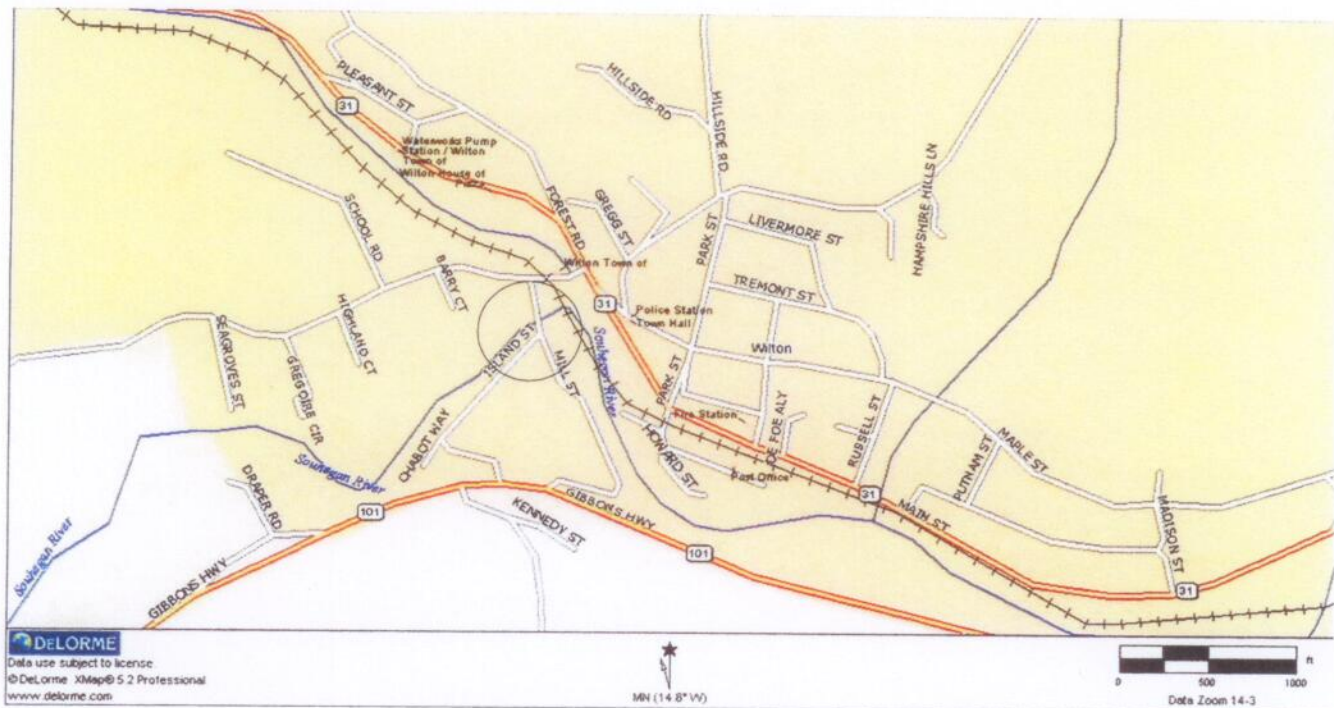


Wilton, New Hampshire



PoleForeman - Pole Loading Analysis Report

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POLE LOADING DATA

Pole: 55/1 Wood

Pole Loading
Horizontal: 83% (250B)
Vertical: 9% (250B)

