

PANEL ID: PNL-M22U (WAS PNL-E)		AMPS: 225	VOLTS: 120/240V	PHASE: 1 P	WIRE: 3	SURF. MOUNT <input type="checkbox"/>	TOP FED <input type="checkbox"/>						
DESCRIPTION: 120/240V UPS PANELBOARD		LOCATION: CONTROL ROOM											
MFG / MODEL: SQUARE D NQOB		INTERRUPTING RATING: 10 KA											
MAIN BREAKER: NONE		INST. SETTINGS: N/A											
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	L1	L2	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.
1	STN. PLC DI/DO		15					15				PP#6 DI/DO	2
3	MCP EQUIPMENT		15					15				PP#6 EQUIPMENT	4
5	MCP UTILITY		15					15				PP#6 UTILITY	6
7	WORK STN. & PRINTER		15					15				CHLORINATOR #1	8
9	PP#1 DI/DO		15					15				CHLORINATOR #2	10
11	PP#1 EQUIPMENT		15					15				CL2 SCALE + SHUTOFF CHLORINE VALVE	12
13	PP#1 UTILITY + BATT. CHARGER		15					15				RESID ANALYZER PC-820-AIT	14
15	PP#2 UTILITY		15					15				RESID ANALYZER PC-821-AIT	16
17	PP#2 DI/DO		15					15				SOUTH FLOW PD-050-FT2	18
19	PP#2 EQUIPMENT		15					15				NORTH FLOW PD-050-FT1	20
21	PP#4 DI/DO		15					15	12			SUB-M1, MCC-M710, M720, M730E PWR METER	22
23	PP#4 EQUIPMENT		15					15				SPARE	24
25	PP#4 UTILITY		15					15				GEN ROOM CCT#1	26
27	PP#5 UTILITY + BATT CHARGER		15					15				GEN ROOM CCT#2	28
29	PP#5 DI/DO		15					15				GEN ROOM CCT#3	30
31	PP#5 EQUIPMENT		15					15				BALLER UNDERVOLTAGE RELAY	32
33	GAS ENGINE #3 EQUIPMENT		15					15				GAS ENGINE #3 DI/DO	34
35	GAS ENGINE #3 LUBE PUMP		15					15	12			CO, LEL, LEAK DETECTION	36
37	CL2 DETECTOR		15					15	12			FIRE ALARM PANEL FACP-M922	38
39	HALOGEN CL2 SHUTOFF VALVE SYS		15									SPACE	40
41	NEW RACK PLUG		20									SPACE	42
TOTAL CONNECTED LOAD:		000.0 KVA	LINE 1:	0 KVA	0 A			NOTE LEGEND:					
		000.0 A (AVG)	LINE 2:	0 KVA	0 A			AFCI ARC FAULT CIRCUIT INTERRUPTOR					
		000.0 A (MAX)					GFCI GROUND FAULT CIRCUIT INTERRUPTOR						
								LOCK LOCKED BREAKER					

- NOTES:
- PANEL SCHEDULE IS BASED ON EXISTING DOCUMENTATION.
 - EXISTING LOADS HAVE NOT BEEN CALCULATED.

CONSTRUCTION NOTES:

- PANELBOARD PNL-M22U IS AN EXISTING PANEL (WAS PNL-E).
- PROVIDE A 15A 1P BREAKER AND POWER CABLING TO THE NEW ION9000 POWER METER IN THE 4160V MAIN SWITCHGEAR, AND THE NEW PM8000 POWER METERS IN MCC-M710, MCC-M720 AND MCC-M730E.
- PROVIDE A 15A 1P BREAKER AND POWER CABLING TO FEED THE NEW CO DETECTION LEL (METHANE) DETECTION SYSTEM AND REFRIGERANT LEAK DETECTION IN THE MAIN PUMPING STATION.
- PROVIDE A 15A 1P BREAKER AND POWER CABLING TO FEED NEW FIRE ALARM PANEL FACP-M922. FIRE ALARM BREAKER TO BE RED AND LOCK-ON.

