

**RETURN BIDS TO:**  
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Public Works Government Services Canada- Bid  
Receiving / Réception des soumissions  
189 Prince William Street  
Room 421  
Saint John  
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E2L 2B9

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Public Works Government Services Canada- Bid  
Receiving / Réception des soumissions  
189 Prince William Street  
Room 421  
Saint John  
New Bruns  
E2L 2B9

<b>Title - Sujet</b> Food Service Bldg Westmorland Inst	
<b>Solicitation No. - N° de l'invitation</b> EC016-141832/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> EC016-141832	<b>Date</b> 2014-01-15
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWB-020-3350	
<b>File No. - N° de dossier</b> PWB-3-36100 (020)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-01-23</b>	<b>Time Zone</b> Fuseau horaire Atlantic Standard Time AST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Donovan, Janine PWB	<b>Buyer Id - Id de l'acheteur</b> pwb020
<b>Telephone No. - N° de téléphone</b> (506) 636-5347 ( )	<b>FAX No. - N° de FAX</b> (506) 636-4376
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

This Tender Amendment No. Two (2) is raised to include the following Addendum No. Two (2).

The following Addendum to the tender is effective immediately. This addendum shall form part of the contract documents.

**All other terms and conditions remain the same.**

Addendum No. 2

**QUESTIONS AND CLARIFICATIONS:**

1. Please provide specification for the underground District Heating Pre-Insulated Piping as required between tunnel and building entrance as required on drawing M-2.7.

**Answer:** *Buried, pre-insulated MTHWS & MTHWR pipe shall be welded, steel piping in accordance with 23 21 13.02 Hydronic Systems: Steel and insulated as indicated in Section 23 07 15 Thermal Insulation for Piping.*

2. Please provide Model number and capacities for the Indirect DHW Heaters DHW-01 and DHW-02 as shown on M2.3 and M2.5 and as referred to in Section 22 30 05 2.1.2.

**Answer:** *Refer to Section 22 30 05 Domestic Water Heaters, newly added item 2.1.9 as indicated in this Addendum.*

3. Section 22 13 17 Drainage Waste and Vent Piping - Plastic specifies both ABS DWV and/or PVC DWV for underground and above ground DWV piping. Is ABS DWV allowed for above ground for this particular building. If building is non-combustible, ABS would not be allowed as it does not meet the flame and smoke spread ratings.

**Answer:** *Plastic pipe is not permitted above grade.*

4. Is it possible to provide Tempered Water Valve schedule for capacities required to meet the demand for both tempered mixing valves serving both Ware Wash and Building as shown on drawing M-2.5.

**Answer:** *Tempering/mixing valve serving DWH-1 and DWH-2 shall be tagged MV-01. Tempering/mixing valve serving DWH-3 shall be tagged MV-02. Capacities shall be as indicated in 22 42 01, item 2.17 as indicated in this Addendum*

5. As requested in question no.2 below, please specify same info for DHW-03 as well.

**Answer:** Refer to Section 22 30 05 Domestic Water Heaters, newly added item 2.1.9 as indicated in this Addendum.

6. Possible to provide a Fixture Rough-in Schedule on drawings to confirm Waste, Vent, DCW and DHW connection sizes?

**Answer:** See below:

	Hot Water	Cold Water	Waste	Vent
Lavatories	15 mm	15 mm	30 mm	30 mm
Service Sink	15 mm	15 mm	50 mm	40 mm
Kitchen Sink	15 mm	15 mm	40 mm	30 mm
Water Closets (Flush Valve)	-	40 mm	100 mm	50 mm
Urinals (Flush Type)	-	40 mm	50 mm	40mm
Floor Drains	-	-	100 mm	40 mm
Hose bibbs	20 mm	20 mm	-	-

7. Upon further analysis of sanitary materials selection as specified under Section 22 13 18, sanitary underground and above ground serving Kitchen Equipment that may discharge waste water of higher than usual temperatures should be addressed. It would be recommended to serve the concerned Equipment with metal Drainage Piping materials such as Cast Iron with Husky Mechanical Joint Couplings (Higher Temperature Rating than regular MJ Couplings) for sizes 3" and over or Copper DWV for 2" and under. This would apply to Mechanical Room as well as Steam Boilers will be installed. Please address this concern at the earliest in order to start materials list for pricing.