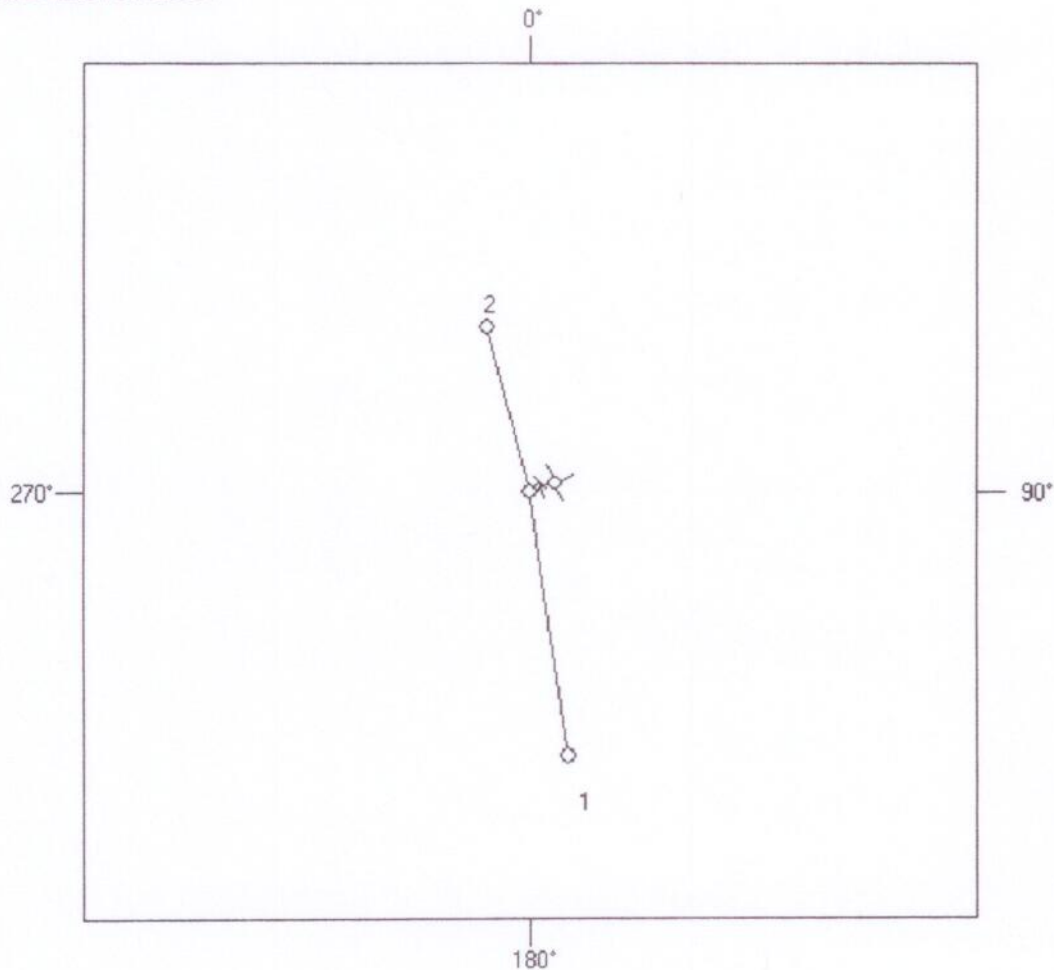
NESC Edition: 2007
Loading District: Heavy
Construction: Grade B

Rule 250B Loading: Wind (psf): 4 Ice (in): 0.5

POLES

Pole #	Length (ft)	Depth (ft)	Elevation (ft)
0	55	13	0
1	50	7	0
2	50	7	0

POLE LINE TOPOLOGY



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GUY STRAND DATA

Anchor	Strand	Attach	Length	Direction	Tension	Strength	Loading
1	1/2" EHS	15"	9'	45°	8,556	24,210	35%
1	1/2" EHS	62"	9'	45°	10,139	24,210	42%
2	7/16" SM	211"	8'	75°	434	8,415	5%
2	7/16" SM	226"	8'	75°	2,010	8,415	24%

ANCHOR DATA

Anchor	Rod	Anchor	Soil	Tension	Roc Strength	Anchor Strength
1	1" Rod	10" Triple Hel	Class - 4	16,694	35,000	31,000
2	1" Rod	10" Triple Hel	Class - 4	2,444	35,000	31,000

INSULATORS

Insulator	Attach	Loading	Angle
25KV DBL Xarm Pin	4"	56%	6°
25KV DBL Xarm Pin	4"	56%	6°
25KV DBL Xarm Pin	4"	56%	6°

ARM / BRACKET DATA

Arm/Bracket	Attach	Vert Loading	Horz Loading
8" Double Xarm (3-5/8x4-5/8)	4"	6%	52%

SPANS

Span: 1 Span Length (ft): 173 Direction: 172°

Circuit: 1

	Rung Span (ft)	Offset (in)	Attach A (in)	Attach B (in)	Tension
Primary					
1/0 ACSR (6/1)	200	44	-7	-7	1802
1/0 ACSR (6/1)	200	-12	-7	-7	1802
1/0 ACSR (6/1)	200	-44	-7	-7	1802
Neutral					
1/0 ACSR (6/1)	200	0	52	62	1802

