

Public Works and Government Services Canada	ELECTRICAL SYSTEM UPGRADES – SASKATCHEWAN PENITENTIARY PRINCE ALBERT, SASKATCHEWAN Solicitation # EV385-182823/A	Addendum No. 7
Project No.: R.080653.001		May 3, 2018

The following changes to the tender documents are effective immediately and will form part of the contract documents:

RESPONSES TO QUESTIONS DURING TENDERING

1. In Addendum #2 Page 6 of 9, it states that the ehouses will require a building permit. If the buildings are prefabricated as per defined specifications, then moved to site, what is the building permit for?

Response: When an inquiry was made to the RM of Prince Albert they indicated that the NBC is applicable to the E-houses, and they would issue building permits for them. Will need some engineering details for the structural pads, and assurance letters from the engineers.

Permit fee would be based on tender value of the buildings (not the electrical equipment), and the pads. Permit fees are \$5.00 per \$1,000 dollar of tender value (A minimum permit fee may apply).

2. Is there a detail in regards to type of Fiber that should be run to the E-houses?

Response: See added specification 27 10 00 in this addendum.

3. Is there a location within the main compound that the fiber will be run to?

Response: For the metering system, the fiber optic cable will be ran to the server located in the C-13 control room.

4. Is there any information on what will be required for the fiber terminations?

Response: See added specification 27 10 00 in this addendum.

5. Could you please request a clarification on what points our local support does not meet the facility's requirements? 28. We are interested in having Kohler list as an approved manufacture. Kohler was listed under the "Emergency Power Generation spec" that was recently deleted by Addendum to be replace in whole by "Emergency Power Generation – Diesel Fueled". I would like to put forward that Kohler be Added to the approved manufactures list of the Diesel fueled Units as well as have Kohler Transfer Switches Added to complete the package. Response: We do not believe the local support from Kohler meets the requirements of the facility. With this Kohler will not be added to the specification as requested.

Response: Mistake has been made and Kohler will be added as an approved manufacturer.

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6. Please note the discrepancies between 3 drawings in regards to the 2 - 4160 switches 5SSSE and 5SSSW. The feeder cabling listed is different from drawing to drawing. Please confirm what type of cable the customer would like.

Please refer to the following drawings:

E6-05-02 REV02

E7-05-06 REV03

E7-05-04 REV00

The Whole Sale companies that we deal with have to go to manufacturer to supply this cable. It is imperative that answer is forth coming as soon as possible in order for this cable to be priced correctly.

Response: As outlined in Addendum 2, 4160V cable to be non-armoured cable suitable for underground use.

7. What is NDMU on DWG E7-0-01 of the package 1?

Response: As outlined in Addendum 2, NDMU is Networked Digital Metering Unit. See updated legend.

8. How do you identify the Panel boards that require GF/ AF breakers?

Response: panelboard which provide power to receptacles in inmate cells, etc. For estimating purposes see addendum 6 for clarification.

9. Can you please provide panel boards identification?

Response: See addendum 4 for clarification.

10. Can you please provide CDP and SPD Specs?

Response: See specification 26 24 16 01 for details for CDPs and SPDs.

11. Is there going to be a PC Sum / Cash Allowance for all the replacement breakers in the existing panels?

Response: No. The number of breakers to be provided for each panel was indicated in Addendum 1.

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12. Please review and advise on the following:

- a. Drawing E3-01-01 (Structural)
 - i. Please provide structural details of piles/pad beneath the padmount transformer and 4160V sectionalizer near C-31.
- b. Drawing E1-05-01 (Structural)
 - i. Please provide requirements and dimensions of the vault/manhole beneath the new sectionalizer near F-72.
 - ii. Please provide structural details of piles/pad beneath the padmount transformer and 4160V sectionalizer near F-39.

Response: For structural details regarding vaults see specification 33 65 73 and drawing E3-01-02 (similar to manhole) provided in addendum 4. For transformer pads see addendum 4 E3-01-02.

13. Drawing E7-02-06

- There is a 30A load (B-7 Circ Pump) coming from 6DPB7-E1 that is to be replaced. Where is B-7 Circ Pump located (can't see it on Drawing E2-02-01)?
- There is a 45KVA Transformer for B-14 & B15 ... How do we get the new feeder to B14 from the Armoury? Is there an existing underground duct not shown on the drawings or do we need to include a new underground duct?

Response: Intercept circ pump feeder and route to new panelboard. Revise feeders to B-14 & B-15 to re-use existing and tie into new 6DPD1-N1.

