Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

August 21, 2017

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-104-170130 – Cellco Partnership d/b/a Verizon Wireless – Notice of Intent to Modify an Existing Telecommunications Facility Located at 202 North Wawecus Hill Road, Norwich, Connecticut**

Dear Ms. Bachman:

On February 22, 2017, the Siting Council acknowledged the above-referenced notice of intent to modify the existing Cellco Partnership d/b/a Verizon Wireless ("Cellco") telecommunications facility at 202 North Wawecus Hill Road in Norwich, Connecticut. Prior to installation of these antenna modifications, Cellco determined that certain antenna mount reinforcement would be required before its modifications could be completed. Because the antenna mount reinforcement was not part of the original structural analysis, Cellco asked All-Points Technology Corporation, P.C. ("APT") to perform a structural analysis of the tower with the additional antenna mount reinforcement. Attached is a letter from APT confirming that the tower is structurally capable of supporting the antenna modifications and the antenna mount reinforcement that Cellco intends to install.

As required by the Council's acknowledgement, Cellco will notify the Council once all facility modifications have been completed.

16932106-v1

Please feel free to contact me if you need any additional information.

Sincerely,

Kenneth C. Baldwin

KCB/kmd
Enclosure
Copy to:
Tim Parks
Jim Smith

ALL-POINTS
TECHNOLOGY CORPORATION

August 15, 2017

Verizon Wireless
99 East River Drive, 9th Floor
East Hartford, CT 06108

Attn: Jim Smith
Re: 140' Monopole Tower, Norwich, CT
Verizon Site: Norwich West

Dear Jim,

All-Points Technology Corporation, P.C. (APT) performed a structural analysis of the 140-foot monopole tower located at 202 North Wawecus Hill Road in Norwich, Connecticut. The analysis was performed for the addition of antenna mount reinforcement proposed by Verizon Wireless.

The structural analysis was done in accordance with the Connecticut State Building Code and TIA-222, Revision G (TIA), Structural Standard for Antenna Supporting Structures and Antennas using a 3-second gust speed of 105-mph and 50-mph with ¾" of radial ice. APT did not visit the tower site; this analysis relied on a structural analysis by American Tower Corporation (ATC), Eng. #OAA684610_C3_02 dated December 1, 2016. The analysis was run using the antenna inventory listed in the ATC structural analysis report, with additional mount reinforcement kits as specified in ProTerra Design Group's construction drawings dated April 5, 2017.

Our analysis indicates the tower and foundation meet the requirements of the Connecticut State Building Code with the proposed equipment changes.

Please contact me if you have questions.

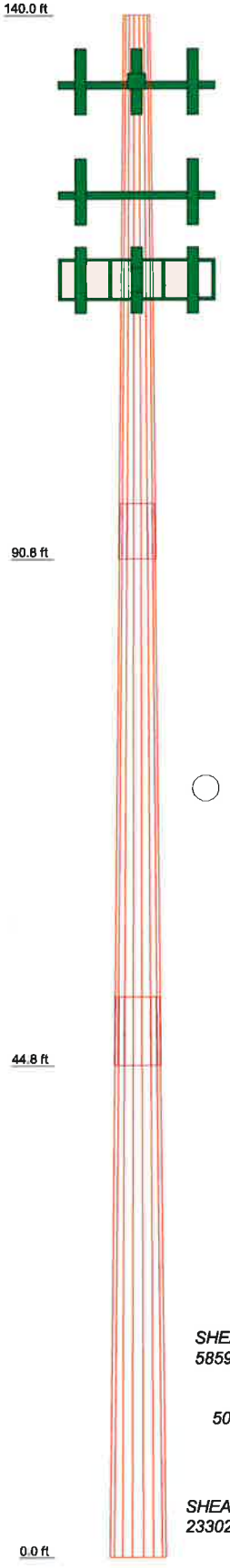
Sincerely,
All-Points Technology Corporation, P.C.

