Environmental Assessment

Pinchgut Lake (West) Cabin Area Project

Corner Brook, NL

Submitted By: Newfoundland Power Inc.

Submitted: June 7, 2010

Environmental Assessment

Pinchgut Lake (West) Cabin Area Project

Name of the Undertaking:

Construct a new 7,200-volt Wood Pole Distribution Line to provide electrical service to a customer on Pinchgut Lake, Corner Brook, NL

Proponent:

(i) Name of Corporate Body: Newfoundland Power Inc.
(ii) Address: P.O. Box 8910, 55 Kenmount Road, St. John's, NL A1B 3P6
(iii) Chief Executive Officer:
Name: Earl Ludlow
Official Title: President and CEO
Address: P.O. Box 8910, 55 Kenmount Road, St. John's, NL A1B 3P6

(iv) Principal Contact Person:
Name: Keith Osmond
Official Title: Technologist – Corner Brook
Address: P.O. Box 1020, 47 Maple Valley Rd, Corner Brook, NL, A2H 6J3
Office: (709) 637-7807
Cell: (709) 632-0817
Email: kosmond@newfoundlandpower.com

The Undertaking:

(i) Nature of the Undertaking: Newfoundland Power wants to provide a 7,200-volt wood pole electrical distribution line located west of Corner Brook to supply a cabin area located on the west side of Pinchgut Lake, in the area known as Girl Guide Camp Area.

(ii) Purpose/Rationale/Need for the Undertaking: Newfoundland Power have been contracted by a customer to provide electrical service to his cabin located on the West side of Pinchgut Lake, west of Corner Brook, NL

The only option to provide electrical service to this customer is to construct a new corridor from our existing distribution line on the north side of the lake. In order to access this customer, the new distribution line will need to cross Pinchgut Brook, a scheduled Salmon River and a portion of the line will be in excess of 500 metres from the road reservation for Route 1, TCH.

Description of the Undertaking:

Geographical Location: An existing cabin area is located on the west end of Pinchgut Lake. The new distribution line to service this cabin area would be approximately 1416 meters in total length. A portion of the new corridor is located in excess of 500 metres from Route 1. Within the length of new distribution line, there is a 484 meter section that will not be accessible from an existing roadway. In order to gain access to the cabin area, the new distribution line will need to cross Pinchgut Brook, a scheduled salmon river. The proposed distribution line corridor will be 5.4 metres wide with a single wood pole configuration located along the corridor center line. Access to the new corridor, that is not accessible from an existing roadway, will be gained by travelling the corridor.

(i) Physical Features: Preparation of the 5.4 metre wide corridor will consist of clearing of the corridor to ensure vegetation is removed to prevent risks to the distribution line and the public. The terrain located within the corridor is a mixture of trees and marsh. Brush will be cut and piled along the edge of the corridor. The pole configuration will consist of single wood poles with approximately 60 metre pole spacing. Pole heights will be in the range of 12 metres to 14 metres (see attached).

(ii) Construction: Construction of the distribution line will commence once all approvals are received. The first phase of the project will be the clearing of the brush along the 5.4 metre wide corridor, and obtaining the necessary survey information required for the design. Construction of the line will require the installation of poles, framing of the structures and stringing new conductor. Pole installation will be carried out through the use of excavators. A portion of the framing of the structures and stringing of conductor will utilize ATVs to carry material and personnel to the work area; the remaining section can be reached by road. All equipment will access the work area by travelling along the new corridor. All equipment is equipped with spill response kits and all workers have attended job specific environmental training. Stream crossings will be avoided where possible, and silt screening installed in any stream or wet area to minimize disruption to fish habitat.

(iii) Operation: The distribution line will be a permanent installation with predicted lifespan of 40 years before it will require replacement. CCA-treated wood poles will be used while maintaining appropriate distances from waterways. Annual inspections of the line will be carried out by Newfoundland Power personnel and utilize ATV's or snowmobiles for transportation during the inspection.

(iv) Occupations: The number of personnel on site will vary during the project, depending on the type of work being carried out. The quantities and time lines specified refer to the work to be completed outside the 500 metre corridor. The initial phase is clearing of the brush along the new corridor and will involve approximately 10 vegetation management contract personnel for 1 week. Surveying of this section will be completed in a couple of days by 2 surveyors utilizing GPS technology. The construction phase will involve a pole and line contractor to install poles and new conductor and will include labourers, equipment operators, and power line technicians. It is expected this section will take 2 weeks to construct and will involve approximately 15 personnel.

