

November 19, 2025

Marta Reczko
Assistant Director
City of Margate
Environmental and Engineering Services
901 NW 66 Avenue, Suite A
Margate, FL 33063

Re: Margate WWTP Headworks Rehabilitation
Design-Build Proposal

Background

The City issued RFQ 2025-008 (RFQ) which was a Design/Build Criteria Package for the WWTP Headworks Rehabilitation With a submission date of May 1, 2025. The RFQ also references Drawings and Specifications originally included with a separate RFQ. The referenced Drawings and Specifications are included in the Final Design Criteria Package for the West WWTP Upgrades (DCP), prepared by Hazen and dated November 2023.

Globaltech Inc. was ranked number one for this RFQ and on May 21, 2025, the Margate City Commission authorized the Department of Environmental and Engineering Services (DEES) to begin negotiations with Globaltech to develop a scope and a fixed price for this project.

The Final Design Criteria Package includes information for other planned upgrades, most notably the replacement of the Rotating Biological Contactors. Only the information related to the Headworks Rehabilitation, and specifically identified in this proposal, will apply to this proposal.

The headworks facilities include dual sets of channels, screens and grit removal systems. This proposal is based on constructing a temporary headworks structure on the west side of the Headworks Building. This option will only require short (less than 8 hour) shutdowns of the entire headworks facility to make the connections. Another option would be to bypass the Headworks Building during the construction process. This would result in raw (unscreened and not dewatered) sewage being diverted to RBC basins for over a year. This option may be implemented upon discussions with DEES.

The odor control system cannot be evaluated and designed properly until after the new channel covers are installed. Therefore, services related to the modification/rehabilitation of the existing odor control system are not included in this proposal. The new channel covers will be equipped with flanged duct connections to facilitate odor control implementation in the future.

Scope

Globaltech will provide Design-Build service for the following Work. The new equipment and materials will be as specified in the DCP, unless otherwise noted:



Mechanical

- Replacement of the influent flow meter, automated influent sampler (Hach or Isco) and the deteriorated section of influent pipe.
- Replacement of the older influent screen. The other influent screen has recently been replaced and will remain. The new screen will match the existing screen that was recently replaced (Parkson Aquaguard Bar Screen). The existing manual bar screen will remain.
- Replacement of the screenings conveyor with a covered shaftless screw conveyor.
- Replacement of two (2) grit removal systems. The new grit removal systems Lakeside Aeroductor Grit Removal System as specified in the DCP and also includes the grit washers and blowers and all associated piping. Alternative grit removal systems will be evaluated and considered for installation, if they can easily be installed in the existing basins.
- Replacement of the two (2) screening/grit chutes.
- Replacement of the headworks slide gates (11, one is a sluice gate) with new 316 SST manual slide gates. Gates may be flush mount or imbed-mounting based on applicable installation options. Mounting style will be approved by DEES prior to ordering the gates.
- Replace all the piping 6" or less, in kind, on the second floor of the Headworks Building.
- Remove the above-ground portion of the 30" outlet pipe (that used to feed the Sanitaire Plants). Plug/cap the 90 degree bend in the ground and the wall pipe. Remove the associated 10' long rotating weir and install a SST plate over the operator opening.
- Inspect the 42"/36" Bypass Pipe and 42" outlet pipe (that feeds the RBCs), located at the terminal end of the Headworks Building. The testing will be done using non-destructive testing technology to measure above-ground-pipe wall-thickness. Replace pipe found to be deteriorated beyond the testing agency recommendations. The pipe replacement costs will be included in the allowance.
- Replace all air and process piping, valves and fittings on the first floor of the Headworks Building.
- Replace all hose bibs, racks, fittings and associated appurtenances in the inside of the Headworks Building.
- Replace the one (1) rotating 16' long weir, in kind.
- Inspect the wall pipes and make minor wall repairs as needed. Complete replacement of the wall pipes or major reconstruction of the concrete structures (Repair depth over 3") are not included and would be paid for out of the Allowance.
- Replace the roof drain piping and overhead floor drain piping on the first floor of the Headworks Building. The actual floor drains and the concrete encased drain piping will not be replaced.
- Modify the blower, fans, louvers and piping configuration as required to enclose and air condition the MCC Room.
- Conduct a camera inspection of the drains line inside and under the Headworks Building and submit the results to DEES. No drain repair work, other than specifically listed herein, is included in this scope.

