

# August 13, 2024

# IFB SA 2407 Belmont Sewage Pumping Station Replacement

#### Addendum #4

## THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

- 1. The attached responses to questions have been added for clarification.
- 2. The Solicitation drawings and specifications have been updated to include the attached changes.

All other solicitation terms, conditions and provisions remain unchanged and in full force and effect.

<u>Acknowledgement:</u> Bidders submitting a bid response for the above-named solicitation shall take note of the following changes, additions, deletions, clarification, etc., in the Contract Documents, which shall become a part of and have precedence over anything shown or described in the Contract Documents, and as such shall be taken into consideration and be included in the Bidder's response. All other terms and conditions of the Invitation for Bid shall remain unchanged.

Bidders must acknowledge receipt of this amendment by signing and returning this addendum with the proposal response or prior to the bid due date and time.

<b>Authorized Signature</b>	Date	
Name Printed	Title	
Company Name		

Direct all inquiries to <a href="mailto:SAprocurement@pwcsa.org">SAprocurement@pwcsa.org</a>



# **Questions and Responses**

- **1. Question:** Per the spec excerpt below, CCTV of sewers pre & post construction is required. Can you please confirm the following.
  - "Sewers" includes gravity AND force main
  - Scope of CCTV survey is entire area within the existing fence line
  - Owner will be agreeable to a full site shutdown (~8 hours) to evaluate existing sewer lines within fenced area. During this shutdown, all lines will need to be flushed before CCTV survey in order to obtain useful data
  - Post construction CCTV scope will include new and old pipelines within fenced area.
    - Pre-Construction Video.
    - 55. Pre and post construction CCTV of Sewers.
    - 56. Record Drawings.
    - 57. All other expenses and incidentals required to complete the Work as shown on the

Belmont Sewage Pumping Station Replacement Measurement and Payment

01025-2

**Response:** CCTV of the sewers is not required for this project. Refer to Changes to Contract Specifications.

**2. Question:** Reference sheet C003. Adding privacy slats to the existing fence might create additional forces from the wind on the fence, do you know if the existing fence was designed for this?

**Response:** Slats are not required. Refer to Changes to Contract Drawings.

**3. Question**: There appears to be a good amount of vegetation on the existing chain-link fence that is to receive privacy slats. Removing this vegetation while not damaging the fence will be very labor intensive, will the owner consider removing the fence fabric and replacing with new fabric prior to installing the slats?

**Response:** Contractor is required to clean the vegetation around the perimeter for the fence. The owner has no preference regarding method of vegetation removal. The Contractor shall be required to achieve the required Work outline in the solicitation

**4. Question:** The contract documents show 115 hp motors for the main process pumps, however, the specifications call for 135 hp motors. Please confirm the motor sizing.

**Response:** Maximum allowable motor size is 115 HP per Specification Section 11303 Article 2.05.C and as shown on Drawings E003 and E301. Motor size shown in Specification Section 17480, Table 17480-1 is incorrect. Refer to Changes to Contract Specifications.



**5. Question:** Spec Section 16500 includes alarm lights Type AL, ALX, CL, and CLX. These do not show on the drawings. These appear to be lights for the Gas Detection System, is that the case? Alarm lights are also included in the Gas Detection spec, Section 17650. Which lights should be provided as part of the Gas Detection System, and which are part of the electrical system?

**Response:** Alarm lights described in Section 16500 should be provided for the PLC control panel flashing light, combustible gas flashing lights, ventilation system flashing lights, and the cleaning mode flashing lights. Lighting Control Panel is not required.

**6. Questions:** Spec Section 16500 includes a Lighting Control Panel (LCP). This is not shown on the drawings. Is this required?

**Response:** A lighting control panel (LCP) is not required.

**7. Question:** Is any fire alarm required? There is no spec for it, but a note on the panel schedule drawings (E303 and E304) mentions a fire alarm control panel, which does not appear on the panel schedules or on the drawings.

**Response:** A fire alarm and fire alarm control panel are not required.

**8. Question:** Spec Section 16120, Paragraph 2.01.E requires major power distribution wiring to be XLPE or EPR. Paragraph 2.02.D requires building wiring to be XHHW for wire sizes #4 and larger, and THHN/THWN for #6 and smaller. Paragraph 3.05.A says all wiring is to be THWN except for major power distribution as shown on one-line diagrams, which is to be RHW. Please clarify the wire insulation requirements, as these paragraphs appear to conflict with each other.