(v) Project Related documents: N/A

Approval of the Undertaking:

The following approvals are required for the project:

Department of Environment and Conservation, Environmental Assessment Division – in excess of 500 metres from existing corridor (Route 10)

Crown Lands – Application for new corridor

Department of Government Services, Government Service Centre - Protected Roads

Schedule:

The proposed schedule for the project is as follows:

Approvals: Summer 2010

Brush clearing: July 2010

Surveying: July 2010

Pole installation: July/Aug 2010

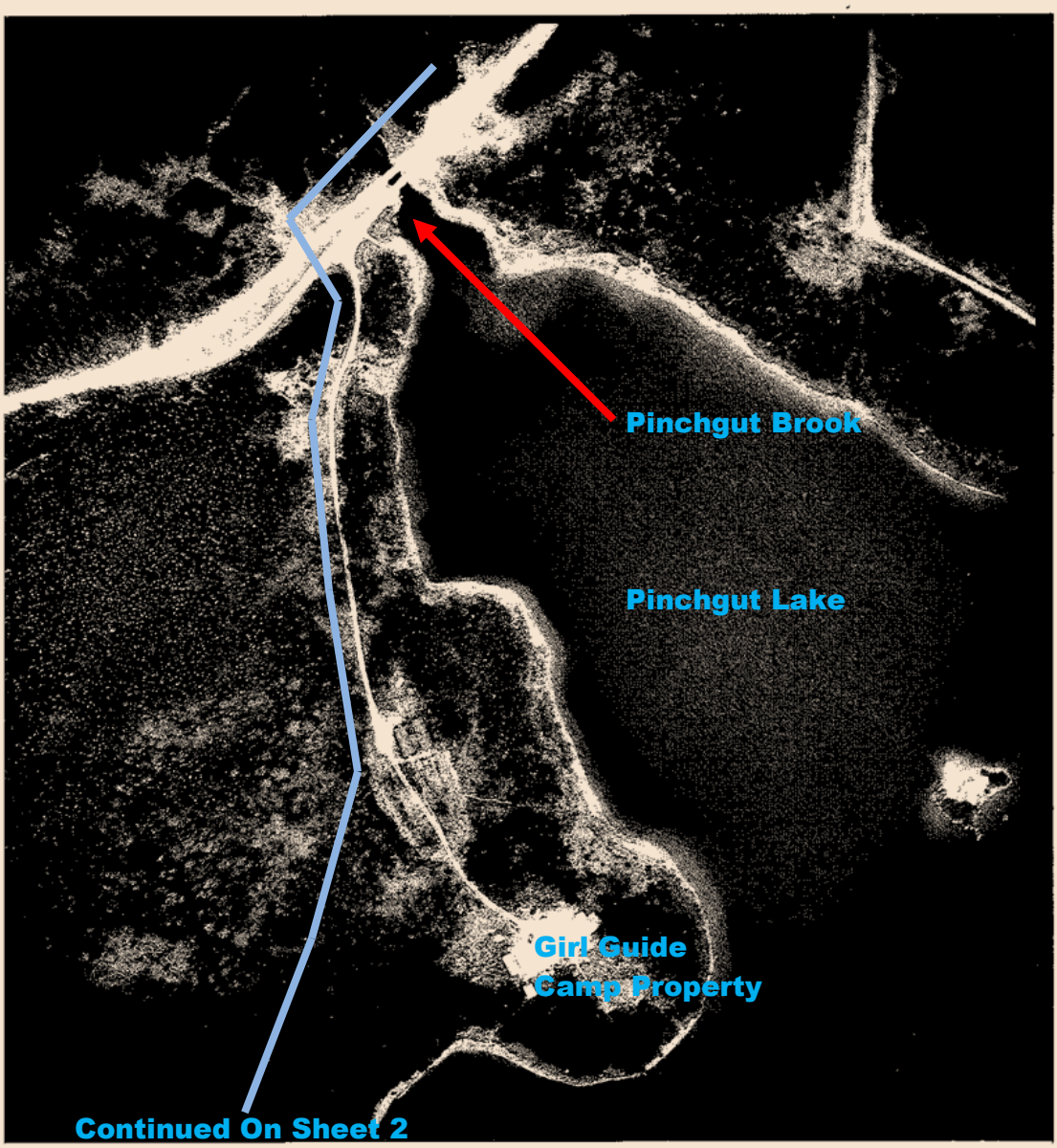
Funding:

The work will be carried out as part of the Company's Contribution in Aid of Construction policy which states that Domestic Customers in areas that are not within a Residential Planning Area will pay for the cost of the line extension that is in excess of 25 meters. The total cost of the project is approximately $43,500.

