



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Bid Receiving Public Works and Government  
Services Canada/Réception des soumissions Travaux  
publics et Services gouvernementaux Canada  
800 Burrard Street, Room 219  
800, rue Burrard, pièce 219  
Vancouver  
British Columbia  
V6Z 0B9  
Bid Fax: (604) 775-9381

**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 and Government Services Canada - Pacific  
Region  
800 Burrard Street, Room 219  
800, rue Burrard, pièce 219  
Vancouver  
British C  
V6Z 0B9

<b>Title - Sujet</b> Health Care Expansion	
<b>Solicitation No. - N° de l'invitation</b> EZ899-181607/A	<b>Amendment No. - N° modif.</b> 005
<b>Client Reference No. - N° de référence du client</b>	<b>Date</b> 2017-12-15
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWY-025-8228	
<b>File No. - N° de dossier</b> PWY-7-40258 (025)	<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 2017-12-22</b>	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Fung, Donna(PWY)	<b>Buyer Id - Id de l'acheteur</b> pwy025
<b>Telephone No. - N° de téléphone</b> (604) 671-9689 ( )	<b>FAX No. - N° de FAX</b> (604) 775-6633
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> CSC - Mountain Institution - Agassiz, BC	

**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> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<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>

**Les documents français seront disponibles sur demande.**

This Amendment No. 005 is raised to:

- 1) incorporate Addendum #02, and
- 2) extend the closing date of the solicitation.

Please see the attached Addendum #02.

**Extension of Time**

Healthcare Expansion  
Mountain Institution, Agassiz, BC

**Solicitation No: EZ899-181607/A**

Notice is hereby given that the time for reception of tenders previously due at  
2:00 p.m. on 20 December 2017 is hereby extended to  
**2:00 p.m. on 22 December 2017.**

**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.**

---

The following changes in the tender documents are effective immediately. This addendum will form part of the contract documents.

---

## CLARIFICATION

Equipment Schedule 12 51 00 EQUIPMENT SCHEDULE: See Note 1.) *“Item ID numbers with the suffix “T” are existing pieces of equipment to be relocated.”* The contractor is responsible for the removal, relocation and reinstallation of the indicated existing equipment and furniture, see drawings A901 and A904 for locations of existing equipment and furniture. 12 53 00 EXISTING EQUIPMENT PHOTOS shows photographs of the existing equipment and furniture to be removed, relocated and reinstalled.

For new items on the EQUIPMENT SCHEDULE without the suffix “T” see 12 52 00 NEW EQUIPMENT LIST for item description, manufacturer, and catalogue number; or other specification sections are referenced. The contractor is responsible for providing and installing the specified new equipment and furnishings.

See drawings A902, A903, A905 and A906 for the final location of all equipment and furniture.

## SPECIFICATIONS

- .1 00 00 10 TABLE OF CONTENTS
    - a) **[Revise]**  
28 31 00 Fire Detection and Alarm page numbers [5]
  - .2 01 01 50 GENERAL INSTRUCTIONS
    - a) **[Replace]**  
Sub Paragraph 1.8.2.1 Complete  
“Independent inspection testing agencies will be selected by the contractor for purpose of inspecting and/or testing portions of work. The contractor is to submit qualifications and past experience of the independent inspection testing agency to the departmental representative for review. Cost of such services will be borne by the contractor.”
  - .2 03 30 00 Cast-in-Place Concrete
    - a) Paragraph 3.12: **[Delete]**
    - b) **[Clarification]** See 03 30 00.01 Cast-in-Place Concrete for Civil Work for concrete slabs outside of the building footprint.
  - .3 26 09 24 LOW VOLTAGE LIGHTING CONTROLS
    - a) 26 09 24 LOW VOLTAGE LIGHTING CONTROLS: **[Replace]** with enclosed 26 09 24 LOW VOLTAGE LIGHTING CONTROLS
  - .4 28 31 00 FIRE DETECTION AND ALARM
    - a) 28 31 00 FIRE DETECTION AND ALARM: **[Replace]** with enclosed 28 31 00 FIRE DETECTION AND ALARM
-

## DRAWINGS

- .1 A110 ROOF PLAN
  - a) **[Revise]** Roof plan per bubbled area on ASK-02
- .2 A507 SECTION DETAILS 1
  - a) **[Replace]** Detail 01/A507 with ASK-03, complete.

## QUESTIONS AND ANSWERS:

1. Question: Can you please clarify the existing manufacture for the Fire Alarm panel and components in the Health Care facility.  
  
Answer: Please see specification section replacement issued in Addendum #02: 28 31 00 FIRE DETECTION AND ALARM 1.3.1 "The existing Edwards Fire Alarm system shall be utilized as part of the Health Care Expansion. New devices shall be added to the existing Edwards EST3 control panel."
  2. Question: During the site walk it was mentioned to provide all medical equipment, can you clarify which division is to provide this.  
  
Answer: See the response to Question #9 issued in Addendum #01.
  3. Question: Please clarify if the new bus bar in the new electrical room "room G176" is to be connected to the existing bus bar in the existing facility.  
  
Answer: Yes, the new Busbar in the new electrical room "room G176" is to be connected to the existing bus bar in the existing electrical room.
  4. Question: The mechanical schedule on drawing E203 does not state which equipment is supplied/installed by electrical or mechanical. Please clarify to who is supplying each piece of equipment.  
  
Answer: The following equipment tags are provided by the mechanical (sheet metal, controls, plumbing or fire protection): AHU-1, CU-1, exhaust fan EF's, electric base board heaters BB's, unit heaters UH's, cabinet unit heater CUH-1, pumps P's, domestic hot water tank DHWT-1, trap primers TP's, boiler B's, solenoid valves for domestic water, sprinkler switches connected, DDC panel.  
  
The only equipment on the Mechanical Schedule that are NOT provided by mechanical are the air compressor and vacuum pump, which is provided by the dental equipment supplier, see the response to question #7 issued in Addendum 01.
-

5. Question: Please provide the information for the following items. There are no manufacturer names or minimum requirements for all of the medical Equipment. All contractors will carry different makes with low standards.
- Answer: Manufacturer and models of equipment, or specification cross references, and required features or accessories are listed in specification section 12 52 00 NEW EQUIPMENT SCHEDULE.
6. Question: Please provide the information for the following items. If W-8 and W-9 window are aluminum or steel.
- Answer: W-8 and W-9 are steel windows as per drawing A502B DETENTION WINDOW ELEVATIONS AND DETAILS 2.
7. Question: Please provide the information for the following items. Modified bituminous waterproofing is shown only for wall between crawl space and Slab on grade wall. If other basement walls will not be applied with bituminous waterproofing.
- Answer: See ASK-01 issued in Addendum #02 for full extent of waterproofing. Provide protection board for all waterproofing. Where waterproofing occurs not under a slab, step down waterproofing to maintain adequate coverage by grade per manufacturer's recommendations.
8. Question: Please provide the information for the following items. For site service water line, if patching of Asphalt paving will be enough or whole Asphalt paving has to be Replaced specially where narrow asphalt paving exist (inside the security line).
- Answer: Provide only patching of asphalt paving for the extent disturbed in the course of performing the work.
9. Question: Please review my submissions for the remaining items on Mountain Health. (Lighting fixtures)
- Answer: Submittals for light fixtures will be reviewed during construction submittal process, see remarks in luminaire schedule on drawing E203.
10. Question: Panel/Circuit numbers not shown on drawing E101 for 'Type I' fixtures located between horizontal gridlines 'G' and 'H' (bottom left of page). Please provide panel/circuit numbers.
- Answer: E1-74
11. Question: Panel/Circuit numbers not shown on drawing E101 for 'Type F' fixture located on vertical gridline 'G10' (bottom right of page). Please provide panel/circuit numbers.
- Answer: EB29
-

