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ENGINEERING

June 12, 2018

DELAWARE STATE POLICE – TROOP 7

Lewes, Sussex County, Delaware
2011116.01

ADDENDUM FOUR

The addendum forms a part of the contract documents and modifies the original bidding documents, dated May 17, 2018 as distributed at the Pre-Bid Meeting on May 22, 2018 as noted below.

GENERAL

1) **Bidding Schedule**

- a. **Last Day for Bidder Questions** – Wednesday June 13, 2018. Questions shall be received by 5:00 pm EST.
- b. **Last Addendum Issued** – Friday June 15, 2018.
- c. **Bids Due / Bid Opening** – Wednesday June 20, at 2:00 pm EST.

SUBSTITUTION REQUESTS

- 1) **BOILER:** Raypak XVers - Type H boiler was **not** found as equal. Basis of design boiler has a 25:1 turndown.

* It is the contractor's responsibility for any costs associated with deviating from the basis of design that subsequently become apparent or that are apparent now. Costs associated could include but are not limited to additional structure, space constraints for equipment service, electrical power requirements (breaker/fuse sizing and wire sizing changes), and piping connection location modifications. The contractor shall ensure approved as equal equipment meets or exceeds all requirements found both on the drawings and in the specifications provided for this project. Any approved as equal equipment submitted may be rejected that does not satisfy the specifications. The Architect / Engineer has not redesigned the project around this substitution.

BIDDER QUESTIONS & RESPONSES

- 1) Why is the fire pump so large? [750 gpm] Also, the electrical single line diagram indicates the fire pump to be 25 HP, pump specs call for 50 HP.

Response: Final design of the fire pump is to be determined by the successful fire protection contractor once a flow test is conducted as indicated in 21 30 00 2.02 A 5.

- 2) Specification section 260519-19, 2.01, G1a, says you can use MC Cable for 20-amp circuits concealed in hollow stud walls, above accessible ceilings and under raised floors, but section 2.01, G2a says MC Cable may not be used unless approved by State of Delaware OMB, Division of Facilities Management. Can MC Cable be used as stated in 2.01 G1a or not? We need to know if



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OMB will approve MC cabling prior to us submitting a bid.

Response: Use of MC cable is acceptable as specified under 260519-19, 2.01, G1a. Prior approval by OMB is not required.

- 3) The note on drawing E101 says the electrical contractor is responsible for conduit stubs and back boxes for security devices located in walls and to coordinate with security contractor prior to installation. Does this mean that the electrical contractor is only responsible for conduit stubs and back boxes for the following specification sections?
- Section 281311 T7 – Security Management System
 - Section 281317 T7 – Access Control Systems
 - Section 281327 T7 – Access Control Intercom System
 - Section 281600 T7u – Intrusion Detection
 - Section 282301 T7 – Video Surveillance

If not, please clarify.

Response: The intent is that the E.C. provides raceway and back boxes for the security contractor while rough in is occurring. Drawings labeled SEC indicate the location of the devices.

- 4) General note #6 on drawing E101 says communications system wiring, jacks, connections, racks, etc. are not in the contract, but the pre-bid meeting minutes item #6 vii, asks if the data cabling is part of the contractor or is being provided by the Owner's contractor. The response is the data cabling is part of the contract documents and DTI will be providing the technology equipment. Please clarify which is correct and what the electrical contractor is to carry in their bid for tele/data.

Response: Drawings notes 6, 7, and 8 on E101 and E012 have been revised and issued in Addendum #4. The intent is that the contractor furnish and install patch panels, racks, structured cable, jacks, etc. as identified on the drawings and specified in 27 10 05.

- 5) General note #7 on drawing E800 (maintenance building lighting) tells you to connect the night lights (EM) and exit lights to the unswitched hot leg of the lighting circuit serving that area. There is no note telling you to do the same on the lighting drawings for the base bid of Troop 7. Do we connect all the EM lights to the unswitched leg of the lighting circuit serving the area in the Troop 7 building?

