

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 Canada Green Building Council (CaGBC)
 - .1 LEED Canada-NC-2009, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
- 1.2 ACTION AND INFORMATIONAL SUBMITTALS
- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for lighting control devices and include product characteristics, performance criteria, physical size, finish and limitations.
 - .3 Submit detailed description of each control system operation.
 - .4 Sustainable Design Submittals:
 - .1 LEED Canada Submittals: in accordance with Section 01 35 21 - LEED Requirements.
 - .2 Construction Waste Management:
 - .1 Submit project Waste Management Plan highlighting recycling and salvage requirements.
 - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 75% of construction wastes were recycled or salvaged.
- 1.3 DELIVERY, STORAGE AND HANDLING
- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
 - .2 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 35 21 - LEED Requirements.
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| 1.3 DELIVERY,
STORAGE AND
HANDLING
(Cont'd) | .3 Packaging Waste Management: remove for reuse or return of pallets, crates, padding, banding, and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements. |
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PART 2 - PRODUCTS

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| 2.1 LIGHTING CONTROL.
DEVICES | .1 Ceiling Occupancy Sensors - basic control: PIR line voltage, 120V, on/off control, 360°coverage, adjustable time delay and sensitivity, designed for LED lighting. |
| | .2 Ceiling Occupancy Sensors - washrooms: ultrasonic line voltage, 120 V, and low voltage as indicated, on/off control, 360°coverage, adjustable time delay and sensitivity, frequency 40 kHz. Design for LED lighting. |
| | .3 Wall Vacancy Sensors: line voltage, 120V, deco style with Snap-On plate, PIR sensor lens, manual on/off switch and side dimmer. 0-10V dimming: single or 3-way, trim high and low end, adjustable time delay and sensitivity, minimum 150 W LED rating. Vacancy model. |
| | .4 Ceiling vacancy sensors: line or low voltage as indicated. 360°C coverage, designed for LED lighting. |
| | .5 Stairwells: integrated within the light fixtures. PIR sensor to dim to 50% when unoccupied. Lights to remain on continuously. Refer to drwaing notes. |
| | .6 Corridors: LV wireless ceiling sensor with 120V power pack 0-10V dimming module, junction box mounted in ceiling space. Dim to 50% when unoccupied. Lights to remain on continuously. Refer to drawing notes. |
| | .7 Operations Room: LV wireless ceiling vacancy sensor with 120V power pack dimming module for dimming to 1%, junction box mounted in ceiling |

2.1 LIGHTING CONTROL.7
DEVICES
(Cont'd)

Operations Room: (Cont'd)
space. Wireless wall mounted dimmer switch for manual control. Console task lighting and dimming module, for dimming to 1%, junction box mounted in ceiling space. Wireless remote dimmer with on/off switch and slider dimmer. Suitable to attach to any surface. Refer to drawing notes.

- .8 Clean workshop: combination of occupancy sensor, vacancy sensor and individual dimming control. Refer to drawing notes.
- .9 Wall fixtures and pole lights controlled with single building mounted photocell with on-off-auto selector switch to turn lights on or off manually.

2.2 STANDARD OF
ACCEPTANCE

.1 Lutron.

.2 Sensor Switch.

.3 Watt Stopper.

PART 3 - EXECUTION

3.1 INSTALLATION

.1 Install controls in accordance with manufacturer's written instructions and to CSA C22.1.

3.2 FIELD QUALITY
CONTROL

.1 Site Tests:
.1 Perform tests in accordance with Section 26 05 00 - Common Work Results for Electrical.

.2 Actuate control units in presence of Departmental Representative to demonstrate lighting circuits are controlled as designated.

.3 Manufacturer's Field Services:
.1 Obtain written report from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning

- 3.2 FIELD QUALITY CONTROL
(Cont'd)
- .3 Manufacturer's Field Services: (Cont'd)
- .1 (Cont'd)
of product and submit Manufacturer's Field Reports as described in PART 1 - SUBMITTALS.
- .2 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.
- 3.3 CLEANING
- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
- .1 Leave Work area clean at end of each day.
- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements.
- .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.
- 3.4 PROTECTION
- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by lighting control devices installation.