

**RESOLUTION**  
**R 15-26**

**A Resolution in Support of the Glenbard Wastewater Authority  
Entering Into a Contract for Design-Build Services with Trotter  
and Associates, Inc. for the Final Clarifier Improvements Project**

**BE IT RESOLVED** by the Village President and Board of Trustees of the Village of Lombard, DuPage County, State of Illinois ("Village"), that the Village supports the Glenbard Wastewater Authority entering into a contract for design-build services with Trotter and Associates, Inc. for the Final Clarifier Improvements Project as requested of the Village by the Glenbard Wastewater Authority.

**SECTION 1:** That the Village President be and hereby is authorized to sign on behalf of the Village of Lombard said agreement as attached hereto.

**SECTION 2:** That the Village Clerk be and hereby is authorized to attest said agreement as attached hereto.

Adopted this 7th day of May 2026.

Ayes: Trustee LaVaque, Hammersmith, Dudek, Egan, Militello, Bachner

Nays: None

Absent: None

Approved by me this 7th day of May 2026.



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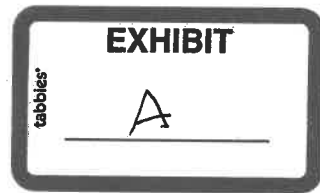
**Anthony Puccio**  
**Village President**

ATTEST:



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**Ranya Elkhatib**  
**Village Clerk**



March 27, 2026

Mr. Matt Streicher  
Executive Director  
Glenbard Wastewater Authority  
945 Bemis Road  
Glen Ellyn, IL, 60137

Re: **2026 Final Clarifier Rehabilitation**  
Design-Build Letter Agreement and Exhibits

Dear Mr. Streicher,

Trotter and Associates, Inc. (TAI) is pleased to provide design-build services to the Glenbard Wastewater Authority for the Final Clarifier Rehabilitation Project. TAI has been providing design-build services to clients for the past 10 years, specifically in the construction of wastewater infrastructure. This project delivery method significantly shortens the overall project duration, reduces both engineering and construction costs, and provides clarity to the Owner that contractors utilized are reputable and will provide a superior finished product. This memo details TAI's understanding of the project, benefits of the design-build delivery method, and the proposed scope and schedule. The proposed Agreement can be found under separate cover which also includes a detailed scope of engineering and construction services, major manufacturer's proposed scope, and project engineering plans.

#### PROJECT BACKGROUND

The Glenbard Wastewater Authority completed Facility Plans in 2018 and 2024, which outlined the existing Wastewater Treatment processes, equipment conditions, and future regulatory requirements. These Plans evaluated alternatives for rehabilitation and upgrades, as well as provided recommendations for implementation of the selected projects. One of these projects focused on rehabilitation of the Authority's aging Final Clarifier process, including the associated sludge pumping systems. It was recommended in both of these Plans that the Authority replace the mechanisms within these clarifiers which are original to the 1977 expansion, as well as the sludge pumps, piping, and electrical/control systems within the Sludge Pump and Metering Building (also known as Building J).

In 2025, the Authority selected Trotter and Associates to begin design phase engineering, preparing design calculations, plans, and specifications for this rehabilitation. During design, it was identified that the lead time of critical path equipment, specifically the clarifier mechanisms, would extend the project duration significantly. The design evaluated three manufacturers which were reviewed on the basis of product quality, cost, and lead time. The lead time for the selected manufacturer was approximately 24 weeks to provide submittals, and 40 weeks for shipment following release. Including installation, this would result in an approximate 32-month project duration, as shown in the preliminary project schedule. This included three months of remaining design phase work, a two-month permitting period, a one-month bidding period, two months of contract execution and bond/insurance procurement, 16 months for critical path equipment delivery, and eight months of sequential installation through the four clarifiers.



These manufacturers also identified that equipment costs would be expected to continue to rise until the point at which material (primarily metals) was released for purchase by the clarifier equipment manufacturer. This would be approximately 32 weeks into the construction phase. Based on the current 12-month Construction Cost Index of 6.7%, this extended project duration would significantly increase material and labor costs. Therefore, the Authority has elected to approach the project through a Design-Build delivery method, which significantly reduces the overall project timeline and cost.

The scope of work generally includes the demolition of the existing clarifier mechanisms in the four (4) final clarifiers and replacement with new hydraulic differential style mechanisms, replacement of the WAS and TWAS sludge pumps and all associated piping, replacement of the HVAC systems of Building J, as well as electrical, controls, and instrumentation upgrades. Other Building J envelope rehabilitation includes the replacement of doors, windows, and coatings in the ground and lower levels. These improvements will allow for better separation within the clarifiers, more efficient pumping operations, and increase operations staff ability to control the system through a wide range of current and future flows and loadings. Trotter and Associates (TAI) will provide the following detailed scope of services as the Design-Builder for the Final Clarifier Rehabilitation Project.