12. Question: Civil Drawing C1. Plan shows and notes the new water main to cross under 2 security fences with an anti-tunneling wall buried 900mm below grade. How thick is the wall and is the depth static throughout the site?
- Answer: The exact width and depth below grade is not known. The wall is a minimum of 250mm thick based on the exposed top of wall. The barrier extends a minimum of 900mm below grade and total height may vary in order to maintain this minimum required depth.
13. Question: Civil Drawing C1. Plan shows an existing 100mm force main running either under or right beside the security fence where the new water main crosses. Is there as-builts to confirm size, depth, and if it is AC or pvc pipe?
- Answer: Tenderers should disregard the erroneous text "EX 100mm FM" at the location where the proposed water main intersects the existing fence line. No force main is present at this location. The existing line is a fence line only.
14. Question: Do we require a building permit for this project? If so, will this be paid by the owner?
- Answer: The contractor is required to submit for building permit and the contractor is responsible for all permit fees.
15. Question: In specifications document section 01 01 50 part 1.8.2.1 it states, "Independent inspection testing agencies will be selected by departmental representative for purpose of inspecting and/or testing portions of work. Cost of such services will be borne by the contractor." Can you please confirm which companies the rep will be choosing and for what scope will they be inspecting? The prices can vary between companies, so to get an accurate quote, it would be beneficial to know in advance which company will be chosen.
- Answer: See revised subparagraph 1.8.2.1 issued in Addendum #02.

**ATTACHMENTS:**

SPECIFICATION SECTIONS:

26 09 24 LOW VOLTAGE LIGHTING CONTROLS  
28 31 00 FIRE DETECTION AND ALARM

ASK-01, ASK-02, ASK-03

Site Walk through Photographs  
Existing Electrical Panels Photographs

---

**Part 1          General**

**1.1          SYSTEM DESCRIPTION**

- .1 The interior and exterior lighting shall be tied to and controlled by the existing lighting control system which currently controls lighting in existing Building G.
- .2 Low voltage control system designed to provide remote switching of lighting loads by use of:
  - .1 Low voltage momentary contact switches
  - .2 Control transformers
  - .3 Low voltage rectifiers
  - .4 Dimming switches
  - .5 Occupancy sensor lighting control
  - .6 Photosensitive daylighting control
  - .7 Exterior lighting combination time clock and photoelectric control (tied into the existing lighting control panel and operate as per the exterior lighting in the existing 'Building G').
  - .8 Manual switch control.

**1.2          PRODUCT DATA**

- .1 Submittal package: Submit shop drawings and product data as specified below in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide a composite wiring and/or schematic diagram of the complete lighting control system complete with all components, indicating relay panels, master switches, local switches, occupancy sensors and daylight sensors. Indicate the building location reference for all components.
- .3 Provide manufacturers catalogue sheets, specifications and installation instructions for all system components.

**1.3          MANUFACTURERS**

- .1 Shall have a minimum of 10 years experience in the manufacture of networked low voltage lighting control systems.

**Part 2          Products**

**2.1          COMPONENTS**

- .1 All system components shall be of the same manufacturer.
- .2 Designed for lighting control up to and including 600V 20 amp.
- .3 Certified to make or break under full rated load.
- .4 Cable sets consisting of starter cables, joiner cables, and control cables.

**2.2          DIMMING SWITCHES**

- .1 Incandescent dimmers
  - .1 Full range dimmer designed to produce 0 to 100% brightness control by means of single slider.

- 
- .2 Advanced solid-state circuitry with silicon symmetrical switch.
  - .3 LED push button switch separate from slide to turn dimmer on/off.
  - .4 Rated: 1000 watts at 120V.
  - .5 Multi-location capability.
  - .6 Radio/TV interference filter.
  - .2 Electronic low voltage dimmers
    - .1 Full range dimmer designed to produce 0 to 100% brightness control by means of single slider.
    - .2 Advanced solid-state circuitry with silicon symmetrical switch.
    - .3 LED push button switch separate from slide to turn dimmer on/off.
    - .4 Rated: 425 watts.
    - .5 Multi-location capability.
    - .6 Radio/TV interference filter.

### 2.3 OCCUPANCY SENSOR LIGHTING CONTROLS

- .1 Wall mounted wall switch
  - .1 Dual technology, PIR and ultrasonic occupancy sensor.
  - .2 Adjustable delayed-off time setting 30 seconds to 30 minutes.
  - .3 180° field of view.
  - .4 120V or 347V supply as required.
- .2 Ceiling mounted controls 120V supply
  - .1 Dual technology, PIR and ultrasonic occupancy sensor.
  - .2 Adjustable delayed-off time setting 20 seconds to 15 minutes.
  - .3 360° field of view.
  - .4 120V supply.
  - .5 Built-in isolated relay.
- .3 Ceiling mounted controls 24V supply
  - .1 Dual technology, PIR and ultrasonic occupancy sensor.
  - .2 Adjustable delayed-off time setting 15 seconds to 30 minutes.
  - .3 360° field of view.
  - .4 24VDC supply.
  - .5 Built-in isolated relay.
  - .6 With range suitable for coverage area.

### 2.4 MANUAL CONTROL

- .1 Individual remote control switches as indicated.
- .2 Eight circuit manual master selector switch mounted in 100 mm square box with:
  - .1 Master lock-out switch
  - .2 Individual red jewelled pilot lights.
- .3 Nine circuit manual dial-type master selector.
- .4 Twelve circuit manual dial-type master selector.

---

**Part 3 Execution**

**3.1 INSTALLATION**

- .1 Install system panels and components at locations shown on the drawings and in strict accordance with manufacturer's instructions.

**3.2 OCCUPANCY SENSORS**

- .1 Locate sensors in rooms indicated on the drawings. Locate sensors so there are no objects blocking the infra red sensor from viewing all of the coverage area. Keep away from HVAC vents and direct light from light fixtures.
- .2 Dual technology, PIR and ultrasonic occupancy sensors shall be utilized.
- .3 Adhere to manufacturer's recommendations for location, wiring and programming.

