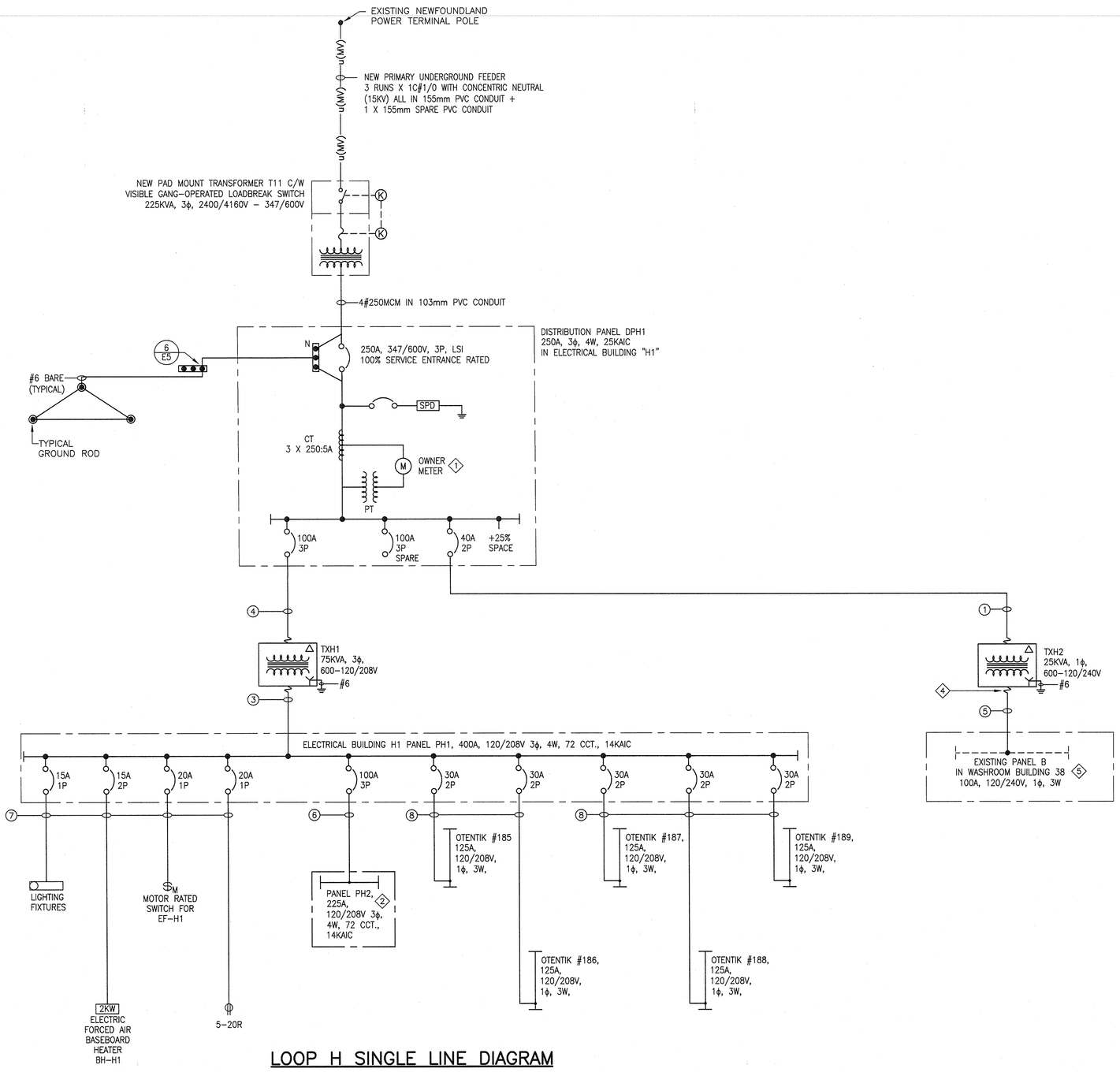


LOOP H SINGLE LINE DIAGRAM

SCALE : N.T.S.