Date: _____ Signature: _____

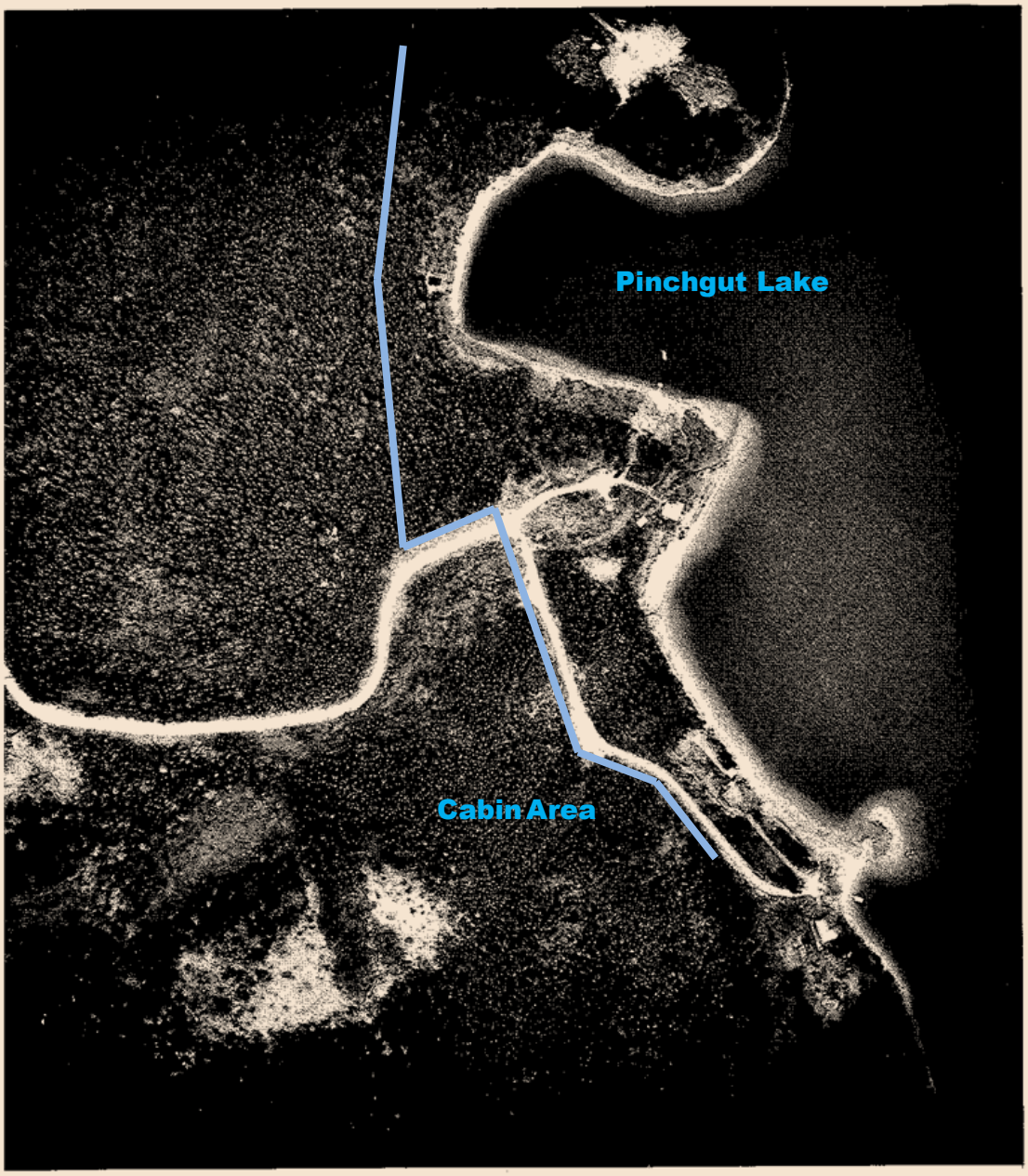
Appendix A

Maps & Pictures



New Distribution Line

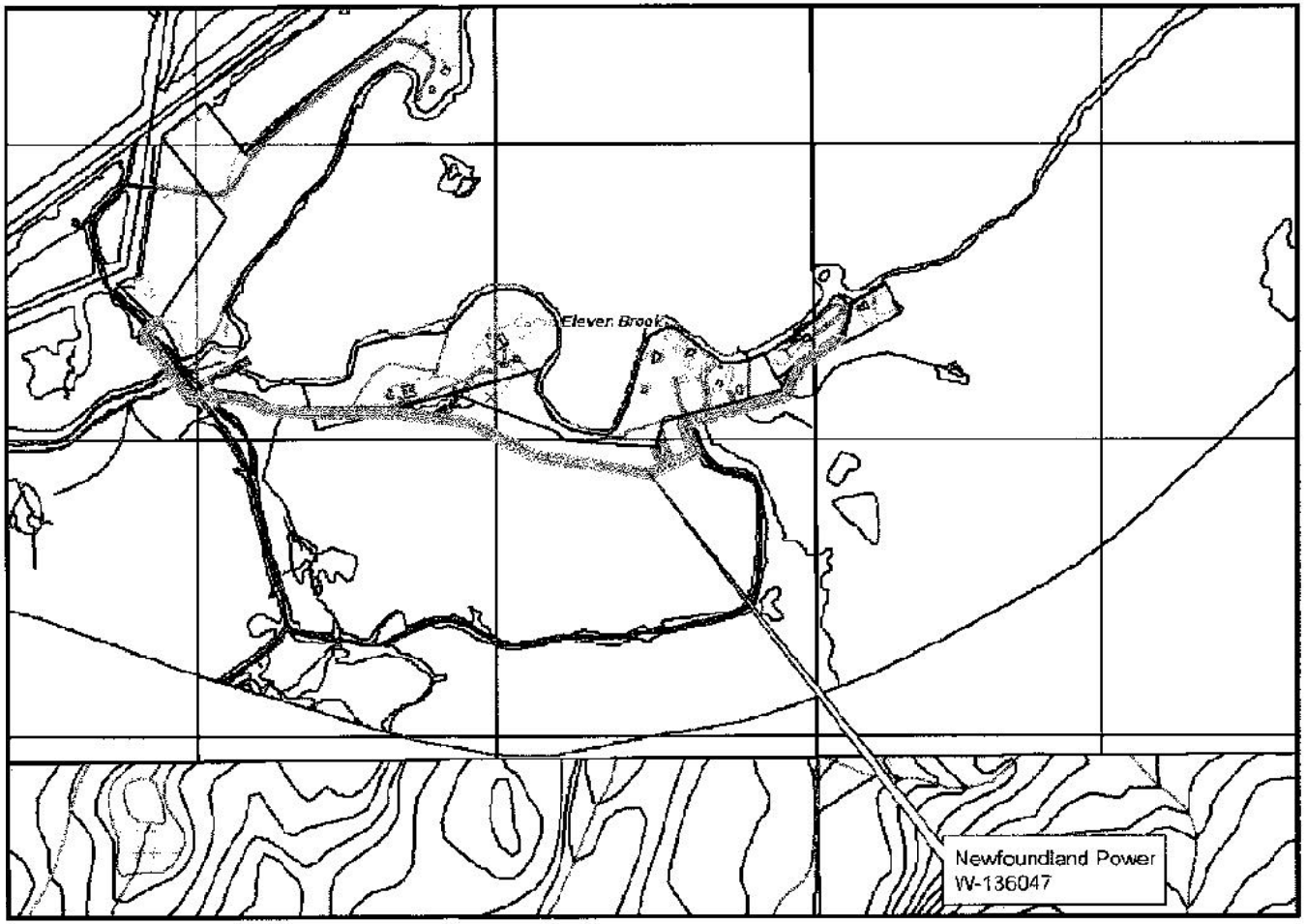
Continued From Sheet 1



New Distribution Line

Government of Newfoundland & Labrador
Department of Environment & Conservation

Newfoundland Labrador



NOTE TO USERS

The information on this map was compiled from land surveys registered in the Crown Lands Registry.

Since the Registry does not contain information on all land ownership within the Province, the information depicted cannot be considered complete.

The boundary lines shown are intended to be used as an index to land titles issued by the Crown. The accuracy of the plot is not sufficient for measurement purposes and does not guarantee title.

Users finding any errors or omissions on this map sheet are asked to contact the Crown Titles Mapping Section, Howley Building, Higgins Line, St. John's, Newfoundland.