Structural

- Replace access bridges, walkways and handrails, including the handrails on the exterior stairs.



- Repair deteriorated concrete (spalling/cracks) and corner joint cracks in the CMU walls on the second floor of the Headworks Building.
- Remove deteriorated channel angle and rehabilitate the concrete. The new channel covers do not require a grating angle; therefore, new grating angle will not be installed.
- Repair the deteriorated mortar joints in the glazed architectural concrete masonry units in the walls of the second floor of the Headworks Building.
- Replace all doors (steel). Three of the new doors will be FRP construction, the rest will be steel construction. Exterior doors shall have Florida Product Approval for the project location and shall include a window. Hurricane panels, if present, will be removed when the doors are replaced. Doors shall be compatible with Security 101 Card Reader System. The existing roll-up doors will remain.
- Repair the roof leak over the electrical room.
- Repair the leak in the skylight.
- Remove channel grating and install new aluminum covers (Hallsten), rated for walking service, on the headworks channels and grit basins, including the headworks channels downstream of the grit basins. Covers shall include flanged connections at appropriate locations for future connection of odor control ductwork. The open channels/basins will be temporarily covered with wood sheeting or aluminum grating if the Headworks Building is placed back into service before the final covers arrive.
- Replace screenings/grit discharge chutes to match existing.
- Replace all access hatches.
- Replace all pipe hangers/supports with new SST hangers/supports. The concrete anchors will be replaced with 316 SST anchors.
- Separate the MCC Room from the Blower Room with an insulated aluminum stud/gypsum wallboard (fire-rated) with lockable door. Block-up existing wall penetrations/louver openings in the MCC and Blower Rooms and construct new/modified louver openings as required for the Blower Room. Insulate the MCC Room as required.
- Construct a double-door sized opening in the CMU wall into the old Ozone Room on the second floor of the Headworks Building sized to accept an FRP double-door in the future. .

Electrical and Instrumentation

- Replacement of all the wire, conduit and conduit supports on the second floor of the Headworks Building. The limits of the replacement conduit/wire will be to the exterior side of the exterior wall penetration. A junction-box, or appropriate conduit, will be used to connect to the existing conduit/wire on the outside of the building. Outside of the building, efforts will be made to consolidate conduit runs or use other methods to provide an aesthetically acceptable installation.
- Install a combustible gas/hydrogen sulfide sensor on the second floor and a hydrogen sulfide sensor the loading bay area or the first floor of the Headworks Building. It is not clear whether a fire suppression/sprinkler system will be required. The costs for a fire suppression/sprinkler system are not included in this proposal and will be paid out of the Allowance if so required.
- Install a differential level transmitter in the influent channel.



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- Replace the main switchgear on the first floor of the Headworks Building. All the conduit in acceptable condition in the Blower Room/Main Switchgear Room will remain, new wire will be provided.
 - Modify conduit and run new wire to the Odor Control System from the MCC room.
 - Install new control conduit/wiring to the new Revera Control Panel.
 - Replace all conduit, wire and conduit supports in the Truck Loading Area on the first floor of the Headworks Building. A junction-box, or appropriate conduit, will be used to connect to the existing conduit/wire on the outside of the building or in the Blower Room/Main Switchgear Room.
 - Replace Panel "LRD" panel and replace transformer with a floor-mounted transformer. Cap and abandon unused conduit penetrations in the floors and walls so to avoid trip or bump hazards.
 - Replace all lighting inside the first and second floors of the Headworks Building with new LED lighting. All lighting shall be 5,000 Kelvin color.
 - Emergency lighting fixtures shall be separate from the standard lighting fixtures.
 - Replace the exterior lighting that is attached to the Headworks Building.
 - New conduit (including analog signal conduit) shall be aluminum, conduit supports shall be 316 SST or FRP and new anchors shall be 316 SST.
 - All existing conduit and lighting all-thread supports that are in good condition shall be reused.
 - The new electrical feeder from Electric/Generator building to headworks shall be installed via directional drilling approximately 15 feet underground. GPR and 3-D scan No duct bank will be installed.
 - Confirm the electrical classification for the various areas inside the Headworks Building.
 - Relocate equipment/piping and provide new electrical as required to enclose/air condition the MCC Room and to provide proper clearances around the blowers and equipment panels.

