

## **PART 1 - GENERAL**

### **1.1 Related Sections**

- .1 Section 26 05 01 - Common Work Results - Electrical.

### **1.2 References**

- .1 Alberta Building Code (latest edition).
- .2 Government of Canada.
  - .1 TB OSH Chapter 3-03, 1997-01-28, 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, 1994-12-22, Treasury Board of Canada, Occupational Safety and Health, Chapter 3-04, Standard for Fire Alarm Systems.
- .3 Underwriter's Laboratories of Canada (ULC).
  - .1 CAN/ULC-S524, Installation of Fire Alarm Systems.
  - .2 CAN/ULC-S536, Inspection and Testing of Fire Alarm Systems.
  - .3 CAN/ULC-S537, Verification of Fire Alarm Systems.

### **1.3 Description of System**

- .1 System includes:
  - .1 Removal of existing UV/IR device from an existing Cerberus Pyrotronics fire alarm system.
  - .2 Connection of new ancillary device to an existing fire alarm system, and expansion of fire alarm control panel to include for new fire alarm zone(s) as required.

### **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.
  - .4 To Canadian Forces Fire Marshal approval.

### **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 specified in Section 01 78 00 - Closeout Submittals.
- .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.

### **1.7 Maintenance**

- .1 Provide one year's free maintenance by manufacturer during warranty period.

### **1.8 Waste Management and Disposal**

- .1 Separate and recycle waste materials in accordance with the Waste Reduction Workplan.
- .2 Place materials defined as hazardous or toxic waste in designated containers.
- .3 Ensure emptied containers are sealed and stored safely for disposal away from children.

## **PART 2 - PRODUCTS**

### **2.1 Materials**

- .1 Equipment and devices: ULC listed and labeled and to match existing manufacturer.

### **2.2 End-of-line Devices**

- .1 End-of-line devices to match existing system, housing to meet Class I Zone 1 locations where indicated on the drawings.

## **PART 3 - EXECUTION**

### **3.1 Installation**

- .1 Install systems in accordance with CAN/ULC-S524.
- .2 Connect alarm circuits to main control panel.
- .3 Install end-of-line devices.

### **3.2 Field Quality Control**

- .1 Perform tests in accordance with Section 26 05 01 - Common Work Results - Electrical and CAN/ULC-S537.
- .2 Fire alarm system verification:
  - .1 Test each device and alarm circuit to ensure they transmit alarm, trouble and ground fault conditions to control panel.
  - .2 Check annunciator panels to ensure zones are shown correctly.
  - .3 This verification shall be witnessed by the Design Engineer or their designated representative, and performed by the installing contractor and manufacturer in conformance with the requirements of the CAN/ULC-S537-04 Section 6, which references the CAN/ULC-S536-04. Design Engineer's service costs by Contractor. Allow the P.C. lump sum of \$1,500.

### **3.3 Training**

- .1 Arrange and pay for on-site lectures and demonstrations by fire alarm equipment manufacturer to train operational personnel in use and maintenance of fire alarm system.

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