Users finding error or omissions can contact the Crown Titles Mapping Section by telephone at 729-0061. Some titles may not be plotted due to Crown Lands volumes missing from the Crown Lands registry or not plotted due to insufficient survey information.

The User hereby indemnifies and saves harmless the Minister, his officers, employees and agents from and against all claims, demands, liabilities, actions or cause of actions alleging any loss, injury, damages and matter (including claims or demands for any violation of copyright or intellectual property) arising out of any missing or incomplete Crown Land titles, and the Minister, his or her officers, employees and agents shall not be liable for any loss of profits or contracts or any other loss of any kind as a result.

For inquiries please contact a Regional Lands Office.
Corner Brook - 637-2387
Gander - 256-1400
Goose Bay - 896-2488
St. John's - 729-2654
Clarenville - 466-4074

Crown Lands Division

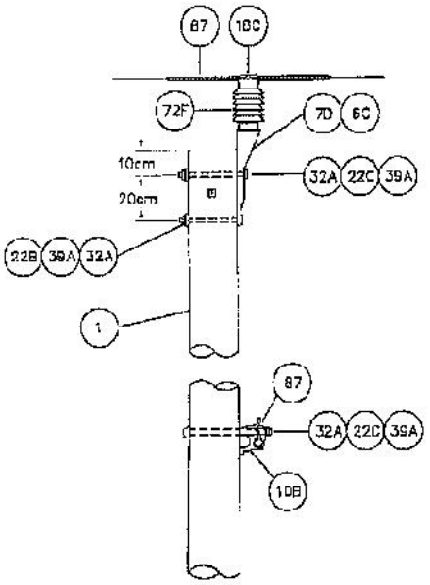
Scale 1:10,000
Compiled on March 20, 2010