HVAC

- Replacement of the ventilation system in entire Headworks Building, at a minimum, to match existing.
- The ventilation system will be designed to allow the second floor of the Headworks Building to meet a Class 1 Div 2 hazard classification.
- All existing air plenum screens shall be replaced with new corrosion-resistant screens.
- Provide a mini-split air-conditioning unit for the MCC Room. Mount the condenser on a new concrete pad outside the building.

Coatings

- All new or repaired concrete shall receive a new coating.
- Interior concrete coating shall be 1 coat block filler (bare concrete) and 2 coats of epoxy. Bare gypsum wallboard will be primed with latex primer/sealer and finished with semi-gloss epoxy. Undamaged existing coatings will not be removed prior to application of new coatings.
- Other than spot repairs, the exterior of the Headworks Building will not be painted.



- Submerged ferrous metals will be coated with 2 coats of a high solids epoxy. Stainless steel and aluminum will not be coated although aluminum in contact with concrete will receive two (2) coats of coal-tar epoxy.
- The process liquid holding channels and basin floors, walls and underside of slabs shall be coated with a MIC (microbial influenced corrosion resistant) coating. The MIC coating work shall be performed by an applicator with at least 5-years' experience using these types of coatings and be inspected by the manufacturer's technical representative or a NACE-certified inspector prior to application of the MIC application for each area to make rehabilitation recommendations and then shall observe the application of the MIC coating for a minimum of 2 days for each area. The MIC coating inspector shall test the applied MIC coating for thickness, holidays and adhesion and shall prepare and submit inspection reports for each area. Globaltech will forward these reports to DEES. The MIC coating product will be an epoxy mortar product such as Raven 405, Sauereisen Sewergard 210S, Stonhard Stonchem 510, Sherwin-Williams Dura-Plate 5900 or 6100, Tnemec Series 434 topped coated with Series 435, or Owner-approved Or-Equal.
- Some of the channels have a corrosion-resistant PVC liner. The channels will be cleaned and inspected. The existing liner will remain but will be repaired as required. The new MIC coatings will overlap the edges of the PVC liner by at least ½-inch.
- The floor drains are embedded in the concrete slabs. The floor drains will be blasted and recoated. The embedded piping will not be rehabilitated.
- Ferrous metal piping shall receive 1 coat epoxy polyamide primer followed by 1 coat of epoxy polyamide and top coated with one coat aliphatic polyurethane.
- PVC Piping will receive two (2) coats of semigloss acrylic latex.
- Stainless steel and copper piping will not be coated.
- All mechanical piping will be labeled.
- Polish and re-seal the concrete floors. Note that the floors are stained in some areas. There will be no effort taken to attempt to remove the floor stains.

GENERAL SERVICES

1. Conduct monthly meetings with DEES to review the project progress. Prepare and distribute meeting agendas and minutes.
2. Set-up and maintain a project documentation folder on Procore.
3. Issue monthly pay-requests. Retainage will be 5-percent.
4. Attend periodic meetings with other contractors working on the site to coordinate activities.

