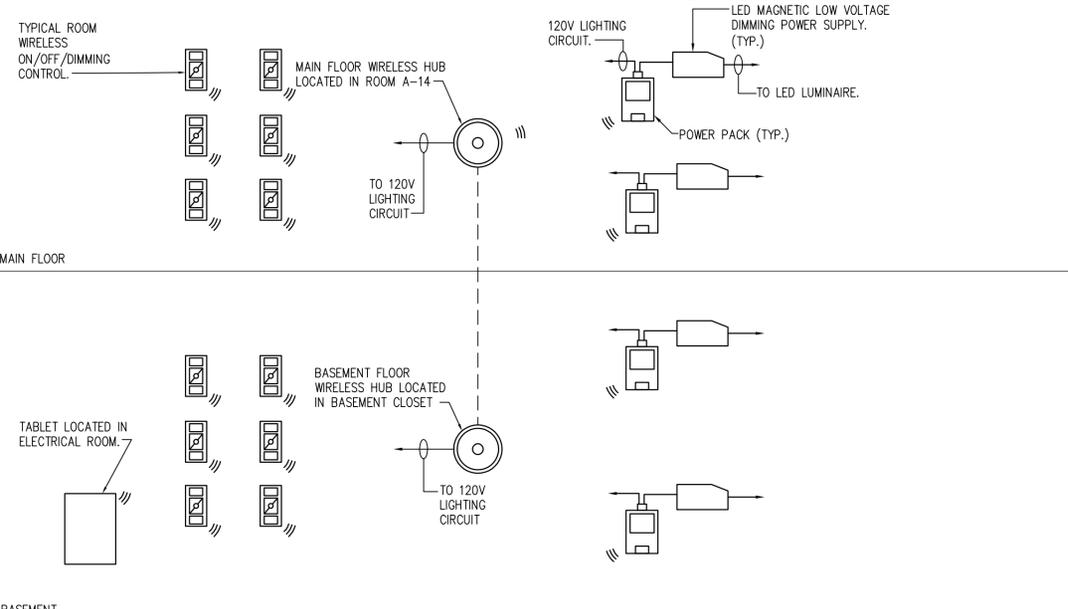


LIGHTING CONTROL SCHEMATIC

LIGHTING CONTROL SCHEDULE

SYMBOL SCHEDULE:  
 - - - - - DIMMING CABLE  
 \_\_\_\_\_ POWER CABLE  
 - - - - - CAT 5e CABLE



**EQUIPMENT DESCRIPTION**

**WIRELESS HUB:** THE WIRELESS HUB PROVIDE A CONNECTION POINT FOR ALL CONTROL DEVICES AND POWER PACKS. COMMUNICATION IS VIA A RADIO FREQUENCY SIGNAL AT 434MHZ. SUPPORTS TIMECLOCK EVENTS BASED ON BOTH SUNRISE AND SUNSET OR FIXED TIME OF DAY CONTROL. TO BE C/W INTEGRATED MULTI-COLOUR LED'S TO PROVIDE FEEDBACK ON WHAT MODE THE HUB IS IN.

**POWER PACK:** THE POWER PACK MODULE IS A RADIO FREQUENCY CONTROL THAT OPERATES MAGNETIC LOW VOLTAGE LED POWER SUPPLIES BASED ON THE INPUT OF THE WIRELESS ON/OFF/DIMMING CONTROL VIA THE WIRELESS HUB.

**WIRELESS ON/OFF/DIMMING CONTROL:** THE WIRELESS ON/OFF/DIMMING CONTROL IS A 2 BUTTON WITH RAISE LOWER, BATTERY POWER DIMMER. IT PROVIDES RADIO FREQUENCY CONTROL PROVIDES ON/OFF/DIMMING TO THE POWER PACKS VIA THE WIRELESS HUB.

**SYSTEM DESCRIPTION**

- SYSTEM TO BE A COMPLETELY ADDRESSABLE, LOW VOLTAGE, EXPANDABLE, 'DISTRIBUTED INTELLIGENCE' CONTROL SYSTEM.
- SYSTEM TO INCLUDE TIME BASED, SENSOR BASED AND MANUAL INPUT BASED CONTROL FOR EACH INDIVIDUAL ZONE.
- EACH DEVICE TO BE ADDRESSABLE FOR EASE OF MAINTENANCE.
- ALL DEVICES TO COMMUNICATE VIA 434MHZ RADIO FREQUENCY

SCHEMATIC IS FOR GRAPHICAL REPRESENTATION ONLY. REFER TO LIGHTING CONTROL SCHEDULES AND PLANS FOR EXACT QUANTITIES AND LOCATIONS. CONFIRM FINAL REQUIREMENTS OF SYSTEM WITH MANUFACTURER.

