

**Region:** 5

**Location:** MD002

**CSS #:**25758

**Maximo Work Order No.:** 12917

**Asset #:** NA

**Date Issued:** 10/08/20

**Original Description:** Additional Work needed Wo To come once Proposal is received

**Repairs Needed:**

Tustin Group will conduct diagnosis of additional BAS issues found at Bldg 002. Will provide a BACnet communicating thermostat for field troubleshooting. Thermostat to reside on site for future use.

**RS Means Line Buildup and Labor Summary (Data Version 2017, Q4):**

Quantity	Line Item Number	Description	Labor Hours	Labor Rate/Hr	Materials	Equipment	Total
--	NA	Material	--	--	\$930.00	--	\$930.00
--	NA	Tustin Labor	16	\$150.00	--	--	\$2,400.00
--	NA	TW Coordination	4	\$80.00	--	--	\$320.00

**Estimate Summary:**

Labor Hours	Labor Cost	Material Cost	Equipment	Total Cost	CE Factor	Total Estimate
20	\$2,720.00	\$930.00		\$3,650.00	100%	<b>\$3,650.00</b>



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# ***TUSTIN ENERGY SOLUTIONS***

## **PROJECT PROPOSAL**

***Proposal Date:***

October 6, 2020

***Proposal Number:***

TES20254

***Prepared for:***

Adam Colopy  
Tidewater, Inc.  
3761 Attucks Drive

Powell OH 43065

**TOMORROW'S SOLUTIONS for TODAY'S BUILDINGS**

***Prepared by:***

Dominic Bostardi  
610.539.8200

CORPORATE HEADQUARTERS:

2555 INDUSTRY LANE ~ NORRISTOWN, PA 19403 ~ 610.539.8200 ~ 610.539.2890 fax

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## PROJECT and REPAIR ESTIMATE FOR BUILDING ENVIRONMENTAL SYSTEMS

Proposal Date	Proposal Number	Agreement No.
October 6, 2020	TES20254	

BY and BETWEEN:

Tustin Energy Solutions		
2555 Industry Lane		
Norristown	PA	19403

AND

Tidewater, Inc.		
3761 Attucks Drive		
Powell	OH	43065

hereinafter CONTRACTOR

hereinafter CUSTOMER

Location of Work:

MD002 - 700 East Ordinance Road, Baltimore, MD 21226

Scope of Work:

-Conduct diagnosis of additional BAS issues found at Building 002  
-Provide a BACnet communicating thermostat for field troubleshooting; thermostat to reside on-site for future use

Exclusions:  
-Premium time  
-Any/all controls in addition to above SOW  
-Testing and balancing  
-Commissioning of any kind

Breakdown:  
Time: \$2,400.00 [16 hours @ \$150/hour]  
Material: \$544.00  
Material mark-up: \$136.00  
Travel charge: \$250.00  
Sales tax: \$33.00

Total Price for Estimate NTE: **\$3,363.00**

### CONTRACTOR

Signature (Sales Representative) Dominic Bostardi

**Approved for Contractor:**

Signature

Name & Title

Date

### CUSTOMER

Signature (Authorized Representative)

Name (Print/Type)

Title

Date

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### PROJECT AGREEMENT TERMS AND CONDITIONS

1. Customer shall permit Contractor free and timely access to areas and equipment, and allow Contractor to start and stop the equipment as necessary to perform required services. All planned work under this Agreement will be performed during the Contractor's normal working hours.
2. Contractor warrants that the workmanship hereunder shall be free from defects for thirty (30) days from date of installation. If any replacement part or item of equipment proves defective, Contractor will extend to Customer the benefits of any warranty Contractor has received from the manufacturer. Removal and reinstallation of any equipment or materials repaired or replaced under a manufacturer's warranty will be at Customer's expense and at the rates in effect.
3. Customer will promptly pay invoices within thirty (30) days of receipt. Should a payment become thirty (30) days or more delinquent, Contractor may stop all work under this Agreement without notice and/or cancel this Agreement amount shall become due and payable immediately upon demand.
4. Customer shall be responsible for all taxes applicable to the services and/or materials hereunder.
5. Any alteration to, or deviation from, this Agreement involving extra work, cost of materials or labor will become an extra charge (fixed price amount to be negotiated of on a time-and-material basis at Contractor's rates then in effect) over the sum stated in this Agreement.
6. In the event Contractor must commence legal action in order to recover any amount payable or owed to Contractor under this Agreement, Customer shall pay Contractor all court costs and attorneys' fees incurred by Contractor.
7. Any legal action against the Contractor relating to this Agreement, or the breach thereof, shall be commenced within one (1) year from the date of the work.
8. Contractor shall not be liable for any delay, loss, damage, or detention caused by unavailability of machinery, equipment or materials, delay of carriers, strikes, including those by Contractor's employees, lockouts' civil or military authority, priority regulations, insurrection or riot, action of the elements, forces of nature, or by any cause beyond its control.
9. To the fullest extent permitted by law, Customer shall indemnify and hold harmless Contractor, its agent and employees from and against all claims, damages, losses, and expenses (including but not limited to attorneys' fees) arising out of or resulting from the performance of work hereunder, provided that such claim, damage, loss or expense is caused in whole or in part by an active or passive act or omission of Customer, anyone directly or indirectly employed by Customer, or anyone for whose acts Customer may be liable, regardless of whether it is caused in part by the negligence of Contractor.
10. Customer shall make available to Contractor's personal all pertinent Material Safety Data Sheets (MSDS) pursuant to OSHA's Hazard Communication Standard Regulations.
11. Contractor's obligation under this proposal and any subsequent contract does not include the identification, abatement or removal of asbestos or any other toxic or hazardous substances, hazardous wastes or hazardous materials. In the event such substances, wastes and materials are encountered, Contractor's sole obligation will be to notify the Owner of their existence. Contractor shall have the right thereafter to suspend its work until such substances, wastes or materials and the resultant hazards are removed. The time for completion of the work shall be extended to the extent caused by the suspension and the contract price equitably adjusted.
12. UNDER NO CIRCUMSTANCES, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), EQUITY OR OTHERWISE, WILL CONTRACTOR BE RESPONSIBLE FOR LOSS OF USE, LOSS OF PROFIT, INCREASED OPERATING OR MAINTENANCE EXPENSES, CLAIMS OF CUSTOMER'S TENANTS OR CLIENTS, OR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

