

1 General

1.1 RELATED SECTIONS

- .1 Section 08 71 00 - Door Hardware.
- .2 Section 26 05 00 - Common Work Results - Electrical
- .3 Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.

1.2 REFERENCE STANDARDS

- .1 National Fire Protection Association (NFPA)
 - .1 NFPA 71- Standard from the Installation, Maintenance and Use of Signaling Systems for Central Station Services.
- .2 Underwriter's Laboratories Canada (ULC)
 - .1 CAN/ULC S304, Standard for control and monitoring station burglar alarm units.
 - .2 CAN/ULC S561, Installation and Services for Fire Signal Receiving Centres and Systems.

1.3 DESCRIPTION OF SYSTEM

- .1 Provide a complete access control system to continuously monitor and control access to the building.
- .2 Provide the necessary hardware to communicate intrusion information to a certified monitoring agency.
- .3 Access control system to consist of but is not limited to, door control panels, card readers, request-to-exit motion detectors, door contacts.
- .4 Door hardware including electric strikes and electrified hardware is to be supplied and installed by Division 08. Refer to Section 08 71 00 and associated door hardware schedule for detailed information.
- .5 Commission and provide programming of the system in accordance with the Owner's security and access control requirements.
- .6 The access control system is to allow entry to restricted areas. When an authorized card is presented to the card reader, the electric strike is released and the card holder opens the door. Egress from these areas is to be unrestricted by the access control system.

1.4 SUBMITTALS

- .1 Submit shop drawings and product data in accordance with Division 01 - General Requirements.
 - .1 Include wiring diagrams and riser schematics indicating location of controllers and devices.

1.5 WARRANTY

- .1 Submit manufacturer's warranty document executed by an authorized company or official stating that the access control system is warranted against defects in operation, material and workmanship for a period of one year from date of signed off substantial completion. Include system warranty document in Maintenance Manuals.

2 Products

2.1 DOOR CONTROLLER

- .1 Kantech #KT-1, one door controller and Kantech #KT-400, 4 door controller.

2.2 SOFTWARE

- .1 Kantech Entrapass Corporate Edition, Multiple Workstation Security Management Software.
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2.3 DOOR CONTACTS

- .1 Recess mounted in door frame for detection when door is open.
- .2 Magnetic type, 30 VDC, 3 W max.
- .3 Tamper switch.
- .4 Acceptable manufacturer or approved equal:
 - .1 G.E. #1078CTW Series.

2.4 REQUEST-TO-EXIT MOTION DETECTORS

- .1 Passive infrared technology with aimable detection to shunt the door contact alarm input and allow free exit. Detector is to not directly unlock the door.
- .2 Detector to have a white high impact plastic housing c/w internal buzzer that sounds if the door is left open.
- .3 Acceptable manufacturer or approved equal:
 - .1 Kantech #T.REX-XL.

2.5 PROXIMITY CARD READERS

- .1 Impact resistant polycarbonate housing suitable for interior and exterior installations.
- .2 Capable of being mounted to metal door mullions.
- .3 Audible and visual operation through LED indicators and internal buzzer.
- .4 125 kHz HiD operation capable of a 6" read range.
- .5 Acceptable manufacturer or approved equal:
 - .1 Kantech #Shadow Prox SH-XL.

2.6 WIRING

- .1 Wiring and cables in accordance with the recommendations of the approved system manufacturer. Typical FT4 rated access control cabling as indicated on drawings.

2.7 FIRE ALARM MONITORING

- .1 Provide connection between the fire alarm control panel and the fire alarm signal transmitting unit.
- .2 Upon activation of the fire alarm system, the fire alarm control panel is to release locking mechanisms on all access controlled doors, and notify the central monitoring facility of the event.

3 Execution

3.1 INSTALLATION

- .1 Install all wiring, raceway, outlet boxes, panels and devices including any miscellaneous material to constitute complete system as indicated.
 - .2 Install conduit from access control devices located in walls and door frames to door control panel location. Rough-in device boxes for card readers and access control devices as required.
 - .3 All access control cabling is to be installed in conduit in accordance with Specification Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings. Conceal conduit in inconspicuous but accessible locations where possible.
 - .4 Supply and install access control cabling from field mounted devices to door control panels.
 - .5 Terminate access control cabling on field mounted devices in accordance with manufacturer's instructions.
 - .6 Supply and install network cable interconnecting all door control panels and to Owner supplied workstation in accordance with manufacturer's instructions.
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3.2 VERIFICATION AND COMMISSIONING

- .1 Arrange and include an 8-hour site visit by the Manufacturer's Technical Representative to verify, commission, program the system and demonstrate the operation of the system to the Owner. Provide manufacturer's verification certificate in the Maintenance Manuals. Verification to include but is not limited to:
 - .1 Compliance with manufacturer's specification, product literature and installation instructions.
 - .2 Operation of each device individually and within its environment.
 - .3 Operation of each device in relation with programmable schedule and or/specific functions.
- .2 Coordinate with Owner to determine exact system requirements such as scheduling, zone identification, etc., and program system to the Owner's specific requirements.
- .3 On behalf of the Owner make all arrangements for 24 hour remote monitoring at location of Owner's choice and verify that alarm signal is received.

3.3 CLEANING AND ADJUSTING

- .1 Remove protective coverings from control panels, detection accessories and components.
- .2 Adjust all components for correct function.