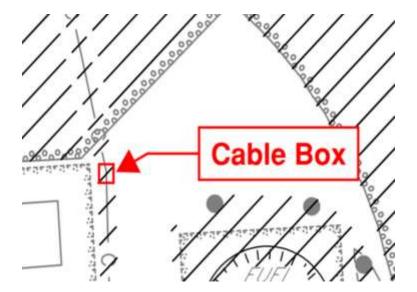
**Response:** Major power distribution shall be Type USE-2 for service entrance conductors and Type XHHW-2 for all others. Insulation for major power distribution conductors shall be XPLE. Specification Section 16120 has been updated per Addendum 4 for clarification.

**9. Question:** Please review and respond accordingly.

A cable box was noted at the northeast corner of the existing pump station wet well. Please provide additional information about the cable or cables to be removed such as: size of cable; number of cables; are cable(s) encased in conduit, direct buried; are the cable(s) live, who is or are the Owner(s); please provide their contact information.







**Response:** Cable pedestal, a portion of underground cable, and above grade cable to communications panel shall be demolished as shown on Contract Drawings. Underground cable is assumed to be direct buried from pedestal to pump station and from pedestal to pole. Cable size, quantity, and raceway details are unknown. The owner of the cable box is Xfinity. Contractor shall coordinate with Utility to provide cable service to the new pump station.

**10. Question:** Please review and respond accordingly:

Please clarify that the Owner accepts generator status of all known and unknown pre-existing hazardous material and will sign transportation manifests as such whether shown in the documents or not, to be removed under this contract.

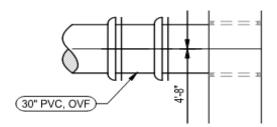
**Response:** The Contractor is responsible for demolition, transportation, and off-loading the generator to the Owner's designated location. In addition, the Contractor shall empty the diesel fuel tank and dispose of old diesel fuel prior to transporting Generator and fuel tank..

11. Question: Section 035250, Part 2, Subsection D.2 reads "where new concrete is cast against hardened concrete use an adhesive waterstop". Please advise if it should read "...cast against existing concrete".

**Response:** "Existing Concrete" and "Hardened Concrete" are considered interchangeable terms for the purpose of this question.

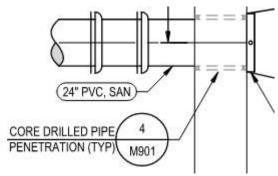
**12. Question:** Reference Dwg. C003 & M103; will mechanical joint, steel sleeve type couplings be required on the new 30" PVC Overflow piping outside the existing influent and pump station structures?





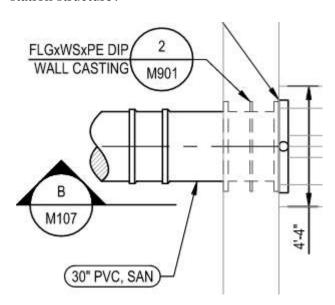
**Response:** No, however all pipes entering or leaving a structure shall have two joints within 4'-0" of pipe length from the wall of the structure per General Note O on Drawing G004.

**13. Question:** Reference Dwg. C003 & M103; will a mechanical joint, steel sleeve type couplings be required on the new 24" PVC Sanitary piping outside the existing pump station structure?



**Response:** No, however all pipes entering or leaving a structure shall have two joints within 4'-0" of pipe length from the wall of the structure per General Note O on Drawing G004.

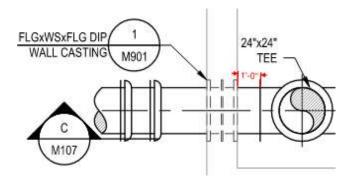
**14. Question**: Reference Dwg. C003, M105, & M107 - DETAIL B; will a mechanical joint, steel sleeve type couplings be required on the new 30" PVC Sanitary piping outside the NEW pump station structure?





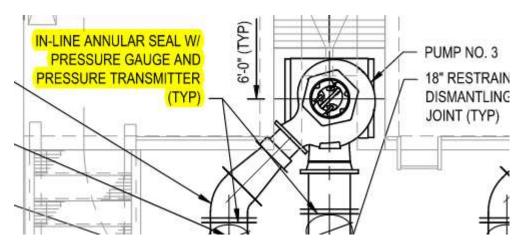
**Response:** 30" PVC sanitary sewer shall be connected to the wet well using Detail 2 shown on Drawing M901, as referenced on Drawing M105. A DIP mechanical joint solid sleeve shall be used to connect from the 30" PVC pipe to the 30" DIP pipe connecting to the wall casting, as shown on the detail. Reference to Detail 1 on Drawing M107 Section B is incorrect, and should refer to Detail 2 on Drawing M901. Refer to Changes to Contract Drawings.

