438-22-900, Replace Boiler Plant

Questions and Answers

1. Per Column Schedule Table/SB101 a W12x68 is called out for C1, this section type does not existing. Should this be a W12x58?
	1. Response: W12x65 is the correct size. See sheet SB101.
2. Per the Column Schedule Table/SB101 a C2 (W12x53) column is schedule. There are no C2 column referenced on the drawings. Where is column C2 used/specified on the design drawings?
	1. Response: A.1/1.1 and A.1/5.1 can be W12x53, however they were changed to W12x65 to make all columns the same size for more simple/consistent detailing. This would be correct that no C2 columns are actually scheduled on the design drawings.
3. Is the design intent for all interior columns to be C1 and perimeter C2?
	1. Response: See response to item 2.
4. Please confirm Detail E7/SG005, how do we do embed with studs on masonry wall?
	1. Response: see revised detail D7/SG003.
5. Detail C6 and Sim./SF401-Embed Plate with welded studs @ masonry wall?
	1. Response: see revised detail D7/SG003.
6. Please provide Detail/Design Drawing for which they reference Embed Schedule Detail F6 and Sim./SF401.
	1. Response: See revised sheet SG003 with added detail D7 which responds to item 6 and may help with items 4-5.
7. For foundation support in our geotechnical report we gave 3 options for below the foundations - perform over excavation, rammed aggregate piers or helical piers.  I will need to know what option you intend to go with.
	1. Response: Over-excavation and shallow footings are shown on the design drawings.
8. Do you have an idea on concrete placements i.e. the number of placements for footing, walls, slabs, duct bank, exterior site concrete, etc.  In addition, if you have take-offs for yardage of concrete for each, that would be beneficial.
	1. Response: The contractors are responsible for their takeoffs and means and methods which affect pricing.
9. Plan sheet ET502, how many UPS unit per rack or total in Boiler Plant Building?
	1. Response: There is one UPS indicated on drawing EP101.

Clarification requests:

1. Referring to the Q&A from ADM5, #10. Cat6A 25pair is not manufactured. Please answer the original question with an available product.



* 1. Response: Category 3.
1. Referring to the Q&A from ADM5, #14. Please provided more information on required terminations, the plan note calls for “future”



                

* 1. Response: See revised sheet ES104

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1. Per spec section Spec section 26 05 33 (3.3 A.1): and Addendum response question #181.
	1. We are not allowed to mix conduits types in the same system. But plan sheet EL103 Keynote 2 and 3 has requested 1 ¼” PVC underground to a stainless steel LB then we will be required to switch over to GRC to extend up the highest point to the building ceiling per Keynote 7. Then once in the building plan to switch over to EMT to get to the panel. Also another conflict is out to light poles BB1. Light pole detail on plan sheet EL501 has GRC stubbed up into pole base but again its noted to run PVC to pole bases. These plan sheet notes contradict all addendum responses and specifications. Please clarify how to proceed?
		1. Response: We revised Keyed Notes No. 2, 3, and 6 from stainless steel to rigid steel. We added “Rigid Steel Conduit” at the end of Keyed Note No. 7 to eliminate any confusion. Detail No. 6 / EL501 has been changed to rigid steel only. Industry standard for “LB’s” is normally stainless steel due to exposure to outdoor environment, however, we changed from stainless steel to rigid conduit as requested. VA Til specification 260533.A.1 is in conflict with 260541 -3.3-A, therefore we modified specification 260533-3.3-A-1 & 2 to allow mixing of different conduits is permissible when transitioning from concrete cell-duct system to PVC to rigid steel.
2. Plan sheet EP501 does not depict any MV cabling entering the new boiler plant. But plan sheet ES101 depicts MV cabling entering the building from (2) separate MV transformers. Please clarify this in the plan sheet documents.
	1. Response: Drawing EP501 indicates the following: “The contractor shall install 6#1/0, 15KV conductors per NEC article 311.60.77”. Drawing EP501 is a one-line diagram and does not show floor plan on drawing, it represents electrical connections between equipment. There are two loops originating from Junction Box No. 3, one loop is redundant which is why there are six conductors shown. Drawing ES101, Keyed Note No. 9 on detail 2 / ES101 indicates the feeder conductors entering the building. Specification 26 05 44-3.3-A- 1 and 2 is included.
3. Plan sheet E-501, PVC conduit is used for concrete encased duct bank per spec section 260541 (2.2) throughout the project plan sheets and but pre spec section 260541 (3.3) we are required to transition to PVC coated GRC to stub up though concrete slab. Again this all contradicts spec section 26 05 33 (3.3 A.1): and Addendum response question #181. Please Clarify?
	1. Response: We modified specification 260533-A-3.1-1 &2 to allow of mixing of different conduit systems when transitioning from concrete cell-duct to PVC to rigid steel. Specification 260533-3.3-A-1 &2 are included in addendum No.4.
4. Plan sheet ES101 note 11 concrete encased duct bank for telecom cabling. This once again contradicts all specifications and addendum responses by transitioning from PVC to GRV. Please Clarify
	1. Response: Keyed Note No. 11 on drawing ES101 says the following: “Provide new concrete cell-duct system as required”. Specification 260533-3.3-A.1 was modified to allow for mixing of different types of conduit systems, mixing of different types when transitioning from concrete cell-duct to PVC to rigid steel. Specification 260533-3.3-A-1 &2 was included in addendum No. 4. .
5. Plan sheet ES106 keynote 1&5 requires the transitioning from GRC to Stainless Steel. This once again contradicts all specifications and addendum. Please Clarify?
	1. Response: We changed Keyed Note No. 5 from stainless steel to rigid steel.
6. Addendum Q&A #151,152,153. Will all trades be held to these requirements?
	1. Contractor to follow plans, specification, and contract requirements when submitting a proposal.
7. EPSD does not offer a 5pt junction cabinet. Please clarify. We can offer 200A 4pt junction in our Secter Cabinet. See link below:

