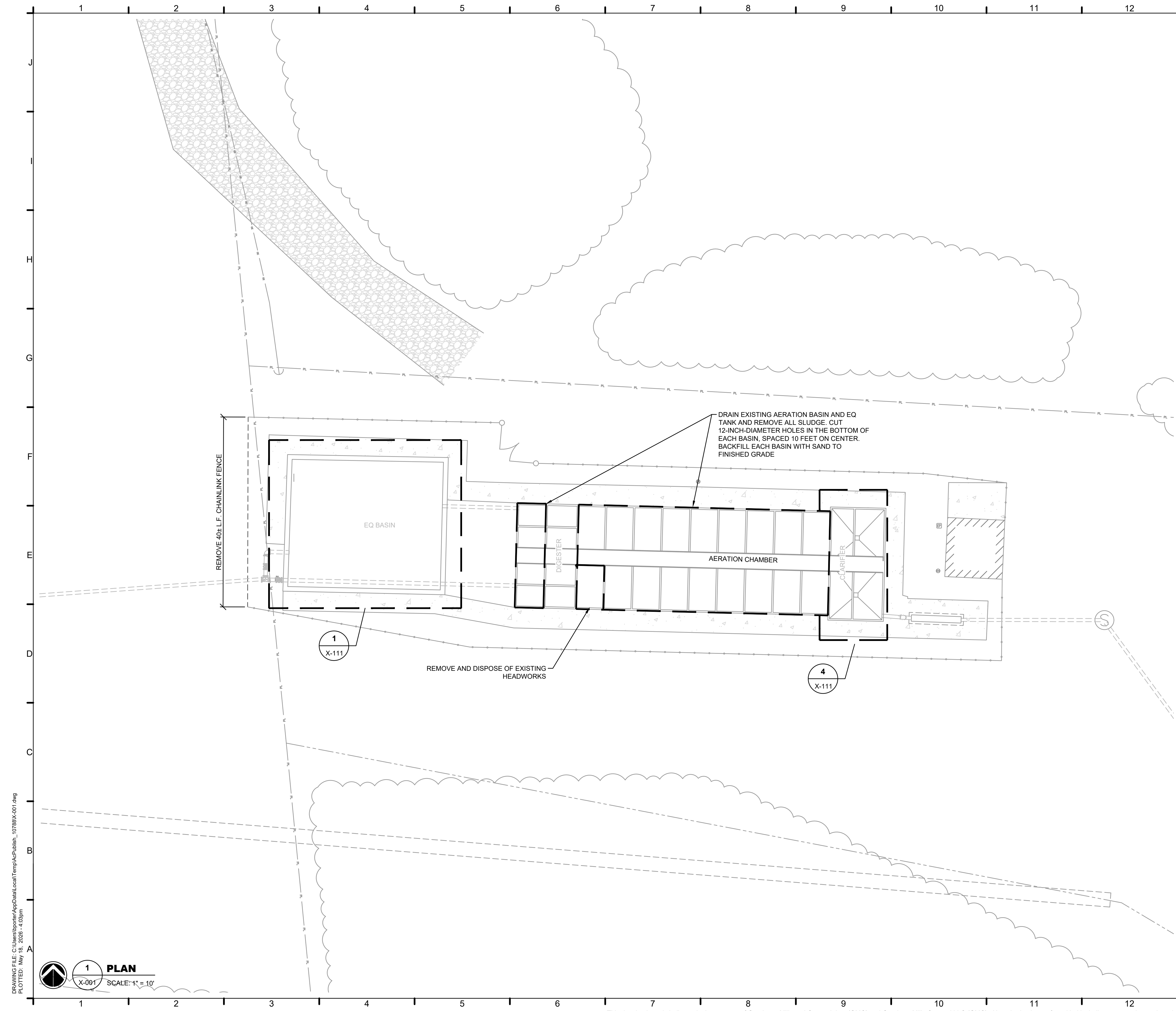
WWTF IMPROVEMENTS
CBHM230054

D-401

DATE	4.10.2026
ISSUE	Issued for Bid
Project Manager:	LH
Engineer:	DT
Designer:	BP
Drawn By:	HKD

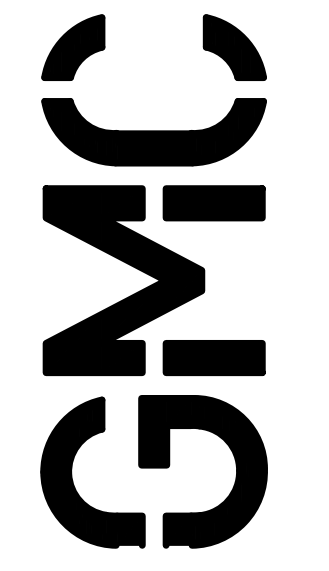
2400 5th Avenue South
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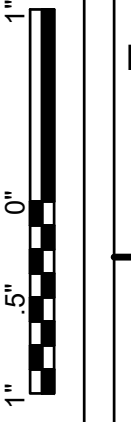


