

ADDENDUM NO. 3
CHRISTIANA HIGH SCHOOL TRANSFORMER REPLACEMENT & GENERATOR
FOR THE CHRISTINA SCHOOL DISTRICT
CSD PROJECT NO. CHR-2018-05
DATE: JANUARY 4, 2019

- 1.0 This Addendum, Addendum No. 3, shall be made part of the Project Manual and Drawings dated December 2018 for the CHRISTIANA HIGH SCHOOL TRANSFORMER REPLACEMENT & GENERATOR for the Christina School District.
- 2.0 Sealed bids for Christina School District Bid No. CHR-2018-05 – Christiana High School Transformer Replacement and Emergency Generator are due until **2:00 p.m. local time on Thursday, January 10, 2019. There is no change to bid due date.**
- 3.0 Changes to prior Addenda
 - 3.1 Pre-Bid Meeting Minutes/Addendum #1, Article 14.0.3 identified “Bidders Qualification Statement (5 references)”. DELETE this requirement.
 - 3.2 Addendum #2: Specification Section 26 32 13 Emergency Standby Generator, Article 1.3.A.1: DELETE “extended stack”; Article 2.1.A.4 DELETE this article in its entirety.
- 4.0 Changes to Specifications
 - 4.1 Specification Section 26 05 70.13- Power System Study. Add the attached information from the Utility Company to be used for the PSS. No additional utility company information will be available after the award of the contract.
- 5.0 Changes to Drawings
 - 5.1 Drawing E11-02:
 1. Add New Sheet Note 8: “Provide 8’-0”H galvanized chain link fence with top, middle and bottom rails. Provide hinged gates as shown. Refer to specifications for further details.
 2. Revise paved area inside fence to include entire fenced area, not just at pads. This will permit grounding conductors to be extended to fence per specifications.
- 6.0 Questions/Clarifications
 - 6.1 Bid documents required listed contactors qualification with 5 references. We cannot find the form. Should we just send in our work list?
REPLY: See Article 3.1 Above.
 - 6.2 On Drawing E11-02 you show new fence with several gates; however, I don't see the height of the fence. Can you clarify?
REPLY: See Article 5.1 above.
 - 6.3 Can you provide a detail for splicing the existing feeders to the new feeders in the new junction boxes under the room of the Electrical Room. On Drawing E11-03 Note 3 you

mention using Cold Shrink to cover the splice for 48". The longest cold shrink that I found for 600v was around 11" for the bigger wire. Also, can you give a part number for the crimps.

REPLY: See Table 6.3 below. This table identifies the connectors and cold shrink tubes required for each splice. The specified 48" will be reduced to that identified in the table.

Christiana HS Transformer Replacement & Emergency Generator Conductor Splicing Table 6.3				
Conductor Size	Burndy Connector Model # (Notes 1, 4)	Burndy Connector Color Code	3M Cold Shrink Tube Model # (Note 2)	Additional 3M Cold Shrink Tube on RHW Side of Splice (Note 3)
#8	YS8C	Red	8424-8P	0
#6	YS6C	Blue	8424-8P	0
#4	YS4C	Gray	8424-8P	1
#3	YS3C	White	8424-8P	1
#2	YS2C	Brown	8425-8	1
#1	YS1C	Green	8425-8	1
#1/0	YS25	Pink	8425-8	1
#2/0	YS26	Black	8426-11	1
#3/0	YS27	Orange	8426-11	1
#4/0	YS28	Purple	8426-11	1
250 Kcmil	YS29	Yellow	8426-11	1
300 Kcmil	YS30	White	8427-12	1
350 Kcmil	YS31	Red	8427-12	1
400 Kcmil	YS32	Blue	8427-12	1
500 Kcmil	YS34	Brown	8428-18	1
600 Kcmil	YS36	Green	8428-18	1
Table Notes				
1. Burndy Model HYLINK, Long Butt Splice, Compression Connector				
2. Overlap Additional Cold Shrink Tube 1/2" over cold shrink tube covering connector.				
3. Additional length of cold shrink tubing to protect RHW conductor. Provide Scapa B2515-30B, 1" x 10' Black Cold Shrink Amalgamating Tape beyond cold shrink tube if Type RHW conductor insulation is compromised during handling of conductor.				
4. Provide comparable Burndy aluminum connector for aluminum conductors.				

6.4 On drawing E11-02 there is a note to provide 2 pitch pockets for roof penetrations. Since this will be a new roof will the roofing contractor provide these pitch pockets as part of the roofing contract?

REPLY: Yes, roofing contractor will provide the pitch pocket as indicated on Drawing CS-02, Project Summary-Note 4. The prime contractor shall be responsible to make the roof penetration (assume 4" concrete deck) and coordinate the details of the penetration with the roofing contractor.

6.5 Per the specification AIA forum – 3.9 Superintendent – 3.9.1 (Page 73 of the specs); Is the electrical prime contractor aloud to utilize its Forman to fulfill the role as the Superintendent as outlined in the specifications?

REPLY: Yes, as long as they are not a “working foreman”

6.6 Per the specifications – Supplementary General Conditions – 10.1.2 Safety Representative (Page 109); Is the electrical prime contractor aloud to utilize its Forman to fulfill the role as the Safety Representative as outlined in the specifications?