Joint Use

Joint Use Cable	Rung Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)	Description
6.6M (1/4) + 0.75" TELCO	150	0.97	0.35	206	206	14°9	
6.6M (1/4) + 0.75" CATV	150	1.04	0.27	235	235	1233	
6M (5/16) + 0.75" TELCO	150	1.03	0.50	248	248	2567	
10M (3/8) + 1.50" TELCO	150	1.31	1.40	194	194	4034	

Span: 2 Span Length (ft): 110 Direction: 346°

Circuit: 1

	Rung Span (ft)	Offset (in)	Attach A (in)	Attach B (in)	Tension
Primary					
1/0 ACSR (6/1)	100	44	-7	-7	1395
1/0 ACSR (6/1)	100	-12	-7	-7	1395
1/0 ACSR (6/1)	100	-44	-7	-7	1395
Neutral					
1/0 ACSR (6/1)	100	0	52	62	1395

Joint Use

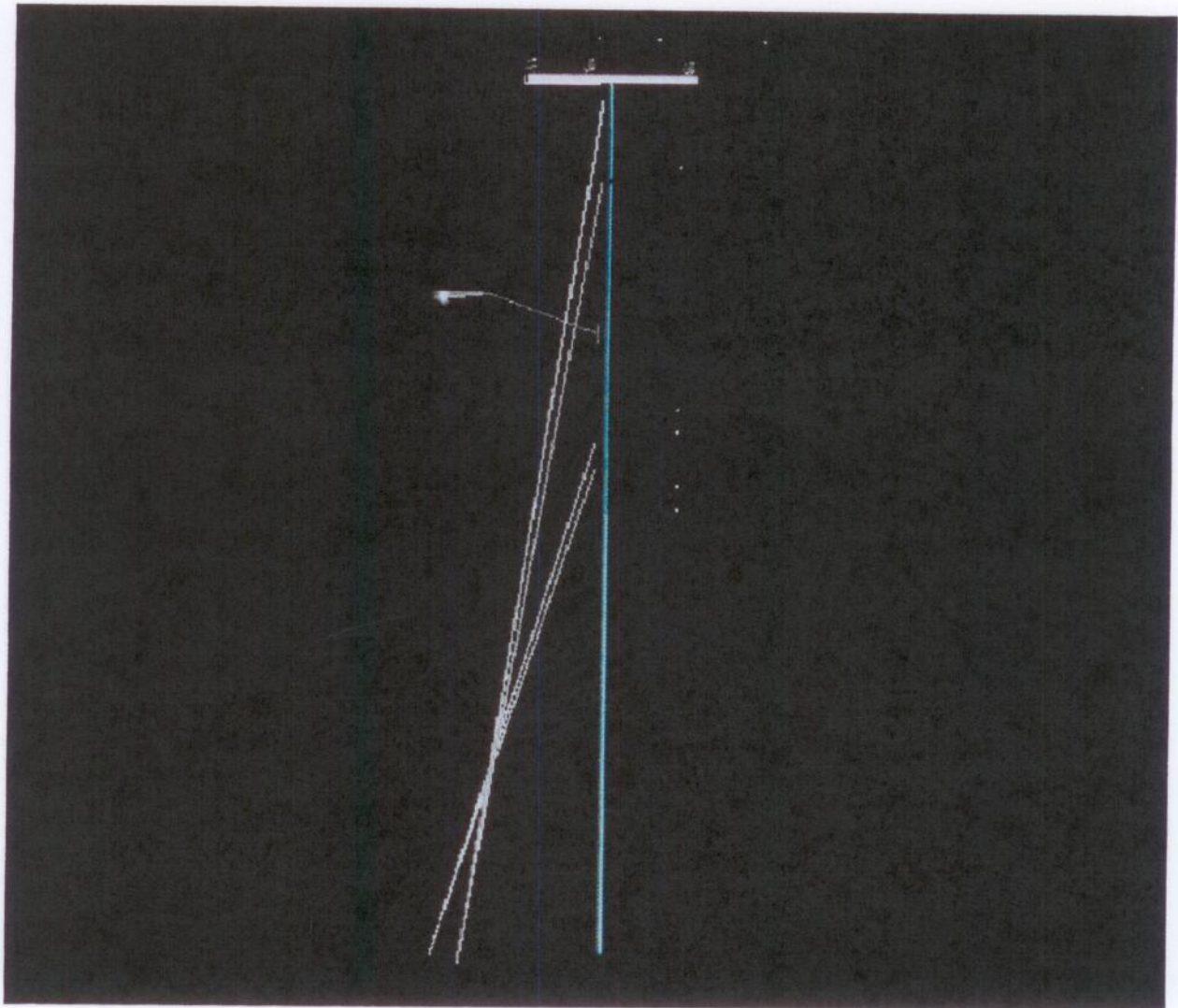
Joint Use Cable	Rung Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)	Description
6.6M (1/4) + 0.75" TELCO	150	0.97	0.35	206	206	14°9	
6.6M (1/4) + 0.75" CATV	150	1.04	0.27	235	235	1233	
6M (5/16) + 0.75" TELCO	150	1.03	0.50	248	248	2567	
10M (3/8) + 1.50" TELCO	150	1.31	1.40	194	194	4034	