**Answer:** Additional requirements for drainage piping is added to Section 22 13 17 as indicated in this Addendum.

8. Drawing M-1.3 show the requirement of (3) Trap Seal Primer Cabinets as per Keynote 1. By referring to Drawing M-1.4, please note the Trap Seal Primers as noted by Keynote 1 are note shown in Rooms 117 and 125.

**Answer:** Trap seal primer associated with Keynote 1 and located in room 135 serves the floor drains associated with Keynote 1 on M1.1 and located on grid D and grid 2 (typical of 2).

9. Ref. Drawing M-5.1 Radiant Heating Panel schedule is shown, but specifications are missing (or may not be required?).

**Answer:** *Specification for Radiant Heating Panels has been added to Section 23 82 39 as indicated in this Addendum.*

10. Ref. Drawing M-2.6 shows Radiant Panel installation details, but is missing the piping branch connection detail such as Detail no.1 for Unit Heaters. Possible to add this piping detail to confirm valve requirements.

**Answer:** *Radiant panels and reheat coils shall have the same piping/valving arrangement as shown for Force Flow in Detail 5.*

11. Ref. Drawing M-2.6 Chimney Detail no.14 makes reference to AL29-4c/316 Double Wall SS Chimney, but Section 23 51 00 2.2 specifies SS316 Inner Liner and SS304 Outer Shell. Please confirm the correct materials.

**Answer:** *Refer to Section 23 51 00 for specification of chimney.*

12. Ref. Drawing M-2.7 Tunnel Piping. Are Grooved Joint Fittings allowed for the MTHWS/MTHWR heating mains inside the Tunnel?

**Answer:** *All MTHWS and MTHWR shall be welded or threaded steel pipe.*

13. Will Tunnel work require to follow Confined Space Regulations?

**Answer:** *No. However the contractor will be responsible for ventilating tunnel during welding.*

14. Ref. Drawing M-2.8 Detail No.1 Steam Boiler Piping Schematic shows the requirement for Self Regulating Control Valve set to 690kpa for each Steam Boiler. Please provide manufacturer and model number.

**Answer:** *Refer to Section 23 22 14, item 2.8 for specification for valve.*

15. Ref. Drawing M2.8 Detail no.2 Natural Gas Schematic shows 5psi Natural Gas Service into the building delivered to each boiler. Upon reviewing Clayton's technical data sheets, the gas pressure inlet at the burners is 2.0 psi. Therefore, it would require gas regulators to reduce the incoming 5psi to 2 psi, with gas relief vent piping to outside of building from each regulator.

**Answer:** *Move line between contractor and Enbridge's responsibility to the downstream side of the regulator. Clayton`s boilers can accept up to 5psig gas, therefore no regulator is required.*

16. Is it possible to show the gas piping path and sizes from main gas valve to the (2) Steam Boiler gas burners on drawing M2.3, including gas relief vent piping up through shaft (or elsewhere) from each gas regulator.

**Answer:** *Piping schematic shows pipe sizes and connection points. Equipment schematics show piping connection.*

17. Two questions regarding the Temporary construction chain link fencing for the above noted project.
1. The specification for the Temporary chain link fence and gates (Section 32 31 13) states that the line posts are to be driven in the ground - however, the temporary construction fence notes (Section 01 50 00) in the Temporary Facilities/ Site enclosures (1.6) states that all posts are to be set in concrete. Which is correct?

**Answer:** *End, corner and gate posts are to be set in concrete. Refer to revision to Section 32 31 13 and Section 01 50 00 as noted in this addendum.*

2. Section 32 31 13 part 2.1.4 of the specification states you require top and bottom tension wire. In Section 32 31 13 part 2.1.9.2, it states that the post tops must carry top rail. Which is correct? If you want the top and bottom tension wire, we will include regular caps and no top rail.

**Answer:** *For temporary fence, no top rail is needed - only the top and bottom tension wire. Gates in temporary fence will require top, bottom and side rails.*

18. SECTION-27 05 13: Pg-9: ITEM-3.1.3 AND 27 05 28: Pg-1: ITEM-3.1.6: MINIMUM SIZE CONDUIT IS STATED AS 27mm AND THE SECTION STATES 21mm - WHICH IS CORRECT?

