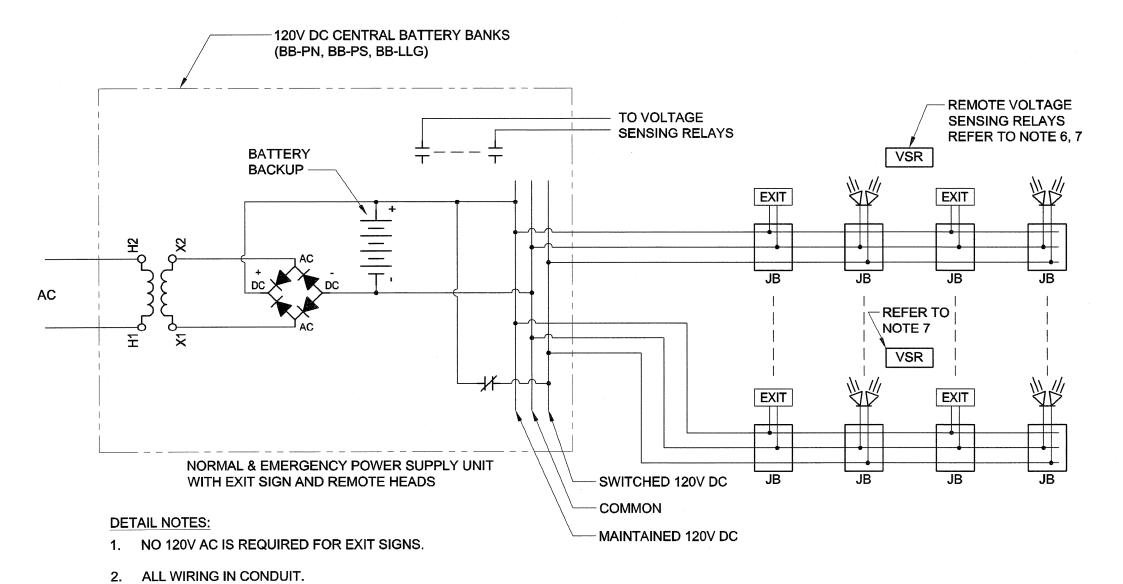
			EMERGENCY	LIGHTING S		
TYPE	DESIGNATION	MANUFACTURER	CATALOGUE NO.	VOLTAGE	REMARKS	
EXIT SIGNS SINGLE SIDED	EXIT	LUMACELL	LER450-120VDC	120V DC	SINGLE FACE, UNIVERSAL MOUNT, FACTORY WHITE, 120V DC POWER, CSA-C860-96 CERTIFIED LED EXIT SIGN	
	EXIT	LUMACELL	LER3500-WH-120VDC-4X	120V DC	SINGLE FACE, UNIVERSAL MOUNT, FACTORY WHITE, 120V DC POWER WITH NEMA 4X (WET LOCATION), CSA-C860-96 CERTIFIED LED EXIT SIGN	
EXIT SIGNS DOUBLE SIDED	EXIT	LUMACELL	LER460-120VDC	120V DC	DOUBLE FACE, UNIVERSAL MOUNT, FACTORY WHITE, 120V DC POWER, CSA-C860-96 CERTIFIED LED EXIT SIGN	
	EXIT	LUMACELL	LER3600-WH-120VDC-4X	120V DC	DOUBLE FACE, UNIVERSAL MOUNT, FACTORY WHITE, 120V DC POWER WITH NEMA 4X (WET LOCATION), CSA-C860-96 CERTIFIED LED EXIT SIGN	
EMERGENCY HEADS	XX XX: 20W 35W 50W	LUMACELL	DR2130-GU10-XX XX: 20W 35W 50W	120V DC	2 SPOTS, WHITE WITH GU10, 120V DC LAMP, WATTAGE AS INDICATED	
	XX WP XX: 20W 35W 50W	LUMACELL	RS20 WP-GU10-XX XX: 20W 35W 50W	120V DC	2 SPOTS, WATERPROOF, WHITE WITH GU10, 120V DC LAMP, WATTAGE AS INDICATED	