**DESIGN-BUILD DELIVERY METHOD**

During preliminary design it was determined that a design-bid-build delivery method would result in an extended construction duration leading to increased costs. In order to quantify the anticipated benefit of transitioning into a design-build delivery, comparative schedules were created which are included on the following pages. The design-bid-build timeline would result in an estimated 132-week, or 30-month, construction duration. The design-build timeline would result in an estimated 88-week, or 20-month, construction duration. Each contractor and vendor anticipates price increases through the project based on when materials will be procured, and when labor will be utilized. The current 12-month Construction Cost Index is approximately 6.70%. Therefore, based on an \$8,700,000 construction value, **reducing the project duration by 10 months would be estimated to save approximately \$485,000 in avoided price escalations incorporated into a bid.**

In addition to cost savings realized through reducing the project duration, the design-build delivery method typically reduces both design and construction engineering costs. Design engineering costs are reduced as full bid specifications and plans are not required, and bidding-phase costs themselves are eliminated. Construction engineering costs are also reduced as overlapping responsibilities in construction management and engineering reduce the total cost of services. The table below reflects the engineering costs associated with the two delivery methods. **As shown, the design-build format would save approximately \$300,000 on design and construction engineering costs.** This equates to reduction of approximately 30% of total engineering costs.

ENGINEERING PHASE	DESIGN-BID-BUILD COSTS	DESIGN-BUILD COSTS
Design Engineering		
Evaluation Phase	\$47,700	\$47,700
Conceptual Phase	\$107,700	\$107,700
Preliminary Phase	\$99,500	\$99,500
Final Phase	\$110,500	\$15,000
QA/QC Phase	\$23,000	-
IEPA Loan Assistance	\$12,700	-
Bidding Phase	\$15,300	-
Construction Engineering	\$650,000 (at 7.5% of \$8.7M)	\$490,000 (at 6.0% of \$8.2M)
<b>TOTAL:</b>	<b>\$1,066,400</b>	<b>\$759,900</b>

The design-build format also allows for the utilization of contractors and subcontractors who Authority staff are familiar with, and who have successfully completed work at the treatment facility. The contractors utilized for this project will primarily be those currently completing the Primary Clarifier Rehabilitation project, whom TAI has worked with on past design-build projects. Maintaining this consistency ensures that the team understands the Authority's expectations, understands the facility, and already has a working relationship with staff. The list below identifies the anticipated subcontractors for each trade:

Design-Builder: Trotter and Associates  
General Contracting: Vissering Construction Company  
Mechanical Contractor: Dahme Mechanical Industries  
Electrical Contractor: Tri-R Systems  
Coatings: GP Maintenance  
HVAC: DePue Mechanical  
Excavation & Sitework: Plainfield Excavating  
Integration: Tri-R Systems

#### **DETAILED PROJECT SCOPE OF WORK**

##### Site Work

###### **A. Demolition**

1. Removal of approximately 2550 SF of concrete sidewalk (sheet D0.1)

###### **B. Site Civil**

1. Silt fence, inlet protection, erosion control (sheet C0.1).
2. New concrete sidewalk at Sludge Pump and Metering Building (Building J) to Clarifier Influent Diversion Structure and to each Clarifier (sheet C0.1).
3. Restoration of all disturbed areas (sheet C0.1).

###### **C. Site Utilities**

1. New electrical duct bank for power/control from Sludge Pump and Metering Building to each clarifier for clarifier drive (sheet E0.2 – E0.3).

##### Influent Diversion Structure (Diversion Structure No. 3)

###### **A. Demolition**

1. Removal of four existing downward opening weir gates. Patch concrete at anchors (sheet D3.1).

###### **B. Mechanical**

1. Bypass pumping – from aeration basin effluent chamber to the backside of the influent diversion structure weir gates. Discharge split to four chamber with a valve on each discharge. Average flow to bypass +/- 10 MGD, max to bypass 45 MGD. Duration is as long as needed to remove and replace weir gates and coat the interior of the structure.
2. Installation of (4) 120" wide x 58" tall self-contained downward opening weir gates. Gates will be face mounted on the 'inside' face of the diversion structure (sheet P3.1).

C. Coating

1. Coat exposed interior concrete of the diversion structure within the 'influent chamber' (i.e. effluent chambers to each clarifier do not need to be coated) with Sherwin Williams Dura-Plate 6000 – approximately 1,500 SF (sheet P3.1).

