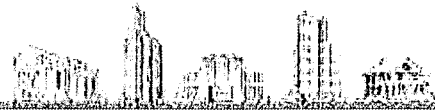


**TRANE**

Building Services

WE MAKE BUILDINGS WORK BETTER FOR LIFE.™



Trane U.S. Inc.
2884 Corporate Way
MIRAMAR, FL 33025
Phone: (305) 592-0672
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Service Contact: (954) 499-6900

February 14, 2019

City of Hallandale Beach
Water Treatment Plant
630 NW 2nd Street
Hallandale Beach, FL, 33009

US Communities Contract 15-JLP-023
US Communities Quote: 40-124415-19-003

Attention: Alyssa Jones-Wood

Project Name: City of Hallandale Water Treatment Plant Controls

We are pleased to offer you this proposal for the City of Hallandale Beach Water Treatment Plant. This incorporates software and controls as detailed below.

Project Scope

The Building Management System (BMS) installation consists of a new Tracer Ensemble facility management software platform.

Tracer Ensemble is a comprehensive enterprise building management system. The Ensemble will tie together the Municipal Complex and the Water Treatment Plant as one system with the capability to tie in other City of Hallandale Buildings in the future. Built on open-standard protocols, Tracer Ensemble communicates with buildings through your IP network to allow easy connection of multiple systems across your enterprise. The Trane BMS is a BACnet/IP system and the City of Hallandale Beach shall be responsible for providing all BACnet/IP network connection points.

The Tracer System Controller will serve as an interface between the operator and all of the secondary level distributed BAS controllers. Access to the SC and all associated System Points will be available from any PC with access to the LAN. A Free Smart Phone Application is available for "On the Go" access providing immediate response to comfort calls, alarms, or schedule changes. The system may utilize standard control algorithms / capabilities to recognize energy saving options such as: Time of Day Schedule and Occupied/Unoccupied modes. The system has functionality for programming to include, as applicable: Optimal Start/Stop, Morning and Daytime Warm-up, Coastdown, Demand Limiting, Duty Cycling, Run Time, Maintenance Messages, Diagnostics and Alarming, among others.

Scope of Work

TRACER SC WEB ENABLED SYSTEM CONTROLLER

- Replace existing CCP-1 & 2 Controllers with new SC
- Configure all existing CCPs Systems inside the new SC Controller
- Time of Day Schedule Control

-
- AHU Trends capability
 - Local & Remote Alarms Set-up
 - Mobile Web enabled interface

REPLACE DX CV AIR HANDLING UNIT CONTROLLER, TYPICAL FOR 2 (AHU-1 & AHU-2), INCLUDING:

- Supply Fan Start/Stop
- Cooling Stages Start/Stop
- Heating Stages Start/Stop
- Supply Fan Status
- Filter Status
- Outside Air Damper & Actuator
- Bypass Damper & Actuator
- Supply Air Temperature
- Return Air Temperature
- Duct Static Pressure Sensor
- Return Air CO2 Sensor – energy saving initiative
- DDC BACNet Controller

RETROFIT EXISTING TRANE COOLING ONLY VAV TERMINAL UNITS, TYPICAL FOR 11, INCLUDING:

- Modulating Actuator
- Wireless Zone Temperature sensor
- DDC Controller
- 5 VAV Boxes from AHU-2 on 1st Floor
- 6 VAV Boxes from AHU-1 on 2nd Floor

TRACER ENSEMBLE WEB-BASED FACILITY MANAGEMENT TOOL, INCLUDING:

- Tie-in new SC Controllers at WTP & Municipal Complex to new Tracer Ensemble server
- Multiple Building Scheduling and Control
- Web Browser
- Auto Discovery and Self-configuration
- Graphical Navigation
- Data Management
- Enterprise Alarm Management
- Enterprise Scheduling
- Data Logs
- System Integration capability for Trane and non-Trane BACnet Systems

LABOR INCLUDING:

- Engineering
- Installation
- Low voltage wiring
- Custom color graphic displays, reports and alarm sequences
- Startup & checkout
- Owner training
- One year warranty

PRICE ASSUMES:

- Pricing based on Jobsite Visit
- Remaining equipment are communicating and working properly
- If remaining sensors, actuators, or any control devices are found to be defective or inoperable, a separate proposal will be provided for repair/replacement
- Power Wiring to BCS Controllers by Div.16
- Plenum rated cable where concealed and allowed by code
- 1/2" Minimum size conduit in exposed areas
- Excavation, Backfill and Underground Conduit by others
- Standard production & delivery cycles

-
- All work to be performed during normal working hours
 - **System shall reside on the Customer's Network**

PRICE DOES NOT INCLUDE:

- ***Smoke control sequences, material or labor***
- ***Provision, control and wiring of Fire, Smoke, or combination Fire-Smoke dampers, actuators, and/or end-switches – by Fire Alarm Contractor***
- Dampers/damper actuators not integral to the HVAC equipment and/or associated wiring
- Smoke detectors and/or associated smoke detector wiring
- Firestats and/or freezestats
- Manual Override hardware and control
- Any scope of work not specifically outlined above

Pricing:

Tracer SC for Water Treatment Plant: \$40,280.00

VAV Retrofit Add: \$10,214.00

Tracer Ensemble Add: \$11,897.00

Thank you for giving Trane this opportunity. If you have questions or require additional information, please feel free to contact me.

Sincerely,

Nicole Albarano

Energy Services and Controls