BATTERY UNITS	BB-PN (POOL NORTH)	LUMACELL	LS600VAC-SL11260-50E-C- 120VDC-30-ZSC07-GL-FC- RAP-SPF-BRO-BMEC-TD-DPF24	600V AC INPUT 120V DC OUTPUT	120V DC BATTERY BANK, RATED 11260W WITH 600V AC INPUT AND 120V DC OUTPUT, SEALED MAINTENANCE FREE LEAD CALCIUM, TIME DELAY, REMOTE VOLTAGE SENSING RELAYS	
	BB-PS (POOL SOUTH)	LUMACELL	LS600VAC-SL6400-50E-C- 120VDC-30-ZSC07-GL-FC- RAP-SPF-BRO-BMEC-DPF24	600V AC INPUT 120V DC OUTPUT	120V DC BATTERY BANK, RATED 6400W WITH 600V AC INPUT AND 120V DC OUTPUT, SEALED MAINTENANCE FREE LEAD CALCIUM REMOTE VOLTAGE SENSING RELAYS	
	BB-LLG (LIBRARY, LOBBY, GYM)	LUMACELL	LS600VAC-SL6400-50E-C- 120VDC-30-ZSC20-GL-FC- RAP-SPF-BRO-BMEC-DPF24	600V AC INPUT 120V DC OUTPUT	120V DC BATTERY BANK, RATED 6400W WITH 600V AC INPUT AND 120V DC OUTPUT, SEALED MAINTENANCE FREE LEAD CALCIUM INTEGRAL VOLTAGE SENSING RELAYS	
REMOTE VOLTAGE SENSING RELAY	VSR-LP1	LUMACELL	VSR8-120-EXT			
	VSR-LP2/B	LUMACELL	VSR15-120-EXT	120V AC		
	VSR-LP3	LUMACELL	VSR8-120-EXT	POWER 120V AC		
	VSR-LP4	LUMACELL	VSR12-120-EXT	SENSING		
	VSR-LP6	LUMACELL	VSR8-120-EXT			
	VSR-MCC200	LUMACELL	VSR4-600-EXT	120V AC POWER 600V AC SENSING (CONFIRM)	CONFIRM VOLTAGE OF POOL LIGHTING AND ADJUST VSR VOLTAGE ACCORDINGLY. (UNCLEAR WHETHER 347V OR 600V)	
VOLTAGE SENSING RELAY	VSR-LLG	LUMACELL			INTEGRAL TO BATTERY BANK BB-LLG	