GENERAL NOTES:

- INSTALLATION MUST COMPLY WITH THE CANADIAN ELECTRICAL CODE, THE NATIONAL BUILDING CODE OF CANADA, AND CITY OF WINNIPEG ELECTRICAL BYLAW.
- PROVIDE ALL NECESSARY MOUNTING ACCESSORIES FOR INSTALLATION OF NEW RUNNING MAN EXIT SIGNS.
- EXIT SIGNS ARE TO BE INSTALLED IN ACCORDANCE WITH THE SIGN ORIENTATIONS SHOWN ON THE DRAWING TO INDICATE THE REQUIRED EGRESS PATH IN ACCORDANCE WITH BUILDING AND LOCAL AUTHORITY REQUIREMENTS

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	MODEL	QTY	LAMP TYPE	VOLTS (VAC)	LOAD (WATTS)	MOUNTING	NOTE
A	PHILIPS	V3W443L840-UNV-LFA	6	LED	120	29	CS	1
B	PHILIPS	V3W443L840-UNV-LFA	10	LED	120	29	W, AN	1,2
C	PHILIPS	RBX20L840-UNV-ST-A22R	12	LED	120	158	SH	
D	PHILIPS	RBX10L840-UNV-ST-ARR16S	18	LED	120	87	SH	
E	PHILIPS	V3W435L840-UNV-LFA	22	LED	120	23	SH	
F	LUMARK	WPL6B	5	LED	120	46	W	
G	PHILIPS	1TG42L840-4-FS-12F-UNV	23	LED	120	44	R/TB	
H	PHILIPS	V3W435L840-UNV-LFA	13	LED	120	23	CS	
J	PHILIPS	V3W451L840-UNV-LFA	3	LED	120	35	SH	
X		EXISTING LIGHTING						

MOUNTING LEGEND: CH CHAIN HUNG W WALL
 CS CEILING SURFACE R/TB RECESSED/T-BAR
 SH STEM HUNG AN AS NOTED ON DRAWINGS

- NOTES:
- USE 10 AWG RW90 IN 16mm CONDUIT.
 - LUMINAIRE TO BE MOUNTED ON WALL AND ANGLED AT 45 DEGREES DOWNWARD.

EMERGENCY LIGHTING SCHEDULE

ID	MANUFACTURER	MODEL	INPUT		SOURCE PANEL	OUTPUT VOLTS	INTERNAL LAMPS		REMOTE FIXTURES		EXIT SIGNS		TOTAL LOAD (W)	DESIGN TIME	NOTE
			VOLTS	VA			QTY	TYPE	QTY	TOTAL REMOTE LOAD (W)	QTY	TYPE			
ELB-M701	READY-LITE	LXD12-1002LD7	120	40	M732E-8	12	2	LED, 4W	5	40	3	LED, 1.5W	53	>1.0 HRS	1,2
ELB-M702	READY-LITE	LXD12-1002LD7	120	40	M731E-10	12	2	LED, 4W	3	24	3	LED, 1.5W	37	>1.5 HRS	1,2
ELB-M703	READY-LITE	LXD12-1002LD7	120	40	M731E-12	12	2	LED, 4W	6	48	5	LED, 1.5W	64	>0.5 HRS	1,2
ELB-G701	READY-LITE	LXD12-1002LD7	120	40	-	12	2	LED, 4W	0	0	1	LED, 1.5W	10	>4.0 HRS	1,2,4
ELB-C701	READY-LITE	LXD12-1002LD7	120	40	C731E-6	12	2	LED, 4W	6	48	5	LED, 1.5W	64	~1.0 HRS	1,2,3

