



ELECTRICAL CONSULTANT



PERMIT

PERMIT TO PRACTICE
ACUITY ENGINEERING & CONSULTING SERVICES LTD.
PERMIT NUMBER: P09250
The Association of Professional Engineers and Geoscientists of Alberta

STAMP



2018/12/05

DO NOT SCALE DRAWINGS

Revision/Revision	Description/Description	Date/Date
6	ISSUED FOR TENDER	2018/12/05
5	ISSUED FOR 99% REVIEW	2018/11/16
4	ISSUED FOR TENDER	2016/01/05
3	ISSUED FOR 100% REVIEW	2015/11/13
2	ISSUED FOR 99% REVIEW	2015/06/26
1	ISSUED FOR REVIEW	2015/06/12

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

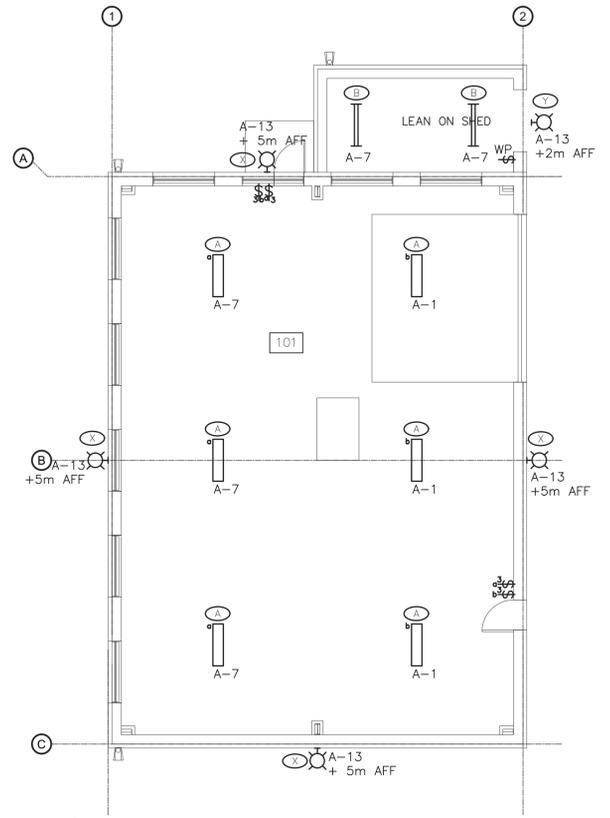
**PÈ SÀKÀSTÈW CENTRE
MASKWACIS, ALBERTA
VOCATIONAL FACILITY DESIGN**

Approved by/Approve par
YY
Designed by/Concept par
CL
Drawn by/Dessiné par
LB
PWSC Project Manager/Administrateur de Projets TPSGC
STEVE PYPERS
PWSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC
Client/client
PWSC

**ELECTRICAL-
MAIN FLOOR LIGHTING AND POWER
LAYOUTS**

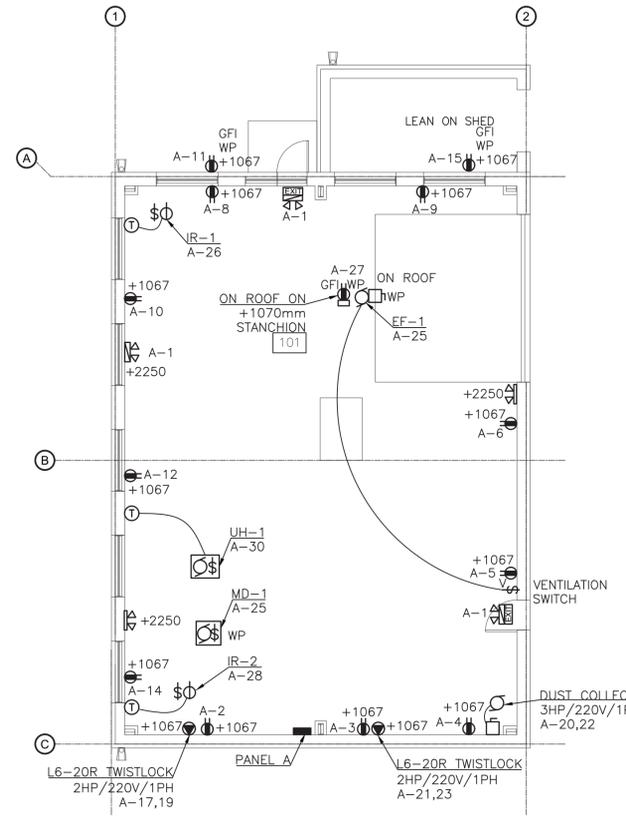
Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.072604.001 3824	E-1.0	5