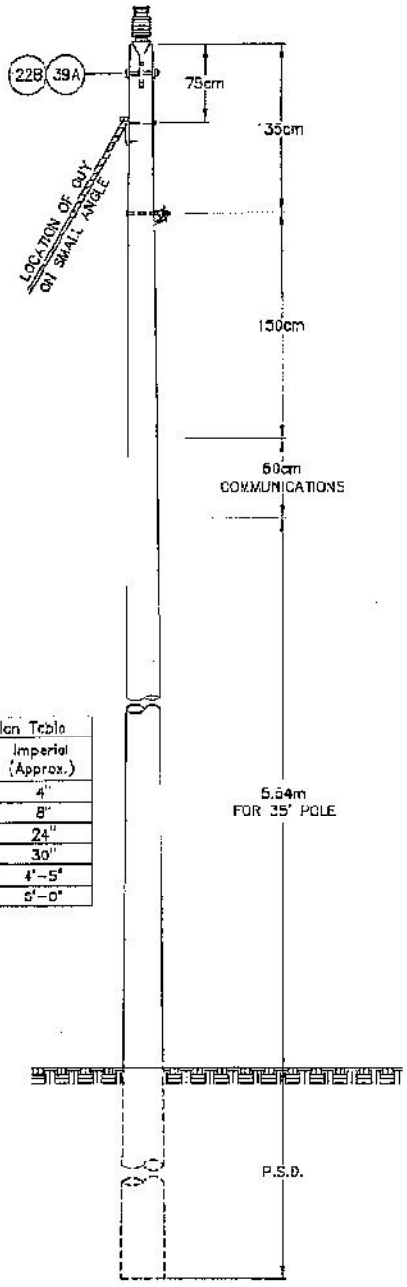
0 120 240 480 720 960 Meters

N
W E
S

Appendix B

Structure Configurations





NOTES:

1. STRUCTURE TYPE "1A" IS A SINGLE PHASE TANGENT STRUCTURE.
2. FOR SECONDARY DETAILS SEE SECTION 10–5.
3. FRAMING DIMENSIONS:
   (a) SUITABLE FOR JOINT USE ON SHORT SPAN CONSTRUCTION.
   (b) SUITABLE FOR NON–JOINT USE ON LONG SPAN CONSTRUCTION.
   (c) SUITABLE FOR JOINT USE ON LONG SPAN CONSTRUCTION, IF SPACING MEETS REQUIREMENTS OF C.S.A. STANDARD C22.3 (SEE SECTION 2).
   (d) SUITABLE FOR 12.5kV & 25kV CONSTRUCTION.
   (e) SUITABLE FOR CONVERSION TO THREE PHASE, JOINT USE ON SHORT SPAN CONSTRUCTION BY ADDING CROSSARMS.
4. INSTALL STUD IN THE INSULATOR WITH LOCKWASHER BEFORE INSTALLING IN BRACKET.

Conversion Table	
Metric	Imperial (Approx.)
10cm	4"
20cm	8"
60cm	24"
75cm	30"
135cm	4'–5"
150cm	5'–0"

ITEM NO	QUAN.	DESCRIPTION
1	1	POLE – TREATED, CLASS THREE OR FOUR
6C	1	BRACKET – POLE 10°, 35kV LINE POST INSULATOR
7D	1	STUD – LINE POST INSULATOR, 3/4" x 1 3/4"
10B	1	CLAMP – NEUTRAL WIRE
10C	1	CLAMP – INSULATOR
22B	2	BOLT – MACHINE, 5/8" x 10", 6" THD.
22C	2	BOLT – MACHINE, 5/8" x 12"
32A	2	NUT – LOCK, 5/8"
39A	5	WASHER – SQUARE, 2 1/4" x 2 1/4" x 3/16"
72F 72G	1	INSULATOR – LINE POST CLAMP, 35kV INSULATOR – LINE POST CLAMP, 25kV
87	1	ROD – PREFORMED ARMOR (PRIMARY LINE)
87	1	ROD – PREFORMED ARMOR (NEUTRAL)