**Answer:** *Minimum conduit size to be 21mm.*

19. E2.3: LIGHT FIXTURE - "L6": WHERE ARE THESE LOCATED ON THE DRAWINGS?

**Answer:** *This fixture is to be mounted to terminal pole.*

20. E1.1: NOTE-2: WHERE IS THE "AREA LIGHT" LOCATED AND IS THERE A SPECIFICATION DESCRIPTION FOR IT?

**Answer:** *Area light is the Type L6 to be installed on utility pole.*

21. E2.1: ROOM-100: SHOULD THE NOTE-1 INDICATED BE NOTE-7?

**Answer:** *Yes.*

22. E1.1: DUCTBANK DETAIL-"B": THE COMMUNICATIONS CONDUITS INDICATE "INNERDUCT" FOR C1/2/4 BUT C3 DOES NOT - IS THIS CORRECT? PLEASE CLARIFY IF A 103MM DUCT IS REQUIRED AND HOW MANY INNERDUCTS AND THERE SIZE GO INSIDE THIS DUCT?

**Answer:** *Delete requirements for innerduct. Cables to be installed in conduit.*

23. E1.1: DUCTBANK DETAIL-"B": PLEASE CLARIFY WHERE EACH POWER AND COMMUNICATION DUCT BEGINS AND ENDS AS IT IS NOT OBVIOUS FOR ALL OF THE RUNS?

**Answer:** *Ductbank "B" leaves the new food services building and runs underground to the tunnel located under existing building C-16. The tunnel on the site plan is accidentally shifted so it is not apparent that the tunnel extends to the outside edge of the building C-16. Contractor will need to core drill existing concrete foundation wall of C-16 and run conduits through the tunnel.*

24. FIRE ALARM PANEL LOCATION: E-1.1 AND E-2.4 SHOW THIS PANEL IN DIFFERENT LOCATIONS - WHICH IS CORRECT?

**Answer:** *Not clear where a fire alarm panel is indicated on E-1.1, however to clarify, the fire alarm panel is to be located in the electrical room with an annunciator panel located in Vestibule 100.*

25. E2.3: NOTE-1: WHICH PANELBOARD CIRCUITS ARE REQUIRED TO FEED THE COOLER AND FREEZER LIGHT CIRCUITS AND HAVE THEY BEEN INDICATED ON THE POWER OR LIGHTING DRAWINGS TO SUFFICIENTLY COVER THIS SCOPE OF WORK?

**Answer:** *Yes. Refer to drawing E2.1 for power connections to the freezer/coolers. The Kitchen Equipment list clarifies where the light power comes from.*

26. E3.2: NOTE-6: THIS NOTE INDICATES THAT A 12PR CABLE WILL WORK BUT THE SYSTEMS MENTIONED HAVE 14PR IN TOTAL - PLEASE REVIEW?

**Answer:** *12PR is sufficient. Reference detail 6 on E3.2; Revise 6PR fiber cable to 4PR fiber cable.*

27. E1.1: TRENCH DETAIL-B: PLEASE CLARIFY THE SCOPE OF WORK ON THIS AS FOLLOWS: PROVIDE START AND END POINTS ON THE LAYOUT FOR EACH OF THE (6) CONDUITS.

**Answer:** *Refer to question 22 and 23 for answer.*

28. PROVIDE THE SIZE REQUIREMENTS FOR EACH CONDUIT RUN WITHIN F58 AND C16 AFTER THEY EXIT THE DUCT BANK AND ALSO WITHIN FOOD SERVICES BUILDING.

**Answer:** *Refer to sketch ESK-1 for clarification. 6PR Fire alarm fiber cable to be installed in a dedicated 53mm conduit; 12PR fiber cable for PPA, PA, and CCTV to be installed in a dedicated 53mm conduit; 25PR voice cable to be installed in dedicated 53mm conduit; 6PR fiber cable for Data to be installed in dedicated 53mm conduit; 1PR fiber cable for EMCS to be coiled at second floor of F-58 for connection by controls contractor. Leave a 3m long coil.*

29. PLEASE CONFIRM IF THE EXISTING CONDUITS BETWEEN C16 AND F58 ARE IN FACT EMPTY - STAFF ON-SITE TOUR WERE NOT CONVINCED THAT THESE CONDUITS WERE USABLE.