Response: Drawing E800 and the Lighting Fixture Schedule have been revised and issued in Addendum #4.

- 6) Drawing ES100 does not have any notes indicating what the electrical contractor is supposed to provide for the primary service running to the pad mount transformer. Drawing E500 tells you to provide (2) 4" conduits and encase them in concrete under road with the cabling to be by the utility. Please clarify what the electrical contractor is to provide for the primary. Does the electrical contractor have to cut and patch the road? What is the rectangle with the "S" in it right before the primary crosses the road? Please advise.

Response: The rectangle with the "S" on ES100 is either primary switchgear or sectionalizing gear (provided by the utility). The contractor shall provide (2)4" conduits from the pad-mount utility transformer to the sectionalizing gear, and then from the sectionalizing gear routed along Dorman Farm Lane out to the utility pole at Mulberry Knoll Road. These conduits shall be buried minimum 36" below finished grade and shall be concrete-encased under roadways, driveways, etc. Provide warning tape over buried lines. The utility will provide the primary service conductors. Coordinate with utility for all conduit requirements.

- 7) Drawing ES100 shows (3) of the pole bases having (9) 1" conduits and one pole base having (12) 1" conduits running to it. How are all of these conduits going to fit into a 6" square pole? Please advise.

Response: Detail #12 on Sheet E703 has been revised to accommodate the underground conduit.

- 8) Keyed notes 8, 9 and 10 on drawing ES100 do not match up with duct bank details #4 and 5 on drawing ES100. Please advise.

Response: Detail 4 on sheet E701 has been revised to coordinate duct bank requirements. Notes on ES100 have also been revised to coordinate.

- 9) Do keyed notes 11 and 12 on drawing ES100 go into the base bid or the alternate for the maintenance building?

Response: Base Bid shall include duct bank to 5' outside of maintenance building.

- 10) There is not detail shown for the pad mount transformer. Is it provided and installed by others? If no, please provide details.

Response: The contractor is responsible for providing the concrete pad. Coordinate with electric utility for concrete pad requirements and installation details.

- 11) Does the electrical contractor own the bollards and metering around the pad mount transformer as indicated on drawing E703, details 1, 2, 3 and 4?

Response: The contractor owns the bollards. The utility provides the meter and CT's. The utility will install the meter directly on the transformer housing.

- 12) Is the generator pad as indicated on detail #9 on drawing E704 in the electrical contractor's scope of work or is it by others?

Response: This is a single prime contract. The successful bidder is responsible for that work.

- 13) There are (9) conduits indicated on the site plan ES101 for the fuel dispensing system, but note #3 on the fuel dispensing notes only reference (8) 1" conduits to be included in the base bid. Which is correct?

Response: Conduit requirements on drawing ES101 has been coordinated and the revised drawings will be issued in Addendum #4.

- 14) The following questions refer to Detail 1, 2, 3 & 4/E703 – Utility Meter Pedestal Mounting Detail:

- a. The current transformer and the pad-mounted transformer are provided by the utility. Are they also being installed by the utility?

Response: Yes.

- b. Is the concrete pad the above transformers are being mounted on also being provided by the utility or EC? If by the EC, please provide details.

Response: The EC is responsible for providing the concrete pad. Coordinate with electric utility for concrete pad requirements and installation details.

- c. The meter socket and pedestal are being provided by utility to be installed by EC. Is the concrete footing for the pedestal by the utility or the EC? If by the EC, please provide details.

Response: There will likely be no pedestal for the meter. The utility will install the meter directly on the transformer housing.

- d. Who is responsible for the driven ground rod? Utility or EC?

Response: The utility will provide all grounding and bonding for the pad-mount service transformer.

- e. Who is responsible for the PVC conduit from right side of compartment to meter? Utility or EC?

Response: The utility will install the meter directly on the transformer housing.