ELECTRICAL NOTES:

INDICATED BY THE ◇ SYMBOL ON THE DRAWINGS. (I.E. ◇ INDICATES NOTE 1)

NOTE 1: METERS SHALL BE SCHNEIDER POWERLOGIC PM5563 OR EQUIVALENT C/W ETHERNET & INTEGRATED DISPLAY. PROVIDE METER C/W CTS, PTS AND ALL REQUIRED ACCESSORIES. INSTALL METER INTEGRAL TO PANEL.

NOTE 2: SPARE PANEL FOR FUTURE CAMPSITES OR OTENTIKS ADDITION. PANEL SHALL INCLUDE 5 X 30A, 2P SPARE CIRCUIT BREAKERS AND 10 X 50A, 1P SPARE CIRCUIT BREAKERS.

NOTE 3: OTENTIK ELECTRICAL SCOPE:
1) OTENTIKS ARE EXISTING.
2) PROVIDE AND INSTALL FOR EACH OTENTIK:
- ONE (1) X LOAD CENTER
- ONE (1) X ELECTRICAL FORCED AIR BASEBOARD HEATER (1500W, 120V, ALMOND MODEL PULSAIR #RWF15001A C/W BUILT IN THERMOSTAT)
- ONE (1) X 5–20R RECEPTACLE
- ONE (1) X TYPE 3 LIGHTING FIXTURE
- TWO (2) X ON/OFF 3 WAY SWITCHES

3) MAKE ALL REQUIRED ELECTRICAL CONNECTIONS TO PROVIDE A COMPLETE SYSTEM.
4) CONFIRM EQUIPMENT LOCATION WITH DEPARTMENTAL REPRESENTATIVE BEFORE INSTALLATION.
5) INSTALL LOAD CENTER, FORCED AIR BASEBOARD HEATER AND RECEPTACLE FLUSH MOUNTED IN WOOD CABINET. REFER TO ARCHITECTURAL DRAWING FOR WOOD CABINET REQUIREMENT. USE ONLY TECK 90 CABLE.
6) OTENTIKS MAIN FEEDER SHALL PENETRATE THE WOOD CABINET FROM THE BOTTOM. SEAL WATER TIGHT CABLE ENTRY. FEEDER FOR LIGHTING SYSTEM SHALL EXIT EQUIPMENT CABINET FROM THE BACK.

NOTE 4: USE LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT FOR FINAL CONNECTION.

NOTE 5: THE INTENT IS TO REFEED WASHROOM 38 FROM NEW ELECTRICAL BUILDING 'H1'. WORK UNDER THIS SCOPE SHALL INCLUDE:
1) DISCONNECT AND REMOVE FEEDER AS DESCRIBED ON DEMOLITION LAYOUT.
2) SUPPLY AND INSTALL NEW FEEDER AND CONDUIT AS SHOWN ON SINGLE LINE DIAGRAM ON THIS DRAWING.
3) RESTORE TO MATCH EXISTING CONDITION. ALLOW FOR ALL REQUIRED CUTTING, PATCHING, PAINTING AND CORE DRILLING.

FEEDER Ⓕ	CABLE SCHEDULE
①	2#6AWG+#8BOND IN 27mm LIQUID TIGHT NON METALLIC CONDUIT
②	2C#12AWG TECK 90
③	4#350MCM+#3BOND IN 78mm LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT
④	3#3AWG+#6BOND IN 35mm LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT
⑤	3#1AWG+#6BOND IN 53mm PVC CONDUIT
⑥	4#3AWG+#6BOND IN 41mm EMT CONDUIT
⑦	2#12AWG+#12BOND IN 21mm EMT CONDUIT
⑧	SEE DRAWING E2

ESTIMATED ELECTRICAL LOAD FOR ELECTRICAL SERVICE IN BUILDING "H1" IS 66.27KVA.

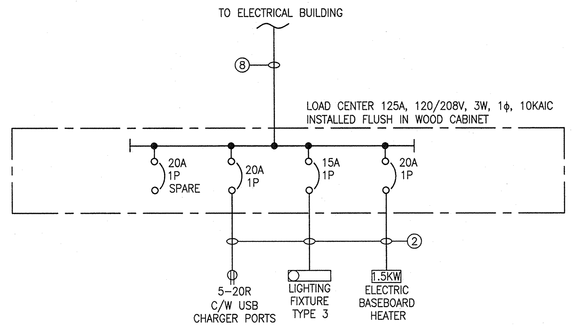
ASSUMPTION:
- SPARE PANEL PH2 IS FOR LOOP H FUTURE ADDITION.
- THE ESTIMATED LOAD FOR PANEL PH1 IS 52.37KVA AND IT INCLUDES A PROVISION OF 18KVA FOR SPARE PANEL PH2 FUTURE LOAD (PANEL 50% LOADED).
- WASHROOM 38 ESTIMATED LOAD IS 13.9KVA AS PER RECIEVED RECORD DRAWING.