**3.3 LOW VOLTAGE WIRING**

- .1 For low voltage wiring, provide wire type as recommended by the manufacturer.
- .2 Adhere to manufacturer's recommendations as to maximum wire length and maximum quantity of relays per switch.
- .3 Data line shall be #16 twisted pair Belden #8471 or equal. Data line switches require 2 pair #16 Belden #8472 or equal.

**3.4 LINE VOLTAGE WIRING**

- .1 Use wire gauges from #10AWG to #12AWG as appropriately sized for the circuit.
- .2 If a LonWorks system is being installed and being integrated with another LonWorks system the system integrator shall be responsible for setting up and programming the system.

**3.5 FIELD QUALITY CONTROL**

- .1 On completion of installation, manufacturer representative shall be notified to carry out site inspection and report any inconsistencies in the installation or system operation to the Departmental Representative. Corrections are to be implemented to comply with required installation and operational parameters defined in the drawings and specifications.

**END OF SECTION**

---

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1 This section specifies materials and installation for fire detection for fire alarm systems.

**1.2            REFERENCES**

- .1 NBC-latest edition, National Building Code of Canada.
- .2 Government of Canada
  - .1 TB OSH Chapter 3-03, latest edition, Treasury Board of Canada, Occupational Safety and Health, Chapter 3-03, Standard for Fire protection Electronic Data Processing Equipment.
  - .2 TB OSH Chapter 3-04, latest edition, Treasury Board of Canada, Occupational Safety and Health, Chapter 3-04, Standard for Fire Alarm Systems.
- .3 Underwriters Laboratories of Canada (ULC)
  - .1 CAN/ULC-S524-latest edition, Installation of Fire Alarm Systems.
  - .2 ULC-S525- latest edition, Audible Signal Appliances.
  - .3 CAN/ULC-S526- latest edition, Visual Signal Appliances, Fire Alarm.
  - .4 CAN/ULC-S527- latest edition, Control Units.
  - .5 CAN/ULC-S528- latest edition, Manual Pull Stations.
  - .6 CAN/ULC-S529- latest edition, Smoke Detectors.
  - .7 CAN/ULC-S530- latest edition, Heat Actuated Fire Detectors.
  - .8 CAN/ULC-S531- latest edition, Smoke Alarms.
  - .9 CAN/ULC-S536- latest edition, Inspection and Testing of Fire Alarm Systems.
  - .10 CAN/ULC-S537- latest edition, Verification of Fire Alarm Systems.

**1.3            DESCRIPTION OF SYSTEM**

- .1 The existing Edwards Fire Alarm system shall be utilised as part of the Health Care Expansion. New devices shall be added to the existing Edwards EST3 control panel.
- .2 The existing system is addressable, zoned, and two stage.
- .3 System to include:
  - .1 Initiating/input circuits.
  - .2 Output circuits.
  - .3 Auxiliary circuits.
  - .4 Wiring.
  - .5 Manual and automatic initiating devices.
  - .6 Audible and visual signalling devices.
  - .7 End-of-line resistors.
  - .8 Local and Remote annunciators and displays.

---

#### 1.4 REQUIREMENTS OF REGULATORY AGENCIES

- .1 System:
  - .1 To TB OSH Chapter 3-04.
  - .2 Subject to Fire Commissioner of Canada (FC) approval.
  - .3 Subject to FC inspection for final acceptance.

#### 1.5 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Include:
  - .1 Layout of equipment.
  - .2 Zoning.
  - .3 Complete wiring diagram, including schematics of modules.

#### 1.6 CLOSEOUT SUBMITTALS

- .1 Provide operation and maintenance data for Fire Alarm System for incorporation into manual.
- .2 Include:
  - .1 Operation and maintenance instructions for complete fire alarm system to permit effective operation and maintenance.
  - .2 Technical data - illustrated parts lists with parts catalogue numbers.
  - .3 Copy of approved shop drawings.
  - .4 List of recommended spare parts for system.

### Part 2 Products

#### 2.1 MATERIALS

- .1 Equipment and devices: ULC listed and labelled and supplied by single manufacturer.
- .2 In accordance with applicable CAN/ULC standards.

#### 2.2 CONTROL PANEL

- .1 Existing Edwards EST3, two stage operation.
- .2 Zoned.

#### 2.3 MANUAL ALARM STATIONS

- .1 Manual alarm stations: pull lever, glass rod, wall mounted surface type, non-coded single pole normally open contact for single stage English signage.
- .2 Manufacturer - Addressable manual pull station: GE Edwards #SIGA-270SPO.
- .3 Provide steel protective guards for pull stations installed where required by Departmental Representative.

#### 2.4 AUTOMATIC ALARM INITIATING DEVICES

- .1 Heat detectors, fixed temperature, non-restorable, rated 57°C.
- .2 Thermal detectors, addressable, fixed temperature: 57°C.

- 
- .3 Smoke detector: addressable ionization type.
    - .1 Dual chamber, ionization, twistlock, plug-in type with fixed wire-in base assembly with integral red alarm LED. Detector to be addressable type c/w electronics to communicate detector's status and field adjustable address setting.
  - .4 Duct Smoke Detector
    - .1 Dual chamber, multisensor, twistlock, plug-in type with fixed wire-in base assembly with integral red alarm LED. Detector to be addressable type c/w electronics to communicate detector's status and field adjustable address setting. If shaft mounted or obstructed, provide remote indicating LED and access hatch in accordance with Section 26 05 00.
  - .5 Remote LED alarm indicator for concealed thermal and smoke detectors.

## 2.5 AUDIBLE SIGNAL DEVICES

- .1 Signal chimes: heavy duty, single stroke, 24Vdc, with solid striking plunger and resonating chamber, 95dB.
- .2 Bells: vibrating type, gongs of special alloy steel, 24Vdc, 150mm, 95dB.
- .3 Horns: 95dB, weatherproof mounting, 24Vdc.
- .4 Mini-horns: 95dB, surface mounting, red colour, 24Vdc.
- .5 All audible devices must be programmed to a temporal pattern 3, as required by the BC Building Code.

## 2.6 END-OF-LINE DEVICES

- .1 End-of-line devices to control supervisory current in alarm circuits and signalling circuits, sized to ensure correct supervisory current for each circuit. Open, short or ground fault in any circuit will alter supervisory current in that circuit, producing audible and visible alarm at main control panel and remotely as indicated.

## 2.7 GRAPHIC DISPLAY

- .1 Fire alarm graphics residing in Edwards Fireworks computers in buildings 'A-3' and 'E' shall be updated to pick up the additional devices and zones relating to the Health Care expansion.

## 2.8 SPRINKLER SYSTEM CONNECTION

- .1 Provide waterflow/tamper modules for connection to sprinkler system for monitoring of flow switches and valves.
- .2 Provide input modules for connection of pressure switches for monitoring.
- .3 Provide alarm/trouble indication of heat tracing system at the control panel and remote annunciator panel.

