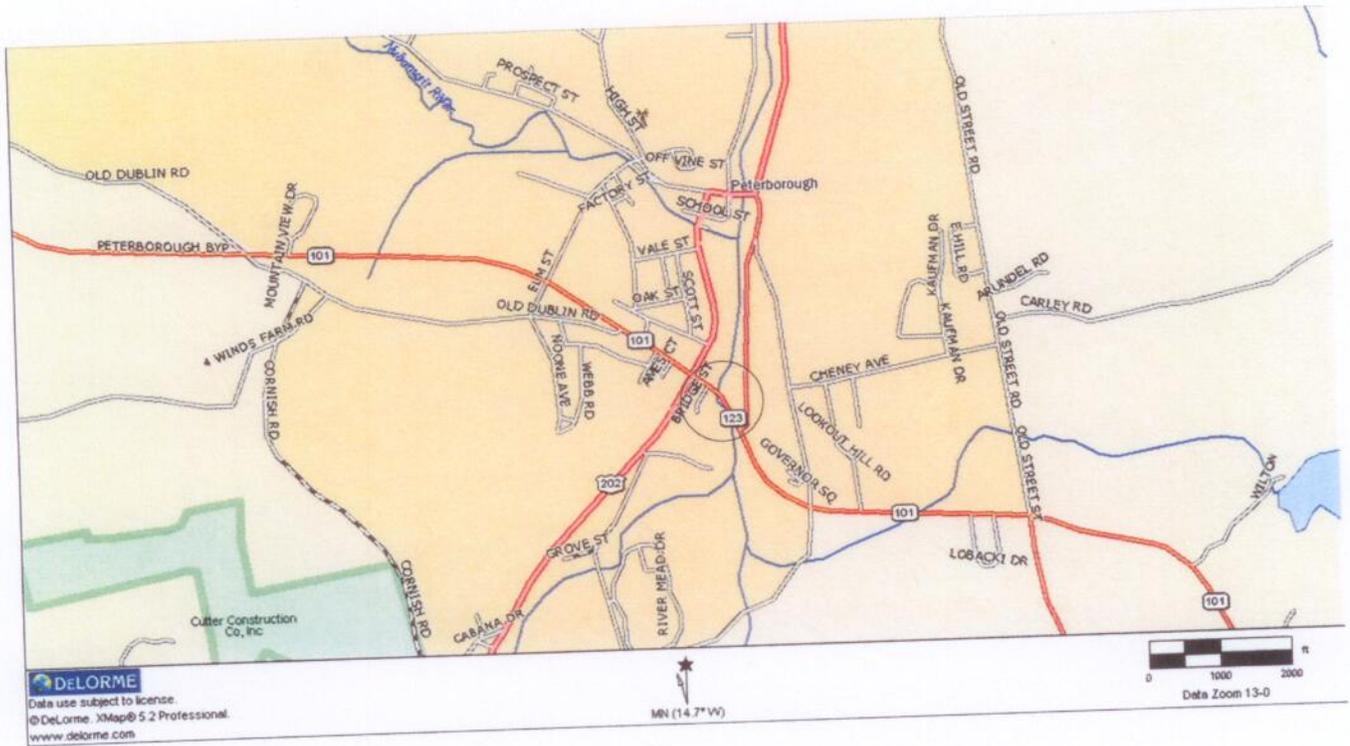


Wilton Bennington Railroad

Crossing Location

Wilton, New Hampshire



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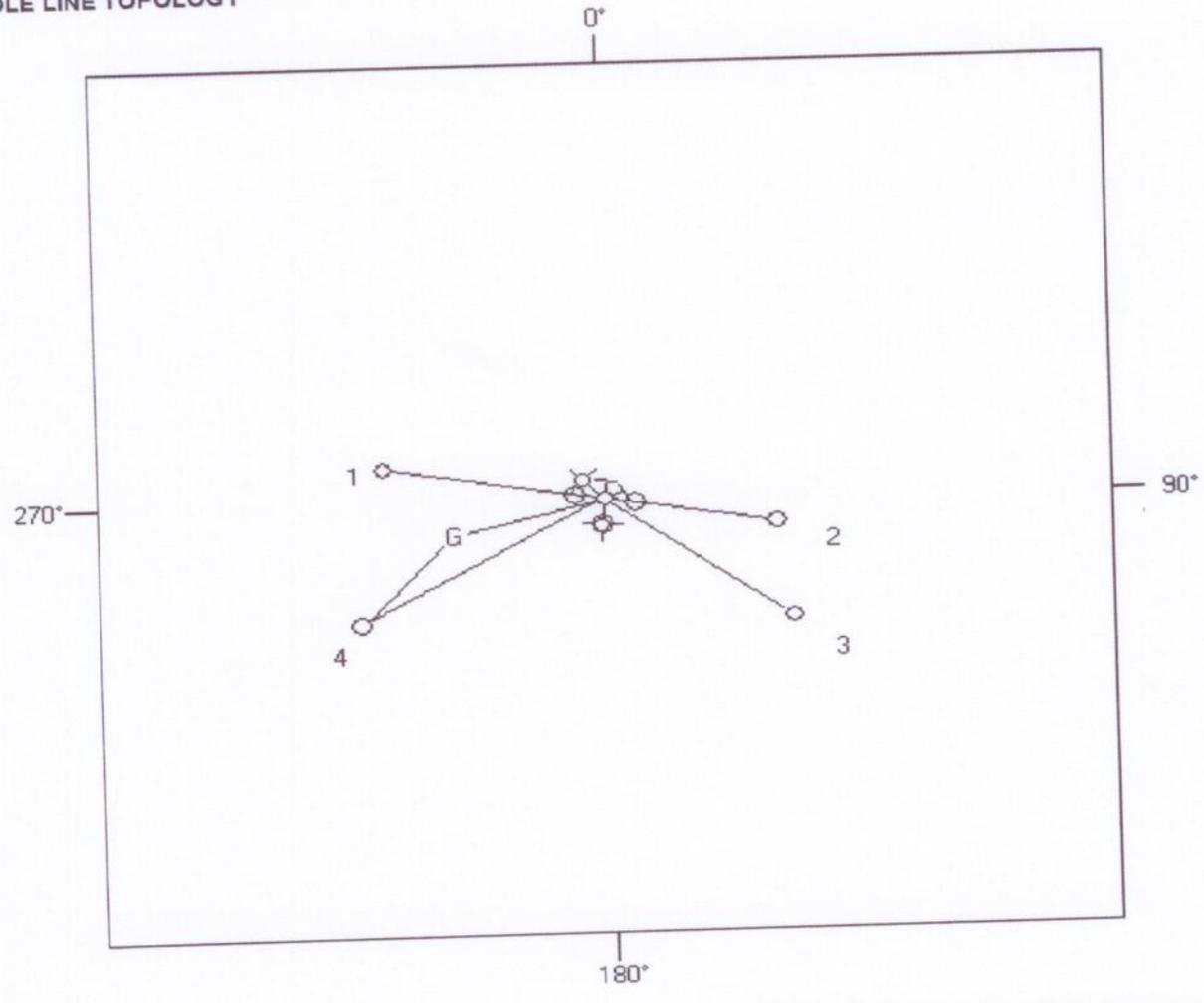
POLE LOADING DATA

Pole: 50/2 Wood
 Pole Loading: Horizontal: 89% (250B) Vertical: 14% (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	50	7	0
1	40	6	0
2	40	6	0
3	50	7	0
4	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	148"	14'	70°	9,015	24,210	37%
1	1/2" EHS	152"	14'	70°	8,409	24,210	35%
2	1/2" EHS	24"	14'	5°	1,248	24,210	5%
2	1/2" EHS	228"	14'	5°	0	24,210	0%
2	1/2" EHS	240"	14'	5°	1,629	24,210	7%

ANCHOR DATA						
Anchor	Rod	Anchor	Soil	Tension	Rod Strength	Anchor Strength
1	1" Rod	10" Triple Heli	Class - 4	7,422	36,000	31,000
2	1" Rod	10" Triple Heli	Class - 4	2,860	36,000	31,000

SPAN GUY DATA								
Span	Strand	Attach A	Attach B	Length	Direction	Tension	Strength	Loading
4	1/2" EHS	144"	60"	192'	240°	0	24,210	0%
4	1/2" EHS	207"	72"	192'	240°	0	24,210	0%
4	1/2" EHS	234"	159"	192'	240°	0	24,210	0%

INSULATORS				
Insulator	Attach	Loading	Angle	
25KV Post	6"	57%	0°	
25KV Post	6"	57%	0°	
25KV Post	6"	57%	0°	

ARM / BRACKET DATA				
Arm/Bracket	Attach	Vert Loading	Horiz Loading	
8" Double Xarm (3-5/8x4-5/8)	6"	51%	23%	