Final Clarifiers

A. Demolition

1. Removal of existing clarifier mechanisms and all appurtenances in each of the four clarifiers. Includes removal of the existing walkway, center pier, cage, influent well, truss arms, scraper arm, skimmer arm, scum beach, and all associated components (sheet D1.1 – D1.4).
2. Removal of existing electrical conduit, conductor, junction boxes, and light. Remove conduit to below grade and cap to abandon.

B. General

1. Install new hydraulic differential clarifier mechanism including walkway, center pier, cage, drive assembly, influent well, truss arms, suction header, scum skimmer arm, scum beach, and new scum piping to existing scum piping connection locations (sheet P1.1 – P1.4).

C. Electrical

1. Install clarifier control panel on bridge near drive assembly (E1.1).
2. Install new conduit and conductor along walkway to bridge lights (2) and clarifier drive for power and control from site duct bank (E1.1).
3. New radar level sensors in each clarifier mounted off the bridge (E1.1).

Sludge Pump & Metering Building (Building J)

A. Demolition

1. Lower Level (sheet D2.1 – D2.6):
  - Removal of 18" butterfly valves on clarifier RAS lines (two per clarifier) and DIP piping between including (2) 18"x10" reducers, 10" tee, 10" spools, and magnetic flow meters. Retain butterfly valve electric actuators and magnetic flow meters for reinstallation.
  - Removal of 3" PVC waste activated sludge (WAS) piping from each clarifier RAS header to WAS pumps, removal of (2) progressive cavity WAS pumps, and 3" PVC WAS discharge piping to 12" DIP WAS/Freshener line complete. Remove WAS pump concrete bases and patch floor as needed. Return 2" WAS magnetic flow meter to Owner.
  - Removal of 6" DIP thickened waste activated sludge (TWAS) piping from lower level west wall penetration to the TWAS pumps, removal of the (2) progressive cavity TWAS pumps, and 10"/6" TWAS discharge piping to lower level east wall penetration complete. Remove TWAS pump concrete bases and patch floor as needed. Return 4" TWAS magnetic flow meter to Owner.
  - Removal of 4/8" carbo-stage WAS piping and 4" magnetic flow meter, and 4/10" freshener

pipng and 4" magnetic flow meter in northeast lower level. Retain 4" mag meters for reinstallation. Remove 12" WAS/Freshener pipe and fittings to south wall penetration.

- Remove miscellaneous small diameter non-potable water and sample lines.
- Remove existing sump pumps, discharge piping, sump cover, and electrical appurtenances.
- Remove all electrical associated with disconnected equipment/controls including conduit and conductor to furthest limits possible.
- Remove existing HVAC supply and exhaust ductwork.
- Remove CMU block at the stairwell west wall to allow for new doorway opening into the lower level. Remove existing door and frame at stairwell entrance.
- Remove existing light fixtures, including emergency exit lighting.

2. Ground Level (sheet D2.2 – D2.6):

- Removal of 6" DIP TWAS piping, fitting, and valves from the upper level completely.
- Remove (2) single exterior doors, (1) interior single door, and (1) rolling door and frames.
- Remove (3) existing windows and frames.
- Remove (2) gas-fired unit heaters, (2) louver-dampers, (1) wall-mounted exhaust fan, and HVAC supply and exhaust ductwork.
- Remove existing light fixtures, including emergency exit lighting.

3. Roof Level (sheet D2.3):

- Remove existing HVAC exhaust fan and HVAC ventilator/supply fan.
- Remove roofing section at proposed makeup air unit location for installation of curb.

B. General

1. Furnish and install (2) exterior single doors, (2) interior single doors, and (1) rolling overhead door and operator (sheets A2.1 – A2.5).
2. Furnish and install (3) windows on ground level east and west walls existing openings (sheets A2.1 – A2.5).
3. Patch existing roof penetrations to match proposed ductwork sizing at supply and exhaust fans (sheet A2.3).
4. Patch roofing system at MAU curb, exhaust fan curb, and ductwork roof penetrations (sheet A2.3).

C. Mechanical (sheets P2.1 – P2.4)

1. Furnish and install (8) new 18" butterfly valves on clarifier RAS lines (two per clarifier) and DIP piping between including (2) 18"x10" reducers, 10"x4" tee, and 10" spools as needed. Reinstall existing electric actuators from butterfly valves on new valves. Reinstall existing 10" magnetic flow meters.