Panel:	PH1			**Mounting:**	Surface		
Location:	Electrical Building H1			**Feeder:**	Refer to single line		
Type:	CSA Type 1			**Frame:**	BAB		
Size:	60"H x 26"W x 5.75"D						
Rating:	400A, 120/208V, 3PH, 4W						

No.	Brk.	Description	Load	Phase	Load	Description	Brk.	No.
1	30/2P	Otentik #185 - Power Pedestal	3,120	A	170	Lighting	15/1P	2
3			3,120	B	1,000	Electrical Baseboard Heater BH-H1	15/2P	4
5	30/2P	Otentik #186 - Power Pedestal	3,120	C	1,000			6
7			3,120	A	500	Exhaust Fan	20/1P	8
9	30/2P	Otentik #187 - Power Pedestal	3,120	B	6,000	Panel PH2	100/3P	10
11			3,120	C	6,000			12
13	30/2P	Otentik #188 - Power Pedestal	3,120	A	6,000			14
15			3,120	B	500	Receptacle	20/1P	16
17	30/2P	Otentik #189 - Power Pedestal	3,120	C		Spare	50/1P	18
19			3,120	A		Spare	50/1P	20
21				B		Spare	50/1P	22
23				C		Spare	50/1P	24
25				A		Spare	30/1P	26
27				B		Spare	30/1P	28
29				C		Spare	30/1P	30
31				A		Spare	20/1P	32
33				B		Spare	20/1P	34
35				C				36
37				A				38
39				B				40
41				C				42
43				A				44
45				B				46
47				C				48
49				A				50
51				B				52
53				C				54
55				A				56
57				B				58
59				C				60
61				A				62
63				B				64
65				C				66
67				A				68
69				B				70
71				C				72
		Phase "A" Total kVA	19.15		16.36	**Phase "C" Total kVA**		
		Phase "B"		16.86		**Total kVA**		

Notes:

* – Indicates Breaker To Be Complete With Handle Locking Device.
GFCI – Indicates Breaker To Be Complete With Ground Fault Circuit Interrupter



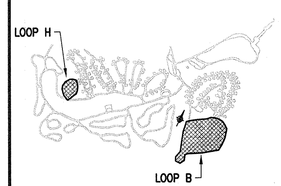
TYPICAL OTENTIK ELECTRICAL DIAGRAM

1 / E4

SCALE : N.T.S.

Public Works and Government Services Canada / Travaux Publics et Services gouvernementaux Canada

KEYPLAN:



REGISTERED PROFESSIONAL ENGINEER
RAYMOND BOCKETT
LICENCE
AUG.31/16
DATE
NEWFOUNDLAND & LABRADOR

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
THIS PERMIT ALLOWS
F.C. O'NEILL, SCRIVEN AND ASSOCIATES LIMITED
To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APEGN: P0271 which is valid for the year 2016

revisions		date
4	REISSUED FOR TENDER	08/31 2016
3	ISSUED FOR TENDER	08/19 2016
2	ISSUED FOR 100% REVIEW	07/11 2016
1	ISSUED FOR 70% REVIEW	04/04 2016

project / projet

NEWMAN SOUND CAMPGROUND ELECTRICAL UPGRADES (PHASE 2)
TERRA NOVA PARK, NEWFOUNDLAND & LABRADOR

drawing / dessin

LOOP H SINGLE LINE DIAGRAMS & PANEL SCHEDULE

designed H.B. / conçu
date MAR 2016
drawn A.L. / dessiné
date MAR 2016
approved R.G.R. / approuvé
date APR 2016
Tender / Soumission
PWGSC Project Manager / Administrateur de projets TPSGC
project number / no. du projet
R.078642.001
drawing no. / no. du dessin
E4

PWGSC A0 (2004)

E-DRM/GDD-E: 539348