14. Drawing E6-02-02

- MCCC13-E2 is fed with a 150A Breaker ... is the 3x#3 feeder adequately sized?

Response: MCC to reuse existing conductor.

15. Drawing E7-03-03

- There is a 3P450A breaker in 6DPC1-N1 that feeds a 3P450A breaker in 6DPC4-N1. Is this breaker sizing correct?

Response: Will update SLD in this addendum.

16. Drawing E6-04-01

- What make is existing Panel EE? (Not defined in Addendum 4)
- What breakers are required in Panel 6DPC24-E1? (I can't locate this panel on a single line)

Response: Panel EE is ITE. See drawing E7-03-03 for information on 6DPC24-E1.

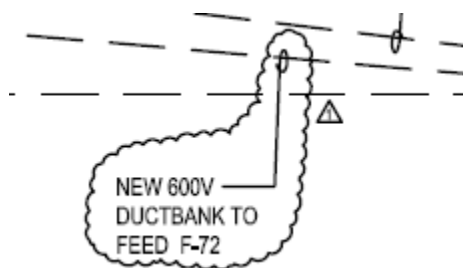
17. Section 26 32 14

- 2.9.16 - Is a day tank required for the generator? If so, what are the specifications of the day tank?

Response: No day tank is required, only the skid mounted tank.

18. Drawing E1-05-01

- Which duct bank detail do we use for the 'New 600V Ductbank to Feed F-72' segment? (No detail shown)



Response: Detail 6 on drawing E3-05-01.

19. Are the tie-breakers in the E-Houses to be free standing/loose breakers (cabled from the switch gear) or integral to the switch gear (bus connections)?

Response: Tie-breakers to be integral to switchgear.

20. The walk-through site visit revealed indication of water infiltration into the below grade areas and historical site excavations indicate a high water table and unstable soil conditions below the water table. Is there a Geotechnical report or piezometer readings available for this project?

Response: No Geotechnical report is available at this time. Will be required to be acquired by contractor.

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21. Section 01 52 00 1.7 and Addendum #2 011 references the security requirements. Please confirm the purpose and the specific requirements of the site security both inside and outside the wall. Please provide trench restoration requirements of the pavement structure and of the grassed areas.

Response:

Paving Structure at all locations to be as follows:

65mm Hot Mix Asphalt to Section 32 12 16
 150mm (Minimum) Granular Base to Saskatchewan Ministry of Highways and Infrastructure Type 33 Base Course – Compacted to 100% Std Proctor
 150mm (Minimum) Granular Subbase to Saskatchewan Ministry of Highways and Infrastructure Type 8 Sub-Base Course– Compacted to 98% Std Proctor
 Scarify and compact existing subgrade to 96% Std. Proctor

Grass Repair to be as follows:

Grass seed to match existing, manually seeded 25mm into topsoil at rate recommended by supplier and seed blended 150mm into adjacent grass areas.
 Water and maintain until grass is established. Re-seed as required. Cut and fertilize after initial cutting as per supplier recommendations.
 Minimum 150mm topsoil free from coarse material, debris or weeds suitable for application.
 Backfill trench/excavation as per Specifications.

22. Drawing E1-02-01 denotes 3 manholes and a duct bank (trench details 16 and 17) located directly above the Fire Line shown on drawing E1-00-03. Should this trench be relocated as the manholes in particular will interfere with the waterline in its present location?

Response: Ductbank installation to be fully coordinated on site and may be required to be adjusted to suit site conditions.

23. Addendum #2 question 1 response notes that the concrete cable markers are not required for direct buried cables (26 05 43.01) or concrete encased duct banks (33 65 73). The references to the requirements in both specifications remain. Please confirm the intent remains to delete concrete cable markers per addendum #2.

Response: Confirmed. Concrete cable markers are not required as per Addendum #1.

24. Drawing E1 -02-01 notes the requirement to pass the new duct bank under an existing tunnel, however note 7 indicates duct passes through said tunnel. Please confirm the preferred option. If duct is to pass below the tunnel please confirm depth of tunnel and if shoring, bridging or underpinning is required to support the existing tunnel. Also, please consider the typical 400:1 slope requirement between manholes cannot be achieved in this location and provide a detail for this specific condition.

Response: Ductbank to pass through existing tunnel.

25. Would a screw pile alternate be acceptable for the pre-cast manhole piles?

Response: Manhole details have been revised in addendum 4. Piles no longer required.