REPLY: Yes, as long as they are qualified to perform this position and that they are not a “working foreman”

6.7 Per the specifications – Temporary Facilities and Controls – 1.04 Temporary Offices (Page 168); Will a temporary office be needed for the Engineer/Contractors? If so, please indicate the location.

REPLY: No, a temporary office will not be required. Space within the school will be provided for a temporary office.

6.8 Per the specification – Common Work Requirements for Electrical – 1.12 As-built Drawings (Page 220); will the contractor be required to provide as-built drawing mark-ups on AutoCAD as stated? Or will redline mark-ups on approved contract drawings suffice?

REPLY: Contractor will provide red-line markups to the Engineer. Engineer will then incorporate this information onto the documents and prepare the final As-Built set.

6.9 Per the specification – Grounding & Bonding for Electrical Systems – 3.5F Equipment Grounding/Metallic Fences (Page 249); Per the drawings, there is no grounding shown. Will an additional ground rod be needed at each fence post?

REPLY: Refer to Specification Section 26 05 26-2.6 for grounding of fence posts and gates.

6.10 Per the specification – Grounding & Bonding for Electrical Systems – 3.6B Installation/Ground Bonding Common with Lighting Protection System (Page 249); Will the electrical contractor be tying into an existing LPS? If so, where is this located & If available, who did the system previously, as it would need to be re-certified.

REPLY: No, the building currently does not have a Lightning Protection System.

6.11 Per the specification – Hangers & Supports for Electrical Systems – 1.5 Performance Requirements; Delegated Design (Page 256); please confirm the following:

A. Is this referencing the structural steel; Drawing S-01?

or

B. Is this referring the conduit racking method off the structural steel.

REPLY: Delete Article 1.5; the work shown on Drawing S-01 has been completed by a registered structural engineer as part of the design documents.

6.12 Per the specification – Raceways & Boxes for Electrical Systems – 3.1 Raceways Application (Page 263); Will EMT be allowed in the Electrical Rooms?

REPLY: Yes, EMT will be permitted inside the building.

6.13 Per the specification – Underground Ducts & Raceways for Electrical Systems – 1.5 Informational Submittals (Page 271); Please confirm that coordination drawings for the duct-banks are necessary for this project.

REPLY: Coordination drawings are not required.

6.14 Per the specification – Switchboards – 3.2B Installation/Equipment Mounting – Spec's are indicating this is to be pad mounted; but the drawings do not show this. Please confirm that the Switchboard is to be pad mounted.

REPLY: The new switchboard will not need to be mounted on a concrete pad.

6.15 Will the owner be providing the testing for the concrete, asphalt and compaction testing (If applicable)?

REPLY: Testing of soils, concrete and compaction will be the responsibility of the contractor and performed by a 3rd party.

6.16 Per drawing E13-02, Note 4; Please specify the type of fuse(s) needed for the PMH-9 Switch.

REPLY: For bidding purposes, 3 active and 3 spare fuses shall be manufactured by S&C, model SMU-20, rated 100E. Actual fuse size shall be confirmed by the Power System Study.

6.17 Per drawing S-01; is the structural steel & associate work on this drawing part of this contract, or part of the roofing contract?

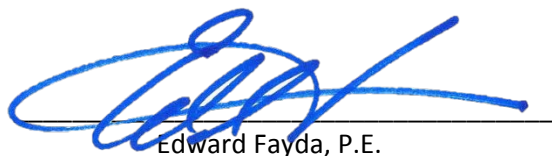
REPLY: All work shown on Drawing S-01 is part of this contract.

6.18 Is the contractor responsible for phasing of feeders and branch circuits?

REPLY: Yes, this is a mandatory requirement. Contractor shall verify and identify phase, neutral and ground conductors and identify phase rotation of ALL feeders, branch circuits and service entrance conductors. Existing conductors to remain may be identified with color coded tape. All new conductors shall be identified with color coded insulation. Assume responsibility for damage and repair to utilization equipment (as identified in NEC Article 100) caused by reverse phase rotation.

6.19 It says to tack weld all the post caps to the post, is that set in stone or can they be installed normally?

REPLY: Tack welding of post caps will not be required.



Edward Fayda, P.E.

Attachments: Utility Company Short Circuit Information

EF/ef

18-1336 Addendum #3

cc: All Registered Plan holders
P-File

Edward Fayda

From:
Sent:
To:
Cc:
Subject:

Follow Up Flag:
Flag Status:

Ed,
Thanks for the electrical sketches.

Regarding the utility fault current and circuit characteristics, here are details for the incoming service at Christiana High School.

Christiana High School 190 Salem Church Rd, Newark, DE Available Fault Currents & Circuit Characteristics	
Delmarva Feeder ID	DE0603 from Harmony Substation
Delmarva Coordinates	44450/40470
Location	190 Salem Church Rd
Service voltage	12,000 V (L-L. Gnd-Wye)
Upstream protective device	3-ph pole-mounted Recloser
Line side X0/R0	3.16
Line side X1/R1	3.11
3-phase fault	3,055 amps
Line-Line-Ground	2,757 amps
Line-Ground fault	2,038 amps

(Values are at the 12 kV primary metering service point).