ENGINEERING SERVICES

1. Prepare and submit Preliminary Design (30% complete) with Half-Size (11" x 17") Drawings and Specifications. Note the Temporary Headworks (if utilized) will be a separate submittal. Preliminary Design will include the following Drawings and Specifications:

Drawings:

- Cover
- Headworks Process Flow Diagram
- Hydraulic Profile



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- Site Plan
 - Headworks First Floor Demolition Plan
 - Headworks Second Floor Demolition Plan
 - Headworks First Floor Plan Mechanical
 - Headworks Second Floor Plan Mechanical
 - Screen Installation Plan and Section
 - Grit Removal Equipment Installation Plan and Section
 - Grit Washer Plan and Section
 - Headworks First Floor Plan Structural
 - Headworks Second Floor Plan Structural
 - Headworks Structural Details
 - Headworks Building First Floor HVAC Plan
 - Headworks Building Second Floor HVAC Plan
 - Headworks First Floor Plan Electrical
 - Headworks Second Floor Plan Electrical
 - Headworks Building First Floor Classification Plan
 - Headworks Building Second Floor Classification Plan
 - Headworks Electrical One-Line Diagram
 - Headworks Control System Architecture/Partial Network Diagram
 - Influent Screen P&ID
 - Grit System P&ID
 - Miscellaneous Details Sheets

Specifications:

- Influent Flowmeter
 - Influent Screen (Parkson)
 - Screenings Conveyor
 - Grit Removal System (Lakeside Or Owner-Approved Or-Equal)
 - Slide Gates
 - Ductile Iron Pipe
 - PVC Pipe
 - Concrete Repair
 - Coatings
 - Channel Covers
 - Miscellaneous Electrical Specifications
2. Meet with DEES to review the Preliminary Design
 3. Prepare and submit a 60% Complete Design with half-size (11" x 17") Drawings and PDF Specifications. This set of Drawings and Specifications will include all of the planned Drawings and Specifications.
 4. Meet with DEES to review the 60% Design.
 5. Prepare and submit a Final Design with half-size Drawings and Specifications (4 hard copies and PDF). For I&C coordination, Globaltech will provide Instrumentation Drawings for our installed equipment and provide a list of new I/O of signals that have been brought in from the field and
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labeled loose in I/O CABINET NO. 1 HEADWORKS panel. Globaltech will coordinate with Revere Controls on instrument list, signals that will be available from new equipment. Globaltech will also meet with DEES and Revere to coordinate how and when to integrate signals in SCADA and controls. All integration and controls including SCADA/PLC logic and modifications to the existing I/O CABINET NO. 1 shall be performed by Revere Controls. Any panel modifications and subsequent As-Built drawings shall be designed, furnished and installed by Revere.

6. Meet with DEES to review the Final Design.
7. Prepare and submit a Final Design set of Drawings and Specifications. The following sets will be provided:
 - a. Drawings:
 - i. Two (2) full-size (24" x 36") sets
 - ii. Two (2) half-size sets
 - iii. Electronic CAD and PDF files
 - b. Specifications:
 - i. Four (4) hard copy bound sets
 - ii. Electronic PDF file
8. Conduct periodic site visits to confirm Work is progressing per the design.
9. Provide a NACE-Certified coating inspector to inspect the new MIC coatings and submit inspection reports.
10. Witness shutdowns, tests, significant stages of the Work, and as specified.
11. Arrange and document specialty inspections.
12. Prepare and submit Draft O&M Manuals for the new equipment. Collect DEES comments and submit three (3) bound sets of hard copies and one PDF file of the Final O&M Manuals.
13. Conduct Substantial and Final Completion Walkthroughs and develop associated punchlists.
14. Prepare and submit Draft Record Drawings. Collect DEES comments and prepare/submit the following copies of the Record Drawings
 - a. One full-size hard copy (22"x 34").
 - b. One half-size copy (11" x 17").
 - c. One set of CAD and PDF file copies.
 - d. One Signed/Sealed PDF file copy.
15. Assist in Closeout of the project.