**15. Question:** Reference Dwg. C003, M105, & M107 - DETAIL C; will a mechanical joint, steel sleeve type couplings be required on the new 24" DIP force main piping outside the NEW pump station structure?



**Response:** 24" DIP force main shall be connected to the pumping station using Detail 1 shown on Drawing M901, as referenced on Drawing M105 and Drawing M107 Section C. Two deflectable pipe joints shall be provided within the dimensions shown on the detail, which may be achieved using a DIP mechanical joint solid sleeve.

**16.Question:** Reference Dwg. M105 - DETAIL 1; in the upper left corner of the Lower Level Plan, it calls out an "IN-LINE ANNULARE SEAL W/ PRESSURE GAUGE AND PRESSURE TRANSMITTER (TYP)" pointing to the suction and discharge of Pump No. 3. This is consistent with the P&IDs and the I/O Data Tables. Please provide a specification and detail for this item.



**Response:** Pressure assembly is specified under Section 11303 Article 2.04.D.



**17.Question:** Please advise if the pumping station and influent structure (as shown on Sheet No. C003 and C007) will have a sidewalk in addition to the landing pads, as shown on the structural and architectural drawings.

**Response:** Concrete sidewalk shall be provided where shown on Drawings C003 and C004, in addition to the concrete door landings shown on the architectural and structural drawings.

**18.Question**: Does the Contractor have the option to eliminate certain slab and wall construction joints?

**Response:** The Contractor shall request in writing to the Structural Engineer of Record if he/she would like to move/add/delete any construction joints shown on the Drawings. In no case shall such a request result in a joint layout that violates the joint spacing requirements of ACI 350.

**19.Question**: Spec Section 16500 includes alarm lights Type AL, ALX, CL, and CLX. These do not show on the drawings. These appear to be lights for the Gas Detection System, is that the case? Alarm lights are also included in the Gas Detection spec, Section 17650. Which lights should be provided as part of the Gas Detection System, and which are part of the electrical system?

**Response:** Refer to response to question 5.

**20.Question**: Spec Section 16500 includes a Lighting Control Panel (LCP). This is not shown in the drawings. Is this required?

**Response:** Refer to response to question 6.

**21.Question:** Is any fire alarm required? There is no spec for it, but a note on the panel schedule drawings (E303 and E304) mentions a fire alarm control panel, which does not appear on the panel schedules or on the drawings.

**Response:** Refer to response to question 7.

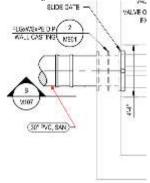
**22.Question:** Spec Section 16120, Paragraph 2.01.E requires major power distribution wiring to be XLPE or EPR. Paragraph 2.02.D requires building wiring to be XHHW for wire sizes #4 and larger, and THHN/THWN for #6 and smaller. Paragraph 3.05.A says all wiring is to be THWN except for major power distribution as shown on one-line diagrams, which is to be RHW. Please clarify the wire insulation requirements, as these paragraphs appear to conflict with each other