RELAY	ROOM	LUMINAIRE		LOCAL CONTROL			PHOTO CELL	RELAY TYPE	CCT NUMBER	LOCAL OPERATION	MASTER CONTROL		
		TYPE	QTY.	ON/OFF	OS	DIM					SW	EV	NL
R-01	R1-1		1	X		X		DIMMING	BH-P2B-25	①	⑤	②	③
R-02	R1-2		1	X		X		DIMMING	BH-P2B-25	①	⑤	②	④
R-03	R2-1		1	X		X		DIMMING	BH-P2B-26	①	⑤	②	③
R-04	R2-4		1	X				DIMMING	BH-P2B-26	①	⑤	②	④
R-05	R3-1		1	X		X		DIMMING	BH-P2B-26	①	⑤	②	③
R-06	R3-4		1	X				DIMMING	BH-P2B-26	①	⑤	②	④
R-07	R4-1		1	X		X		DIMMING	BH-P2B-27	①	⑤	②	③
R-08	R4-4		1	X				DIMMING	BH-P2B-27	①	⑤	②	④
R-09	R5-1		1	X		X		DIMMING	BH-P2B-27	①	⑤	②	③
R-10	R5-4		1	X				DIMMING	BH-P2B-28	①	⑤	②	④
R-11	R6-1		1	X		X		DIMMING	BH-P2B-28	①	⑤	②	③
R-12	R6-4		1	X				DIMMING	BH-P2B-28	①	⑤	②	④
R-13	R7-1		1	X		X		DIMMING	BH-P2B-29	①	⑤	②	③
R-14	R7-4		1	X				DIMMING	BH-P2B-29	①	⑤	②	④
R-15	R8-1		1	X		X		DIMMING	BH-P2B-29	①	⑤	②	③
R-16	R8-4		1	X				DIMMING	BH-P2B-28	①	⑤	②	④
R-17	R9-1		1	X		X		DIMMING	BH-P2B-28	①	⑤	②	③
R-18	R9-4		1	X				DIMMING	BH-P2B-30	①	⑤	②	④
R-19	R10-1		1	X		X		DIMMING	BH-P2B-30	①	⑤	②	③
R-20	R10-4		1	X				DIMMING	BH-P2B-31	①	⑤	②	④
R-21	R11-1		1	X		X		DIMMING	BH-P2B-31	①	⑤	②	③
R-22	R11-4		1	X		X		DIMMING	BH-P2B-30	①	⑤	②	④
R-23	R12-1		1	X		X		DIMMING	BH-P2B-30	①	⑤	②	③
R-24	R12-4		1	X		X		DIMMING	BH-P2B-32	①	⑤	②	④
EXTERIOR													
R-25	FRONT			X		X	X	DIMMING	BH-P2B-33	N/A	⑤	⑥	④
R-26	CANOPY						X	DIMMING		N/A	⑤	⑥	④
R-27	OTHER EXTERIOR						X	DIMMING		N/A	⑤	⑥	④

**NOTES:**

- DIMMING CONTROL VIA LOCAL ON/OFF/DIMMING CONTROL
- DURING EVENT MODE, ALL LUMINAIRES LEVEL SHALL BE UNIFORMED TO 100% AND SHALL BE DIMMABLE VIA MASTER TABLET.
- DURING NIGHT LIGHT MODE, LUMINAIRES SHALL BE DIMMING TO 10% IN 10 MINUTES AND AUTOMATICALLY OFF AFTER 10 MINUTES.
- DURING NIGHT LIGHT MODE, OPERATION TO BE SIMILAR AS THAT OF OPERATION SCHEME # (3), EXCEPT THE LIGHTS WILL STAY ON UNTIL 6:00 AM.
- DURING SWITCH MODE, ALL LUMINAIRES IN THE BUILDING SHALL BE ABLE TO MANUALLY TURN ON/OFF.
- EXTERIOR LUMINAIRES TO BE 100% OUTPUT LEVEL.

SW: SWITCH MODE  
 EV: EVENT MODE  
 NL: NIGHT LIGHT MODE

**NOTES:**

- CONFIRM ALL ZONE OPERATION WITH OWNER PRIOR TO COMMISSIONING OF SYSTEM.
- ALL NIGHT LIGHTS TO GO TO FULL ON IN EVENT OF POWER FAILURE.

PROVINCE OF MANITOBA  
 H.A. CEA CANAS  
 Member  
 22882  
 REGISTERED PROFESSIONAL ENGINEER

APEGM  
 Certificate of Authorization  
 HDK Consulting Incorporated  
 No. 5539 Date: 04/30/2017

Revision/	Description/Description	Date/Date
0	ISSUED FOR TENDER	Sept 12, 16

Client/client  
**Public Works and Government Services Canada**  
 100 - 167 Lombard Avenue  
 Winnipeg, Manitoba

Project title/Titre du projet  
**Lower Fort Garry (LFG)  
 National Historic Site, Manitoba**  
**HERITAGE BUILDING  
 RECAPITALIZATION**

Approved by/Approuvé par  
 HCC

Designed by/Concept par  
 BC

Drawn by/Dessiné par  
 RD  
 PWGSC Project Manager/Administrateur de Projets TPSCG  
 CHRISTINA KOVACS  
 PWGSC, Architectural and Engineering Resources Manager/  
 Ressources Architectural et de Directeur d'ingénierie, TPSCG

Client/client  
 PARKS CANADA

Drawing title/Titre du dessin

**BIG HOUSE-  
 LIGHTING CONTROL SCHEMATIC**

Project No./No. du projet  
 R.075212.001

Sheet/Fauille  
**E21**  
 OF 24

Revision no./La Révision no.  
**0**