## 2.9 ISOLATION MODULES

- .1 Addressable zone isolation modules.

## 2.10 ANCILLARY DEVICES

- .1 Remote relay unit to initiate fan shutdown.
- .2 Provide relay interlocks to fire alarm control panel to shut down fans as indicated on mechanical equipment schedule.

- .3 Provide relay interlocks and control switches in main control panel and annunciator panels to enable smoke removal fans operation as described in the Mechanical Specifications.
- .4 Provide relay contact to DDC system to signal the status of the fire alarm system.
- .5 Provide relay contacts to DDC system to signal the status of the smoke removal switches

## 2.11 WIRE AND CABLE

- .1 Conductor Insulation: Minimum rating 300 volts. Single conductor RW90XLPE (X-link).
- .2 Multi-conductor cables 105°C with outer PVC jacket, colour coded, FAS rated.
- .3 Conductor sizes as follows:
  - .1 To initiating circuits: #18 AWG minimum, and in accordance with manufacturer's requirements.
  - .2 To signal circuits: #16 AWG minimum, and in accordance with manufacturer's requirements.
  - .3 To control circuits: #12 AWG minimum, and in accordance with manufacturer's requirements.
  - .4 Size all fire alarm wiring for maximum 3% voltage drop at maximum load at last device in run.
- .4 All wiring to be copper.
- .5 All wiring to be tag identified at the points of connection.
- .6 Provide a ground conductor with all system wiring and bond all metal parts including device boxes.
- .7 All fire alarm system wiring to be in conduit except short drops from ceiling junction box to detectors mounted in T-Bar ceiling may be rated fire alarm system cable.

## Part 3 Execution

### 3.1 INSTALLATION

- .1 Install systems in accordance with CAN/ULC-S524 and TB OSH Chapter 3-04.
- .2 Locate and install manual alarm stations and connect to alarm circuit wiring.
- .3 Locate and install detectors and connect to alarm circuit wiring. Do not mount detectors within 1 m of air outlets. Maintain at least 600 mm radius clear space on ceiling, below and around detectors. Locate duct type detectors in straight portions of ducts.
- .4 Connect alarm circuits to existing control panel.
- .5 Connect signalling circuits to existing control panel.
- .6 Install end-of-line devices at end of alarm and signalling circuits.
- .7 Locate and install remote relay units to control fan shut down.
- .8 Sprinkler system: wire alarm and supervisory switches and connect to control panel.
- .9 Provide quantity of two (2) spare manual pull stations and allow for installation within 10m radius of fire alarm system devices.

- .10 Provide quantity of two (2) spare heat detectors and allow for installation within 10m radius of fire alarm system devices.
- .11 Provide quantity of two (2) spare smoke detectors and allow for installation within 10m radius of fire alarm system devices.

### 3.2 FIRE ALARM ZONES

- .1 Provide zoning for fire alarm detection devices.
- .2 Provide all required connections to all mechanical sprinkler system alarm and supervisory devices. Coordinate with Mechanical drawings and specifications.
- .3 Provide and install minimum two bell circuits.

### 3.3 FIELD QUALITY CONTROL

- .1 Perform tests as described herein and in accordance CAN/ULC-S537.
- .2 Fire alarm system:
  - .1 Test each device and alarm circuit to ensure manual stations, thermal and smoke detectors, and sprinkler system transmit alarm to existing control panel and actuate general alarm ancillary devices.
  - .2 Simulate grounds and breaks on alarm and signalling circuits to ensure proper operation of system.
  - .3 Manufacturer's technician to verify all new devices and reconnected existing fire alarm system equipment and components in accordance with ULC Standard S537.
  - .4 Provide a Certification of Verification.
  - .5 After verification, demonstrate and spot test system as required by Consultant and Fire Commissioner.
  - .6 Provide Departmental Representative with written verification report for review and include copies in maintenance manuals
  - .7 Class A circuits.
    - .1 Test each conductor on all circuits for capability of providing alarm signal on each side of single open-circuit fault condition imposed near midmost point of circuit. Reset control unit after each alarm function and correct imposed fault after completion of each test.
    - .2 Test each conductor on all circuits for capability of providing alarm signal during ground-fault condition imposed near midmost point of circuit. Reset control unit after each alarm function and correct imposed fault after completion of each test.
  - .8 Class B circuits.
    - .1 Test each conductor on all circuits for capability of providing alarm signal on line side of single open-circuit fault condition imposed at electrically most remote device on circuit. Reset control unit after each alarm function and correct imposed fault after completion of each test.
    - .2 Test each conductor on all circuits for capability of providing alarm signal during ground-fault condition imposed at electrically most remote device on circuit. Reset control unit after each alarm function and correct imposed fault after completion of each test.