**Answer:** *Conduits are not presently empty however assume that they are usable.*

30. PLEASE ELABORATE ON THE USE OF THE INNER DUCT - DOES IT GO INSIDE AN A 103mm DUCT OR IS IT THE DUCT? IF IT IS INSIDE OF THE DUCT AS INNER RACEWAY - WHAT SIZE IS IT TO BE?

**Answer:** *Innerduct is not required when installed in conduit. All telecom cabling is required to be installed in conduit therefore innerduct will not be required in this project.*

31. In section 27.05.13, item 2.1: Specs mention 62.5uM(OM1) fiber however in the same section it mentions OM3, can you please clarify that this is meant to be OM1 as is the standard at the Dorchester/Westmorland site?

**Answer:** *Cable to be 62.5um OM1.*

32. In section 27.05.13, item 2.1.2: Specs mention 12PR(24STR) fiber for data backbone however the riser drawing on pg E3.2 depicts a very different scheme for backbone cabling and does NOT match. On previous projects such as the new 50 Bed living unit a more distributed system was used as opposed to running discrete point-to-point fiber connections. Data backbone on drawings is shown to be 6PR dedicated fiber and NOT a 12PR, if it was the intention to group systems into multiple systems as NOTE 6 on drawing E3.2 seems to elude to can more detail be provided on groupings and distribution of fiber systems?

**Answer:** *Revise section 27.05.13, item 2.1.2 to be 6PR per the riser diagram on E3.2.*

33. Within specifications for backbone cabling mentioned in sections 27.05.13 & 27.10.05 it requests FT6 cabling for these however outdoor cabling does NOT usually come in a FT6 variety as it is meant to transition as close as possible to where it enters the building. In past experience outdoor only cable was used unless it had to run exposed in free-air. Will Outdoor rated cable be acceptable for the Outdoor Cat3 multipair, reference product used on the 50 Bed living unit was : General Cable P/N:7525793?

**Answer:** *Yes this is acceptable. FT6 rating is not required outside or inside as all cabling inside will be in noncombustible conduit.*

34. Is fiber optic cable required to be FT6 as from reading the specifications and from observing riser diagrams it would appear fiber is in conduit end-to-end and as permitted by NBCC 2010, cabling is not required to be FT6 rated provided it is enclosed in conduit (3.1.5.18)?

**Answer:** *See answer to question 33.*

35. Specifications mention fiber patch cord length and end requirements but does NOT indicate number of fiber patch cords to provide, can further information be provided on number of patch cords required?

**Answer:** *Allow for 6 cords.*

36. Copper UTP Patch & line cords are mentioned in (2) sections 27.05.13 item 2.5 and in section 27.10.05 items 2.6 & 2.7 but are NOT the same lengths can you please confirm what lengths each type of UTP cord is?

**Answer:** *Patch cords to be 1.5m and line cords to be 3m.*

37. On previous projects with the institution Communications cabling inside was run end-to-end in conduit or structure was NOT required to be of non-combustible structure and was permitted by code to be FT4 rated, can you please confirm that on this project Cat6 cabling is to be FT6?

**Answer:** *Refer to answer to question 33. FT6 rating will not be required in this project.*

38. In section 27.05.13, item 2.2.4: Was this item meant to read Cat6 as all other sections or was cabling to be Cat6a (10Gig)?

**Answer:** *Correct. Cat6 cabling throughout.*

39. In section 27.10.05, item 2.2: Multipair is specified to be 100PR Cat6 FT6 however on drawings it only indicates 25PR Cat3 cable. Can you please confirm how many pairs are required?

**Answer:** *Refer to E3.2 for correct cabling. 25PR cat3 is the correct number of pairs.*

40. On riser diagram 4/E3.2: Drawing indicates (24) Cat6 backbones running between owners switch & Horizontal Patch panel, is the owners switch in another location than the Horizontal Data cabling or are these "backbone" links meant only to represent the UTP Patch cords that would run from Horizontal cabling to the network switch that are usually mounted in the same rack?