END OF SECTION

1 General

1.1 RELATED SECTIONS

- .1 Section 26 05 00 - Common Work Results - Electrical
- .2 Section 26 05 31 - Splitters, Junction, Pull Boxes and Cabinets
- .3 Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings

1.2 REFERENCE STANDARDS

- .1 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S304, Intrusion Detection.
 - .2 CAN/ULC-S306, Intrusion Detection Units.
 - .3 ULC-S318, Power Supplies for Burglar Alarm Systems.
 - .4 CAN/ULC-S561, Installation and Services for Fire Signal Receiving Centres and Systems.

1.3 DESCRIPTION OF SYSTEM

- .1 Provide a complete intrusion monitoring and alarm system which is expandable and easily modified for inputs, outputs and remote control stations.
 - .1 System to be in accordance with CAN/ULC-S306 and be capable of:
 - .1 Annunciating undesirable, abnormal or dangerous conditions.
 - .2 Prioritizing alarms by alarm type; i.e. panic/duress, intrusion and tamper.
 - .3 Determining and annunciating zone where an alarm occurred.
 - .4 Annunciating power failure and power restoration.
 - .5 Annunciating low battery condition.
 - .6 Operating continuously for minimum period of 6 hours in the event of a power failure.
 - .7 Alarm masking.
 - .8 Remote maintenance or diagnostics with password activation.
 - .9 Assigning a unique identifier for each authorized person.
 - .10 Manual and automatic arming and disarming by time of day, day of week, or by operator command.
 - .11 Supporting both manual and automatic responses to alarms entering system.
 - .12 Initiating different functions of camera, homing, and activation of remote devices, audio switching, door control and card or pin validation.
 - .2 Control panels to be provided with continuous tamper detection.
 - .1 Tamper detection to trigger alarm and trouble light.
 - .3 Communications link to be security level of I in accordance with CAN/ULC-S304.
 - .4 Signal link to be security level of I in accordance with CAN/ULC-S304.
 - .5 Time for an alarm to be communicated from alarm initiation to annunciation at remote monitoring location is no greater than 60 seconds.
 - .6 Power supplies to be rated to provide cumulative load of all systems components plus safety factor of 50% or greater.
 - .7 Provide the necessary hardware to communicate intrusion information to a certified monitoring agency.

1.4 SUBMITTALS

- .1 Submit shop drawings and product data in accordance with Division 01 - General Requirements.
 - .1 Include wiring diagrams, detection device coverage patterns and zone layout drawing indicating number and location of zones and areas covered.

1.5 WARRANTY

- .1 Submit manufacturer's warranty document executed by an authorized company or official stating that the entire system is warranted against defects in operation, material and workmanship for a period of one year from date of signed off substantial completion of the project. Include system warranty document in Maintenance Manuals.

2 Products

2.1 MATERIALS

- .1 Control Panel:
 - .1 DSC #PC1832.
- .2 Keypads:
 - .1 Backlit, 2-line, 32-character LCD display.
 - .2 Zone status, system status, trouble, event buffer, and date and time display with Ready, Armed and Trouble LED's.
 - .3 Tamper switch.
 - .4 5 programmable function keys and keypad activated alarms.
 - .5 Acceptable manufacturer or approved equal:
 - .1 DSC #RFK5500
- .3 Conventional Devices:
 - .1 Motion Detectors:
 - .1 Passive infrared technology with sensitivity adjustment.
 - .2 Wall or ceiling mounted as indicated.
 - .3 Tamper switch.
 - .4 Coverage pattern as required.
 - .5 Acceptable manufacturer or approved equal:
 - .1 DSC Bravo Series.
- .4 Audible Notification:
 - .1 30 W siren with 120 dB yelp or steady signal.
 - .2 Impact resistant white plastic housing.
 - .3 Mount horns in accessible ceiling space.
 - .4 Acceptable Manufacturing or approved equal:
 - .1 DSC #SD30W.

3 Execution

3.1 INSTALLATION

- .1 Install intrusion alarm system panels(s) and devices in accordance with manufacturer's written installation instructions at locations, heights and surfaces as indicated.
- .2 Conceal junction boxes in inconspicuous but accessible locations in accordance with Specification Section 26 05 31 - Splitters, Junction, Pull Boxes and Cabinets.
- .3 Conceal conduit and wiring where possible. All wiring to be in conduit installed in accordance with Specification Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.

3.2 VERIFICATION AND COMMISSIONING

- .1 Arrange and include an 4-hour site visit by the Manufacturer's Technical Representative to verify, commission, program the system and demonstrate the operation of the system to the Owner. Provide manufacturer's verification certificate in the Maintenance Manuals. Verification to include but is not limited to:
 - .1 Compliance with manufacturer's specification, product literature and installation

- instructions.
- .2 Operation of each device individually and within its environment.
- .3 Operation of each device in relation with programmable schedule and or/specific functions.
- .2 Coordinate with Owner to determine exact system requirements such as scheduling, zone identification, etc., and program system to the Owner's specific requirements.
- .3 On behalf of the Owner make all arrangements for 24 hour remote monitoring at location of Owner's choice and verify that alarm signal is received.

3.3 CLEANING AND ADJUSTING

- .1 Remove protective coverings from control panels, detection accessories and components.
- .2 Adjust all components for correct function.

END OF SECTION