SPANS						
Span: 1		Span Length (ft): 152		Direction: 280°		
Circuit: 1						
Primary	Ruling Span (ft)	Offset (in)	Attach A (in)	Attach B (in)	Tension	
1/0 ACSR (6/1)	150	44	-6	6	1602	
1/0 ACSR (6/1)	150	0	-6	-11	1602	
1/0 ACSR (6/1)	150	-44	-6	6	1602	
Neutral						
1/0 ACSR (6/1)	150	1	129	42	1602	
Joint Use						
Joint Use Cable	Ruling Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)
6.5M (1/4) + 0.75" CATV	100	1.04	0.27	228	228	974
6M (5/16) + 0.75" TELCO	100	1.03	0.50	240	240	2201
10M (3/8) + 1.50" TELCO	100	1.81	1.40	252	252	3514
Span: 2		Span Length (ft): 118		Direction: 100°		
Circuit: 1						
Primary	Ruling Span (ft)	Offset (in)	Attach A (in)	Attach B (in)	Tension	
1/0 ACSR (6/1)	100	44	-6	6	1395	
1/0 ACSR (6/1)	100	0	-6	-11	1395	
1/0 ACSR (6/1)	100	-44	-6	6	1395	
Neutral						
1/0 ACSR (6/1)	100	1	129	42	1395	
Joint Use						
Joint Use Cable	Ruling Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)
6.5M (1/4) + 0.75" TELCO	100	0.97	0.39	228	228	1238
6.5M (1/4) + 0.75" CATV	100	1.04	0.27	240	240	974
6.5M (1/4) + 0.50" TELCO	100	0.72	0.22	252	252	1174

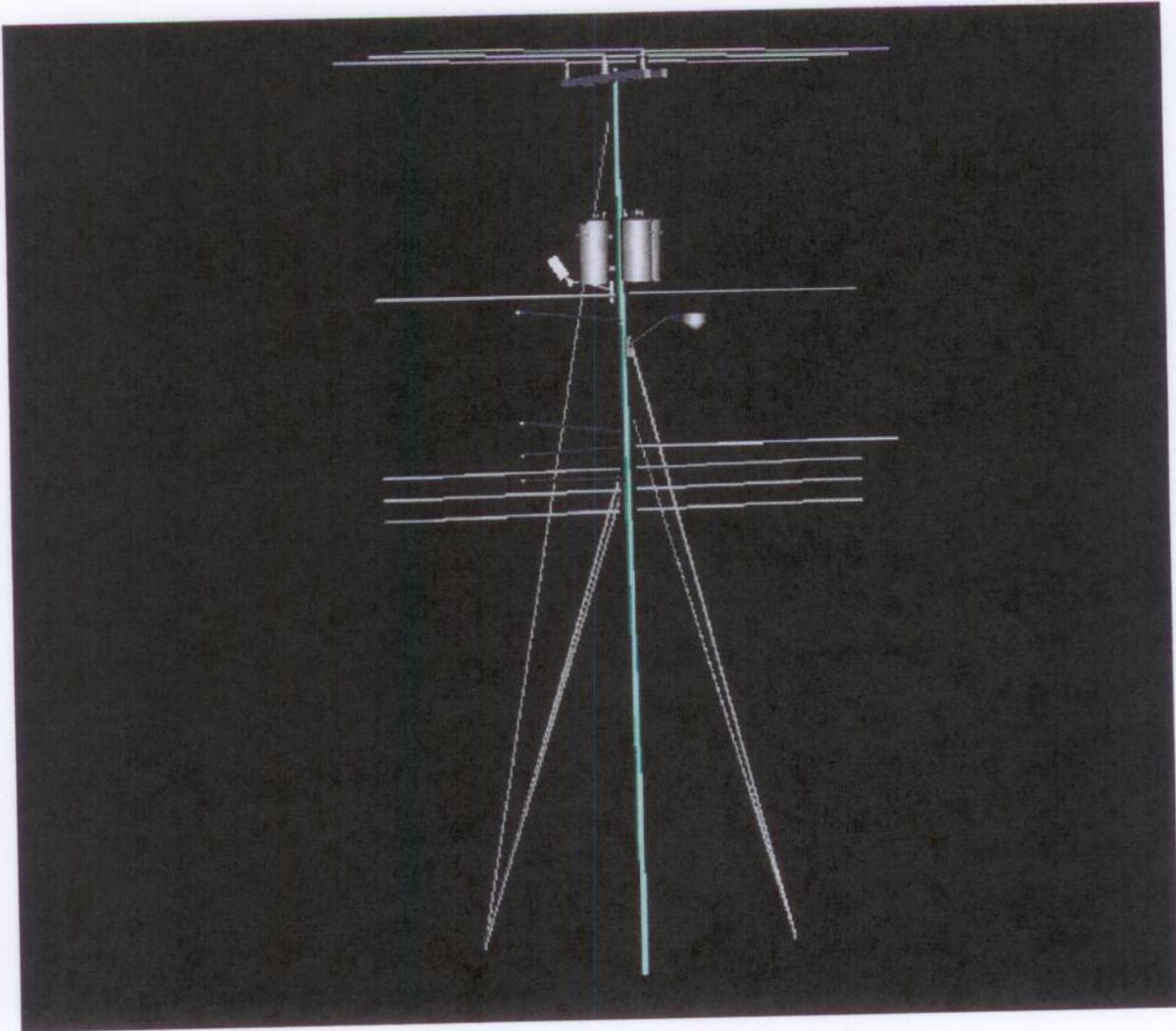
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Span: 3 Span Length (ft): 158 Direction: 127°							
Joint Use							
Joint Use Cable	Ruling Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)	Description
6.6M (1/4) + 3.75" TELCO	150	0.97	0.39	216	216	1419	
Span: 4 Span Length (ft): 192 Direction: 240°							
Joint Use							
Joint Use Cable	Ruling Span (ft)	Diameter (in)	Weight (lbs/ft)	Attach A (in)	Attach B (in)	Tension (lbs)	Description
6.6M (1/4) + 3.75" TELCO	150	0.97	0.39	216	216	1419	
EQUIPMENT							
Equipment	Weight (lbs)	Attach (in)	Direction				
15 KVA	290.0	96	130°				
15 KVA	290.0	96	290°				
15 KVA	290.0	96	195°				
LIGHTS							
Light	Bracket	Weight	EPA	Attach	Direction		
150-400W Cobra	4 FT Bracket	64	0.97	155	185°		
150-400W Flood	2 FT Bracket	44	1.3	123	315°		