Robert E. Adair, P.E.
Principal

CT1416050 Norwich West APT SA ltr 8-15-2017.doc

□ 3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935
⊗ 116 GRANDVIEW ROAD · CONWAY, NH 03818 · PHONE 603-496-5853 · FAX 603-447-2124

Section	1	2	3
Length (ft)	49.25	51.00	51.00
Number of Sides	18	18	18
Thickness (in)	0.2810	0.3750	0.4375
Socket Length (ft)	5.00	6.25	
Top Dia (in)	28.6800	38.4810	48.2112
Bot Dia (in)	40.2140	50.4249	60.1550
Grade		A572-65	
Weight (lb)	5106.8	9104.7	12951.9
			27163.4



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
AIR 21 B2A B4P panel	134	860-10025 RCU	124
AIR 21 B2A B4P panel	134	14' low-profile platform	124
AIR 21 B2A B4P panel	134	(2) SBNHH-1D65B	116
AIR 21 B4A B2P panel	134	(2) SBNHH-1D65B	116
AIR 21 B4A B2P panel	134	(2) SBNHH-1D65B	116
AIR 21 B4A B2P panel	134	BXA-70063/6	116
LNX-6515DS-T4M	134	BXA-70063/6	116
LNX-6515DS-T4M	134	BXA-70063/6	116
LNX-6515DS-T4M	134	ALU B25 RRH2x60 PCS w/bracket	116
Ericsson RRUS-11	134	ALU B25 RRH2x60 PCS w/bracket	116
Ericsson RRUS-11	134	ALU B25 RRH2x60 PCS w/bracket	116
Ericsson RRUS-11	134	ALU RRH2x60-700 w/bracket	116
KRY 112 144/1	134	ALU RRH2x60-700 w/bracket	116
KRY 112 144/1	134	ALU RRH2x60-700 w/bracket	116
KRY 112 144/1	134	ALU B66a RRH4x45w/bracket	116
14' low-profile platform	134	ALU B66a RRH4x45w/bracket	116
800-10504	124	ALU B66a RRH4x45w/bracket	116
800-10504	124	RFS DB-B1-6C-8AB-0Z D-box	116
800-10504	124	RFS DB-B1-6C-8AB-0Z D-box	116
860-10025 RCU	124	14' platform w/rails _brace kit	116
860-10025 RCU	124		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

ALL REACTIONS ARE FACTORED

AXIAL 72892 lb

SHEAR 5859 lb — *MOMENT 517406 lb-ft*

TORQUE 38 lb-ft
50 mph WIND - 0.7500 in ICE

AXIAL 44350 lb

SHEAR 23302 lb — *MOMENT 2145638 lb-ft*

TORQUE 204 lb-ft
REACTIONS - 105 mph WIND

All-Points Technology Corporation
116 Grandview Road
Conway, NH 03818
Phone: (603) 496-5853
FAX: (603) 447-2124

Job:	**140' Monopole Tower**		
Project:	**CT1416050 Norwich West**		
Client: Verizon	Drawn by: Rob Adair		App'd:
Code: TIA-222-G	Date: 08/15/17		Scale: N
Path: Z:\Shared\NH Office\Jobs\2 Verizon LTE\CT1416050 Norwich West\CT1416050 Norwich West.eri			Dwg No.

tnxTower	Job	Page
	140' Monopole Tower	1 of 1
All-Points Technology Corporation 116 Grandview Road Conway, NH 03818 Phone: (603) 496-5853 FAX: (603) 447-2124	**Project** CT1416050 Norwich West	**Date** 14:33:43 08/15/17
	Client Verizon	**Designed by** Rob Adair

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	140 - 90.75	Pole	TP40.214x28.68x0.281	1	-13274.90	523975.00	22.0	Pass
L2	90.75 - 44.75	Pole	TP50.4249x38.481x0.375	2	-25246.10	1377060.00	29.0	Pass
L3	44.75 - 0	Pole	TP60.155x48.2112x0.4375	3	-44342.50	2811120.00	32.8	Pass
							Summary	
						Pole (L3)	32.8	Pass
						RATING =	**32.8**	**Pass**