REGISTERED PROFESSIONAL ENGINEER
C.O. ROSE
SIGNATURE
DATE
NEWFOUNDLAND & LABRADOR

DISTRIBUTION STANDARDS

NEWFOUNDLAND POWER
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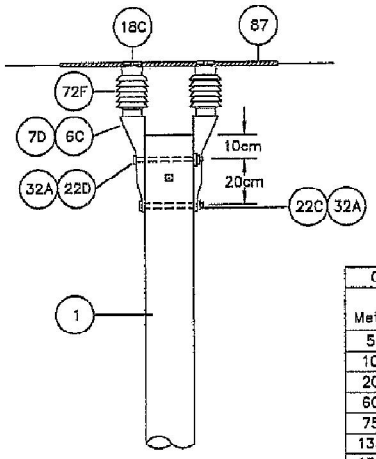
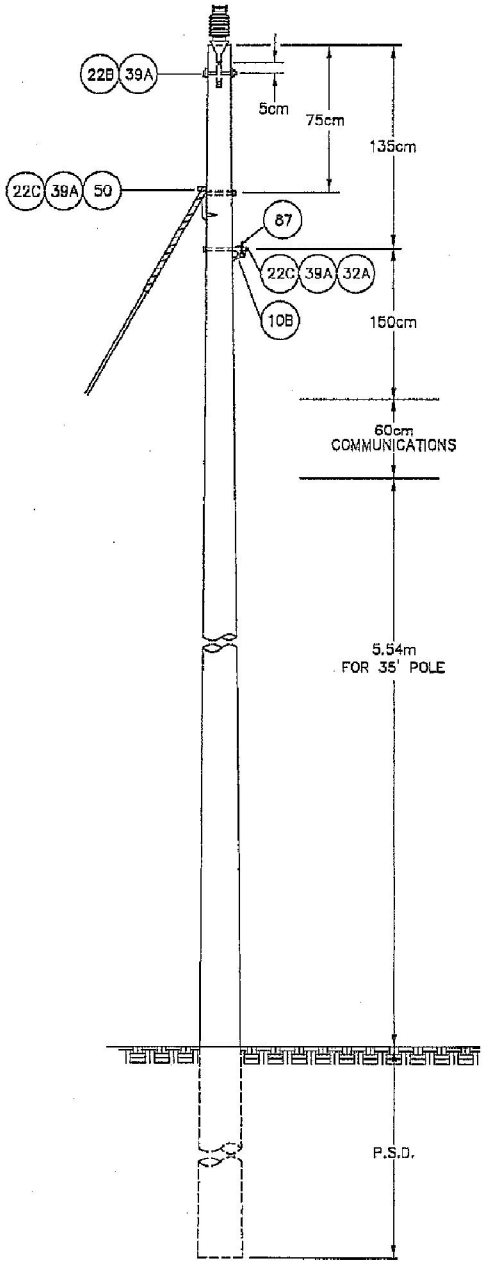
To practice Professional Engineering in Newfoundland and Labrador. Permit No as issued by APEGN Y0048 which is valid for the year 2008.

12.5 & 25kV
STRUCTURE TYPE "1A"
0° - 3° ANGLE

Date:	98–10–30	Drawn:	K.L.S.
Revised:	07–07–23	STD No.	**11-10**



Conversion Table	
Metric	Imperial (Approx.)
5cm	2"
10cm	4"
20cm	8"
60cm	24"
75cm	30"
135cm	4'–6"
150cm	5'–0"



NOTES:

1. STRUCTURE TYPE "1B" IS A SINGLE PHASE ANGLE (SMALL) STRUCTURE.
2. FOR SECONDARY DETAILS SEE SECTION 10–5.
3. FRAMING DIMENSIONS:
   (a) SUITABLE FOR JOINT USE ON SHORT SPAN CONSTRUCTION.
   (b) SUITABLE FOR NON–JOINT USE ON LONG SPAN CONSTRUCTION.
   (c) SUITABLE FOR JOINT USE ON LONG SPAN CONSTRUCTION, IF SPACING MEETS REQUIREMENTS OF CLAUSE 4.10.3.2 OF THE C.S.A. STANDARD C22.3 (SEE SECTION 2).
   (d) SUITABLE FOR 12.5 kV & 25 kV CONSTRUCTION.
   (e) SUITABLE FOR CONVERSION TO THREE PHASE, JOINT USE ON SHORT SPAN CONSTRUCTION BY ADDING CROSSARMS.
4. USE TABLE BELOW FOR MAXIMUM LINE ANGLE PER CONDUCTOR SIZE.

CONDUCTOR SIZE AND TYPE	MAXIMUM LINE ANGLE	MAXIMUM COND. TENSION (LBS)
2 AASC, 2 ACSR – 150, 1/0 AASC	25°	2100
2 ACSR – 200, 2/0 AASC & ACSR	20°	2500
4/0 AASC & ACSR, 477 ASC	15°	3066

ITEM NO.	QUAN.	DESCRIPTION
1	1	POLE – TREATED, CLASS THREE OR FOUR
6C	2	BRACKET – POLE TOP, 35kV LINE POST INSULATOR
7D	2	STUD – LINE POST INSULATOR, 3/4" x 1 3/4"
10B	1	CLAMP – NEUTRAL WIRE
18C	2	CLAMP – INSULATOR
22B	1	BOLT – MACHINE, 5/8" x 10"
22C	2	BOLT – MACHINE, 5/8" x 12"
22D	1	BOLT – MACHINE, 5/8" x 14"
32A	4	NUT – LOCK, 5/8"
39A	4	WASHER – SQUARE, 2 1/4", 11/16"
50	1	HOOK – GUY
72F	2	INSULATOR – LINE POST CLAMP TOP, 35kV
72G		INSULATOR – LINE POST CLAMP TOP, 25kV
87	2	ROD – PREFORMED ARMOUR