[https://www.eaton.com/content/dam/eaton/products/medium-voltage-power-distribution-control-systems/line-installation-and-protective-equipment/secter-cabinet-catalog-ca901001en.pdf](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.eaton.com%2Fcontent%2Fdam%2Featon%2Fproducts%2Fmedium-voltage-power-distribution-control-systems%2Fline-installation-and-protective-equipment%2Fsecter-cabinet-catalog-ca901001en.pdf&data=05%7C02%7C%7C02a1654a8c944d72202a08dd420f53c0%7Ce95f1b23abaf45ee821db7ab251ab3bf%7C0%7C0%7C638739355781714518%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=%2BKSTRrjM2dqhIYU2xauE5pEthOOPgEuK0qASmluYwbw%3D&reserved=0)

* 1. Response: Contractor to supply and install required materials per the plans and specification, as well as any other contract document. There is no sole source requirement unless otherwise stated in an attached Justification for Other than Full and Open Competition. (See amendments and attachments)
1. EPSD ***does offer a 200A 5pt junction bar*** and add inserts, but those bars would need to be mounted in a cabinet(s) etc ***supplied by others***. Please Clarify

<https://www.eaton.com/content/dam/eaton/products/medium-voltage-power-distribution-control-systems/line-installation-and-protective-equipment/200a-and-600a-15-25-35-kv-junction-bars-for-separable-connectors-catalog-ca650079en.pdf>

* 1. Response: See previous questions and answers.
1. Q&A question 37: There are no sole sources requirements for the generators; this directs us to spec section 263213 (2.1), the basis of design must be caterpillar. Is this not a sole sourced generator
	1. Response: No.
2. Q&A question #169. Plan sheet E-501 Detail (1) note 5: indicates innerduct with-in the concrete encased duct bank conduits for the site backbone telecommunications cabling noted on plan sheet ES-101 note 7 and 8.  **The responses do not answer the questions that where submitted, please direct me to spec sections this is noted and requirments?**
	* + - 1. Is the innerduct note 5 referring to MaxCell innerduct?

All materials must meet the plans and specifications.