LEGEND	
LIGHT FIXTURES	
WALL MOUNT LIGHT FIXTURE	---
4' LIGHT STRIP FIXTURE	---
PENDANT LIGHT FIXTURE	---
FIXTURE TYPE DESIGNATION	(A)
RECEPTACLES/OUTLETS	
T-SLOT (5-20R) RECEPTACLE	---
QUAD T-SLOT (5-20R) RECEPTACLE	---
RECEPTACLE-DUPLEX	---
QUAD RECEPTACLE	---
SPECIAL RECEPTACLE	---
DIRECT CONNECTION	---
DESIGNATION FOR RECEPTACLE:	
WP	--- C/W "WHILE IN USE EXTRA DUTY WEATHER PROOFED COVER PLATE"
SWITCHES	
SINGLE POLE SWITCH	---
DESIGNATION FOR SWITCH:	
3 OR 4	--- 3 OR 4-WAY SWITCH
D	--- DIM SWITCH
V	--- VARIABLE SPEED CONTROL SWITCH
MOTORS, ETC.	
LOCAL DISCONNECT	---
MOTORIZED EQUIPMENT	---
MOTORIZED EQUIPMENT WITH SWITCH	---
MOTORIZED EQUIPMENT WITH LOCAL DISCONNECT SWITCH	---
NON MOTORIZED EQUIPMENT	---
EMERGENCY	
DOUBLE EMERGENCY LIGHT-REMOTE HEAD	---
EMERGENCY LIGHT, BATTERY PACK (C/W 2 HEADS)	---
EXIT LIGHTS	---
EXIT & EMERGENCY LIGHT, BATTERY PACK COMBO	---
DOUBLE SIDED EXIT LIGHTS	---
MISCELLANEOUS	
THERMOSTAT/TEMPERATURE SENSOR	---
DESIGNATION FOR RECEPTACLE/OUTLET:	
WP	--- WEATHERPROOF "WHILE IN USE"
GFI	--- GROUND FAULT INTERRUPT
+1067	--- 1067MM AFF
AFG	--- ABOVE FINISHED GRADE



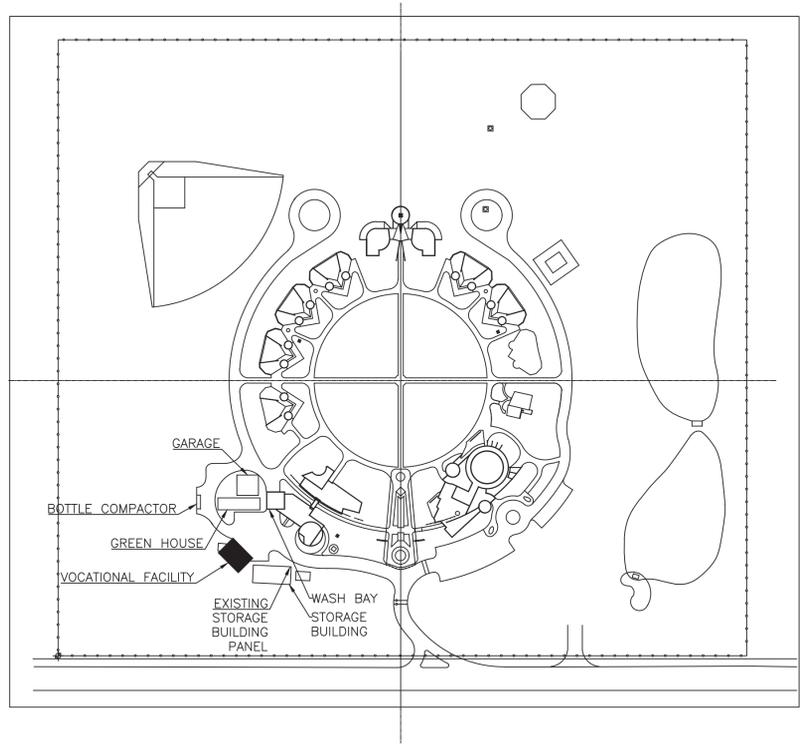
MAIN FLOOR LIGHTING LAYOUT
SCALE = 1 : 100