**Response:** Refer to response to question 8.



## CHANGES TO CONTRACT DRAWINGS

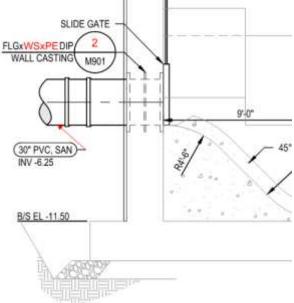
- 1. <u>Drawing G004, GENERAL DEMOLITION NOTES</u>, ADD note 18 as follows: "18. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SALVAGE THE FOLLOWING AND DELIVER TO THE LOCATIONS LISTED BELOW:
  - a. THE PLC PANEL, RTU, COMMUNICATION CABINETS AND THEIR CONTENTS, AND ANTENNAS. DELIVER TO SPITTLE 4 COUNTY COMPLEX COURT, WOODBRIDGE, VA 22192.
  - b. THE GENERATOR, GENERATOR CONTROL PANEL, AUTOMATIC TRANSFER SWITCH (ATS), DAY TANK, AND FUEL TANK. DELIVER TO ENGLISH GARDENS 14195 DUMFRIES ROAD, MANASSAS, VA 20112. THE CONTRACTOR SHALL EMPTY FUEL FROM THE DAY TANK AND THE FUEL TANK PRIOR TO TRANSPORTATION AND DISPOSE OFF AT A STATE APPROVED FACILITY."
- 2. Drawing C003, DELETE Drawing Note 6 and REPLACE with "6. PROPOSED FENCE SECTION THAT IS TO BE REPLACED SHALL MATCH THE EXISTING FENCE."
- 3. <u>Drawing M101</u>, ADD Drawing Note 8 as follows: "8. NOT ALL ELECTRICAL ITEMS AND EQUIPMENT ARE INDICATED ON PLAN. CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT AS REQUIRED ALONG WITH ASSOCIATED WIRING AND EXPOSED CONDUIT AFTER COORDINATING WITH OWNER AND CONDUCTING FIELD SURVEY OF EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ANY EQUIPMENT THAT IS DESIRED TO BE SALVAGED BY OWNER. REFER TO GENERAL DEMOLITION NOTE 18 ON DRAWING G004.
- 4. <u>Drawing M105</u>, <u>Lower Level Plan</u>, MODIFY "30" PVC, SAN" callout to point to left side of the two joints rather than the right side.



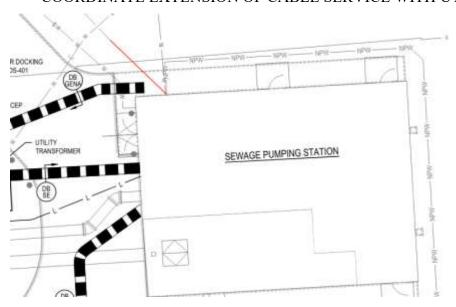
5. <u>Drawing M107, Section B</u>, 30" sanitary sewer, REPLACE wall casting detail callout with callout for Detail 2 on Drawing M901, "FLGxWSxPE DIP WALL CASTING" and MODIFY



"30" PVC, SAN" callout to point to left side of the two joints rather than the right side.

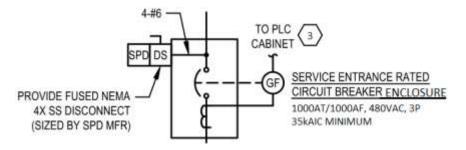


- 6. <u>Drawing E002, Circuit Schedule, DELETE circuit PF-SE1. MODIFY "PF-SE2" to read "PF-SE". MODIFY "CT CABINET" to read "UTILITY TRANSFORMER".</u>
- 7. <u>Drawing E002</u>, <u>Service Entrance DB-SE Duct Bank Section</u>, MODIFY "PF-SE2" to read "PF-SE".
- 8. <u>E002, Drawing Note 2, ADD "(CLX)" after "CLEANING MODE BLUE FLASHING LIGHT".</u>
- 9. <u>E002</u>, <u>Electrical Site Plan</u>, ADD extension of cable service to north wall of Sewage Pumping Station, with routing approximately where shown below. ADD callout to extension of cable "COORDINATE EXTENSION OF CABLE SERVICE WITH UTILITY."

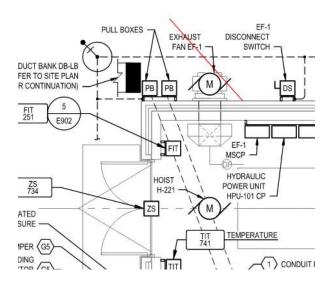




- 10. <u>Drawing E003</u>, <u>Power Distribution One Line Diagram</u>, MODIFY "PF-SE1" circuit tag to read "PF-SE" and "PF-SE2" circuit tag to read "PF-SE".
- 11. <u>Drawing E003</u>, <u>Power Distribution One Line Diagram</u>, MODIFY portion of one-line depicting service entrance rated circuit breaker enclosure to what is indicated below:



