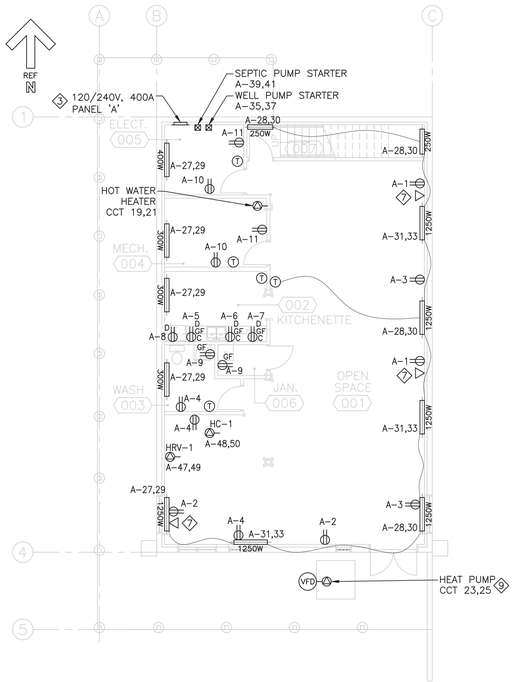
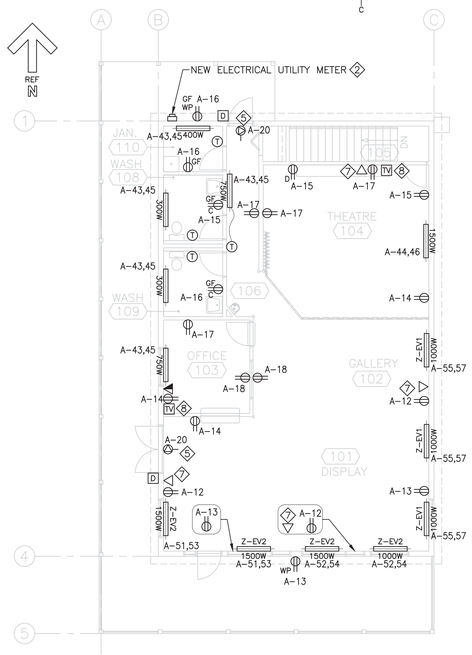


FLOOR PLAN (BASEMENT) ◇4 ◇6

SCALE : 1:100

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m



FLOOR PLAN (LEVEL 1) ◇4 ◇6

SCALE : 1:100

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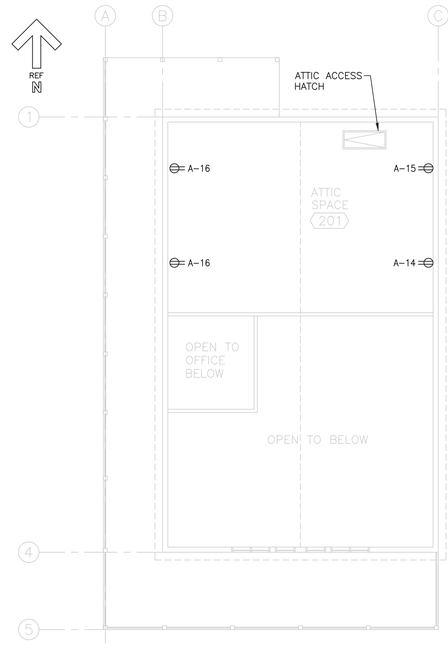