**END OF SECTION**

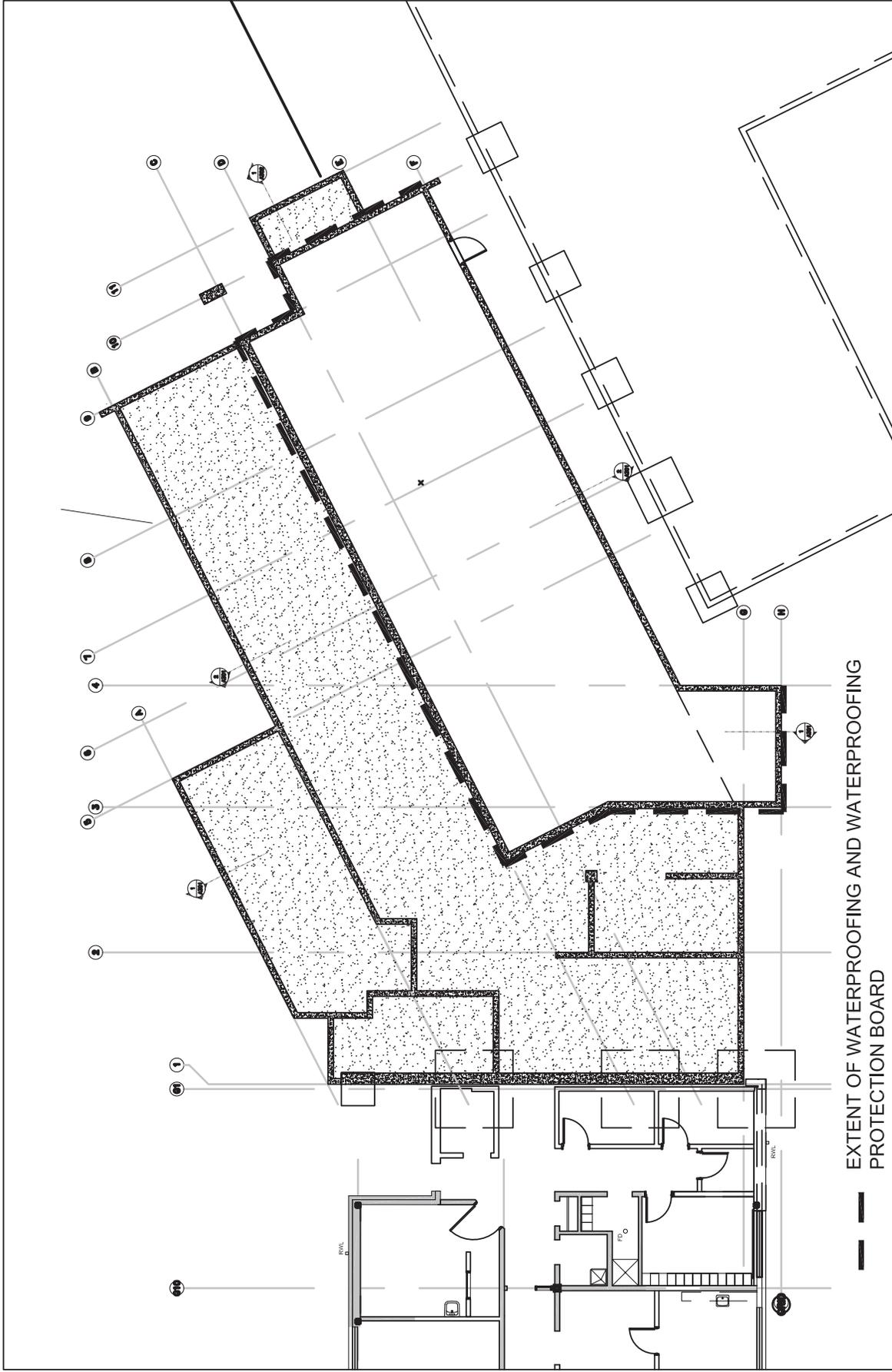


Public Works and  
Government Services  
Canada

Travaux publics et  
Services gouvernementaux  
Canada

REAL PROPERTY SERVICES  
Pacifique Region

SERVICES IMMOBILIERS  
Région de Pacifique



Project title/Titre du projet  
**MOUNTAIN INSTITUTE  
HEALTH CARE EXPANSION**  
4732 CEMETERY ROAD PO BOX 1600, AGASSIZ, BC

Drawing title/Titre du dessin  
**EXTENT OF WATERPROOFING**

Consultant Signature Only  
Designed by/Concept par  
EDWIN BERZINS  
Drawn by/Dessiné par  
BEN MONROE (2017-12-13)

PWSSC Project Manager/Administrateur  
de Projets TONY TANG  
Public, Industrial, Agricultural and Engineering Services/  
Services Industriels, Agricoles et d'Ingénierie  
Commanditaire Régional de la G.M. 1986  
Project No./No. du projet  
PREETIPAL PAUL  
R.077724.001

Scale/Echelle  
1:200  
Date/Date  
2017-12-14  
Sheet/Feuille  
**ASK-01**  
Revision/  
Révision  
**X**

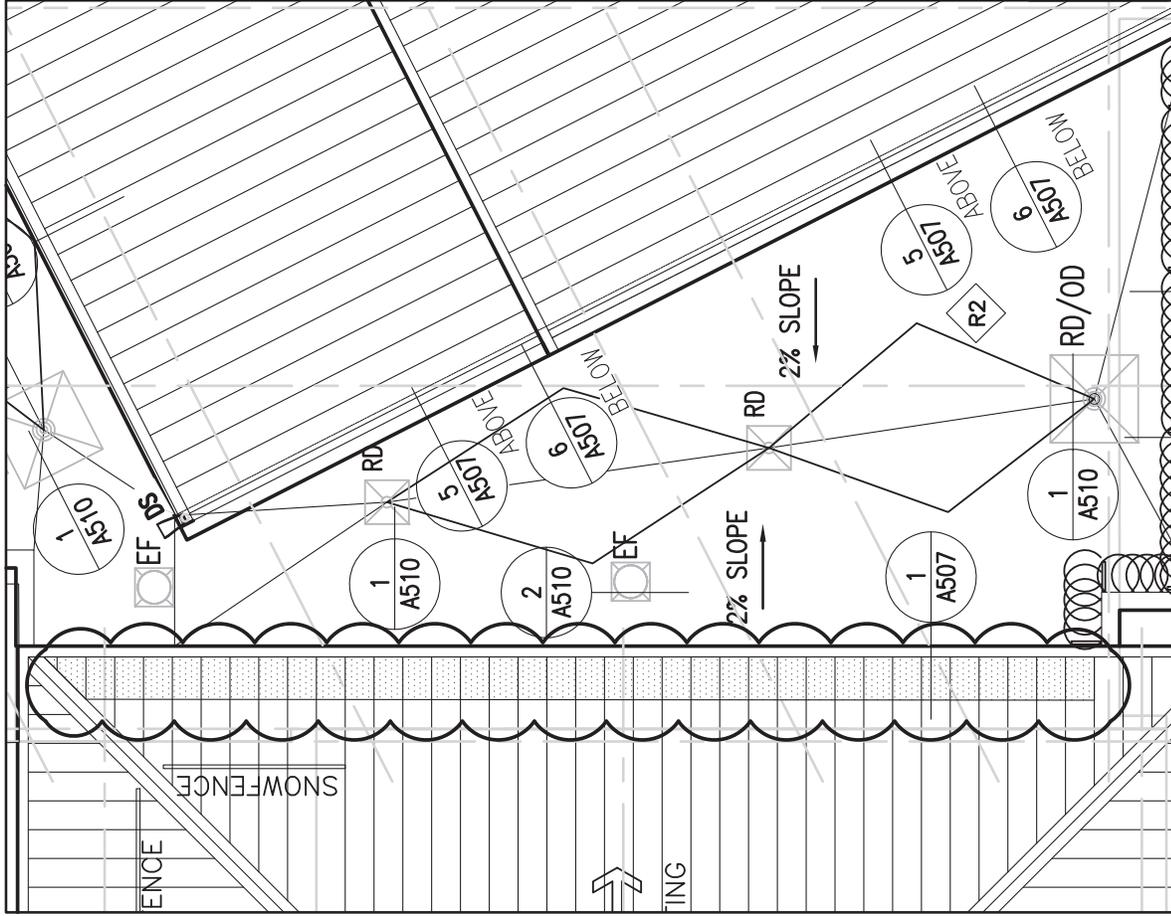


Public Works and  
Government Services  
Canada

Travaux publics et  
Services gouvernementaux  
Canada

REAL PROPERTY SERVICES  
Pacifique Region

SERVICES IMMOBILIERS  
Région de Pacifique



CUT BACK EXISTING METAL ROOF, MODIFY  
EXISTING ROOF ASSEMBLY, SEE DETAIL 1/A507

<p>Project title/Titre du projet <b>MOUNTAIN INSTITUTE HEALTH CARE EXPANSION</b> 4732 CEMETERY ROAD PO BOX 1600, AGASSIZ, BC</p>	<p>Drawing title/Titre du dessin <b>ROOF PLAN REVISION</b></p>	<p>Consultant Signature Only Designed by/Concept par EDWIN BERZINS Drawn by/Dessiné par BEN MONROE (2017-12-14)</p>	<p>PWSSC Project Manager/Administrateur de Projets TFS/SC TONY TANG Professional Engineer and Engineering Services/ Ingénieur professionnel et Services d'ingénierie PREETIPAL PAUL</p>	<p>Scale/Echelle 1:200 Date/Date 2017-12-14</p>	<p>Sheet/Feuille <b>ASK-02</b> Revision/Revision <b>X</b></p>
--	--	---	---	---	---