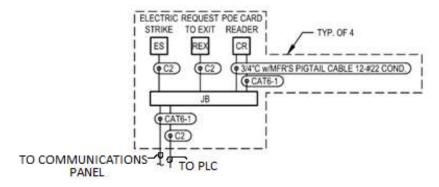
- 12. <u>E101, Drawing Note 2</u>, ADD "(CLX)" after "CLEANING MODE BLUE FLASHING LIGHT".
- 13. <u>E101, Drawing Note 3, MODIFY</u> "COMBUSTIBLE GAS ALARM HORN AND ROTATING LIGHT: ALARM HORN AND ROTATING LIGHT" to read "COMBUSTIBLE GAS ALARM HORN AND FLASHING LIGHT (ALX): ALARM HORN AND FLASHING LIGHT".
- 14. <u>E101, Drawing Note 4, ADD "(AL)" after "VENTILATION ALARM HORN AND FLASHING LIGHT".</u>
- 15. E102, MODIFY "PLC CABINET" to read "PLC CONTROL PANEL"
- 16. <u>E102</u>, ADD cable service entry location, shown as C line type, on North side of building approximately where shown below.



17. <u>Drawing E102</u>, ADD request to exit (REX) adjacent to door 301 and door 300A. ADD card reader adjacent to door 300A.



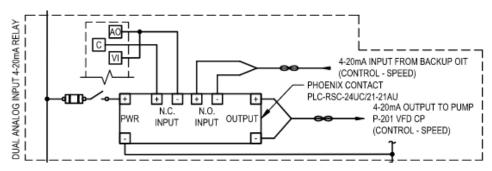
- 18. <u>E201, Drawing Note 3, MODIFY</u> "COMBUSTIBLE GAS ALARM HORN AND ROTATING LIGHT: ALARM HORN AND ROTATING LIGHT" to read "COMBUSTIBLE GAS ALARM HORN AND FLASHING LIGHT (ALX): ALARM HORN AND FLASHING LIGHT".
- 19. <u>E301</u>, MODIFY "COMMUNICATIONS CABINET" to read "COMMUNICATIONS PANEL" and "PLC CABINET" to read "PLC CONTROL PANEL"
- 20. <u>E301</u>, ADD depiction of cable service to communications panel. Add note "INSTALL INTERNET SERVICE EQUIPMENT (BY UTILITY) IN COMMUNICATIONS PANEL."
- 21. <u>Drawing E301</u>, MODIFY "DB-SE[A1] w/PF-SE1" circuit tag to read "DB-SE[A1,A2,B1] w/PF-SE".
- 22. <u>Drawing E301</u>, MODIFY portions of Conduit Riser Diagram such that generator feeder (PF-GENA) is not installed through pull box (power/control). Route generator feeder in DB-GENA directly to ATS. MODIFY "DB-GENB[B1] w/GPGEN-10" to "DB-GENA[B3] w/PF-GT15".
- 23. <u>Drawing E301</u>, MODIFY portion of Conduit Riser Diagram such that CAT6-1 conduit and wiring from PTZ-830 and PTZ-831 is shown routed to communications panel. DELETE C2 conduit and wiring from PTZ-831 to communications panel. MODIFY conduit riser diagram such that C2 conduit and wiring to communications panel is now C6 conduit and wiring to PLC Cabinet.
- 24. <u>Drawing E301</u>, MODIFY portion of Conduit Riser Diagram pertaining to card reader conduit and wiring to be as depicted below:



- 25. <u>E401</u>, ADD red flashing alarm light, type AL, in parallel to panel mounted horn.
- 26. Drawing E401, MODIFY depiction of hatch switch contacts to be normally closed (N.C.).
- 27. Drawing E401, ADD note for Backup OIT wiring "TYP. For 2".
- 28. <u>Drawing E401</u>, MODIFY "AI TO BOTH PLC AND BACKUP OIT CONTROLLER WITH DUAL OUTPUT 4-20mA SIGNAL ISOLATOR" to read "AI TO PLC AND BACKUP OIT CONTROLLERS WITH QUAD OUTPUT 4-20mA SIGNAL RETRANSMITTER". MODIFY dual output 4-20mA Signal Isolator to a quad output 4-20mA signal retransmitter. ADD callout for signal retransmitter "MICRON METERS QLS-2 OR EQUAL."
- 29. <u>Drawing E401</u>, ADD dual analog output 4-20mA signal isolator for "Speed Indication" to Backup OIT and PLC from VFD CP.