2. Install 4" DIP waste activated sludge (WAS) piping from each clarifier header 10"x4" tee to WAS pumps, and 4/6" DIP WAS discharge piping to 12" DIP WAS/Freshener line complete. Provide 4" plug valves near WAS connection to 10"x4" tee (four total). Install (2) progressive cavity WAS pumps and concrete pads. Each pump shall have:
    - (2) DIP plug valves (suction and discharge side - DeZurik)
    - (1) DIP check valve (discharge side - DeZurik)
    - (2) expansion couplings (suction and discharge side – Red Valve J-1W)
    - (2) pressure assemblies consisting of an isolator ring (Onyx PSW or equal), isolation ball valve, tee, pressure sensor with block/bleed valve, and manual pressure gauge (suction and discharge side). Pressure sensor assemblies to be supplied by pump manufacturer.
  3. Install 6" DIP thickened waste activated sludge (TWAS) piping from TWAS east wall penetration to TWAS pumps, and 10/6" DIP TWAS discharge piping to 6" TWAS east wall penetration. Install (2) progressive cavity WAS pumps and concrete pads. Each pump shall have:
    - (2) DIP plug valves (suction and discharge side - DeZurik)
    - (1) DIP check valve (discharge side - DeZurik)
    - (2) expansion couplings (suction and discharge side – Red Valve J-1W)
    - (2) pressure assemblies consisting of an isolator ring (Onyx PSW or equal), isolation ball valve, tee, pressure sensor with block/bleed valve, and manual pressure gauge (suction and discharge side). Pressure sensor assemblies to be supplied by pump manufacturer.
  4. Install new sludge density meter on TWAS suction piping along south wall, lower level of Building J. Provide NPW connection with ball valve for the Zero/Flush Water supply, vent valve and line, sample valve and line, and drain valve and line to sump as shown in Toshiba LQ500 IOM.
  5. Install new 4/10" DIP freshener piping, fittings, valves, and reinstall existing magnetic flow meter at northwest lower level. Install new 8/12" DIP carbo-stage WAS piping, fittings, valves and reinstall existing magnetic flow meter at northwest lower level. Install 12" DIP WAS/Freshener piping and fittings south to existing wall penetration to gravity thickener.
  6. Install (2) new submersible sump pumps, discharge piping, and ball/check valves to existing wall penetration.
  7. Install natural gas piping from existing building service to new gas-fired unit heaters on ground level and make-up air unit on roof level.
- D. HVAC (sheets M2.1 – M2.3)
1. Furnish and install new natural gas make-up air unit with prefabricated curb on building roof.
  2. Furnish and install new downblast/roof-mount exhaust fan with prefabricated curb on the building roof.
  3. Furnish and install new upblast/wall-mount exhaust fan in the existing wall opening on the ground floor east wall.
  4. Furnish and install (2) gas-fired unit heaters on the ground floor.
  5. Furnish and install two new wall louver/motorized dampers on the ground floor west wall.

6. Furnish one 120V dehumidification unit in the lower level, route drain to sump pit.
7. Install new supply and exhaust HVAC duct work as shown on the plan sheets.
8. Furnish and install new temperature sensors and alarms as shown on the drawings and noted on schedules.

**E. Electrical (sheets E2.1 – E2.6)**

1. Remove (2) existing WAS pump panel feeders and (2) existing TWAS pump VFDs from MCC-J ground level. Install (4) new WAS/TWAS pump VFD feeder buckets in MCC-J ground level.
2. Install (4) new WAS/TWAS pump Allen-Bradley PowerFlex 525 Series VFDs at ground level east wall. Install conduit and conductor for power from MCC-J VFD feeder to VFDs. Install conduit and conductor for control wiring from pump VFDs to PLC-J in ground level.
3. Install (4) disconnect switches at lower level west wall. Install conduit and conductor for power from VFD's to pump motors. Install conduit and conductor for control wiring from pumps to VFDs in ground level. Provide pedestal-mounted HOA station at each of the four (4) pumps in the lower level.
4. Install (4) new clarifier drive feeder buckets with electronic overloads in MCC-J. Install conduit and conductor for power from MCC-J to site duct bank to clarifiers.
5. Install conduit and conductor for power and control terminations at magnetic flow meters, electric valve actuators, pump pressure sensors, sump pumps, and HVAC equipment.
6. Remove existing conduit and conductor in MCC-F within Building F for clarifier drive power. Pull conductor from duct bank and abandon duct bank in place. Starters to remain in MCC as spares.