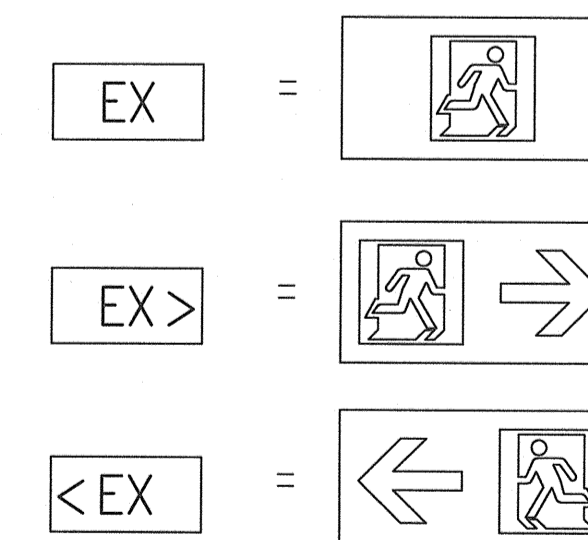
- NOTES:
- BATTERY RATED FOR 30 MIN. @ 100W.
 - REMOTE FIXTURE: READY-LITE PART NO. RL150D-LD7
 - CHLORINE BUILDING EQUIPMENT AND TANK ROOM ARE NEMA-4X. REMOTE FIXTURES WILL BE READY-LITE PART NO. NMMP2-LD7
 - UTILIZE EXISTING LIGHTING CIRCUIT IN GENERATOR ROOM. CONTRACTOR TO DETERMINE EXISTING LIGHTING CIRCUIT.

EXIT SIGN SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	LOAD	NOTE
E1	RA SERIES, EXTRUDED ALUMINUM EXIT SIGN, SINGLE-FACED	READY-LITE	RA1WU	<2.5W (AC) <1.5W (DC)	
E2	RA SERIES, EXTRUDED ALUMINUM EXIT SIGN, DOUBLE-FACED	READY-LITE	RA2WU	<2.5W (AC) <1.5W (DC)	
E3	RN SERIES, NEMA 4X RATED, SINGLE-FACED	READY-LITE	RN1WU	<2.5W (AC) <1.5W (DC)	

NOTES:

LEGEND:



'EX' DENOTES NUMBER #E1-E3 ON EXIT SIGN SCHEDULE

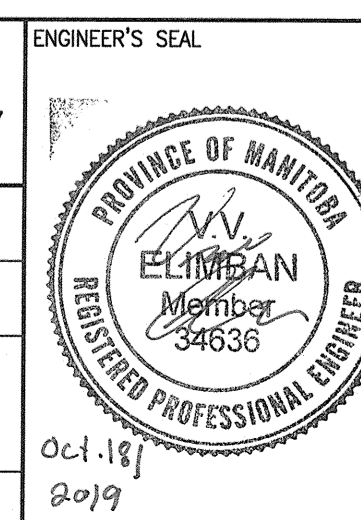
1-0640M-E0050	ELECTRICAL LIGHTING PLAN, PUMPHOUSE MEZZANINE LEVEL
1-0640M-E0049	ELECTRICAL LIGHTING PLAN, PUMPHOUSE LOWER LEVEL
1-0640M-E0036	ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE, MCC-M730E
1-0640M-E0011	SINGLE LINE DIAGRAM & LAYOUT, REMOVALS & INSTALLATIONS
1-0640M-E0040	ELECTRICAL EQUIPMENT PLAN, MEZZANINE LEVEL
1-0640C-E0008	ELECTRICAL LIGHTING PLAN, CHLORINE BUILDING GROUND LEVEL AND TUNNELS
1-0640B-E0008	ELECTRICAL EQUIPMENT PLAN, GENERATOR ROOM AND LOAD BANK LDB-C767

DRAWING NUMBER REFERENCE DRAWINGS



00	ISSUED FOR TENDER AND CONSTRUCTION	2019/10/18	VE	KS
NO.	REVISIONS	DATE	DESIGN	CHECK

		SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	
DESIGNED BY:	V. ELIMBAN	CHECKED BY:	K. SAPIAK
DRAWN BY:	J. GRACASIN	APPROVED BY:	D. BECKER
SCALE:	NTS	ISSUED FOR CONSTRUCTION BY:	A. WEISS
DATE:	2019/03/28	DATE:	2019/10/18
CONSULTANT NO.:			



		THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
MCPHILLIPS PUMPING STATION ELECTRICAL AND HVAC UPGRADES, MCC REPLACEMENT PANELBOARD & LUMINAIRE SCHEDULE			
CITY DRAWING NUMBER	1-0640M-E0042	SHEET	002
REV.	00	SIZE	A1