30. <u>Drawing E401</u>, ADD dual analog input 4-20mA relay as depicted below:



- 31. <u>E402</u>, <u>PLC Control Panel Elevation</u>, <u>ADD</u> second flashing alarm light on top of PLC control panel. <u>ADD</u> callout for one flashing light "TYPE AL FLASHING ALARM LIGHT" and callout for second flashing light "TYPE CL FLASHING ALARM LIGHT".
- 32. <u>Drawing E402, PLC Control Panel Elevation</u>, ADD second Backup OIT Controller SCU Display.
- 33. <u>E402</u>, <u>Communications Panel Elevation</u>, MODIFY "FUTURE RADIO/COMMS" to read "INTERNET SERVICE EQUIPMENT MOUNTED ON SHELF".
- 34. <u>E402</u>, <u>Communications Panel Elementaries and Details</u>, ADD ethernet connection to a 10/100/1000 POE port connected to internet service equipment.
- 35. <u>Drawing E403</u>, <u>Sewage Pump P-201 VFD/SSRV Control Panel Elementary</u>, ADD "Control Auto" contact from Backup OIT in parallel with "Control Auto" contact from PLC Panel.
- 36. <u>Drawing E403, Door Elevation Detail 2, DELETE "NEMA 12 TWO-POSITION SWITCH,"</u> and MODIFY "NEMA 12 THREE-POSITION SWITCH" to read "NEMA 12 THREE-POSITION SWITCH (TYP.)"
- 37. <u>Drawing E403, Sewage Pump P-201 VFD/SSRV Control Panel Elementary, DELETE relay contacts "CRVFD-2" and "CRSSRV-2" SUBSTITUTE with timing relay contacts "TRIC-4" and "TRBC-4", respectively.</u>
- 38. <u>Drawing E903</u>, <u>Detail 5</u>, ADD C2 from FIT for instrument fail.
- 39. <u>Drawing I101</u>, MODIFY pressure assembly to show annular seal.
- 40. Drawing I101, MODIFY arrows for check valves to point direction of flow.
- 41. Drawing I101, DELETE power monitor (PMT) from VFD/SSRV control panel.
- 42. Drawing I101, DELETE UPS 120V power from switchboard DPM.
- 43. <u>Drawing I101</u>, ADD note adjacent to card reader, "I/O POINTS TYPICAL FOR ALL CARD READERS (4)."
- 44. <u>Drawing I101</u>, MODIFY "PLC OKAY RELAY" to "ALARM POWER SUPPLY FAIL AND PROGRAM FAIL".
- 45. <u>Drawing I101</u>, ADD note adjacent to ZS-733, "I/O POINTS TYPICAL FOR ZS-734, 735, & 736."



- 46. <u>Drawing I101</u>, DELETE digital output signal "COMMAND ALARM (DOOR OPENED)" for PTZ-831.
- 47. <u>Drawing I101</u>, ADD note that digital output signal "COMMAND ALARM (DOOR OPENED)" is "TYP. OF 3" for PTZ-830.

### CHANGES TO CONTRACT SPECIFICATIONS

- 1. <u>Specification Section 01025</u>, <u>Article 1.02.B</u>, DELETE item "55. Pre and post construction CCTV of Sewers".
- 2. Specification Section 08710, ADD 2.9 ELECTRIC STRIKES ad follows:
  - "2.09 ELECTRIC STRIKES
    - A. Electric Strikes: BHMA A156.31; **Grade 1,** Provide UL listed for use in hazardous locations and **Class 1, Division 1** rated Electric Strike; with faceplate to suit lock and frame.
      - 1. HES 1006 Series (mortise); Genesis 9500/9600 (surface-mounted)
      - 2. Folger-Adam 310 Series
      - 3. Von Duprin 6000 Series
    - B. Electric Strikes shall be UL Listed as Burglary-Resistant Electric Door Strikes and, where required, shall be UL Listed as Electric Strikes for Fire Doors and Frames.
    - C. Provide power supply, transformer, and rectifier for each strike as required, unless indicated otherwise. Verify voltage with electrical contractor."
- 3. <u>Specification Section 16050, Article 1.18.A.8, MODIFY</u> to read "In addition to the hard copies provided, Contractor shall submit all materials electronically. Contractor shall include a complete table of contents where the viewer can simply click on a title to go to that item."
- 4. Specification Section 16060, Article 1.04.C, ADD "8. General transformers."
- 5. Specification Section 16060, Article 1.04.D.2.d, ADD "4) Harmonics analysis for the proposed VFD units. Identify the harmonic voltage/current distortion levels at each point in the system and provide recommendations for mitigating any problems that may arise based on the distortion levels. Harmonic analysis shall be performed with maximum number of drives in concurrent service which is not typically all connected."
- 6. <u>Specification 16120, Article 2.01.B.</u> MODIFY to read "Description ANSI/NFPA 70, Type USE-2 for Service Entrance Conductors. Type XHHW-2 for all others."
- 7. Specification 16120, Article 2.01.E, DELETE "or EPR".
- 8. Specification 16120, Article 2.01.F, MODIFY to read the following:
  - "1. General Cable"
  - "2. Okonite Company"
  - "3. Southwire"