LIGHTS

Light	Bracket	Weight	EPA	Attach	Direction
150-400W Cobra	6 FT Bracket	66	0.87	145	70°

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Selected Cables	X-SECT AREA (sq.in)	EFF MODULUS (psi)	NOMINAL DIAM (in)	EFF.EXP. COEFF. (1/F)	CABLE WEIGHT (lb/ft)	E*A LOAD BEARING CAPACITY (lbs)	MAX. RATED LOAD (lbs)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-288-LN Bundle	0.5782	2.70E+05	0.858	1.13E-05	0.1960	155982	651
			1.108		0.3170		

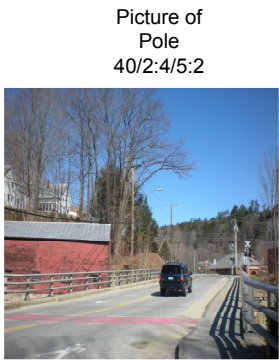
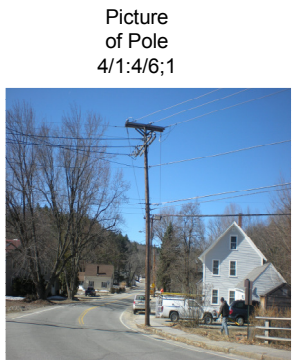
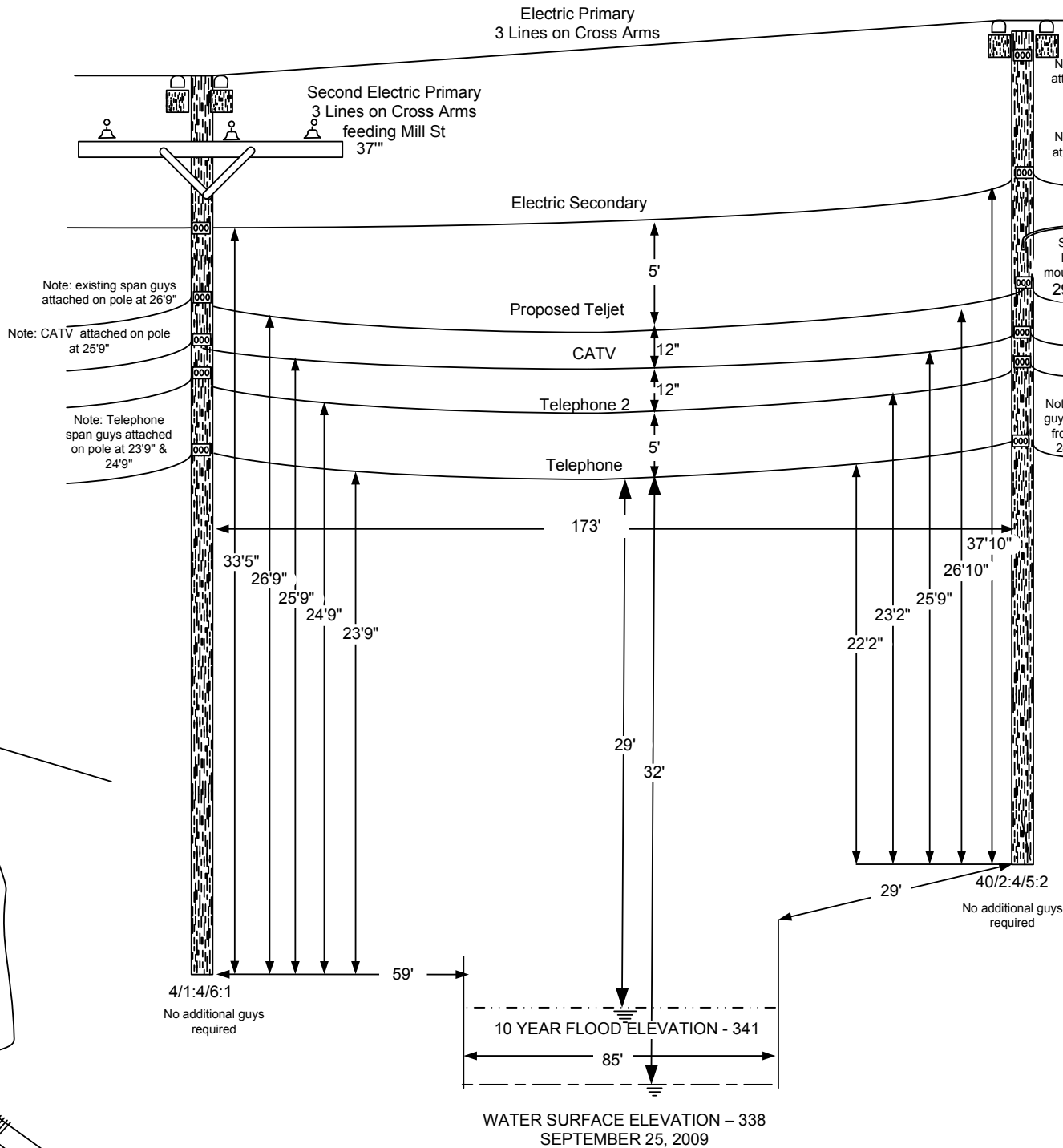
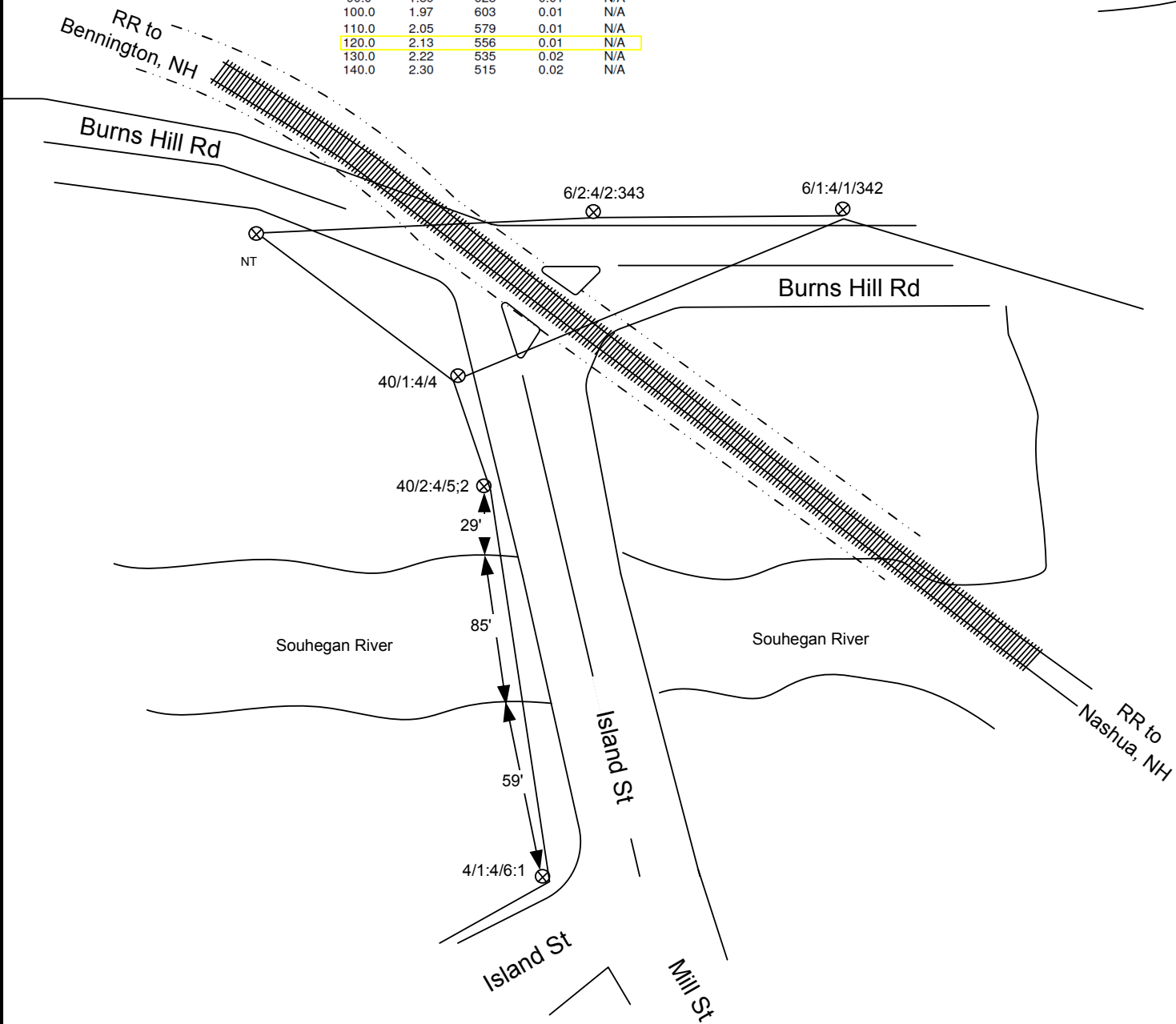
NESC RESULTS