Public Works and  
Government Services  
Canada

Travaux publics et  
Services gouvernementaux  
Canada

REAL PROPERTY SERVICES / SERVICES IMMOBILIERS  
Pacific Region / Région de Pacifique

INSTALL COUNTER FLASHING UNDER EDGE OF  
EXISTING ROOFING AND SEAL EDGE AGAINST EXISTING  
ROOFING CONTINUOUS.  
CUT OUT EXISTING INSULATION AND INSTALL  
BLOCKING TO PROVIDE

Cut Back Existing Roofing 800 mm  
SEE ROOF PLAN FOR EXTENT

INSTALL COUNTER FLASHING OVER BASE LAYER.  
PREPARE EXISTING INSULATION SURFACE AND INSTALL  
COVER BOARD TO RECEIVE NEW ROOFING

INSTALL CONTROL JOINT SYSTEM (ROOF) FLASHING MEMBRANE  
UNDER COUNTER FLASHING, LAP BY MIN. 200 mm  
CONTROL JOINT SYSTEM (ROOF): REINFORCED ROOF  
FLASHING MEMBRANE AND COMPRESSIBLE TUBE  
JOINT, MINERAL WOOL INSULATION, AND POLY VAPOR  
BARRIER BELOW.

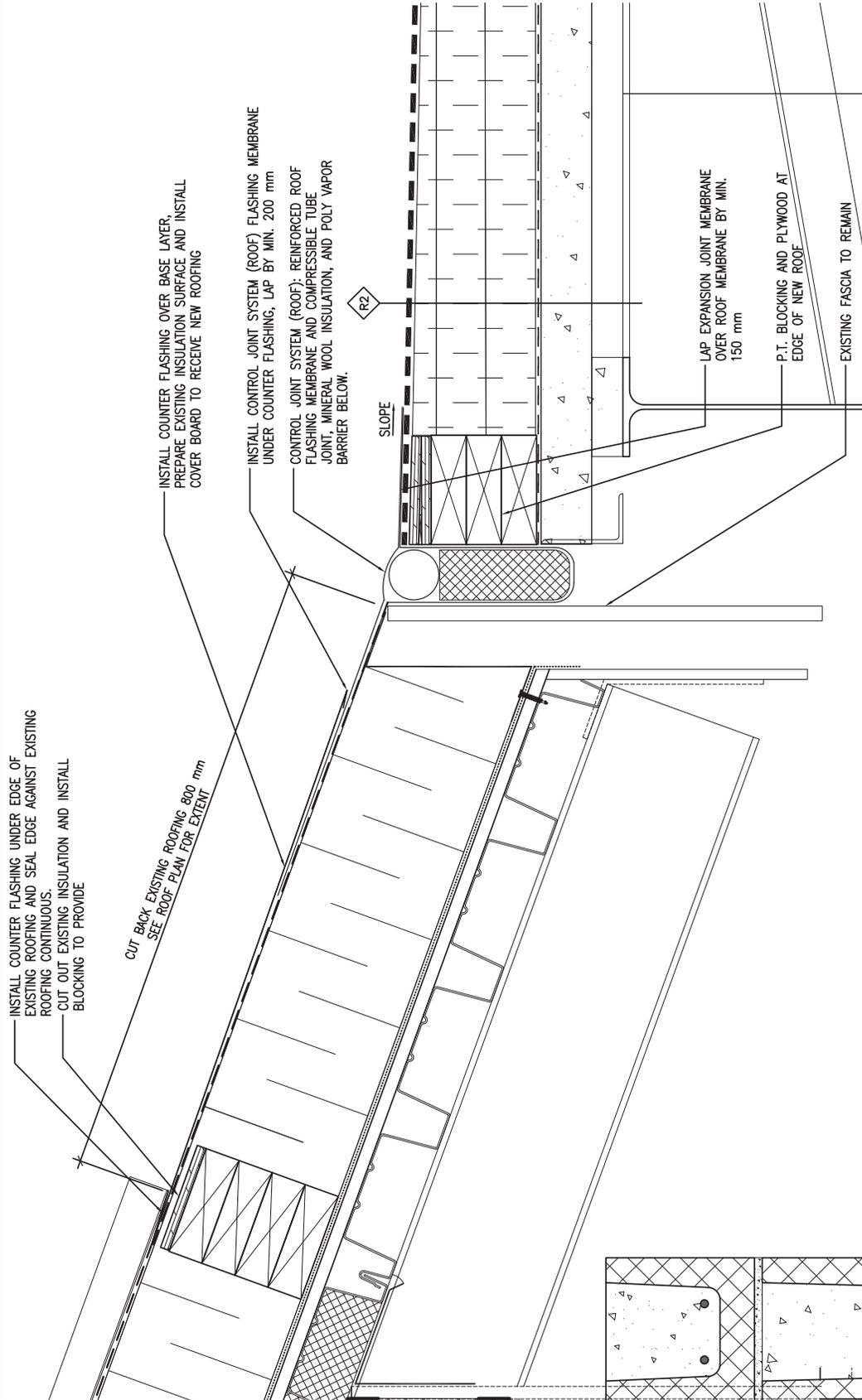
R2

SLOPE

LAP EXPANSION JOINT MEMBRANE  
OVER ROOF MEMBRANE BY MIN.  
150 mm

P.T. BLOCKING AND PLYWOOD AT  
EDGE OF NEW ROOF

EXISTING FASCIA TO REMAIN



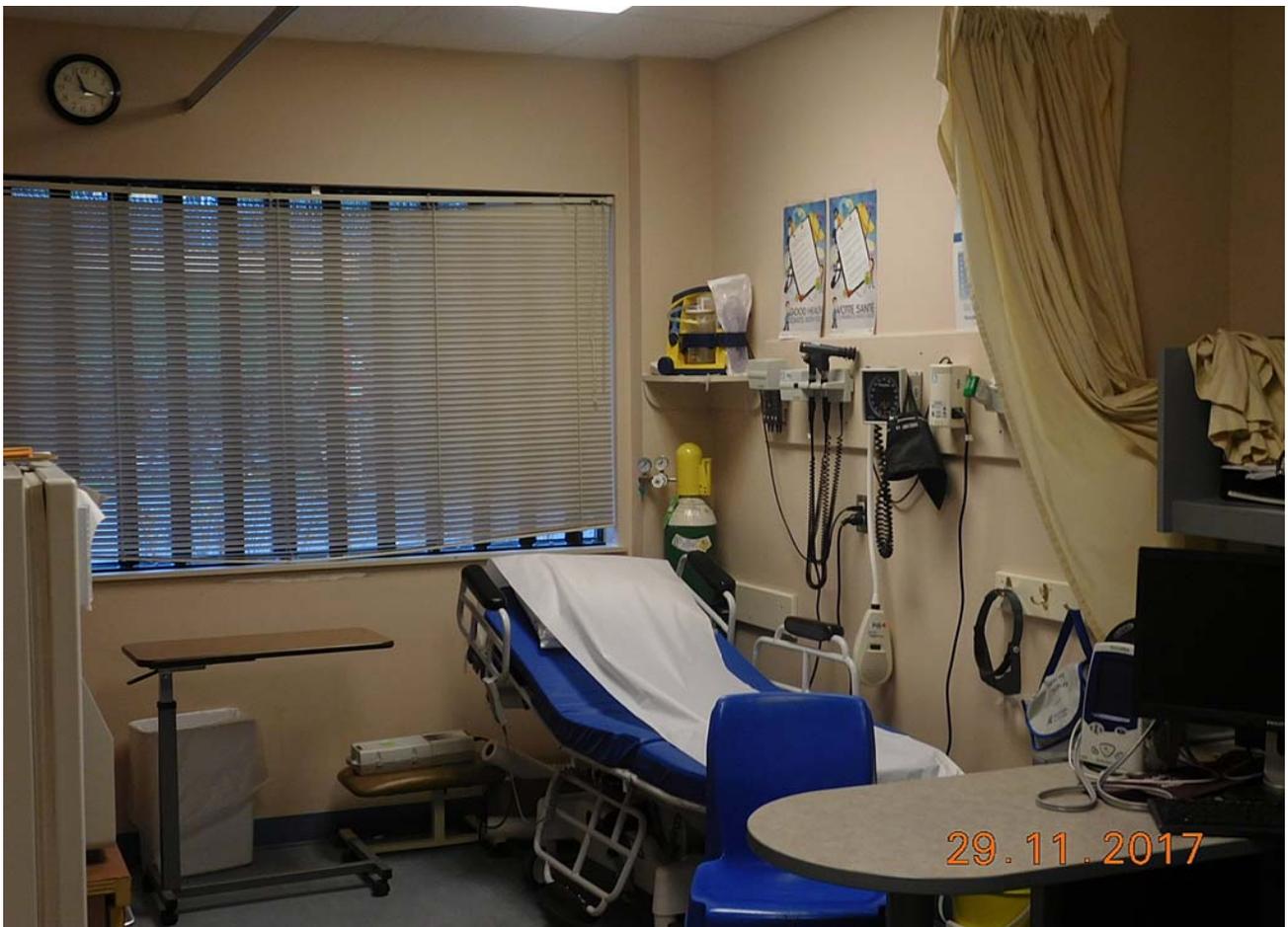
Client/Client

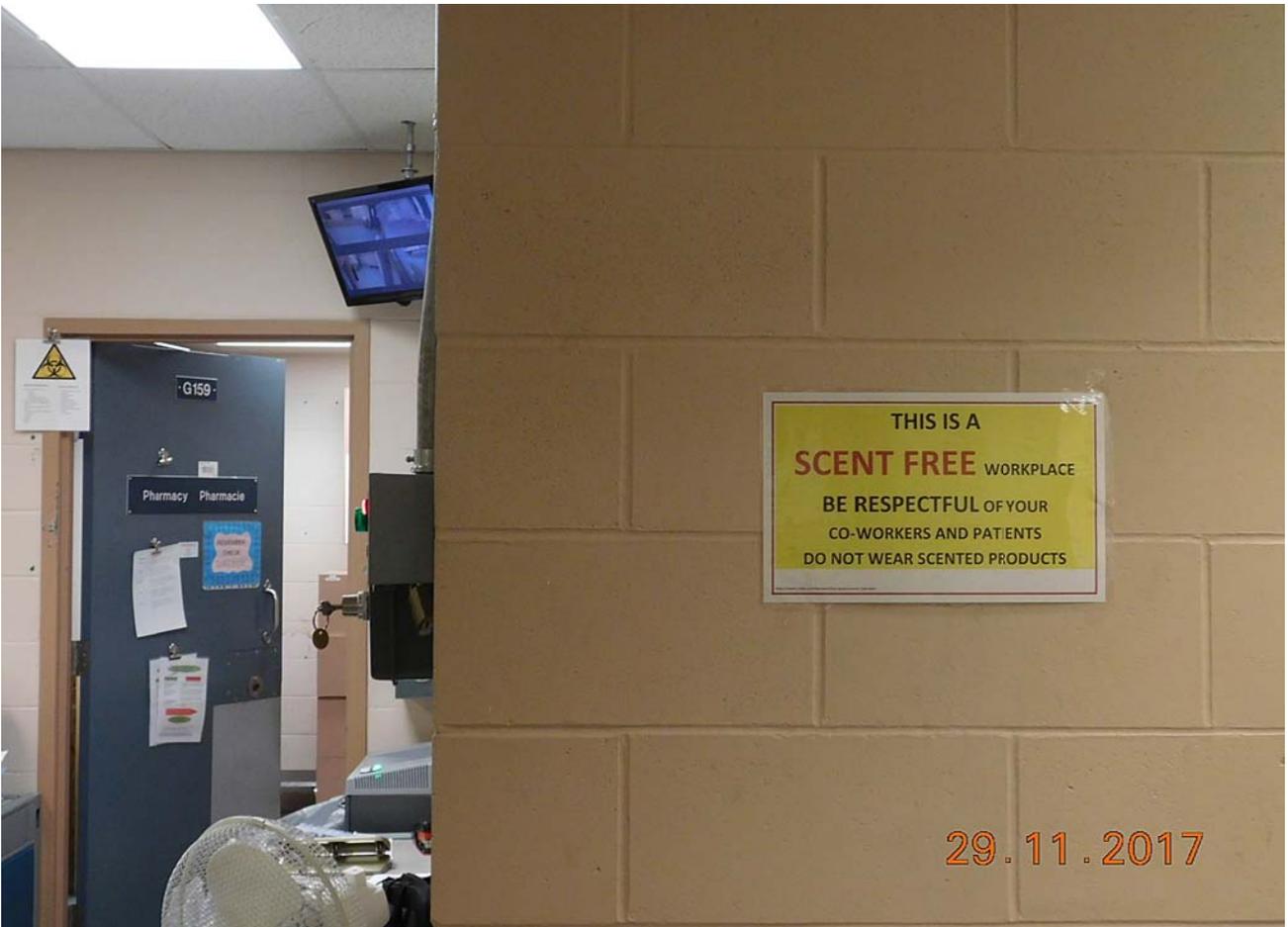
CORRECTIONAL SERVICE  
OF CANADA  
Project title/Titre du dessin  
1/A507 REVISED ROOF DETAIL  
Project title/Titre du dessin  
4732 CEMETERY ROAD PO BOX 1600  
MOUNTAIN INSTITUTE  
HEALTH CARE EXPANSION