REGISTERED PROFESSIONAL ENGINEER
NEWFOUNDLAND & LABRADOR
C.O. ROSE
SIGNATURE
DATE

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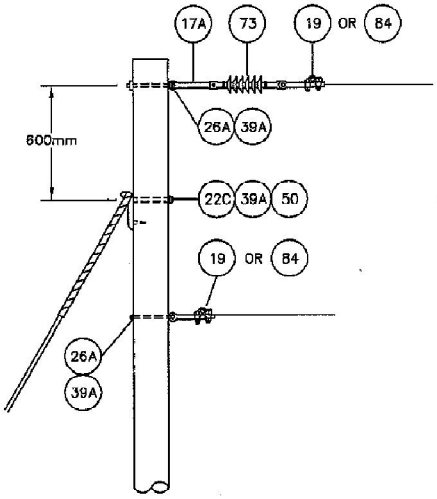
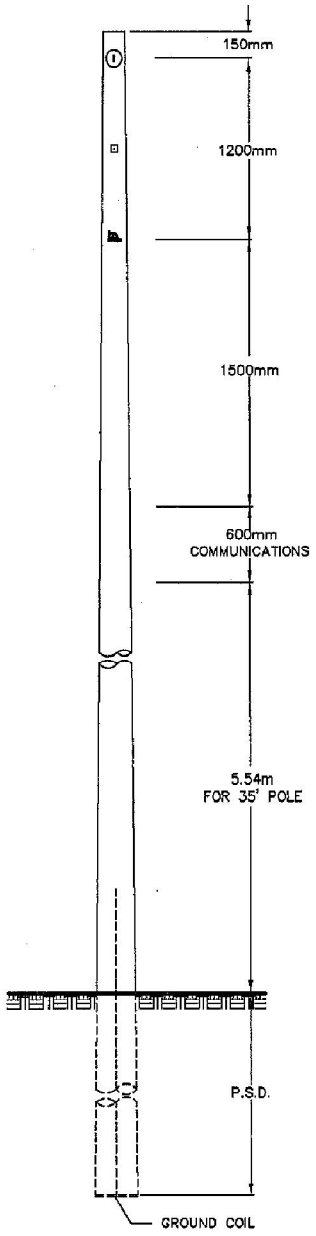
12.5 & 25kV STRUCTURE TYPE "1B" 3° - 30° ANGLE

Date: 98–10–30
Drawn: K.L.S.
Revised: 07–07–31
STD No. 11-11





NOTES:

1. STRUCTURE TYPE – "1DE" IS A STANDARD SINGLE PHASE DEADEND STRUCTURE
2. FOR SECONDARY DETAILS SEE SECTION 10–5.
3. FRAMING DIMENSIONS:
   (a) SUITABLE FOR JOINT USE ON SHORT SPAN CONSTRUCTION.
   (b) SUITABLE FOR NON–JOINT USE ON LONG SPAN CONSTRUCTION.
   (c) SUITABLE FOR JOINT USE ON LONG SPAN CONSTRUCTION, IF SPACING MEETS REQUIREMENTS OF CLAUSE 4.10.3.2 OF THE CSA STANDARD C22.3 (SEE 2–5).
   (d) SUITABLE FOR 12.5kV & 25kV CONSTRUCTION.
   (e) SUITABLE FOR CONVERSION TO THREE PHASE, JOINT USE ON SHORT SPAN CONSTRUCTION BY ADDING A CROSSARM.
4. POLE SHALL BE RAKED APPROXIMATELY 300mm OFF VERTICAL.

ITEM NO.	QUAN.	DESCRIPTION
1	1	POLE – TREATED, CLASS THREE OR FOUR
17A	1	LINK – CLEVIS EXTENSION, 10"
19	2	CLAMP – STRAIGHT LINE D.E. (SHORT SPAN)
22C	1	BOLT – MACHINE, 5/8" x 12"
26A	2	BOLT – OVAL EYE, 5/8" x 10"
39A	5	WASHER – SQUARE, 2 1/4", 11/16" HOLE
50	1	HOOK – GUY
73B	1	INSULATOR – POLYMER SUSPENSION, 12.5kV
73C		INSULATOR – POLYMER SUSPENSION, 25kV
84	2	DEADEND – COMPRESSION (LONG SPAN)

REGISTERED PROFESSIONAL ENGINEER
G. Richard Spurrell
SIGNATURE
DATE
PROVINCE OF NEWFOUNDLAND

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
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This Permit Allows
NEWFOUNDLAND LIGHT & POWER CO. LIMITED
To practice Professional Engineering in Newfoundland and Labrador
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which is valid for the year 1998.