CONSTRUCTION NORTH



MAIN FLOOR POWER LAYOUT
SCALE = 1 : 100

CONSTRUCTION NORTH



KEY PLAN
SCALE = 1 : 2000
TRUE NORTH



ELECTRICAL CONSULTANT



PERMIT

PERMIT TO PRACTICE
ACUITY ENGINEERING & CONSULTING SERVICES LTD.
PERMIT NUMBER: P09250
The Association of Professional Engineers and Geoscientists of Alberta

STAMP



2018/12/05

DO NOT SCALE DRAWINGS

Revision/	Description/Description	Date/Date
6	ISSUED FOR TENDER	2018/12/05
5	ISSUED FOR 99% REVIEW	2018/11/16
4	ISSUED FOR TENDER	2016/01/05
3	ISSUED FOR 100% REVIEW	2015/11/13
2	ISSUED FOR 99% REVIEW	2015/06/26
1	ISSUED FOR REVIEW	2015/06/12

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

PÊ SÂKÂSTÊW CENTRE
MASKWACIS, ALBERTA
VOCATIONAL FACILITY DESIGN

Approved by/Approve par
YY
Designed by/Concept par
CL
Drawn by/Dessiné par
LB
PWSC Project Manager/Administrateur de Projets TPSGC
STEVE PHYPERS
PWSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC
Client/client
PWSC
Drawing title/Titre du dessin

ELECTRICAL-
SCHEDULES

Project No./No. du projet R.072604.001 3824	Sheet/Fuille E-2.0	Revision no./ La Révision no. 5
---	------------------------------	--

PANEL A		120/208 VOLT,			3 PH,		4 W,		225 AMP	
DESCRIPTION	FEED	LOAD	BKR	BUS			BKR	LOAD	FEED	DESCRIPTION
				A	B	C				
INTERIOR LIT/EXIT/EM LIT	#12		15A	1			2	20A	#12	SHOP REC.
SHOP REC.	#12		20A	3			4	20A	#12	SHOP REC.
SHOP REC.	#12		20A	5			6	20A	#12	SHOP REC.
INTERIOR LIT	#12		15A	7			8	20A	#12	SHOP REC.
SHOP REC.	#12		20A	9			10	20A	#12	SHOP REC.
SHOP REC.	#12		20A	11			12	20A	#12	SHOP REC.
EXTERIOR LIGHTS	#12		15A	13			14	20A	#12	SHOP REC.
SHED REC.	#12		20A	15			16			
* SHOP SPECIAL REC.	#10		20A	17			18			
	#10		2P	19			20			
* SHOP SPECIAL REC.	#10		20A	21			22	45A	#10	DUST COLLECTOR
	#10		2P	23			24	2P	#10	
EF-1	#12		20A	25			26	15A	#12	IR-1
ROOF REC.	#12		20A	27			28	15A	#12	IR-2
				29			30	15A	#12	UH-1
				31			32			
				33			34			
				35			36			
SPARE			15A	37			38	15A		SPARE
SPARE			15A	39			40	15A		SPARE
SPARE			15A	41			42	15A		SPARE

* -E/C TO CONSULT W/ OWNER PRIOR TO ROUGH-IN FOR SPECIAL RECEPTACLE REQUIREMENTS AND PROVIDE CIRCUIT BREAKER AND WIRE ACCORDINGLY AND AS PER CEC.
NOTES:
1. BUILDING LIGHTING CIRCUIT AND EXIT/EMERGENCY LIGHTS CIRCUIT TO BE ON THE SAME PHASE.