1. Response: Max Cell duct is a manufacturer; and is not a sole source material. Please refer to specification 260541-2.2 for PVC requirements and 260541-3.3 for installation requirements.
	1. Will we be required in install new MaxCell in the existing Loop A & B duct bank for new telecommunications cabling?
		1. The contractor shall provide new concrete cell duct per the plans and specifications.
			1. Response: Yes, innerduct or PVC is required within new concrete cell-duct systems, please refer to specification 260541-2.2 for PVC requirements and 260541-3.3 for installation requirements. However, MaxCell is a manufacturer, and we are not specifying any brand name materials for this work.
	2. Please confirm correct quantities of cabling referenced in notes 7 & 8 on plan sheet ES101.
		1. Supply the quantities in accordance with the contract documents.
			1. Response: Cabling requirements are accurate, however the “*25 pair*” is category 3 cabling.
2. Plan sheet EP101 keynotes 2&3, denotes routing EMT with in concrete slab. This is not allowed by Sioux Falls City Code. Please clarify if these notes are correct.
	1. Response: We modified Keyed Notes No. 2 and 3 from EMT to rigid steel.
3. Plan sheet EP501: Please Clarify MV cabling is  #1/0 - 15KV CU. SHLD 133%
	1. Response: NEC article 311-60-C-77 pertains to 90-degree centigrade cable, 5001 to 35,000 volts (The design requires 15KV equipment) 1/0 AWG is rated for 200 amps which is what the rating of the medium voltage junction box is rated at. Unclear what the 133% is referencing.
4. Please confirm the project is not subjected to Project Labor Agreements?
	1. Response: Project Labor Agreement clauses are not included in the solicitation.
5. Plan sheet ES101 keynote 4: please provide conduit size and qty.
	1. Response: We added to the end of Keyed Note No. 4, ‘Provide 1 ¼” PVC conduit system within concrete cell-duct system”.
6. Q&A #49: How are we to provide and accurate estimate when Pad dimension are not listed? Should we assume that Detail 3 on plan sheet E501 meets requirements?
	1. Response: Exact pad dimensions will not be known until the contractor submits shop drawings, each manufacturer differs slightly in size, the contractor can select a manufacturer to base the concrete pad dimensions, on and it will be reasonably accurate for bidding purposes.
7. Q&A #35: Can you please provide more information on why stranded cannot be used for #8 and #10 conductors. The amount of #10 and #8 conductors required for voltage drop and motor ampacity is substantial. Using solid conductors of these sizes add unnecessary cost.
	1. Response: Proposals must be per the plans and specifications, and all other contract documents.
8. Will there be associated liquidated damages is project does not meet proposed completion schedule?
	1. Response: See provisions and clauses in the solicitation documents.
9. Is there are estimated electrical engineer budget associated with the project documents?
	1. Response: No. There are no estimates associated with an electrical engineer that will be either supplied or disclosed. Contractor to supply all materials and labor associated with the contract documents to provide the Sioux Falls VAMC with a fully functional boiler plant, per the plans and specifications.
10. Per plan sheet CG103: the laydown yard and trailer area is directly in the path of new duct bank installation. How do you proposed coordinating installation of new duct bank? There are substantial cost implications associated with relocating job trailers and temporary power requirements.
	1. Response: It is the contractor’s responsibility to work within the limits available and coordinate accordingly.
11. Spec section 013526 (1.8 b&c): Please clarify amount of “repeat” deficiencies will require retaking course? Will all project trades be required to retake course if the deficiency is produced by a trade not associated with yours?
	1. Response: This will be determined by the Contracting Officer at the time of the deficiency and will make a determination at that time.
12. Plan sheet CD101:
	1. This plan sheet depicts existing concrete encased medium voltage and communications duct bank crossing the path of the new (8’d X 7’w) proposed tunnel.  I am unable to locate information on other plan sheets that mention any demo or relocation of the existing utilities to accommodate the new tunnel.
		1. Response: Demolition of existing medium voltage duct bank, communication lines and installation of new medium voltage duct bank and communication lines below tunnel have been revised on CD101 and CU101 for inclusion/phasing, with reference to electrical sheets for detail 1 on E-501 duct bank configuration and referencing electrical sheets for electrical disconnect and reconnection phasing.  The existing water line impacted by the tunnel will be revised to reflect a portion of this existing line (10’ beyond each end of the proposed tunnel) demolished and reinstalled below the tunnel on CD101 and CU101, respectively.  The proposed water line (Phase I water installation) will be installed below the tunnel and revised on CJ301 profile.
	2. Are we to assume all cabling is to be demoed and rerouted into the new boiler building and out to complete loop to feed existing 300kva transformer?
		1. Response: No, the existing cable route will be demoed and replaced only between T-29 and J-box No. 3. New duct bank will be provided underneath new tunnel.
	3. If MV concrete encased duct bank is required to be rerouted into the new boiler building then back out to feed existing 300kva transformer. What requirements are there for housing this new MV cabling passing in and out of the new building?
		1. Response: Medium voltage cabling will not be rerouted into new boiler plant, it will be rerouted underneath the new tunnel.



1. Plan sheet EL103: Please clarify what panel 12-HN1 shown on this sheet is for.
	1. Response: The light fixtures are circuited to electrical panel “LN1”, refer to panelboard schedule on drawing EP601.
2. Plan sheet EP503: the below questions do not meet NEC code please clarify correct conduit and wire requirements
	1. Per the one-line schedule key note 8, there is a 1000A stand by generator main breaker that shows feeding the 1000A rated ATS-12 per plan sheet detail (2) with 3#8’s #10 Gnd.
		1. Response: See revised sheet EP503.
	2. Per the one-line schedule key note 9, there is a 200A stand by generator breaker that shows feeding the 200A rated ATS-LS per plan sheet detail (2) with 4#3’s #8 Gnd.
		1. Response: See revised sheet EP503.