- f. Who is responsible for the conduits to switchboard? Utility or EC? If by EC, please clarify note that refers to Detail 2/E-801. This detail does not exist.

Response: The EC owns the conduits from the pad-mount transformer to the switchboard. Ignore the reference to nonexistent detail "2/E-801". Provide the conduits per sheets ES100 and E500.

- g. Who is responsible for the bollards and concrete base around the transformers. Utility, EC or Site? If by EC or Site, please provide details and specifications?

Response: The EC is responsible for the bollards and concrete bases. Provide (4) removable concrete bollards around the pad-mount transformer, with (1) at each corner of the concrete pad.

- 15) Sheet ES100 does not have any notes or information indicating what the EC is supposed to provide for the primary service running to the pad mounted transformer. Sheet E500 indicates the EC is to provide (2) 4" conduits to the property line and provide concrete encasement under roadway. Sheet C301, Note E-1 states that the primary electric and switchgear are provided by others. One of the arrows points to the underground electric which is work described on Sheet E500. Is this work by the Utility or the EC?

Response: The EC shall provide (2)4" primary service conduits from the pad-mount utility transformer to the sectionalizing gear (rectangle with "S" on ES100), and then from the sectionalizing gear routed along Dorman Farm Lane out to the utility pole at Mulberry Knoll Road. These conduits shall be buried minimum 36" below finished grade and shall be concrete-encased under roadways, driveways, etc. Provide warning tape over buried lines. The utility will provide the primary service conductors and the sectionalizing gear. Coordinate with utility for all conduit requirements.

- 16) Liner Panel Location: Sheet A802 details show liner panel however it is not entirely clear where the liner does and does not occur. It appears to be attached to CMU walls however there is no attachment method shown and in both wash bays there only appears to have CMU on three walls so is it also to be applied to walls that don't have CMU. On the partition wall between the vehicle maintenance bays and the tactical bays, it calls for ¾" Fire Retardant 4x8 sheets plywood mounted on uni-strut fastened to steel framing ptd.

Response: Refer to revised finish schedule and wall types on A801 issued with addendum_04. The intent is that the liner panels extend from finished floor to underside of roof deck at the exterior walls. The fire retardant plywood has been deleted from scope.

- 17) Specification section 260534-2, 2.01B, tells you that if a conduit type for a particular application is not specified, to use galvanized rigid steel. The site lighting and conduits going to light poles/site lighting on drawings ES100 are not specified, it only says 1" conduits in the notes. There are no details on the E700 series drawings for site lighting. Do these conduits have to be run in rigid galvanized steel? Can they be run in PVC without concrete encasements? Please clarify.

Response: Provide direct-buried schedule 80 PVC conduit per specification section 260534 for conduits to site lighting poles. Bury conduits minimum 36" below finished grade (no concrete encasement). Provide warning tape over buried lines.

- 18) Please indicate where the portable generator docking station that is shown on single line drawing E500 is located

Response: Locate the docking station for the generator outside of Electrical Room 145, plan north of the exterior double door (see revised plan 1/E301).

- 19) There are numerous lighting fixtures designating that they are "EM" fixtures. The fixture schedule does not state if these are to be supplied with EM ballasts and/or if they are to bypass the local switching? Please clarify.

Response: Locate the PF correction capacitor in Electrical Room 145 adjacent to the fire alarm control panel (see revised plan 1/E301).



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20) Confirm where scope of water line installation begins for the general contractor

Response: The previous contract terminated at the gate valve prior to meter, therefore, under this contract, the contractor is responsible for the installation of the meter pit and meter, and all remaining work downstream of the meter. (Refer to note W-10 on drawing C301.

21) Confirm what scope is owned by general contractor with regard to telecommunications. Where does the utility providers work stop? What scope will the owner contract directly? Does contractor own exterior conduit duct bank, exterior cabling by others? Interior building cabling by others?

Response: Drawings notes 6, 7, and 8 on E101 and E102 have been revised and issued in Addendum #4. The intent is that the contractor furnish and install patch panels, racks, structured cable, jacks, etc. as identified on the drawings and specified in 27 10 05.

