

ST-2B: Clarifiers & High-Level Disinfection (HLD)

SDWWTP - 8950 SW 232ND STREET MIAMI, FLORIDA, 33190.

CLIENT NAME

Miami-Dade Water and Sewer
Department

CONTRACT NUMBER

5-932

TIMELINE

SCHEDULED ADVERTISEMENT

January 2022

SCHEDULED BID OPENING

March 2022

SCHEDULED PROJECT AWARD

August 2022



Contact Information

For additional information please call Mr. Paul Adams at (786) 552-8178 or send electronic mail to: Paul.Adams@miamidade.gov

NOTE: AFTER THE ADVERTISEMENT DATE, THIS PROJECT IS UNDER THE CONE OF SILENCE (Pursuant to MDC Section 2-11.1 (t)) ANY E-MAILS SENT TO MR. PAUL ADAMS MUST ALSO COPY THE CLERK OF THE BOARD AT clerk.board@miamidade.gov

PROJECT SCOPE

In general, the project consists of furnishing all materials, labor, and equipment necessary for the construction of a new junction box to split the flow from the oxygenation tanks into two new clarifiers (one is future); construction of one new clarifier (clarifier 12) including inlet and outlet piping and Return Activated Sludge (RAS) piping; modification of existing RAS Pump Station 3 with three (3) additional RAS pumps with piping system; modification of a pipeline segment inside RAS Pump Station 1; construction of a Transfer Pump Station (TPS) Bypass channel (North side); construction of six new filters; and associated yard piping at the South District Wastewater Treatment Plant owned by the Miami Dade Water and Sewer Department (WASD) and located at 23300 SW 88th Avenue Miami, FL 33032.

Specifically, the work includes but is not limited to:

1. Civil
 - a. Install shoring to protect existing structures and geotechnical instrumentation to monitor conditions.
 - b. Dewatering activities and installation of sheet piles including required sheet piling for the construction of Clarifier 12 and Junction Box 11/12.
 - c. Construct Junction Box 11/ 12.
 - d. Install yard piping from junction box to Clarifier 12, and some piping for future Clarifier 11, including piping below structures.
 - e. Install yard piping from Clarifier 12, and some piping for future Clarifier 11, to effluent manifold including piping below structures.
 - f. Install yard piping between Clarifier 12 and RAS pump station 3 and scum pump station.
 - g. Extend 96" PCCP pipe and connect to new filters.
 - h. Install 36" filter effluent pipe.

Project Scope (Continued)

- i. Civil improvements related to Transfer Pump Station (TPS) Bypass (north side) including upgrades to yard piping at the TPS to accommodate the new bypass and site improvements around the actuators of the two existing 60-inch valves.
 - j. Provide design of civil site improvements including grading, pavements, sidewalks, and parking.
 - k. Site and Utilities Demolition.
 - l. Provide recommended Access Roads/Routes.
2. Instrumentation and Control
 - a. Modify SCADA programming to include new junction box slide gates, new clarifier, new RAS pumps, new bypass slide gates, and new filters.
 - b. Install and calibrate instrumentation and controls for new equipment, gates, valves and instruments.
3. Structural
 - a. Install auger piles foundation as required for all structures and install pile caps.
 - b. Form and pour concrete slabs and walls as required for all structures.
 - c. Structural design for the expansion of existing Transfer Pump Station adding a north bypass channel as well as receiving and water discharge structures.
4. Process Mechanical
 - a. Install weir gates at junction box
 - b. Install clarifier 12 mechanism and piping (inlet, outlet, RAS, scum and drain piping)
 - c. Installation of RAS pumps 8-10 with associated piping and appurtenances at RAS PS 3.
 - d. Remove 17-ft section (approximately) of 24-inch RAS pipe, including two 24-inch by 36-inch reducers from RAS discharge piping at RAS Pump Station No. 1 and replace with 36-inch pipe.
 - e. Install new air scour blower and air piping at new filters.
 - f. Install deep bed filtration systems including underdrain supports and piping as well as filter beds.
 - g. Install backwash pumps and piping.
 - h. Install gates and piping for north bypass channel as well as actuators for the two existing 60-inch valves.
 - i. Installation of a new 96-inch filtered effluent bypass pipe between the North and the South Filtered Effluent Flumes.
 - j. Provide temporary chlorine injection pumps and injection assemblies to be used during shutdowns that bypass existing chlorination points.
5. HVAC
 - a. a. Modify HVAC systems as required to accommodate new structures and equipment.
6. Electrical
 - a. Install lighting and grounding systems as required for new structures and equipment.
 - b. Install lightning protection equipment.
 - c. Install underground ductbanks to and from new structures.
 - d. Electrical terminations for new gates and equipment.
 - e. Install transformers for new clarifier and filters.
 - f. Electrical improvements at MCC-A and MCC-8 for RAS pump station modifications.
7. Architectural
 - a. Site life safety plan.