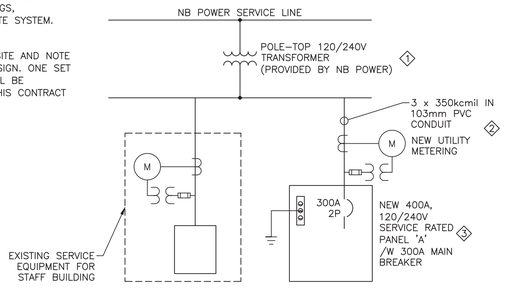
FLOOR PLAN (LEVEL 2) ◇4

SCALE : 1:100

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

ELECTRICAL GENERAL NOTES

1. GENERAL CONDITIONS
   a. PROVIDE ALL LABOUR, EQUIPMENT, MATERIALS & TOOLS NECESSARY TO COMPLETE ALL SYSTEMS SHOWN ON THE DRAWINGS, THUS RENDERING A COMPLETE INSTALLATION.
   b. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN OR INDICATED.
   c. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS ETC. IN THE FIELD.
2. CODES, PERMITS AND INSPECTION
   a. PAY FOR AND BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS AS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THIS WORK. INCLUDE THESE COSTS IN THE TENDER PRICE. SUBMIT FINAL INSPECTION REPORTS TO OWNER.
   b. INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE, ALONG WITH ANY APPROPRIATE PROVINCIAL SUPPLEMENT & ALL OTHER CODES AND LOCAL BYLAWS PERTINENT TO THIS CONTRACT.
3. DRAWING
   a. PREPARE AND PAY FOR ANY LARGE SCALE WORKING DRAWINGS WHICH MAY BE REQUIRED BY THE EXAMINING AUTHORITIES, INCLUDE THIS COST IN THE TENDER PRICE.
   b. AVOID SCALING FROM DRAWINGS. WHENEVER POSSIBLE EXACT DIMENSIONS SHALL BE VERIFIED ON SITE.
   c. ALL DIAGRAMS ILLUSTRATE INTENT ONLY. CONTRACTOR TO MAKE ALL NECESSARY ADJUSTMENTS TO SUIT SUPPLIED EQUIPMENT AND ACHIEVE REQUIRED FUNCTIONALITY.
   d. THIS ELECTRICAL DESIGN PACKAGE IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND DOCUMENTS. COORDINATION OF WORK IS ESSENTIAL. THIS CONTRACTOR SHALL ESTABLISH A DETAILED WORK PLAN WITH THE GENERAL CONTRACTOR.
   e. COORDINATE ELECTRICAL WORK REQUIREMENTS WITH ALL OTHER TRADES ON SITE TO AVOID CONFLICT. REPORT ANY CONFLICT TO DEPARTMENT REPRESENTATIVE. ALL ELECTRICAL AND CONTROL FEEDS PROVIDED FOR MECHANICAL EQUIPMENT SHALL BE COORDINATED WITH THE MECHANICAL CONTRACTOR. COORDINATE ROUTING AND FINAL INSTALLATION LOCATION(S) ON SITE WITH MECHANICAL TRADES. PROVIDE ALL NECESSARY EQUIPMENT, RACEWAYS, FITTINGS, FASTENERS AND DEVICE BOXES TO PROVIDE A COMPLETE SYSTEM.
4. RECORD DRAWINGS
   a. KEEP A SEPARATE, COMPLETE, SET OF DRAWINGS ON SITE AND NOTE ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL DESIGN. ONE SET OF THESE PLANS SHOWING AS-BUILT CONDITIONS SHALL BE FORWARDED TO THE OWNER AT THE COMPLETION OF THIS CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.
5. EXAMINATION OF SITE
   a. VISIT THE SITE OF THE PROJECT & BECOME FAMILIAR WITH EXISTING CONDITIONS.
   b. ANY DEVIATIONS AND/OR CONFLICTS ON SITE SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO SUBMITTING TENDER.
6. REVISION AND EXTRAS
   a. NO ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE OWNER. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.
7. ACCESSIBILITY
   a. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS.
8. RESPONSIBILITY
   a. MAINTAIN RESPONSIBILITY FOR THE WORK UNTIL COMPLETION AND FINAL ACCEPTANCE. REPLACE ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.
   b. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACTS OF OMISSION OF THE CONTRACTOR, SUBCONTRACTOR OR THEIR AGENTS OR EMPLOYEES OR ANY OTHER PERSON PERFORMING WORK.
   c. THE CONTRACTOR SHALL DESIGN AND PROVIDE ANY TEMPORARY SHORING, BRACING, ETC. AS NEEDED FOR THE WORK SO AS NOT TO ENDANGER THE STRUCTURAL INTEGRITY OF ANY EXISTING FEATURE.
9. SAFETY
   a. OBSERVE ALL APPLICABLE SAFETY REQUIREMENTS INCLUDING THE USE OF SAFETY GLASSES, HARD HATS AND PROTECTION OF AREA WHEN WORKING OVERHEAD. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CONTRACTOR SAFETY.