1. ALL EXIT SIGNS ARE TO BE POWER SMART APPROVED.



3. MULTIPLE CIRCUITS ARE REQUIRED. (VOLTAGE DROP & LOADING DEPENDANT)

4. SUBMIT CABLE ROUTE AND ASSOCIATED VOLTAGE DROP CALCULATION

5. MULTIPLE VOLTAGE SENSING RELAYS ARE REQUIRED SO THAT FAILURE OF

ONE NORMAL LIGHTING CIRCUIT WILL ILLUMINATE EMERGENCY LIGHTING.

6. REFER TO EMERGENCY LIGHTING VOLTAGE SENSING RELAY SCHEDULE FOR

REQUIRED. GENERALLY, VOLTAGE SENSING RELAYS WILL BE INSTALLED

CIRCUITS REQUIRED TO CONNECT TO VOLTAGE SENSING RELAYS.

7. MANUFACTURER TO ADVISE MUNBER OF VOLTAGE SENSING RELAYS

ADJACENT TO PANEL CONTAINING CIRCUITS THEY SERVE.

CONFIRMING LESS THAN 5% DROP TO FURTHEST DEVICE.

DETAIL SCALE: N.T.S. 120V DC

EMERGENCY LIGHTING SYSTEM

VSR-LP1 MALE&FEMALE STAFF LOCKERS VSR-LP1 NORTH MEN'S & WOMEN'S SHOWER LP1-9 * VSR-LP1 BACK HALLWAY MCC200 POOL VSR-MCC200 LP2-33 VSR-LP2/B LP2-37 VSR-LP2/B GYM'S WASHROOM SECOND FLOOR NORTH MECHANICAL ROOM VSR-LP6 SPECTATOR VIEWING ABOVE RAMP UP VSR-LP2/B EXISTING BUILDING, BATTERY BANK BB-PS CIRCUIT | 120V | 600V | AREA LIGHTING CIRCUIT SERVES SOUTH WEST MEN'S & WOMEN'S LOCKER VSR-LP3 CARPET BOWLING VSR-LP3 VSR-LP2/B **CORRIDOR & SAUNA** LP2-7 VSR-LP2/B MEN'S LOCKER ROOM LP2-11 WOMEN'S LOCKER ROOM VSR-LP2/B LP2-2 VSR-LP2/B **SOUTH STAIRWAY FAMILY CHANGE ROOM** VSR-LP2/B

2ND FLOOR VOID SPACE ABOVE MEN'S LOCKER ROOM

EXISTING BUILDING, BATTERY BANK BB-PN

BASEMENT NORTH MECHANICAL ROOM

BASEMENT POOL MECH ROOM **BASEMENT MECH & ELEC ROOM**

MAINTENANCE EQUIPMENT

CIRCUIT | 120V | 600V | AREA LIGHTING CIRCUIT SERVES

BASEMENT TRACK

NORTH STAIRWAY

FRONT ENTRANCE

SOUTH MECHANICAL ROOM

LP4-13

LP4-23

LP4-27

LP2-25h

LP2-39

LP2-41 *

CONNECT TO SPACE IN PANEL.

DETAIL

VSR-LP4

VSR-LP4

VSR-LP4

VSR-LP4

VSR-LP4

VSR-LP2/B

VSR-LP2/B

VSR-LP2/B

TYPICAL REMOTE VSR CONNECTION

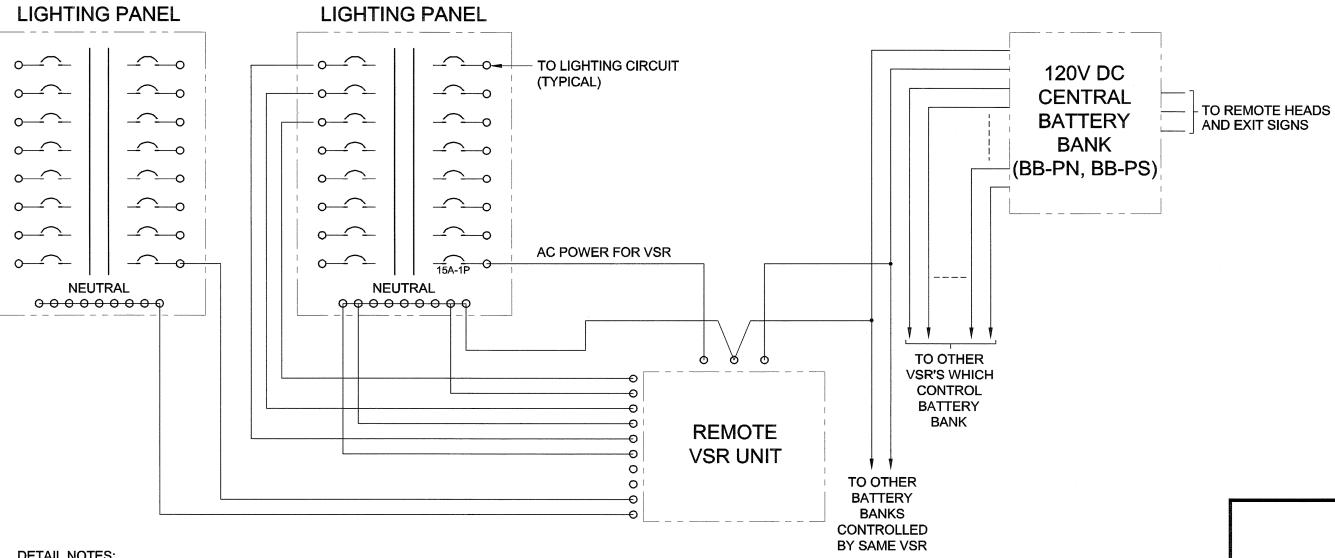
SCALE: N.T.S.