- "4. Or equal"
- 9. Specification 16120, Article 2.02.E, MODIFY to read the following:
  - "1. General Cable"
  - "2. Okonite Company"
  - "3. Southwire"
  - "4. Or equal"
- 10. <u>Specification 16120</u>, <u>Article 3.05.A.1</u>, MODIFY to read "Major Power Distribution as described in Part 2."
- 11. Specification Section 16421, Article 1.01, ADD the following
  - "C. Coordination with utility.",
  - "D. Demolition, demolition assistance, and coordination for existing service.",
  - "E. Underground conduit duct bank for primary utility feeder conductors.",
  - "F. Underground conduit duct bank for service lateral and service entrance conductors.", and
  - "G. Service entrance lateral and service entrance conductors and connections."
- 12. Specification Section 16421, Article 1.03.A, ADD the following
  - "2. Demolish existing utility transformer, utility feeder conduit and conductors, and service entrance conductors.",
  - "3. Coordinate with the utility company to provide primary feeder conductors to new utility transformer.", and
  - "4. Provide service lateral and service entrance conductors from utility transformer to service entrance rated circuit breaker."
- 13. <u>Specification Section 16421</u>, <u>Article 2.01.A</u>, MODIFY to read "Meter and meter enclosure will be furnished by the utility company and shall be installed by the Contractor."
- 14. <u>Specification Section 16421, Article 2.02.A, MODIFY</u> to read "Current transformer (CT) cabinet shall be provided by Contractor per utility company specifications. Metering equipment (meter, cable and current transformers) will be furnished by the utility company. Metering equipment will be installed in CT cabinet by utility company."
- 15. <u>Specification Section 16421</u>, <u>Article 2.02</u>, ADD "3. Metering cable will be provided by utility company. Conduit for meter cable shall be provided by Contractor per utility company requirements."
- 16. Specification Section 16421, Article 2.03.A, DELETE "primary".
- 17. <u>Specification Section 16421, Article 3.02.A, ADD</u> "ON WEST WALL OF SPS" after "LOCATED OUTDOORS".
- 18. <u>Specification Section 16421, Article 3.02.A.</u> MODIFY "480/277VAC, 3 PHASE DISTRIBUTION SYSTEMM" to read "480/277VAC, 3 PHASE 4 WIRE".
- 19. <u>Specification Section 16421</u>, <u>Article 3.04.A.10</u>, MODIFY to read "Provide concrete equipment pad for utility transformer per utility company requirements."