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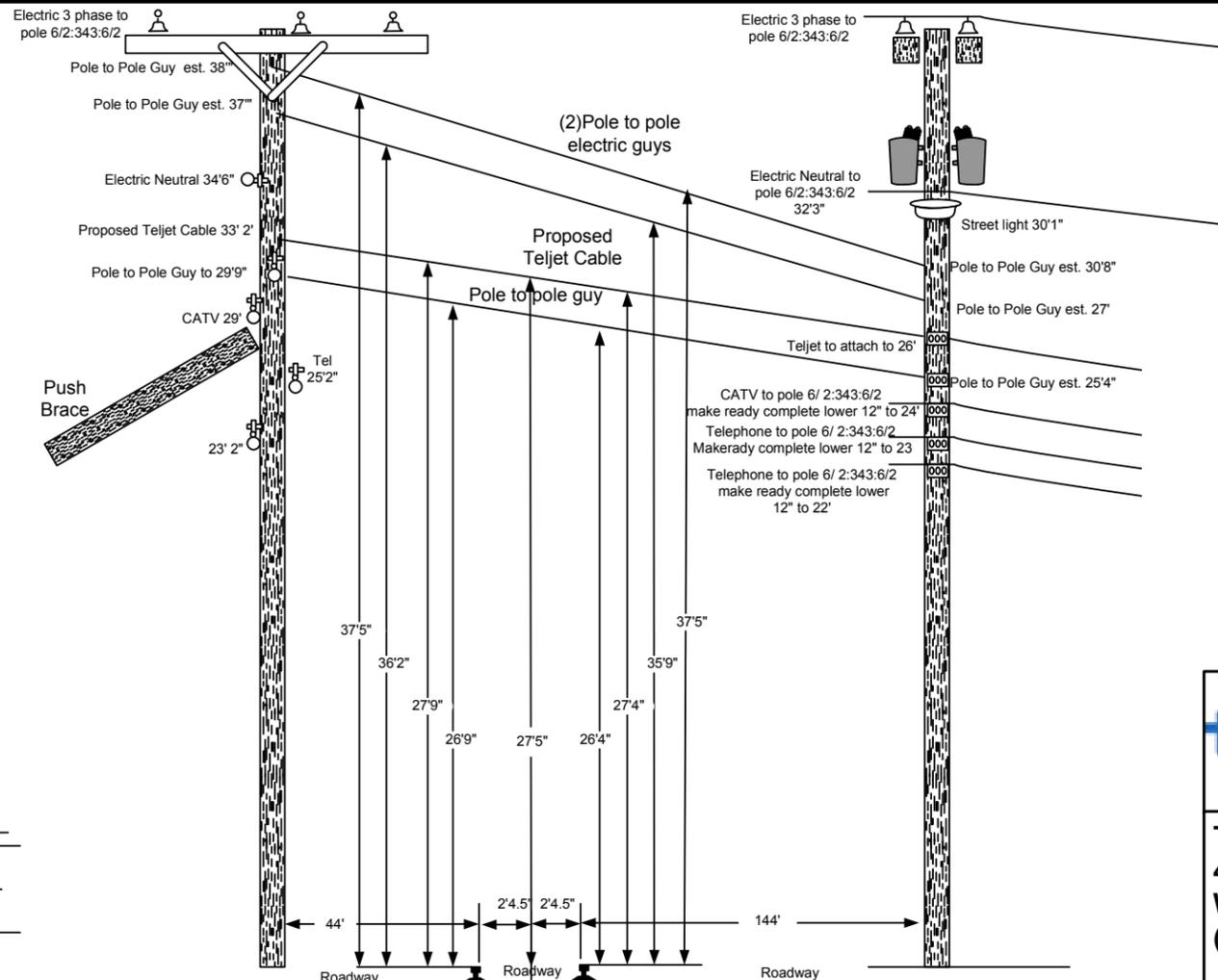
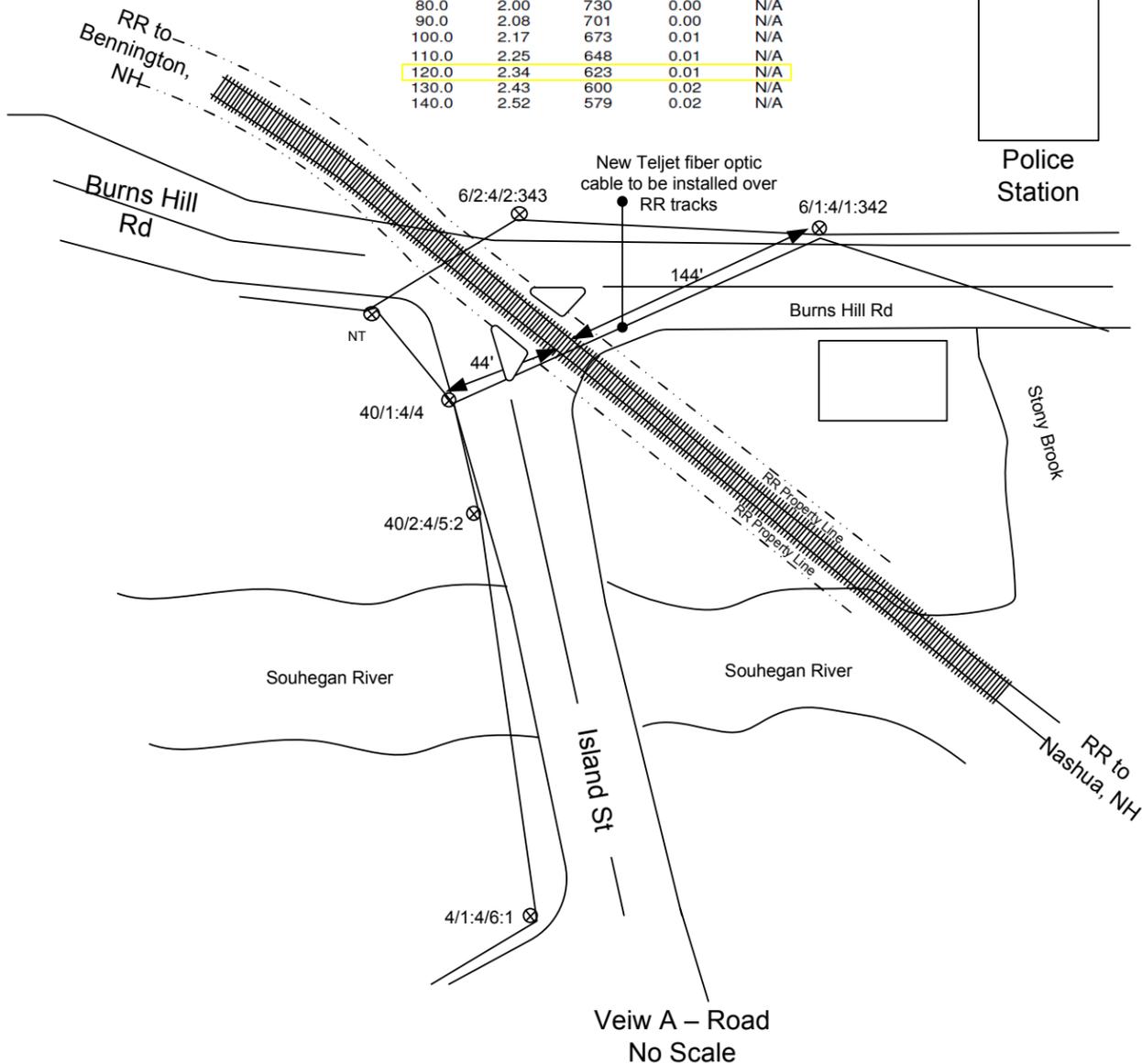
Spanmaster® Release 3.1 Sag / Tension Computations
 04/07/11 WIL-11 AC-RR-1
 Teljet
 Teljet Fiber Optic Crossing over Bennington RR in Wilton, NH April 7, 2011