**F. Integration**

1. Furnish primary elements for installation by electrician – (4) VEGAPULS C21 radar level sensors at clarifiers, (1) Toshiba LQ500 sludge density meter in Building J lower level, (1) 4" ABB ProcessMaster magnetic flow meter with remote display for WAS pumping, (1) 6" ABB ProcessMaster magnetic flow meter with remote display for TWAS pumping, both in the Building J lower level.
2. Integrate all new primary elements into SCADA at PLC-J in the Sludge Pump and Metering Building. Includes integration of (8) pump manufacturer-supplied pressure sensors at WAS/TWAS pumps.
3. Integrate (4) new WAS/TWAS pump VFDs and associated signaling. Maintain control logic of existing WAS pumps and TWAS pumps. Provide additional operator-selectable setpoints for WAS/TWAS pumps for speed setpoints to new VFDs.
4. Revise control logic for TWAS pumping based on sludge density meter reading and VFD speed. Anticipated to mirror the primary sludge pump control based on density meter reading integrated in the Primary Clarifier Rehabilitation project.
5. Add Axis Security Solution to both exterior doors at Building J, similar to Administration Building (i.e. electric door strikes, door readers, door switches, request to exit sensors). Add axis security cameras; one facing final clarifiers, one facing intermediate clarifiers/aeration deck. Integration with existing system in administration building.

**G. Coatings**

**1. Lower Level (sheet A2.1):**

- Bead blast entire floor surface after equipment pads have been removed and floor has been patched. Seal floor with concrete densifier.
- Paint walls, ceiling, and piping.

**2. Ground Level (sheet A2.2):**

- Bead blast entire floor surface after equipment pads have been removed and floor has been patched. Seal floor with concrete densifier.
- Paint walls, ceiling, and piping.

**Construction Management, Engineering and Administration**

**A. General Conditions**

1. Job Site Supervision – The superintendent shall be capable of thoroughly understanding the plans and specifications with experience in the type of work being performed. The superintendent shall have full authority to execute orders or directions of the Owner without delay.
2. Project Management – Provide project management staffing for procurement, scheduling, resource allocation, payment application packages, and coordination of all contractors and subcontractors to complete the Work.
3. Construction Layout – Field survey services for layout of site piping, duct banks, flatwork, etc.
4. Temporary Construction Trailer and Storage Facilities (as needed)
5. Temporary Sanitary Facilities and Dumpsters
6. Site Maintenance – Cleaning and snow removal as needed throughout the project
7. Bonds and Insurance
  - Design-Builder's Payment Bond (100%)
  - Design-Builder's Performance Bond (100%)
  - Design-Builder's Property, Liability, Worker's Compensation, Automotive and Umbrella Insurance
8. Permitting
  - Illinois EPA Construct & Operate Permit
  - Village of Glen Ellyn Building Department

**B. Construction Engineering**

1. Provide field engineering services (resident project representative) during the duration of construction activities.
  - Field engineering services are anticipated to scale with the amount and type of work taking place onsite at any given time. As such, the estimated hours required include approximately 12-16 hours per week during the mobilization, demobilization and light construction phases, and 24-40

hours per week during heavy construction, startups and shutdowns, and similar work.

- Field engineering will include GPS locating of all underground utilities installed or exposed during the project duration for incorporation into project record drawings.
2. Conduct a Pre-Construction Conference prior to commencement of work.
  3. Review Shop Drawings and Samples, and other data which Contractor is required to submit, for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole. There are anticipated to be approximately 50 shop drawings reviewed as part of the Final Clarifier Rehabilitation project.
  4. Complete such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents.
  5. Provide weekly reports to Authority staff on status of construction. Weekly reports will include a summary of work completed each day, site conditions, number of personnel and equipment on site, any issues encountered, or field directives issued.
  6. Schedule and conduct construction meetings during construction phase. Prepare agendas and minutes for each construction meeting.
  7. Compile and furnish maintenance and operating instructions, schedules, and guarantees.
  8. Compile and furnish bonds, certificates, or other evidence of insurance not previously submitted and required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment.
  9. Substantial Completion. Conduct an inspection with Authority staff to determine if the Work is Substantially Complete. Complete a punchlist inspection in conjunction with the Authority at the time of Substantial Completion documenting all outstanding work at time of issuance.
  10. Final Notice of Acceptability of the Work. Conduct a final inspection with Authority staff to determine if the completed Work is acceptable.
  11. Prepare and furnish to the Authority Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.

Scope Exclusions

- A. All items not specifically mentioned with this Agreement or Scope of Services.
- B. All permit fees (except those paid through Allowance), sales tax, or special insurance.
- C. Operation or maintenance of any site systems or processes not specifically noted within the Scope of Services.
- D. Work associated with, or protection of, any existing site utilities not shown on the drawings or field located by Authority staff and/or JULIE.