26. Drawings state 75mm of bedding sand, spec states 75mm mudslab under ductbank. Please clarify.

Response: Per response in addendum 2, sand bed is acceptable.

27. Please provide concrete spec for ductbank and screw piles.

Response: DUCT BANK CONCRETE

Cast-in-place concrete in accordance with CSA A23.1.

Reinforcing to CSA G30.18, Grade 400R.

Concrete to be minimum 20MPa.

Piles – see added specification 31 66 15

28. Please provide detail of new asphalt with specified fills, thickness, etc.

Response: See asphalt specifications provided in addendum 2.

29. So we're adding:

XXXft

#4/0 - 1c 5kv 133% Non-Armoured, Direct Burial Cable

XXXXft

#2 - 1 c 5kv 133% Non-Armoured, Direct Burial Cable

Are they requesting a specific cable? Kind of odd to have a 5kv direct burial cable that isn't armoured. That sounds custom. weird. they went from a common teck cable to something that's going to come with MOQs and big lead times.

Response: Specifications allow for armoured and non-armoured 5kV cables. Previous addendum stated to use non-armoured. If lead times and MOQs are a concern, armoured cables can be utilized.

30. Can you clarify the granular structure below the 65mm of Asphalt structure?

Response: See question 21 above.

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31. Will the General Contractor be compensated for any asphalt repairs required outside of ductbank excavation limits?

Response: Contractor is only responsible to repair the asphalt damaged/excavated during construction.

32. Please have the PM look into why TX72-E1 is listed twice? I suspect that the transformer description on drawing E6-05-02, since it follows the single line. Is the second listing actually a typo or is there another transformer?

Response: Unclear where TXF72-E1 is listed twice. Only one instance seen on E6-05-02.

33. **Addendum #6 Q3** – identifies 12 – AF/GF breakers per panel feeding inmate areas, can you please provide panel board identifications for each panel that requires these breakers?
The reason for question is there is a variation in cost between Thermal Mag breakers and the AF/GF breakers

Response: 2PPB15-N1, 2PPB14-N1, 2PPB4-E2/E3/E4, 2PPB12-E1/E2/E3/E4/N1/N2, 2DPC5-N1/E1.

Correction to Addendum 6, Q3 – B-1, B-3, B-5 panels which feed inmate areas are not being worked on in this contract.

34. "Please find attached our request for Alternate regarding section 26 12 19 for the above project. We kindly ask for your review of this request, considering the potential environmental impact and maintenance costs of oil filled transformers over dry type distribution transformers."

Response: Your request for equal (alternate) has been rejected by the Consultant. They indicated the type of transformer being requested is usually less efficient than what's been specified.

AMENDMENTS TO PROJECT – GENERAL

AMENDMENTS TO THE SPECIFICATIONS

Reference: 03 10 00 CONCRETE FORMING AND ACCESSORIES

1. Addition of specification to contract documents.

Reference: 03 20 00 CONCRETE REINFORCING

1. Addition of specification to contract documents.

Reference: 03 30 00 CAST-IN-PLACE CONCRETE

1. Addition of specification to contract documents.

Reference: 26 32 14 EMERGENCY POWER GENERATION – DIESEL FUELLED

1. Revise clause 2.11.1 to include Kohler as an approved manufacturer.

Reference: 26 32 23 AUTO TRANSFER SWITCH – OPEN TRANSITION

1. Revise clause 2.6.1 to include Kohler as an approved manufacturer.

Reference: 27 10 00 COMMUNICATION BACK BONE CABLING

2. Addition of specification to contract documents.

Reference: 31 66 15 HELICAL FOUNDATION PILES

1. Addition of specification to contract documents.

AMENDMENTS TO THE DRAWINGS

Reference: E0-00-01 ELECTRICAL DRAWING LIST AND LEGEND

1. Updated drawing revisions.

Reference: E7-03-03 – SLD – NEW C-13 LOAD CENTER

1. Revised breakers in 6LCC13-N1.
2. Revised conductor from 6LCC13-N1 to 6DPC1-N1.
3. Revised main breaker in 6DPC1-N1.
4. Revised breaker in 6DPC1-N1.
5. Revised conductor from 6DPC1-N1 to 6DPC4-N1.
6. Revised bus rating of 6DPC4-N1.

Attachments:

Specification 03 10 00
Specification 03 20 00
Specification 03 30 00
Specification 27 10 00
Specification 31 66 15
E0-00-01
E7-03-03

END OF ADDENDUM NO. 7