Loading Condition	Temp. (F)	Ice Load lb/ft	Ice Thick in	Wind Constant lb/ft	Horz Wind Load lb/sq ft	Result Load + Const lb/ft	Sag ft	Tension lb	% Len Chg From Input Conditions	Sag @ Point 86.5 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy 232A1	0.0	1.000	.50	.3	4.0	1.793	3.60	1857	0.09	3.61	1.70	3.18	28.1
	120.0	0.000	.00	.0	0.0	0.317	2.13	556	0.01	2.13	0.00	2.13	0.0

Span Length = 173.00 ft
Span Sag = 1.73 ft (20.8 in)
Span Tension = 686 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 173.046 ft
Stress Free Length @
Installed Temperature = 172.917 ft

Unloaded Strand
Sag = .89 ft (10.7 in) 0.52 %
Tension = 507 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	1.08	1,098	-0.02	N/A
-30.0	1.12	1,055	-0.02	N/A
-20.0	1.17	1,013	-0.01	N/A
-10.0	1.22	971	-0.01	N/A
.0	1.27	931	-0.01	N/A
10.0	1.33	892	-0.01	N/A
20.0	1.39	854	-0.01	N/A
30.0	1.45	817	-0.01	N/A
40.0	1.52	782	-0.01	N/A
50.0	1.58	748	0.00	N/A
60.0	1.66	716	0.00	N/A
70.0	1.73	685	0.00	N/A
80.0	1.81	656	0.00	N/A
90.0	1.89	628	0.01	N/A
100.0	1.97	603	0.01	N/A
110.0	2.05	579	0.01	N/A
120.0	2.13	556	0.01	N/A
130.0	2.22	535	0.02	N/A
140.0	2.30	515	0.02	N/A



Construction Notes :

Frame and install strand and hardware 12 inches above CATV (if no CATV, then install above top telecom). The strand and proper line hardware (i.e. suspension, curved clamp or double dead ends) will be installed following the existing lines in the communication space on the pole. Majority of the time this will be street side. If only power is on the pole Teljet cable will be attached 40' below neutral. Down guys will be installed if required by pole loading and utility walk out.

Dig Safe #

Start Date

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www.teljet.com

Project:
Teljet Longhaul LLC
Merrimack to Keene
New Hampshire

Project # WIL-11
Drawing # AC-RIV-1-ED

Date 04/13/2011
Revision # 1.02

Proposed
Souhegan River
Crossing
Wilton, NH

Location:
Island St, Wilton NH
Nearest Cross St
Burns Hill Rd

Teljet contact:
Mary Lavigne
802 922-9510