DEMOLITION NOTES:

1. THE CONTRACTOR SHALL SUBMIT A DEMOLITION/DECONSTRUCTION PLAN TO BE APPROVED BY THE ENGINEER.
2. BEFORE STARTING DEMOLITION, THE CONTRACTOR MUST CHECK TO DETERMINE THAT ALL UTILITY SERVICES, SUCH AS WATER, GAS, ELECTRICITY, TELEPHONE, ETC. ARE DISCONNECTED AT THE SERVICE MAIN, IN ACCORDANCE WITH THE RULES AND REGULATIONS GOVERNING THE UTILITY INVOLVED.
3. CONTRACTOR SHALL PROVIDE SAFEGUARDS, INCLUDING WARNING SIGNS, BARRICADES, TEMPORARY FENCES, WARNING LIGHTS AND OTHER ITEMS THAT ARE REQUIRED FOR PROTECTION OF ALL PERSONNEL DURING DEMOLITION AND REMOVAL OPERATIONS.
4. ACCEPTABLE METHODS FOR DEMOLITION SHALL BE APPROVED BY THE ENGINEER. HAND DISMANTLING, PNEUMATIC AND HYDRAULIC BREAKERS, SAW CUTTING, MECHANICAL BREAKING, WATER JETTING, AND THERMAL LANCING ARE ACCEPTABLE. THE USE OF CHEMICALS AND EXPLOSIVES ARE NOT ACCEPTABLE.
5. ANY DAMAGE TO SURROUNDING EQUIPMENT, STRUCTURES, UTILITIES OR ADJACENT ITEMS SHALL BE RESTORED TO THE ENTITIES ORIGINAL CONDITION AT NO COST TO THE OWNER.
6. BEFORE CUTTING, EXAMINE THE SURFACES TO BE CUT AND PATCHED AND THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. IF UNSAFE OR OTHERWISE UNSATISFACTORY CONDITIONS ARE ENCOUNTERED, TAKE CORRECTIVE ACTION BEFORE PROCEEDING WITH THE WORK.
7. USE METHODS THAT ARE LEAST LIKELY TO DAMAGE WORK TO BE RETAINED OR ADJOINING WORK. IN GENERAL, WHERE CUTTING IS REQUIRED USE HAND OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING. CUT THROUGH CONCRETE AND MASONRY USING A CUTTING MACHINE SUCH AS A CARBORUNDUM SAW OR CORE DRILL TO INSURE A NEAT HOLE. CUT HOLES AND SLOTS NEATLY TO SIZE REQUIRED WITH MINIMUM DISTURBANCE OF ADJACENT WORK. TO AVOID MARRING EXISTING FINISHED SURFACES, CUT OR DRILL FROM THE EXPOSED OR FINISHED SIDE INTO CONCEALED SURFACES. TEMPORARILY COVER OPENINGS WHEN NOT IN USE.
8. RESTORE EXPOSED FINISHES OF PATCHED AREAS AND WHERE NECESSARY EXTEND FINISH RESTORATION INTO RETAINED ADJOINING WORK IN A MANNER WHICH WILL ELIMINATE EVIDENCE OF PATCHING AND REFINISHING.
9. SECURELY SEAL AND OR PLUG ALL STORM AND SANITARY SEWERS LEADING FROM THE STRUCTURE TO BE DEMOLISHED.
10. DEMOLISH STRUCTURES IN SUCH A MANNER AS TO AVOID HAZARDS TO PERSONS AND PROPERTY INTERFERENCE WITH THE USE OF ADJACENT BUILDINGS, AND INTERRUPTION OF FREE PASSAGE TO AND FROM SUCH BUILDINGS.
11. PROMPTLY DISPOSE OF DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM BUILDING SITE DEMOLITION OPERATIONS. NO BURNING IS ALLOWED. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE AND LEGALLY DISPOSED OF IN AN EPA AND OWNER-APPROVED LANDFILL OR RECYCLING FACILITY. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.



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PROJECT MANAGER:	LH
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DRAWN BY:	HKD

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For the Town of Brilliant
Brilliant, Alabama

CBHM230054

DEMOLITION
KEY SITE PLAN

X-001

DRAWING FILE: C:\Users\bpriener\AppData\Local\Temp\AcPublish_10788IX-001.dwg
PLOTTED: May 18, 2026 - 4:03pm

1 PLAN
X-001 SCALE: 1" = 10'