1. GENERAL

1.01 SECTION INCLUDES

.1 Automatic door controls for restrooms.

.2 Emergency call systems for universal and barrier-free restrooms.

.3 Automatic door relay controls.

.4 Automatic door activation.

.5 Automatic door wireless activation.

1.02 RELATED REQUIREMENTS

.1 Section 08 71 00 – Hardware: requirements for door operators and electric strikes interconnected with this equipment.

.2 Section 26 05 00 – Common Work Results for Electrical.

1.03 REFERENCES

.1 ANSI A117.1 - Accessible and Usable Buildings and Facilities.

.2 ANSI A156.19 - Standard for Power Assist and Low Energy Power Operated Doors.

.3 Ontario Building Code 2012, section 3.8.3.12.(2) – Universal Washrooms.

1.04 SUBMITTALS

.1 Submit under provisions of Section 01 33 00 – Submittal Procedures.

.2 Product Data: Manufacturer's data sheets on each product to be used, including:

.3 Preparation instructions and recommendations.

.4 Storage and handling requirements and recommendations.

.5 Installation methods.

.6 Shop Drawings: Electrical schematic, device mounting requirements and rough-in for recessed devices.

.7 Verification Samples: For each finish product specified, two samples, minimum size 150 mm (6 in) square representing actual product, color, and patterns.

1.05 CLOSEOUT SUBMITTALS

.1 Functional test report.

.2 Training attendance records.

1.06 QUALITY ASSURANCE

.1 Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.

.2 Installer Qualifications: Minimum 2 year experience installing similar products.

.3 Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

.1 Finish areas designated by Architect.

.2 Do not proceed with remaining work until workmanship is approved by the Consultant.

.3 Rework mock-up area as required to produce acceptable work.

1.07 PRE-INSTALLATION MEETINGS

.1 Convene minimum two weeks prior to starting work of this section.

1.08 DELIVERY, STORAGE, AND HANDLING

.1 Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

.2 Handling: Handle materials to avoid damage.

1.09 PROJECT CONDITIONS

.1 Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's recommended limits.

1.10 SEQUENCING

.1 Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.11 WARRANTY

.1 Manufacturer's Warranty: Provide manufacturer's warranty for defective parts for a three-year period from the date of Substantial Completion.

2. PRODUCTS

2.01 MANUFACTURERS

.1 Camden Door Controls (basis of design).

.2 Substitutions: Thomas Door & Security Hardware, TA-3230C-KIT.

2.02 EMERGENCY CALL SYSTEMS FOR UNIVERSAL RESTROOMS

.1 Performance:

.1 Emergency Call System shall comply with the latest requirements of the Ontario Building Code (OBC), effective January 1, 2015.

.2 Emergency Call System shall be designed to provide a washroom occupant with the ability to request emergency assistance, to receive visual and audible confirmation that their request has been made, and visual and audible notification to building staff and occupants outside the restroom of an emergency condition.

.2 Product: Emergency Call Systems For Universal and Barrier Free Restrooms – CX-WEC10K2 System as manufactured by Camden Door Controls.

.1 Operation: the 'Press For Emergency Assistance' mushroom push button is activated by the occupant. This energizes the LED annunciator and sounder within the washroom and the dome light with sounder outside the washroom. Both annunciators will be energized until the latching mushroom push button switch is pulled out.

.2 Components:

.1 The following items are part of the CX-WEC10K2 equipment package:

.1 CM-AF540SO Double gang, push/pull mushroom push button, red, 'Assistance Required', w/ LED annunciator and adjustable sounder, 'Assistance Requested'.

.1 ‘Press for Emergency Assistance’ switch, ‘Push/Pull’ operation 41.27 mm (1-5/8") vandal resistant red button, N/O and N/C

contacts, rated 10 Amp @ 30 VDC and permanently laser etched graphics (black).

.2 Single gang LED annunciator with adjustable sounder rated 85 dB at 102 mm (4 in), weather and vandal-resistant construction, brushed stainless steel faceplate, with 'ASSISTANCE REQUESTED'. 'White Out' text shall not be legible unless the annunciator is energized.

.3 Heavy gauge stainless steel double gang faceplate.

.2 CM-AF141SO: Single gang LED dome light with adjustable piezo sounder, rated 93 dB at 1 m (3 feet), weather (indoor/outdoor) and vandal resistant construction, white. 180 degree visibility with 'ASSISTANCE REQUIRED' text printed on two sides of the lens.

.3 CM-SE21A: sign, to be located above the activation switch, 1.6 mm (1/16 in), 152 mm high by 270 mm wide (6 in by 10-5/8 in), fire-rated expanded PVC white with 25 mm (1 in) red lettering. The text shall be "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".