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

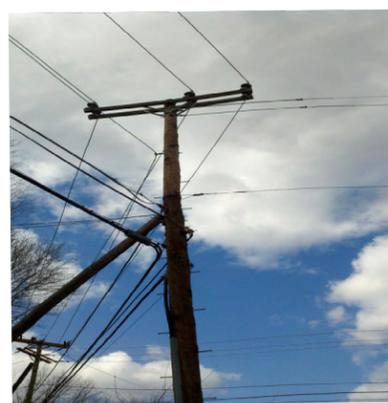
Loading Condition	Temp. (F)	Ice Load lb/ft	Ice Thick in	Wind Constant lb/ft	Horz Wind Load lb/sq ft	Result Load + Const lb/ft	Sag ft	Tension lb	% Len Chg From Input Conditions	Sag @ Point 96.00 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy 232A1	0.0	1.000	.50	.3	4.0	1.793	4.12	1999	0.10	4.13	1.94	3.64	28.1
	120.0	0.000	.00	.0	0.0	0.317	2.34	623	0.01	2.34	0.00	2.34	0.0

Span Length = 192.00 ft	Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
Span Sag = 1.92 ft (23.0 in)	-40.0	1.24	1,179	-0.02	N/A
Span Tension = 761 lb	-30.0	1.28	1,136	-0.01	N/A
Max Load = 6,650 lb	-20.0	1.33	1,094	-0.01	N/A
Usable load (60%) = 3,990 lb	-10.0	1.39	1,052	-0.01	N/A
Catenary Length = 192.051 ft	0	1.44	1,011	-0.01	N/A
Stress Free Length @ Installed Temperature = 191.892 ft	10.0	1.50	972	-0.01	N/A
	20.0	1.56	933	-0.01	N/A
	30.0	1.63	896	-0.01	N/A
Unloaded Strand Sag = .96 ft (11.6 in) 0.50 % Tension = 578 lb	40.0	1.70	860	-0.01	N/A
	50.0	1.77	825	0.00	N/A
	60.0	1.84	792	0.00	N/A
	70.0	1.92	760	0.00	N/A
	80.0	2.00	730	0.00	N/A
	90.0	2.08	701	0.00	N/A
	100.0	2.17	673	0.01	N/A
	110.0	2.25	648	0.01	N/A
	120.0	2.34	623	0.01	N/A
	130.0	2.43	600	0.02	N/A
	140.0	2.52	579	0.02	N/A



Veiw B – Elevation No Scale

Picture of Pole 40/1:4/4



Picture of Pole 6/1:4/1:342



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 analysis or utility walk out.

Construction Notes :

Dig Safe #

Start Date

DIG SAFE
 MA - ME - NH - RI - VT



Call Before You Dig
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Teljet Longhaul LLC
 45 Krupp Drive,
 Williston, VT 05495
 (802) 922-9491
 www.teljet.com

Project:
 Teljet Longhaul LLC
 Merrimack to Keene
 New Hampshire
Project # WIL-11
Drawing # AC-RR-1-ED

Date 04/13/2011
 Revision # 1.02

Proposed
Wilton-Bennington
Railroad Crossing
Wilton, NH

Location:
 Burns Hill Rd Wilton, NH
 nearest cross st
 Island St

Teljet contact:
 Mary Lavigne
 802 922-9510