Consultant Signature & Date Only  
PWSO Project Manager/Administrateur  
de Projets PWSO TONY TANG  
Designed by/Conçue par  
EDWIN BERZINS  
Drawn by/Dessiné par  
BEN MORRICE (2017-12-14)

Date/Date  
2017-12-14

Project No./N<sup>o</sup> de projet  
R.077724.001  
Sheet/Feuille  
ASK-03  
OF XX  
X







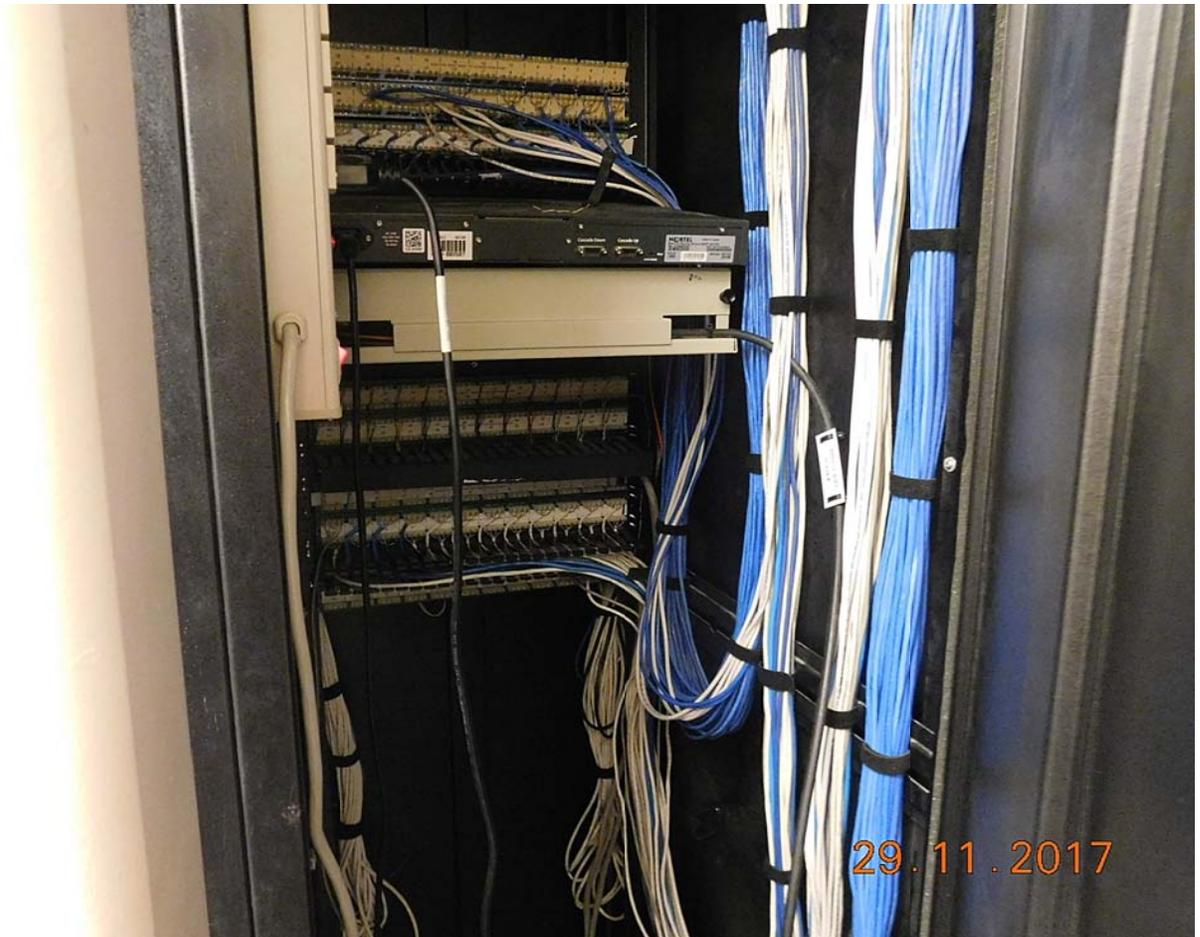
29.11.2017



29.11.2017









SUITABLE FOR USE AS SERVICE ENTRANCE  
EQUIPMENT  
ACCEPTABLE COMME APPAREILLAGE  
DE BRANCHEMENT

**PIONEER**

**SWITCHGEAR UNIT**  
APPAREIL DE COMMUTATION  
CSA C22.2 No.31 Series  
Série CSA C22.2 No. 31

THROUGH BUS  
BARRES PRINCIPALES

SECTION BUS  
BARRES SECONDAIRES

VOLTS

Hz

Ø WIRE  
FIL

LL15225

PLT

SERIAL No.  
No. SÉRIE

5-93

60-20-009A,001

**WARNING**

**Arc Flash and Shock Hazard  
Appropriate PPE Required**

0 - 6" 0.3 #0	Flash Hazard Boundary caution Flash Hazard at 18 inches PPE Level Non-melting, flammable materials
0.6 3 - 6" 1 - 0" Ø - 1"	kV Shock Hazard when cover is removed Restricted Approach Prohibited Approach - Class 00 Voltage Gloves

Equipment Name: BUS-GSEA (Fed by: B-GSEA-P)  
Arc Flash Label 600V Panel

Date of Study : **October 2011**  
Name of the Company : **Ausenco Sandwell**  
Calculation Method: **IEEE Standard 1584**

**GROUPE SCHNEIDER**

**Schneider Canada Services**

Pour obtenir 24 heures sur cet équipement, veuillez contacter le  
bureau des Ventes ou le Centre de Service le plus près de chez vous  
For 24 hour service on this equipment, call your nearest sales office  
or service center.

LOCATIONS DU SERVICE: **1-800-265-3374**

OR

DARTMOUTH (506) 488-8823	MONCTON (506) 867-0719
MONTREAL (514) 887-4700	QUEBEC CITY (418) 848-8010
OTTAWA (451) 874-8700	OTTAWA (451) 848-8010
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111
WINDSOR (519) 886-5270	WINDSOR (519) 243-7111

29.11.2017









DIST. G6EA  
ESSENTIAL POWER  
347/600/304W  
FED FROM NK3-E

VOLTS<sub>RMS</sub> |  $\emptyset$  | AMPS<sub>RMS</sub> | POWER FUNCTIONS

0 . PML . 0

PHASE



DECREMENT

GROUP 1



PARAMETER  
SELECT

GROUP 2



CURSOR

FUNCTION



INCREMENT

17.5.2017