

## EM-VER-012-240501 – South Road, Bolton

**From:** Barbadora, Jeff <Jeff.Barbadora@crowncastle.com>

**Sent:** Wednesday, February 19, 2025 1:07 PM

**To:** CSC-DL Siting Council <Siting.Council@ct.gov>

**Subject:** EM-VER-012-240501 - Bolton, CT (BU # 842858) app 656559

Good afternoon,

Construction completed.

Thanks,

**Jeffrey Barbadora**

Permitting Specialist

781-970-0053

**Crown Castle**

1800 W. Park Drive, Suite 250

Westborough, MA 01581



February 7, 2025

Mr. Rich McKinnon  
Town of Bolton Building Department  
222 Bolton Center Road  
Bolton, CT 06043

**Re: Letter of Professional Opinion**

**Project:** Bolton East CT (Verizon)  
49 South Road  
Bolton, CT 06043

**Owner:** Crown Castle

**Engineer:** Tower Engineering Professionals  
326 Tryon Road, Raleigh, NC 27603

**Contractor:** NEC Goup  
21 Marion Drive, Kingston, MA 02364

**Centek Project No.:** 25002.14

**Building Permit No.:** B-24-83

Dear Mr. McKinnon,


We are providing this "Letter of Professional Opinion" with regard to the structural components at the above referenced project.

The following are the basis for substantiating compliance with construction documents prepared by Tower Engineering Professionals dated 06/03/2024 Rev.2, Structural Analysis Report prepared by B+T Group dated 01/24/2024 Rev.0 and Post-Modification Mount Analysis Report prepared by Colliers Engineering & Design dated 12/14/2023 Rev.1:

☐ Field observations of completed construction on 05/023/2024.

Please note that discrepancies in the tower-mounted equipment listed in the Post-Modification Mount Analysis Report prepared by Colliers Engineering & Design (dated 12/14/2023 Rev.1), Structural Analysis Report prepared by B+T Group (dated 01/24/2024 Rev.0) and the construction documents prepared by Tower Engineering Professionals dated (06/03/2024 Rev.2) have been identified. The inconsistency in equipment models between the construction documents, Structural Analysis Report and Post-Modification Mount Analysis Report is highlighted in red on the attached pages: page 6 of the construction documents, page 3 of the Structural Analysis Report and page 3 of the Post-Modification Mount Analysis Report.

The work under this Contract has been reviewed and found, to the Engineer's best knowledge, information, and belief, to be completed in general compliance with the documents prepared by the aforementioned offices.

Sincerely,  
  
Carlo F. Centore, PE  
Principal



POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	*	ANTEL – LPA-80063-4CF-EDIN-0	30°	107'-0"	1	(N) SAMSUNG – RF4439D-25A	TOWER	-	-	-	-	-	-	-	-	-	-	-
A2	700/850/1900	(N) COMMScope – NHH-65C-R2B	30°	107'-0"	1 1	(N) SAMSUNG – RF4461D-13A (N) SAMSUNG – RT4423-48A/B	TOWER TOWER	-	-	-	-	-	1	(N) RAYCAP – RVZDC-6627-PF-48	1	(N) HYBRIFLEX CABLE	1-5/8"	160'
	CBRS/AWS	(N) COMMScope – NHHSS-65B-R2BT4	30°	107'-0"														
A3	L-SUB6	(N) SAMSUNG – MT6413-77A	30°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A4	-	ANTEL – LPA-80063-4CF-EDIN-0	30°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1	-	ANTEL – LPA-80063-4CF-EDIN-0	150°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B2	700/850/1900	(N) COMMScope – NHH-65C-R2B	150°	107'-0"	1 1	(N) SAMSUNG – RF4461D-13A (N) SAMSUNG – RT4423-48A/B	TOWER TOWER	-	-	-	-	-	1	(N) RAYCAP – RVZDC-6627-PF-48	1	(N) HYBRIFLEX CABLE	1-5/8"	160'
	CBRS/AWS	(N) COMMScope – NHHSS-65B-R2BT4	150°	107'-0"														
B3	L-SUB6	(N) SAMSUNG – MT6413-77A	150°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B4	-	ANTEL – LPA-80063-4CF-EDIN-0	150°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1	-	ANTEL – LPA-80063-4CF-EDIN-0	270°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	700/850/1900	(N) COMMScope – NHH-65C-R2B	270°	107'-0"	1 1	(N) SAMSUNG – RF4461D-13A (N) SAMSUNG – RT4423-48A/B	TOWER TOWER	-	-	-	-	-	-	-	-	-	-	-
	CBRS/AWS	(N) COMMScope – NHHSS-65B-R2BT4	270°	107'-0"														
C3	L-SUB6	(N) SAMSUNG – MT6413-77A	270°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4	-	ANTEL – LPA-80063-4CF-EDIN-0	270°	107'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NOTE – CONTRACTOR TO REFERENCE LATEST RFDS FOR ELECTRICAL AND MECHANICAL DOWNTILTS														UNUSED FEEDLINES	6	(E) COAX	1-5/8"	160'
															-	-	-	-



## 1) INTRODUCTION

This is a 120 ft Monopole tower designed by PennSummit Tubular in August of 2003.

The tower has been modified multiple times to accommodate additional loading.

## 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	119 mph
<b>Exposure Category:</b>	C
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1.5 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Service Wind Speed:</b>	60 mph

**Table 1 - Proposed Equipment Configuration**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
108.0	111.0	1	Site Pro1	VZWSMART-PLK1 Support Rail Kit	8	1-5/8
	108.0	2	--	36" x P2 STD OVP Pipes		
		1	--	Platform Mount [LP 303-1]		
	107.0	6	Antel	LPA-185063/8CFX2		
		3	Commscope	NHH-65B-R2B		
		3	Commscope	NHHSS-65B-R2BT4		
		2	Raycap	RRFDC-3315-PF-48		
		3	Samsung Telecom.	MT6413-77A		
		3	Samsung Telecom.	RF4439D-25A		
		3	Samsung Telecom.	RF4461D-13A		
		3	Samsung Telecom.	RT4423-48A/B		

**Table 2 - Other Considered Equipment**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
118.0	118.0	6	CCI Antennas	DMP65R-BU4D	12 4 2	1-1/4 1 3/8
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Powerwave Tech.	1001940		
		3	Powerwave Tech.	7770.00		
		6	Powerwave Tech.	LGP21401		
		1	Raycap	DC6-48-60-18-8C		
		1	Raycap	DC6-48-60-18-8F		
		1	--	Platform Mount [LP 303-1_HR-1]		
	99.0	3	Ericsson	AIR 32 B2A/B66AA	9	1-5/8



### **Final Loading Configuration:**

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
105.50	107.00	3	Commscope	NHH-65B-R2B	Added
		3	Commscope	NHHSS-65B-R2BT4	
		3	Samsung	MT6413-77A	
		2	Raycap	RVZDC-3315-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		3	Samsung	RT4423-48	
		6	Amphenol Antel	LPA-80063-4CF-EDIN-0	Retained

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

### **Standard Conditions:**

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.