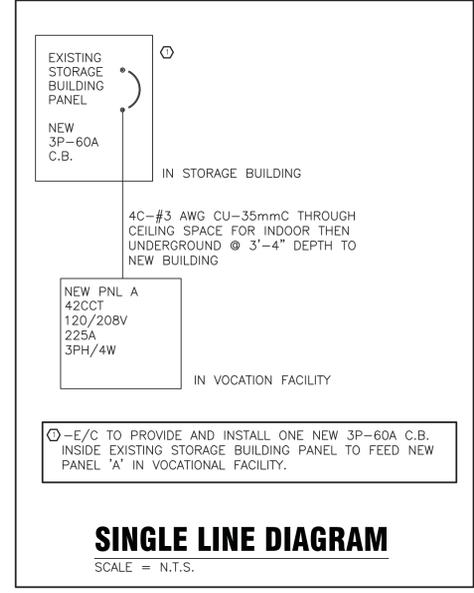
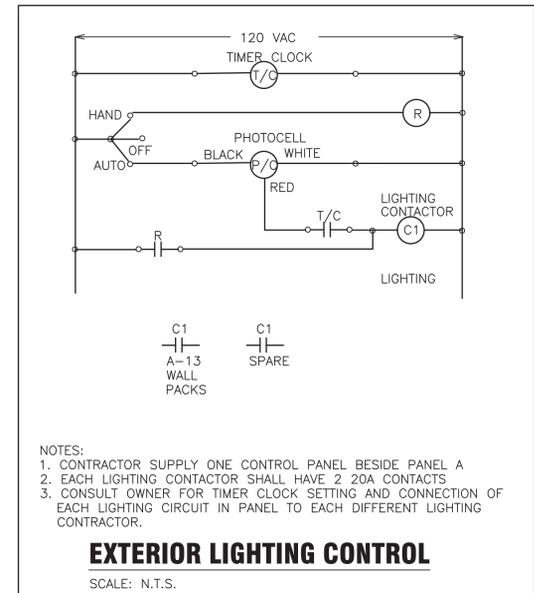
LIGHTING FIXTURE SCHEDULE					
TYPE	DESCRIPTION	MOUNTING	LAMPS	VOLTS	REMARKS
ⓐ	PHILIPS FBX-20L-L-40-UNV-LCP; WG-FBX-2W	PENDENT	142W LED	120	C/W WIREGUARD
ⓑ	PHILIPS FSS-4-40L-840-UNV-DIM; FSSWG-4	SURFACE	31W LED	120	C/W WIREGUARD
ⓒ	PHILIPS LYTEPRO LPW32-78BZ	WALL	71W LED	120	-
ⓓ	PHILIPS LYTEPRO LPW16-78BZ	WALL	36W LED	120	-

REFER TO 'EMERGENCY LIGHTING EQUIPMENT SCHEDULE' FOR EXITS AND EMERGENCY LIGHTS SPECIFICATIONS.

NOTE:
LIGHTING FIXTURES SPECIFIED ARE TO BE USED FOR SETTING THE STANDARD. ONLY EQUAL OR BETTER ONES WILL BE ACCEPTED AS EQUIVALENT.

EMERGENCY LIGHTING EQUIPMENT SCHEDULE	
1.	UNLESS OTHERWISE NOTED, EMERGENCY BATTERY PACKS SHALL BE 'EMERGI-LITE' JMLC SERIES 72W CAPACITY C/W TWO LIGHT HEADS WITH 5 WATT LED LAMPS.
2.	ELECTRICAL CONTRACTOR SHALL SIZE BATTERY PACKS WITH MINIMUM 25% SPARE CAPACITY.
3.	UNLESS OTHERWISE NOTED, EMERGENCY LIGHT REMOTE HEADS SHALL BE 'EMERGI-LITE', EF9M SERIES C/W 5 WATT LED LAMPS. SEE DRAWING FOR EXACT NUMBER OF HEADS ON EACH UNIT.
4.	UNLESS OTHERWISE NOTED, EXIT SIGNS SHALL BE 'EMERGI-LITE' ES SERIES SELF POWERED, UNIVERSAL FACE, UNIVERSAL MOUNTING AND C/W LED LAMPS.
5.	UNLESS OTHERWISE NOTED, EMERGENCY EXIT/EMERGENCY BATTERY PACK COMBO SHALL BE 'EMERGI-LITE' ESC SERIES 50W CAPACITY, UNIVERSAL MOUNTING, UNIVERSAL FACE, AND C/W LED LAMPS AND TWO LIGHT HEADS WITH 5W LED LAMP.
6.	LOW VOLTAGE TO BE 12V.