CONSTRUCTION SERVICES

1. Order and properly store equipment. Equipment ordering will begin after the 30% complete design has been reviewed.
2. A Construction Superintendent, Foreman or Construction Manager will be on site whenever construction Work is being performed. Blasting and coating work will be performed by a competent subcontractor. Their work will be inspected periodically and at critical completion points, but Globaltech may not have supervisory staff on site during all of their work.
3. Provide a construction trailer.
4. Prepare a Construction Schedule and update it monthly.
5. Prepare, coordinate, review and submit material and equipment submittals.
6. Prepare and record a daily construction diary.



7. Maintain a database of submittals, schedules, construction photographs, construction diaries, and other construction paperwork on the Procore platform.
8. Drain and clean the headworks channels and basins prior to rehabilitative work. Dispose of solid material removed from the channels/basins in the landfill.
9. Provide labor, materials and equipment to perform the construction activities to complete the Work listed in the Scope, herein.
10. Submit monthly Pay Requests.
11. Provide labor, materials, equipment and competent vendor assistance for Testing and Start-Up activities.
12. Provide materials for inclusion in the Operation and Maintenance Manual.
13. Address Substantial and Final Completion Punchlists.

ASSUMPTIONS

1. No environmental permitting is required.
2. Globaltech to secure all required permits. Permit fees will be paid out of the allowance.
3. DEES will provide an area inside the West WWTP fence for storage of Globaltech materials and construction trailer(s). Globaltech will connect to the water, wastewater and electrical services at a location provided by DEES. Globaltech will not meter these connection and DEES will not charge Globaltech for water, wastewater or electrical services related to the construction of this project. Globaltech will provide and pay for their own internet service for the construction site.
4. Concrete rehabilitation costs for the water holding channels/basins are based on up to ½" of concrete loss for everywhere under the water level and above the water level, 2" of concrete loss in the channels from the entrance to the three (3) slide gates after the screens and 3" of concrete loss downstream of the three (3) slide gates, approximately 620 ft³ in total. This concrete loss is the concrete condition after blasting operations. Additional concrete rehabilitation costs can be paid out of the allowance.
5. The electrical classification for the enclosed second floor of the Headworks Building is Class 1, Div 2 and classification. The remainder of the Headworks Building is unclassified.
6. The skylight is in acceptable condition and can be removed/reinstalled with only minor repairs/improvements.
7. The existing, older automated influent screen will be used in the temporary headworks facility. After Start-Up is completed Globaltech will either dispose of the influent screen or deliver it to DEES at a location on the WWTP site, at DEES's direction.
8. Unless otherwise stated, Warranties shall be for one (1) year from date of Substantial Completion for that specific equipment or work item, which is defined as the date that DEES first begins receiving beneficial use of that equipment/work item. Substantial Completion will be confirmed in writing by both Globaltech and DEES for each specific equipment/work item.
9. No work will be performed on the Headworks Odor Control System or the Truck Dump Station.
10. No work will be done in the old Ozone Contact Room on the second floor and other than replacing the door, no work will be done in the room with the radiation warning sign or the panel building room, both on the first floor.
11. It is assumed that asbestos and lead based paint are not present in the headworks building.
12. This proposal was developed based on the current tariff conditions and with the assumption that Buy American and Davis-Bacon requirements do not apply.



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13. A power system study is not included in the scope of this proposal.
 14. This proposal is based on the Agreement included with RFQ 2025-008, with a submission date of May 1, 2025.
 15. Normal work hours are Monday-Friday 7:00 am to 5:00 pm, not including City holidays.

COSTS

The costs for the proposed scope of work shall not exceed the Lump Sum Price of **\$12,909,057.00**. A cost breakdown of the Lump Sum Price is attached. These costs include an allowance of \$1,250,000.00. The allowance may be used to pay for additional concrete/tile restoration costs, complete replacement of the skylight(s), permit fees, or other work items outside the scope of this proposal. The allowance funds cannot be accessed without prior written permission from DEES.

PROJECT SCHEDULE

A preliminary Project Schedule is attached.

Should you have questions or need additional information about this project, please call me at 561-997-6433. Thank you for your consideration.

Sincerely Yours,

David Schuman

David Schuman, P.E.
Vice-President of Project Delivery
Globaltech, Inc.





