PART 1 - GENERAL

1.1   RELATED REQUIREMENTS

.1   Section 26 05 00 - Common Work Results for Electrical.

1.2   REFERENCES

.1   Treasury Board of Canada Secretariat (TBS), Occupational Safety and Health (OSH)
    .1   Fire Protection Standard-10.

.2   Underwriter's Laboratories of Canada (ULC)
    .1   CAN/ULC-S524-14, Standard for the Installation of Fire Alarm Systems.
    .2   CAN/ULC-S537-13, Standard for the Verification of Fire Alarm Systems.
    .3   CAN/ULC-S1001, Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems.

.3   Ontario Regulation
    .1   ONTARIO OBC-2012, 2012 Ontario Building Code Compendium.

1.3   DESIGNATED CONTRACTOR

.1   Retain the services of Chubb Edwards or its authorised representative to complete all the work included in this section subject to proprietary rights.

PART 2 - PRODUCTS

2.1   DESCRIPTION

.1   Audible signal devices: to CAN/ULC-S524 and OBC.

.2   Regulatory Requirements:
    .1   To TBS Fire Protection Standard.
    .2   Subject to Fire Commissioner of Canada (FC) approval.
    .3   Subject to FC inspection for final acceptance.

.4   System components: listed by ULC and comply with applicable provisions of OBC, and meet requirements of local authority having jurisdiction.

2.2   ACCEPTABLE MATERIALS

.1   There is an existing Chubb Edwards system presently installed in the building. All materials must be selected to ensure compatibility with the existing Chubb Edwards fire alarm system.

2.3   ALARM OUTPUT CIRCUITS

.1   Alarm output circuit: connected to signals, wired in Class B configuration to central control unit.

2.4   WIRING

.1   Twisted copper conductors: rated 600 V.

.2   To signal circuits: 16 AWG minimum, and in accordance with manufacturer's requirements.

2.5   AUDIBLE SIGNAL DEVICES

.1   Provide as indicated.

.2   Flush mounted speaker, line matching transformer adjustable output taps.

PART 3 - EXECUTION

3.1   INSTALLATION

.1   Install speakers and connect to signalling circuits.

.2   Connect signalling circuits to main control panel.

.3   Splices are not permitted.

.4   Provide necessary raceways, cable and wiring to make interconnections to terminal boxes, annunciator equipment and CCU, as required by equipment manufacturer.

.5   Ensure that wiring is free of opens, shorts or grounds, before system testing and handing over.

.6   Identify circuits and other related wiring at central control unit, annunciators, and terminal boxes.

.7   During construction the existing fire alarm system should be operational around the clock, otherwise provide man watch.

3.2   FIELD QUALITY CONTROL

.1   Perform tests in accordance with Section 26 05 00 - Common Work Results for Electrical and CAN/ULC-S537 and CAN/ULC-S1001.

.2   Fire alarm system:
        .1   Test such device and alarm circuit to ensure, thermal and smoke detectors transmit alarm to control panel and actuate alarm.
        .2   Check annunciator panels to ensure zones are shown correctly.
        .3   Simulate grounds and breaks on alarm and signalling alarm and circuits to ensure proper operation of systems.
        .4   Addressable circuits system:
                .1   Test each conductor on addressable links for capability of providing 3 or more subsequent alarm signals on each side of single open-circuit fault condition imposed near midmost point of each link. Operate Acknowledge/Silence switch after reception of each of the 3 signals. Correct imposed fault after completion of each series of tests.
        .5   Test all new audible devices complete with floor zone.

.3   Provide final PROM program re-burn for system Departmental Representative incorporating program changes made during construction.

3.3   PROTECTION

.1   Protect installed products and components from damage during construction.

.2   Repair damage to adjacent materials caused by fire alarm system
        installation.

3.4   PROGRAMING, VERIFICATION AND SYSTEM BY-PASS

.1   Labour to be provided by existing fire & security manufacturer.

.2   Provide final fire alarm verification certificate.

END OF SECTION