22) Confirm where scope of the new incoming electrical services begins for the general contractor.

Response: The work under this contract begins from the switchgear, including but not limited to all work associated with connecting to the switchgear and coordination with the utility. The switchgear will be set outside of this contract.

DRAWINGS

- 1) A801 – MAINTENANCE / EVIDENCE STORAGE BUILDING – FIRST FLOOR & TOIELT PLANS, AND SCHEDULES
 - a. 1/A801: REVISE Wall types at PARTS/TIRE STORAGE 105 & TACTICAL VEHICLE BAY 110
 - b. REVISE Finish Schedule
 - c. DELETE note referencing Fire Rated Plywood
- 2) A802 – MAINTENANCE / EVIDENCE STORAGE BUILDING – ROOF PLAN & BULDING AND WALL SECTIONS
 - a. 1/A802 ADD Roof Slope
 - b. 3/A802 REVISE Wall Types
- 3) M801 - MECHANICAL - MAINTENANCE BUILDING HVAC PLANS
 - a. ADD HIGH / LOW EXHUAST IN MAINTENANCE BAY
- 4) P101A - AREA A FLOOR PLAN - SANITARY PIPING
 - b. ADD FLOOR DRAINS IN PUBLIC RESTROOMS.
- 5) ES100 – ELECTRICAL SITE PLAN
 - a. Modified note #8 to reflect details.
- 6) E102 – FLOOR PLAN – POWER AND COMMUNICATIONS – AREA A
 - a. Removed Junction boxes for auto-flush & auto-faucet in non-public restrooms.
- 7) E301 – FLOOR PLAN – LIGHTING – AREA B
 - a. Added location of the generator docking station & note
 - b. Added location of power conditioning capacitor & note



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- 8) E603 – LIGHT FIXTURE SCHEDULE
 - a. Updated fixture “EM”
- 9) E701 – ELECTRICAL DETAILS
 - a. Updated details 4 & 5 to coordinate w/ site notes
- 10) E703 – ELECTRICAL DETAILS
 - a. Added detail for polebase w/ pullbox
- 11) E800 – ELECTRICAL – MAINTENANCE BUILDING LIGHTING PLAN
 - a. Changed emergency light type from “M1” to “ME”
- 12) E801 ELECTRICAL – MAINTENANCE BUILDING POWER PLAN
 - a. Moved receptacle for drying cabinet.
 - b. Moved receptacle in bathroom.
 - c. Increased feeder size for the large lift.
- 13) E804 ELECTRICAL – MAINTENANCE BUILDING – PANEL SCHEDULES
 - a. Moved receptacle for drying cabinet.
 - b. Moved receptacle in bathroom.
 - c. Increased feeder size for the large lift.

Attachments:

A801 – MAINTENANCE / EVIDENCE STORAGE BUILDING – FIRST FLOOR & TOIELT PLANS, AND SCHEDULES
A802 – MAINTENANCE / EVIDENCE STORAGE BUILDING – ROOF PLAN & BULDING AND WALL SECTIONS
M801 – MECHANICAL – MAINTENANCE BUILDING HVAC PLANS
P101A – AREA A FLOOR PLAN – SANITARY PIPING
ES100 – ELECTRICAL SITE PLAN
E102 – FLOOR PLAN – POWER AND COMMUNICATIONS – AREA A
E301 – FLOOR PLAN – LIGHTING – AREA B
E603 – LIGHT FIXTURE SCHEDULE
E701 – ELECTRICAL DETAILS
E703 – ELECTRICAL DETAILS
E800 – ELECTRICAL – MAINTENANCE BUILDING LIGHTING PLAN
E801 – ELECTRICAL – MAINTENANCE POWER PLAN
E804 – ELECTRICAL – MAINTENANCE BUILDING – PANEL SCHEDULES

END OF ADDENDUM FOUR

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