September 4, 2020

Tidewater, Inc.

Reference: MD002 CSS 25758 WO 12469

Subject: Final Report

**1. Check, verify and troubleshoot communication between network devices:**

a. Work performed:

- i. Checked out device network on Jace database. Recorded any devices currently not communicating on Jace. Made note of VRF-1C and Mail Room VRF not properly communicating on VRF system.
- ii. Checked VRF-1C for communication issues. Checked wiring and wall controller. Verified terminations and control board. Cycled power to unit and checked after power was restored. Once unit was powered, error code E4 was displayed on the wall controller. This error code details improper communication to the outdoor unit. Looked into issue further. To fully diagnose this issue, we will need to return with a communicating thermostat to confirm addressing and communication parameters. The communicating thermostat would also be used to capture additional error codes within the system. There is a possibility of further repairs required to restore communication to this unit.
- iii. Checked Mail Room VRF for communication issues. Was not able to physically check this unit since we could not obtain access to mail room while onsite.
- iv. Checked DOAS 2 for intermittent shut down. Noticed cooling was not working when unit was running. Checked outdoor condensing unit. Unit was shut down on low pressure lockout. Reset lockout and cycled power to unit. Unit again tripped off on low pressure within a minute of startup. Both compressors remained locked out on low pressure.

b. Recommendations:

- i. Acquire communicating thermostat and return to further diagnose VRF units that are not communicating.
- ii. Request mechanical contractor to check AC condenser for DOAS 2 for compressors locking out on low pressure.

**2. Create zone scheduling for building with user alteration capability:**

a. Work performed:

- i. Customer requested four specific zones for scheduling. Recorded zones and created excel sheet specifying units in each zone.
- ii. Created schedules in Jace database for each zone. Linked associated units to each schedule. Tested schedule output and verified connections.
- iii. Updated front end graphics to reflect new schedule zones. Added schedule links to home page graphic. Added floorplan graphic showing schedule zones.

**3. Adjust existing setpoints and create user adjustable offset +/- 2°F:**

- a. Work performed:
  - i. Adjusted setpoints to the following settings for VRF units.
    - 1. 74°F Occupied Cool
    - 2. 70°F Occupied Heat
    - 3. 80°F Unoccupied Cool
    - 4. 64°F Unoccupied Heat
  - ii. Adjusted setpoints on a global level and through VRF Gateway.
  - iii. Checked VRF thermostats for ability to create user adjustable offset.
    - 1. Thermostats do not have the ability to set user adjustable offset. The thermostats only have the option of completely locked out or unlocked (full control over setpoint, fan and occupancy from thermostat). Locked out all the thermostats and added a global command button on the home page graphic to modify setpoints on a global level for the VRF system (with limits).

#### **4. Disable zone (button) occupancy functionality:**

- a. Work performed:
  - i. Disabled button functionality within Jace programming.
  - ii. Removed links to occupancy control via buttons.
- b. Additional notes:
  - i. Per customer request, buttons are disabled for VRF systems except for Schedule Zone 1. This includes the assembly/drill hall and mail room (Buttons still active).

#### **5. Setup of remote IP access for the 99<sup>th</sup> HQ:**

- a. Work performed:
  - i. Set static IP settings per customer request.
  - ii. Rebooted Jace and verified new IP setting stayed in place.
- b. Additional notes:
  - i. Remote IP access is set up in the Jace. Since the building network was down while onsite it is up to the customer to verify connectivity of remote access to the Jace.

#### **6. User and admin access cleanup and reassignment:**

- a. Work performed:
  - i. Reviewed user service and verified users in Jace database.
  - ii. Removed unused users from database.
  - iii. Modified/added users per customer request.
  - iv. Left Tustin Energy users in place for future work.