NOTES:
1. THE ELECTRICAL CONTRACTOR SHALL SIZE WIRES WITH MAXIMUM 3% VOLTAGE DROP.
2. ALL EMERGENCY LIGHTS AND EXIT SIGNS HAVE TO HAVE BATTERY SIZED FOR MINIMUM 60 MINUTES LOAD TEST.
3. APPROVED EQUIVALENT PRODUCTS SHALL BE 'LUMACELL', 'READY-LITE', AND EMERGI-LITE'.



EQUIPMENT MOTOR SCHEDULE									
MOTOR									
SYMBOL	DESCRIPTION	H.P. or WATTS	VOLTAGE	PHASE	F.L.A.	BREAKER/FUSE	FEEDER SIZE	CONTROL MEANS	
EF-1	ROOF EXHAUST FAN	1/2HP	120	1	9.8	20A	#12	MS	C/W VARIABLE SPEED SWITCH; INTERLOCK W/ MD-1
IR-1,2	INFRARED HEATER		120	1		15A	#12	LS	
MD-1	MOTORIZED DAMPER	FHP	120	1	-	15A	#12	RS	INTERLOCK W/ EF-1
UH-1	UNIT HEATER	FHP	120	1	-	15A	#12	LS	CONTROLLED BY T'STAT

LS - ILLUMINATED LOAD SWITCH
DS - LOCAL DISCONNECT SWITCH
MS - MAGNETIC STARTER C/W HOA SWITCH AND ON/OFF DISCONNECT (EXTERNAL OR COMBINED DEPENDING ON LOCATION) SWITCH AND ILLUMINATED LIGHTS
RS - RELAY CONTACT AND ILLUMINATED LOAD SWITCH

GENERAL NOTES FOR MECH. EQUIP. CONNECTION:
MOTOR DISCONNECT SWITCHES AND STARTERS (INCLUDING MAGNETIC STARTERS FOR INTERLOCKING AND 3 PHASE) SHALL BE BY E/C UNLESS OTHERWISE SPECIFIED.
E/C SHALL PROVIDE LOCKABLE ELECTRIC DISCONNECTS FOR UNITS OVER 1/3HP FOR SERVICING RIGHT AT THE UNIT. MOTORS UNDER 5HP JUST RUNS OFF CONTACTORS.
ANY OTHER MOTORS WHICH NEED TO BE CONTROLLED MUST HAVE MAGNETIC STARTER C/W HOA SWITCH BY E/C.
E/C SHALL WIRE IN LINE VOLTAGE THERMOSTATS, ELECTRIC HEATERS, AND CONTROL TRANSFORMERS PROVIDED BY M/C.
M/C SHALL COMPLETE HIS OWN CONTROLS WIRING WHICH HE/SHE MAY SEPARATELY CONTRACT THE E/C TO DO FOR HIM/HER.
E/C SHALL PARTICULARLY WIRE UP OVERRIDE TIMERS AND INTERLOCKS WITH HIS/HER OWN CONDUIT AND RELAYS.
E/C SHALL PROVIDE MAGNETIC MOTOR STARTERS C/W HOA SWITCH ON UNITS OVER 1/3HP WHICH REQUIRE REMOTE CONTROL SWITCHING. EG. FOR FANS, ETC.
ALL WIRING 24 VOLTS AND ABOVE, THERMOSTAT, RELAYS, AND INTERLOCK WIRING SHALL BE THE RESPONSIBILITY OF THE E/C UNLESS SPECIFIED OTHERWISE. CONFIRM VOLTAGES ON SITE BEFORE ORDERING EQUIPMENT.
ALL MOTORS BELOW 1/3HP SHOULD BE C/W LOAD SWITCH.