**Answer:** *This is the patch cords. Switch to be installed in same rack. Delete reference to "owner supplied" switch. The supply and installation of the switch is included in this contract.*

41. Drawing E3.2: In the (3) locations indicated on this drawing that show a Cat6 line going from device to device can you please confirm if this is simply a patch cord between devices or an actual "run" of cable due to devices not being in the same location?

**Answer:** *Assume this is a 10m long run for each.*

42. Within spec section 27.10.05, item 2.12: Switch is specified however on drawings and especially riser diagram(s) on drawing E3.2 I do not see an item that this directly pertains too. On previous projects the Data switch (item 4) was to be supplied by Data cabling contractor. Can you please confirm this items requirement and to which detail it pertains to on riser diagrams?

**Answer:** *Switch in the data riser on E3.2 is supplied and installed by the contractor.*

43. Within spec section 27.10.05, item 2.13: UPS unit is specified however is not depicted on drawings, is (1) of this item required in each of the cabinets?

**Answer:** *Yes. UPS is required in each cabinet.*

44. Drawing E3.2, detail 8: On previous projects only Cat6 was required for EMCS panel as only a Ethernet link was needed as I believe was the case at the 50 Bed living unit project and others similar. Can you please confirm if a discrete 1PR fiber is required between panels or if it can utilize a Cat6 connection from panel to network data switch and data sent from panel via IP instead of point-to-point fiber?

**Answer:** *Fibre is to be installed per detail.*

## **SPECIFICATIONS:**

### **.1 SECTION 01 50 00 - TEMPORARY FACILITIES**

#### **.1 SECTION 1.6 - SITE ENCLOSURES**

1. Revise Sentence .2 as follows:

.2 Temporary construction fencing must be, at a minimum, 2440 mm high (8'-0" high) chain link fencing with end, corner and gate posts set in concrete. Make all temporary fence gates, for pedestrians and vehicles, lockable and provide keyed padlocks.

### **.2 SECTION 08 50 00 - WINDOWS**

.1 PART 2 - PRODUCTS, 2.1 SYSTEMS, Paragraph .1 Window Frame:

.1 Add the following product under Acceptable Products:

.4 Series 80 (150 mm perimeter framing, mullion 140mm) windows by Anotec.

### .3 SECTION 08 71 00 - FINISH DOOR HARDWARE

#### .1 PART 2 - PRODUCTS, 2.1 HARDWARE ITEMS, Sub-Section 2.2 DOOR HARDWARE:

- .1 Paragraph 2.2.4 Continuous Geared Hinges, Sentence .13 Acceptable Products:  
Add the following as an Acceptable Alternate for McKinney Continuous Hinge MCK-12HD:
  - .3 Stanley Continuous Hinge 661 HD.
- .2 Paragraph 2.2.7 Door Controls (closers), Sentence .18 Acceptable Products:
  - .3 Add the following as an Acceptable Alternate for Sargent Closer 1431: Stanley Door Closer D-3550.
- .3 Paragraph 2.2.7 Door Controls (closers), Sentence .18 Acceptable Products:
  - .4 Add the following as an Acceptable Alternate for Sargent Closer 351: Stanley Door Closer D-4550.
- .4 Paragraph 2.2.8 Auxiliary locks and associated products, Sentence .4 Acceptable Products:
  - .1 Add the following as an Acceptable Alternate for Sargent 4800: Stanley 48H 7R.

### .4 SECTION 22 13 17 DRAINAGE WASTE & VENT PIPING - CAST IRON & COPPER:

#### .1 PART 2 - PRODUCTS

Add item 2.1.1.3, High Temperature Mechanical Joints:

- 1. Neoprene gasket conforming to ASTM C564 with 304 SS clamp and shield suitable for drainage of hot liquids. Minimum of four clamps for pipe up to and including 100mm, six clamps for 150mm and over. Husky Mechanical Joint as standard of acceptance.