- 20. Specification Section 16421, Article 3.04.A, ADD "11. Provide 4 4" (four, four inch) concrete encased ducts between the CT cabinet to the service entrance rated circuit breaker enclosure as directed by the Contract Drawings. No more than the equivalent of two (2) 90 degree bends shall be permitted in any conduit run. Fabricated 90 degree elbows shall have a minimum bending radius of 36"."
- 21. <u>Specification Section 16421, Article 3.04.A, ADD "12. Provide 4 4" (four, four inch) conduits between transformer and CT cabinet. Coordinate with utility company."</u>
- 22. <u>Specification Section 16421, Article 3.04.A,</u> ADD "13. Provide CT cabinet enclosure per utility company requirements."
- 23. <u>Specification Section 16421</u>, <u>Article 3.04.B.1</u>, MODIFY to read "Provide new utility pole, utility transformer, and overhead and underground primary feeder conductors to utility transformer."
- 24. <u>Specification Section 16421</u>, <u>Article 3.04.B</u>, ADD "Provide terminations for utility transformer primary and secondary feeder conductors."
- 25. Specification 16500, Article 2.03.B, DELETE.
- 26. Specification Section 16620, Part 2, ADD "2.09. GENERATOR FUEL" and "A. Provide a volume of fuel equal to two full tanks of No. 2 diesel fuel oil for startup and testing. Provide in two separate deliveries. No fuel shall be stored on site that is exterior to the generator fuel tank."
- 27. Specification Section 16670, Part 2, ADD "2.05. 480/277 VAC externally mounted surge protective devices", "A. General", "1. SPD shall be externally mounted to service entrance disconnect.", "2. Minimum surge current capacity shall be 200kA per phase.", "3. SPD enclosure shall be NEMA 4X rated.", and "B. Manufacturer shall be Square D SDSA4040 or equal."
- 28. <u>Specification Section 17010</u>, <u>Article 1.01.D</u>, <u>ADD</u> "Download copies of existing PLC and HMI/OIT programs and turn over to the Owner, prior to beginning program modifications."
- 29. <u>Specification Section 17010</u>, <u>Article 1.03.B</u>, ADD "Process Control Narrative for all program modifications."
- 30. <u>Specification Section 17100</u>, <u>Article 2.06.A</u>, <u>ADD</u> "Hatch position switches shall be hermetically sealed, UL listed and suitable for installation in Class I Hazardous Locations (Division 1 and 2) and Wet Locations."
- 31. <u>Specification Section 17100, Article 2.10.G</u>, REVISE Instrument Range for LT-122, LT-162A, and Spare to "0-15'". REVISE Calibrated Ranges to the following:
  - a. LT-121A and LT-121B: -11.00 EL +4.00 EL
  - b. LT-122: -2.50 EL +12.50 EL
  - c. LT-162A: -0.25 EL +13.50 EL
  - d. LT-162B: -2.00 EL +13.00 EL



- 32. <u>Specification Section 17110</u>, <u>Article 1.05.A.1.c.</u>, MODIFY to "Provide two copies of all the above specified AutoCAD \*.dwg files electronically. Drawing files must be capable of being used by others and saved to the disk in \*.dwg format."
- 33. <u>Specification Section 17110</u>, <u>Article 2.02.E.1.c.7</u>, DELETE "with an LED blown fuse indicator".
- 34. <u>Specification Section 17110</u>, <u>Article 2.02.E.1.2.6</u>, DELETE "with an LED blown fuse indicator".
- 35. Specification Section 17110, Article 2.03.K.2, DELETE.
- 36. <u>Specification Section 17110</u>, <u>Article 2.03.K.5</u>, MODIFY Phoenix Contact model to "3118203".
- 37. <u>Specification Section 17111</u>, ADD two (2) digital outputs "COMMAND ALARM (DOOR OPENED)" for camera CAM-830.
- 38. <u>Specification Section 17111</u>, DELETE digital output "COMMAND ALARM (DOOR OPENED)" for camera CAM-831.
- 39. <u>Specification Section 17120</u>, <u>Article 1.05.A.1.c</u>, <u>MODIFY</u> to read "Provide two copies of all the above specified AutoCAD \*.dwg files electronically. Drawing files must be capable of being used by others and saved to the disk in \*.dwg format."
- 40. <u>Specification Section 17120</u>, <u>Article 2.03.B.2</u>, MODIFY "Sheet E011 Detail 4" to read "Sheet E903 Detail 6".
- 41. <u>Specification Section 17480</u>, <u>Article 1.03.B.1</u>, ADD "Additional harmonics mitigation shall be identified in the harmonics portion of the Power System Study specified in Section 16060." after 'where indicated or shown on the Contract Drawings.'."
- 42. <u>Specification Section 17480</u>, <u>Article 3.02.F</u>, ADD "4. During equipment Functional Testing, the PCSS shall adjust the minimum and maximum speed at the VFDs to prevent cavitation and recirculation within the pump casing. Testing shall be done at both the maximum wet well elevation for pump runout and at the minimum wet well elevation for recirculation."
- 43. Specification 17480, Table 17480-1, MODIFY HP to be 115 and FLA to be 141.
- 44. <u>Specification Section 17650</u>, <u>Article 2.04</u>, MODIFY to read the following: "FLASHING ALARM LIGHT"
  - "A. Flashing alarm lights shall be per Section 16500."
- 45. <u>Specification Section 17791</u>, <u>Article 3.01.K.2</u>, MODIFY to read "Camera alarm digital inputs shall be connected to DO from the PLC as shown on drawings. Camera action on alarm shall adjust to registered preset position. Camera preset positions (#1-64) shall be selected by AESS to face the Sewage Pumping Station opened entrance door."

### **End of Addendum Number Four**