			NEW BUILDING, BATTERY BANK BB-LLG	
CIRCUIT	120V	600V	AREA LIGHTING CIRCUIT SERVES	VSR
CH01	*		CRAWL SPACE	VSR-LLG
CH03	*		CRAWL SPACE	VSR-LLG
	*			
CC14	*		STAFF & WASHROOM	VSR-LLG
CC06	*		LIBRARY	VSR-LLG
CA07	*		LOBBY	VSR-LLG
CA15	*		LOBBY PUBLIC WC	VSR-LLG
CA09	*		VESTIBULE	VSR-LLG
CF01	*		TRACK	VSR-LLG
CF02	*		TRACK PUBLIC WC	VSR-LLG
CF01	*		ROOF MECH PENTHOUSE	VSR-LLG
CJ03	*		SERVICE SPACE ABOVE ROOF	VSR-LLG

VSR SCHEDULE NOTES:

- 1. EMERGENCY LIGHTING IS TO ILLUMINATE WHEN CIRCUIT SUPPLYING LIGHTING IN AREA WHERE EMERGENCY LIGHTING IS INSTALLED FAILS. WHERE 24 HOUR/NIGHT LIGHTING IS INSTALLED, PREFERENCE IS GIVEN FOR
- 2. LIGHTING CIRCUITS SHOWN FOR EXISTING AREAS ARE BASED ON 1977 AS-BUILT DRAWINGS AND MAY NOT BE CORRECT. INVESTIGATE TO CONFIRM CORRECT CIRCUITS. 1977 AS-BUILT DRAWING CAN BE PROVIDED.
- 3. ALLOW FOR CONNECTING AN ADDITIONAL 5 CIRCUITS TO EACH BATTERY BANK VOLTAGE SENSING RALAYS (5 IN TOTAL NEW BATTERY BANK).
- 4. REVIEW LOCATION FOR VOLTAGE SENSING RELAYS WITH ENGINEER BEFORE PROCEDING WITH INSTALLATION. INSTALL VOLTAGE SENSING RELAYS IN ELECTRICAL SERVICE ROOMS.

EMERGENCY LIGHTING VOLTAGE SENSING RELAY SCHEDULE



UMA | AECOM PROVIDE 120V CIRCUIT TO POWER EACH REMOTE VOLTAGE SENSING RELAY (VSR) PANEL. © 2007 UMA ENGINEERING LTD. ALL RIGHTS RESERVED.

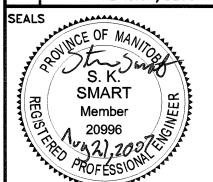
> Certificate of Authorization UMA Engineering Ltd. (MB)

DRN CHK DES ENG IDR

UMA AECOM REVIEW

No. 256 Date: Avy 21, 280

QL 07/08/21 0 ISSUED FOR ADDENDUM #2 REVISION/DESCRIPTION DATE



QL CHECKED BY APPROVED 2007.02.21 USER APPROVAL



CITY OF WINNIPEG PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT CIVIC ACCOMMODATIONS DIVISION 300 - 65 GARRY ST. R3C 4K4

Construction of Cindy Klassen Recreation Complex Facility **Enhancement Project**

999 Sargent St. Winnipeg, Manitoba SHEET TITLE

Emergency Lighting Schedule and Voltage Sensing Relay Connection Detail

PROJECT NO. SHEET NO.

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1