#### .2 PART 3 - EXECUTION

Add item 3.1.2: High temperature mechanical joint and cast iron or copper to be used on dishwasher discharge to inlet of grease interceptor and from floor drain serving the steam boilers downstream to edge of building. 50mm and under is to use copper DWV.

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**.5 SECTION 22 42 01 PLUMBING SPECIALTIES AND ACCESSORIES:**

**.1 PART 2 - PRODUCTS**

Replace 2.17.3 with:

1. MV-01: Maximum flow of 128 L/min (47gpm) at a 69kPa pressure drop and shall be complete with integral checkstops. Watts N170-M3 or equal.
2. MV-02: Maximum flow of 76 L/min (21gpm) at a 69kPa pressure drop and shall be complete with integral checkstops. Watts N170-M3 or equal.

**.6 SECTION 22 42 03 COMMERCIAL WASHROOM FIXTURES:**

**.1 PART 2 - PRODUCTS**

1. Add Delta as an approved equal for WC-1, WC-2, LAV-1, LAV-2, SH-1, SH-2, SK-1, SK-2, SK-3, SS-1 and SS-2.
2. Add Bemis as an approved equal for toilet seats for WC-1 and WC-2.
3. Add Woodford Manufacturing as an approved equal for non-freeze hydrant.

**.7 SECTION 22 30 05 DOMESTIC WATER HEATERS:**

1. Add item 2.1.9 as follows:  
Tag: DWH-01, 02, 03  
Manufacturer: Triangle Tube  
Model: Smart 120  
Capacity: 984 LPH continuous draw  
DHW Volume: 455L  
DHW Inlet Temp: 4.4°C  
DHW Outlet Temp: 60°C  
Boiler Supply Temp: 82°C

**.8 SECTION 23 82 39 UNIT HEATERS:**

1. Add item 2.3 Radiant Ceiling Panels:
  1. Contractor shall refer to architectural reflected ceiling plans and room finish schedule in addition to mechanical drawings to determine location, quantity and finish of radiant panels.
  2. This panel specification is based on the AIRTEX HEF-2 Linear radiant ceiling panel design. Refer to the contract drawings for details and dimensions. Panels shall run continuously from wall to wall and specified widths are minimum allowable.

3. The radiant ceiling extrusions shall consist of extruded aluminum with copper tubing of 12.8mm I.D. mechanically attached to the aluminum face plate. The copper tube shall be held in place by an aluminum saddle, which extends more than half way around the diameter of the tube. A non-hardening heat conductive paste shall be placed between the copper tubing and the aluminum face plate. Panels shall weigh no more than 2.15 lb/ft<sup>2</sup> (10.5 kg/m<sup>2</sup>) when operating. The use of adhesive and/or clips to attach the copper tube to the extrusion will not be acceptable.
4. Panels shall be finished in the manufacturer's standard white colour.
5. All interconnecting of radiant panels by the mechanical contractor shall consist of 12.8mm O.D. soft copper tubing as recommended by Manufacturer, i.e. factory supplied 360 deg. inter- connecting loops and 180 deg. return U-bends. All radiant panels shall run continuously from wall-to-wall and shall be field trimmed to length ensuring adequate expansion allowance while maintaining panel end coverage by architectural mouldings. Inactive filler panels will be permitted only where indicated on drawings.
6. Ceiling support mouldings for radiant panels to be supplied and installed. Ensure ceiling openings and wall mouldings are installed as per radiant panel shop drawings. All radiant panels shall be installed by personnel wearing clean white gloves, to avoid soiling of panel face.
7. Hanger wires for safety shall be installed at 1200mm o.c. or as recommended by the manufacturer.
8. All system piping shall be thoroughly cleaned, flushed, drained and refilled before radiant panels are connected into the system.
9. Each group or zone of coils shall be given a pressure test in accordance with procedures specified elsewhere.
10. All active panels shall be covered with a minimum of 25mm thick batt insulation (refer to insulation specifications).

## **.9 SECTION 32 31 13 - TEMPORARY CHAIN LINK FENCE AND GATES**

1. PART 3 - EXECUTION, Sub-Section 3.2 Erection of Fence:  
Revise Sentence .2 as follows:
  - .2 Drive line posts holes 1000 mm deep. Excavate end, corner and gate post concrete foundations to 1200 mm. deep.