.2 The following items are required, but not included in the CX-WC11 equipment package:

.1 CX-PS13 24V linear power supply and CX-TRX-4024 UL listed 40 VA transformer.

.2 Electric Strike: CX-ED2079 ('Universal' Grade 2 Electric Strike).

.3 Contact for Pushbutton (normally closed CM-4000/61N).

.4 Door contact.

2.03 AUTOMATIC DOOR CONTROLS FOR RESTROOMS

.1 Performance:

.1 Automatic door controls shall comply with Americans with Disability Act.

.1 Regulatory compliance with Accessibility Guidelines (ADAAG) and the Uniform Federal Accessibility Standard (UFAS) as required by Authority Having Jurisdiction (AHJ).

.2 Automatic door controls shall comply with National Building Code of Canada.

.3 Automatic door controls shall comply with NFPA National Fire Code or International Fire Code for restroom doors acting as egress doors as required by Authority Having Jurisdiction (AHJ).

.4 Emergency Power: System shall be provided with an emergency power connection.

.2 Product: Push Button and Annunciator Restroom Control System - CX-WC11 as manufactured by Camden Door Controls.

.1 Operation:

.1 The door is normally closed and either locked or unlocked. Pressing the exterior push plate unlocks and opens the door. Once inside and the door is closed, pressing the 'Push to Lock' mushroom pushbutton locks the door, disables the exterior ' Push to Open' push plate switch and illuminates the exterior annunciator to show ' Occupied when Lit'. Pressing the interior push plate switch unlocks the door, deactivates the illuminated annunciator, and resets the system. If the door is opened manually to exit the restroom, the overhead magnetic contact switch resets the system.

.2 Status: Normally locked. Fail secure electric strike.

.3 Status: Normally unlocked. Fail safe electric strike.

.2 Components:

.1 The following items are part of the CX-WC11 equipment package:

.1 CX-33PS includes Advanced Logic Control Relay and 2 Amp Power Supply in pre-wired metal cabinet.

.2 CM-45/4 114 mm (4.5 in) square activation (wall) switch (2 required), stainless steel construction, N/O contacts rated 15 Amps @ 30 VDC and paint filled debossed ‘wheelchair symbol and ‘Push To Open’ graphics (blue). Mounted on in-wall single gang electrical box.

.3 CM 400/8 'Push to Lock' Mushroom Push Button with heavy duty brushed stainless steel faceplate, 40 mm (1-5/8") vandal resistant red button and N/O contacts rated 10 Amps @ 30 VDC.

.4 CM-AF500 Single Gang LED Annunciator, with heavy duty 18 gauge, vandal resistant stainless steel faceplate, 'Occupied When Lit' 'white out' text, super-bright LEDs, 10 VDC to 36 VDC voltage, max. 40 mA current draw.

.5 CX-MDA surface mount SPST N/C Magnetic Door Contact.

.6 CX-ED2079 Electric Strike, grade 2 'universal' strike for cylindrical locksets c/w 3 faceplates, 12/24V AC/DC, selectable fail safe/fail secure. The strike shall have horizontal faceplate adjustment.

.2 The following items are required, but not included in the CX-WC11 equipment package:

.1 CX-PS13 12/24V linear power supply and CX-TRX-4024 UL listed 40 VA transformer.

3. EXECUTION

3.01 EXAMINATION

.1 Do not begin installation until substrates have been properly prepared.

.2 If substrate preparation is the responsibility of another installer, notify the Consultant of unsatisfactory preparation before proceeding.

3.02 PREPARATION

.1 Clean surfaces thoroughly prior to installation.

.2 Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

.1 Install in accordance with manufacturer's instructions.

.1 Install push button and the red "assistance requested' annunciator ganged together adjacent to the toilet.

.2 Install the emergency push button adjacent to the toilet, and post the sign above the emergency button.

.3 Install the dome light at exterior of the universal washroom, above the door of the washroom.

.4 Install conduit between system components, and install wiring as directed by manufacturer.

.2 Provide all low voltage control wiring between system components.

.3 [Connect emergency push button to remote duress system where noted on plans.]

3.04 FIELD QUALITY CONTROL

.1 Perform test of system in the presence of the Owner. Submit report documenting the test was completed.

3.05 DEMONSTRATION AND TRAINING

.1 Manufacturer's representative shall provide on-site training of staff and maintenance of operation, maintenance and "trouble/error" detection/correction.

3.06 PROTECTION

.1 Protect installed products until completion of project.

.2 Touch-up, repair or replace damaged products before Substantial Completion.

End of Section