SINGLE-LINE DIAGRAM

NEW 60 CIRCUIT PANEL 'A' 120/240V

FED FROM NEW SERVICE — 2P 300A RATED MAIN CIRCUIT BREAKER

FEEDER SIZE	DESCRIPTION	BREAKER	LOAD (VA)	CCT. No.	PHASE	CCT. No.	LOAD (VA)	BREAKER	DESCRIPTION	FEEDER SIZE
#12	RECEP (RM. 001)	15	500	1	A	2	500	15	RECEP (RM. 001, 003)	#12
#12	RECEP (RM. 001)	15	500	3	B	4	750	15	RECEP (RM. 001, 003)	#12
#12	RECEP (RM. 002)	15	500	5	A	6	500	15	RECEP (RM. 002)	#12
#12	RECEP (RM. 002)	15	500	7	B	8	1000	15	RECEP (RM. 002)	#12
#12	RECEP (RM. 003, 006)	15	500	9	A	10	500	15	RECEP (RM. 004, 005)	#12
#12	RECEP (RM. 004, 005)	15	500	11	B	12	750	15	RECEP (RM. 101, 102)	#12
#12	RECEP (RM. 101, EXTERIOR)	15	750	13	A	14	1000	15	RECEP (RM. 102, 104, 201,103)	#12
#12	RECEP (RM. 104, 108, 201)	15	1000	15	B	16	1250	15	RECEP (RM. 109, 110, 201, EXTERIOR)	#12
#12	RECEP (RM. 103, 104, 106)	15	1000	17	A	18	500	15	RECEP (RM. 103, 102)	#12
#10	HOT WATER HEATER	30A 2P	2500	19	B	20	800	15	DOOR OPERATORS	#12
			2500	21	A	22	253	15	BASEMENT OPEN SPACE LIGHTING	#12
#6	HEAT PUMP (VFD)	60A 2P	5448	23	B	24	116	15	KITCHENETTE, JAN., WASHRM LIGHTING	#12
			5448	25	A	26	116	15	MECHANICAL 004, ELECTRICAL 005 LIGHTING	#12
#12	BASEBOARD HEAT (2550VA)	15A 2P	1275	27	B	28	1500	20A 2P	BASEBOARD HEAT (3000VA)	#12
			1275	29	A	30	1500			
#12	BASEBOARD HEAT (3750VA)	20A 2P	1875	31	B	32	234	15	OFFICE 103, WASHRM 108, 109 LIGHTING, EXIT SIGNAGE	#12
			1875	33	A	34	101	15	HALLWAY, JAN. 110 LIGHTING	#12
#8	WELL PUMP (5HP)	70A 2P	3360	35	B	36	108	15	THEATRE LIGHTING 104	#12
			3360	37	A	38	950	15	LOBBY LIGHTING	#12
#12	SEPTIC PUMP (3/4HP)	20A 2P	960	39	B	40	150	15	ATTIC SPACE 201 LIGHTING	#12
			960	41	A	42	40	15	EXTERIOR LIGHTING	#12
#12	BASEBOARD HEAT (2500VA)	15A 2P	1250	43	B	44	750	15A 2P	BASEBOARD HEAT (1500VA)	#12
			1250	45	A	46	750			
#12	HRV-1	15A 2P	1212	47	B	48	3000	35A 2P	HC-1	#8
			1212	49	A	50	3000			
#12	BASEBOARD HEAT (3000VA)	20A 2P	1500	51	B	52	1250	15A 2P	BASEBOARD HEAT (2500VA)	#12
			1500	53	A	54	1250			
#12	BASEBOARD HEAT (3000VA)	20A 2P	1500	55	B	56		15	SPARE	
			1500	57	A	58		15	SPARE	
	SPACE			59	B	60			SPACE	

ODD CIRCUITS (1-59)				EVEN CIRCUITS (2-60)	
LOAD PHASE A (VA)	24130		10960	LOAD PHASE A (VA)	
LOAD PHASE B (VA)	23380		11658	LOAD PHASE B (VA)	
TOTAL LOAD PHASE A (VA)	35090	TOTAL LOAD PHASE B (VA)	35038	TOTAL LOAD (VA)	70128