**DRAWINGS:****1. DRAWING M3.2 - Mechanical Fire Protection Ground Floor:**

1. Provide coverage below overhead door (Keynote 1) in addition to what is shown in the following locations:
  1. Between rooms 118 and 122;
  2. Between rooms 118 and 134.

**2. DRAWING E1.1 - Electrical Site Plan and Details:**

- .1 Revise conduit runs in building F58 as per ESK1 (attached). Include all costs to core drill and waterproof holes in concrete foundations.
- .2 Show lighting fixture type L6 on primary terminal pole. Reference note 4.
- .3 Add note 4 as follows: Type L6 light fixture is to be installed on primary terminal pole. Run pole light conduit indicated on section A up pole to feed light fixture. Maintain minimum CEC clearance from overhead conductors.

**3. DRAWING E1.2 - Electrical Site Details:**

- .1 Detail 1: Revise pole Class to CL3
- .2 Change pole species and type of treatment to CCA

**4. DRAWING E2.1 - Electrical Power & Communications Plans:**

- .1 Revise "SEE NOTE 1" in vestibule 100 to "SEE NOTE 1 & 7"
- .2 Circuit for control transformer in Staff WC 116 shall be fed from circuit P3-23
- .3 Trap primer in Jan 135 shall be fed from circuit P2-7
- .4 Revise circuit for overhead doors 104XB and 122XB to P3-57,59,61
- .5 Revise circuit for overhead doors 118A and 122 to P2-53,55,57
- .6 Add one (1) 15A, GFI duplex receptacle for additional kitchen item #29 along east wall of Food Prep area 125 and reference note 2. Feed from circuit P2-37.
- .7 Circuit for DAC-1 shall be P2-27. Provide 40A, 1P circuit.
- .8 Circuit for DAC-2 shall be P3-21. Provide 40A, 1P circuit.
- .9 Add five (5) combination starters for EF-1, EF-2, EF-3, EF-4 and EF-5 in mechanical room 002 on North wall (shared with electrical room 004)
- .10 Revise pump P-5 starter to combination type.
- .11 Reference Kitchen equipment #32. There is only one of these, however two location options. Delete second associated disconnect and three phase circuit P2A-19, 21, 23.

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5. **DRAWING E2.2 - Electrical Roof-Electrical Layout:**

- .1 Add weatherproof disconnect switch for CU-3. Revise note associated with CU-3 to "CU-3 TO FEED AC-01 IN ELECTRICAL ROOM"

6. **DRAWING E2.3 - Electrical Lighting Plan:**

- .1 Revise lighting fixture schedule as per ESK2 (attached).

7. **DRAWING E2.4 - Electrical Systems and Life Safety Plans:**

- .1 Change emergency lighting units and exit signs in Cook/Chill production 134, Food Prep area 125, Ware Wash 124 and ingredient room 119 to Weatherproof type.
- .2 Change exit sign in dock leveler to weatherproof type. Add note to provide cold weather option for this unit only.

8. **DRAWING E3.2 - Electrical Riser Diagrams and Schematics:**

- .1 Reference Data Riser detail 4. Supply of the switch is to be included in this contract. It is not supplied by owner.
- .2 Reference Data Riser detail 4. Delete reference to Data/voice rack and replace with Data rack.
- .3 Delete all references to innerduct.
- .4 Reference PPA riser detail 6. Revise the fiber cable to be 4PR.

9. **DRAWING E3.5 - Electrical Panel Schedules:**

- .1 Revise circuit P2-27 to 40A, 1P and change designation to DAC-1
- .2 Revise circuit P2-37 to 15A, 1P and change designation to "RECEPT. DOUBLE POT SINK FOOD PREP 125"
- .3 Revise circuits P2-53,55,57 to 15A, 3P and change designation to Doors 118A & 122 operators
- .4 Revise circuit P3-21 to 40A, 1P and change designation to DAC-2
- .5 Revise circuit P3-22 designation to "SPARE"
- .6 Revise circuits P3-57,59,61 to 15A, 3P and change designation to Doors 104XB & 122XB operators
- .7 Indicate circuit P2A-19, 21, 23 as a spare.