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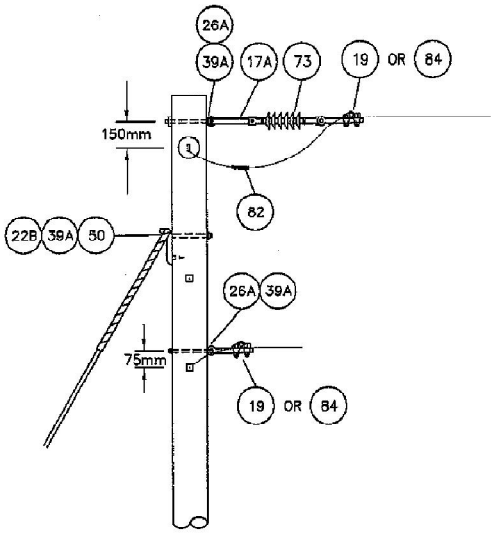
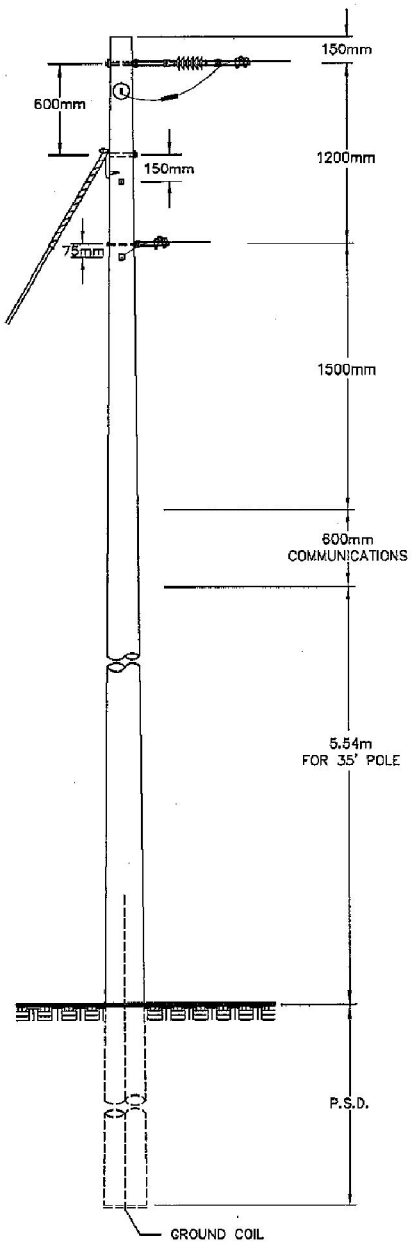
12.5 & 25kV DEADEND STRUCTURE TYPE "1DE"

Date:	98–10–30	Drawn:	K.L.S.
App:		STD No.	**11–16**





NOTES:

1. STRUCTURE TYPE – "1E" IS A SINGLE PHASE TENSION DEADEND STRUCTURE.
2. FOR SECONDARY DETAILS SEE SECTION 10–6.
3. FRAMING DIMENSIONS:
   - (a) SUITABLE FOR JOINT USE ON SHORT SPAN CONSTRUCTION.
   - (b) SUITABLE FOR NON–JOINT USE ON LONG SPAN CONSTRUCTION.
   - (c) SUITABLE FOR JOINT USE ON LONG SPAN CONSTRUCTION, IF SPACING MEETS REQUIREMENTS OF CLAUSE 4.10.3.2 OF THE CSA STANDARD C22.3 (SEE 2–5).
   - (d) SUITABLE FOR 12.5kV & 25kV CONSTRUCTION.
   - (e) NOT SUITABLE FOR CONVERSION TO THREE PHASE.
4. POLE SHALL BE RAKED APPROXIMATELY 300mm OFF VERTICAL.

ITEM NO.	QUAN.	DESCRIPTION
1	1	POLE – TREATED, CLASS THREE OR FOUR
17A	2	LINK – CLEVIS EXTENSION, 10"
19	4	CLAMP – STRAIGHT LINE D.E. (SHORT SPAN)
22B	2	BOLT – MACHINE, 5/8" x 10"
26A	4	BOLT – OVAL EYE, 5/8" x 10"
39A	10	WASHER – SQUARE, 2 1/4", 11/16" HOLE
50	2	HOOK – GUY
73B	1	INSULATOR – POLYMER SUSPENSION, 12.5kV
73C		INSULATOR – POLYMER SUSPENSION, 25kV
82	2	CRIMPIT – CABELOK
84	4	DEADEND – COMPRESSION (LONG SPAN)

REGISTERED PROFESSIONAL ENGINEER
G. Richard Spurrell
SIGNATURE
DATE
PROVINCE OF NEWFOUNDLAND

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
Class "B"
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12.5 & 25kV STRUCTURE TYPE "1E" 60° - 90° ANGLE

Date: 98–10–30	Drawn: K.L.S.
App:	STD No. 11-17

Appendix C

Occupation Table

Pinchgut Lake (West) Cabin Area

Occupation	NOC	Full/Part-time	Length	# of Personnel
Construction Phase				
Brush Clearing - Contractor				
Brush Cutter	8422	Full-time	5 days	10
Surveying				
Land Surveyor	2154	Full-time	2 days	2
Pole Installation – Contractor				
Heavy Equipment Operator		Full-time	4 days	2
Labourers		Full-time	4 days	2
Blaster		Full-time	4 days	1
Line Work – NF Power Crews				
Power Line Technician	7244	Full-time	10 days	4