PANEL SCHEDULE

POWER/COMMUNICATIONS LEGEND

- 5-15R DUPLEX RECEPTACLE (D INDICATES DEDICATED, C INDICATES COUNTER-TOP MOUNT)
- GF 5-15R GFCI DUPLEX RECEPTACLE (D INDICATES DEDICATED, C INDICATES COUNTER-TOP MOUNT)
- GF WP 5-15R GFCI DUPLEX RECEPTACLE WITH WEATHER PROOF WHILE IN USE COVER
- DATA/VOICE
- DATA (2 x RJ45)
- D ELECTRIC DOOR OPERATOR
- TV HDMI VIDEO CONNECTION
- DIRECT ELECTRICAL CONNECTION, VOLTAGE AND AMPACITY AS INDICATED
- Z-EVx / xW ELECTRIC RESISTANCE BASEBOARD HEATER. 'x' INDICATES WATTAGE. 'Z-EVx' INDICATES HEATER ZONE, IF NOT SHOWN HEATER IS TO BE CONTROLLER SOLELY BY THERMOSTAT INDICATED.
- PANELBOARD RATINGS AS INDICATED
- T THERMOSTAT, LINE VOLTAGE, 20A
- MOTOR STARTER
- VFD VARIABLE FREQUENCY DRIVE (PROVIDED BY DIV 25)

ABBREVIATIONS

O/H	OVERHEAD
U/G	UNDERGROUND
C/W	COMPLETE WITH
OC	OCCUPANCY SENSOR
GF	GROUND FAULT PROTECTED
WP	WEATHER PROOF WHILE IN USE

ELECTRICAL KEY NOTES

1. REMOVE EXISTING OVERHEAD ELECTRICAL FEEDER TO EXISTING BUILDING. REMOVE O/H TO U/G TRANSITION AND PROVIDE NEW U/G SERVICE FEEDERS FOR EXISTING AND NEW BUILDINGS. REFER TO SITE PLAN DRAWING E102.
2. PROVIDE NEW 300A, 120/240V ELECTRICAL SERVICE. PROVIDE BASE FOR UTILITY METER AS INDICATED. PROVIDE BURIED 3 x 350kcmil IN 103mmC FEEDER.
3. PROVIDE NEW 400A, 120/240V, 60 CCT, SERVICE-ENTRANCE RATED PANEL /W 300A 2P MAIN BREAKER.
4. PROVIDE DUPLEX POWER RECEPTACLES AS INDICATED. PROVIDE 2 x #12 AWG + #14 AWG BOND IN 21mmC FEEDERS FROM NEW PANEL 'A' AND PROVIDE CORRESPONDING BREAKERS AS INDICATED IN PANEL SCHEDULE.
5. PROVIDE 2 x #12 AWG + #14 AWG BOND IN 21mmC FROM NEW PANEL 'A' TO EACH POWER DOOR OPERATOR. COORDINATE WITH ARCHITECTURAL.
6. PROVIDE POWER TO MECHANICAL LOADS AND BASEBOARD HEATERS AS INDICATED. REFERENCE PANEL SCHEDULE FOR FEEDER SIZE. PROVIDE CONNECTION TO HEAT PUMP TEMPERATURE CONTROLLER FOR CONTROL OF BASEBOARD HEATERS IN ASSOCIATED ZONES. PROVIDE CONTROL TRANSFORMERS AND RELAYS AS REQUIRED TO ALLOW THERMOSTATS TO CONTROL ADDITIONAL HEATING CIRCUITS AS INDICATED.
7. PROVIDE COMMUNICATIONS OUTLETS AS INDICATED. PROVIDE 2 x CAT6 IN 21mm C TO ELECTRICAL ROOM.
8. PROVIDE POWERED HDMI OUTLET IN OFFICE AND THEATER AREA AS INDICATED. PROVIDE CABLING AS INDICATED BY MANUFACTURER AND RUN WITHIN 27mmC. COORDINATE FINAL LOCATIONS ON SITE.
9. PROVIDE CONNECTION TO VFD AS INDICATED. FEED VFD FROM PANEL 'A' CIRCUITS 23 AND 25 USING 2C #8 TECK90. PROVIDE FEED FROM VFD TO HEAT PUMP USING 3C #10 TECK90. COORDINATE OVER CURRENT PROTECTION WITH VFD MANUFACTURER. VFD IS SINGLE-PHASE INPUT AND THREE-PHASE OUTPUT.

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Province du Nouveau-Brunswick

revisions		date
0	ISSUED FOR TENDER	MAY 12 2017

project / projet

INTERPRETIVE CENTER

MARY'S POINT, NB

drawing / dessin

ELECTRICAL
POWER LAYOUT

designed J. WARD — concu
date FEB. 2016
drawn T. HIBBERD — dessiné
date FEB. 2016
approved — approuvé
date
Tender — Soumission
2017/05/18
PWGSC Project Manager — Administrateur de projets TPSGC

project number / no. du projet
R.076495.001

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