## 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

March 25, 2015

Melanie A. Bachman Acting Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Notice of Exempt Modification – Facility Modification 190 Colt Highway (aka Rattlesnake Mountain), Farmington, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains eight (8) wireless telecommunications antennas at the 120-foot level on the existing 1,339-foot guyed-lattice tower at 190 Colt Highway in Farmington, Connecticut (the "Property"). The tower and underlying property are owned by Communications Site Management LLC. Cellco's use of the tower was approved by the Council in 1988. Cellco now intends to modify its facility by replacing two (2) of its existing antennas with two (2) model X7C-FRO-660-V, 700 MHz antennas at the same level on the tower. Included in <u>Attachment 1</u> are specifications for Cellco's replacement antennas.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is also being sent to Kathleen A. Eagen, Town Manager for the Town of Farmington. A copy of this letter is also being sent to Communications Site Management, LLC, the owner of the Property.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's replacement antennas are located at the 120-foot level of the 1,339-foot tower.

13535351-v1

## Robinson+Cole

Melanie A. Bachman March 25, 2015 Page 2

- 2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.
- 3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The operation of the replacement antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in <a href="https://example.com/Attachment2">Attachment 2</a>.
- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. The tower, guy wires and foundation can support Cellco's proposed modifications. (See Structural Analysis included in <u>Attachment 3</u>).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures Copy to:

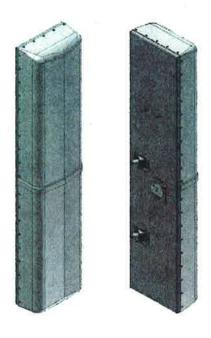
Kathleen A. Eagen, Farmington Town Manager Communications Site Management, LLC Tim Parks

# **ATTACHMENT 1**



## X7C-FRO-660-V

X-Pol Antenna, 698-896MHz, Fast-Roll-Off 60° H-Beam **RET/MET** 



- Designed to improve SNR
- · Greatly increases LTE data rates
- Broadband radiator
- Macro Cell, high gain antenna
- Suitable for LTE/CDMA/UMTS/GSM
- AISG 2.0 RET or manual MET tilt control

### **Electrical Specifications**

Frequency Band, MHz	698-824	824-896		
Horizontal Beamwidth, 3dB points	62	58		
Gain, dBi	15.9	16.0		
Vertical Beamwidth, 3dB points	12.0	10.5		
Front-to-Back at 180°, dB	>:	28		
Upper Sidelobe Suppression, Typical, dB	<-	18		
Polarization	+/-	-45°		
Electrical Downtilt	0-10° or 4-14°			
VSWR/Return Loss, dB, Maximum	1.5:1/14.0			
Isolation Between Ports, dB, Mimimum	-2	28		
Intermodulation (2x20w), IM3, dBc, Maximum	-1	50		
Impedance, ohms	5	50		
Maximum Power Per Connector, CW	5	00		

# **ATTACHMENT 2**

	General	Power	Density					
Site Name: Farmington								
Tower Height: 1,339Ft.								
				CALC. POWER		MAX. PERMISS.	FRACTION	
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	DENS	FREQ.	EXP.		Total
*MetroPCS CDMA	က	727	140	0.0400	2135	1.0000	4.00%	
*MetroPCS LTE	1	1200	140	0.0220	2130	1.0000	2.20%	
*CNG	3	3971	750	0.0076	153.42	0.2000	3.81%	
*MediaFLO			1132		719		0.04%	
*Sirius XM Radio	1	4898	460	0.0083	2300	1.0000	0.83%	
*Clearwire	2	153	190	0.0030	2493	1.0000	0.30%	3
*Clearwire	1	211	190	0.0021	11 GHz	1.0000	0.21%	
*Sprint	11	433	160	0.0669	1962.5	1.0000	%69.9	
Verizon PCS	0	311	120	0.0000	1970	1.0000	0.00%	
Verizon Cellular	6	403	120	0.0906	869	0.5793	15.63%	
Verizon AWS	1	1750	120	0.0437	2145	1.0000	4.37%	
Verizon 700	1	1050	120	0.0262	746	0.4973	5.27%	
								43.36%
* Source: Siting Council								

\*



### **Mechanical Specifications**

## X7C-FRO-660-V

X-Pol Antenna, 698-896MHz, Fast-Roll-Off 60° H-Beam RET/MET

Dimensions, Length/Width/Depth

Connector (Quantity) Type

**Connector Torque** 

Connector Location

Antenna Weight

Bracket Weight

Standard Bracket Kit

Mechanical Downtilt Range

Radome Material

Wind Survival

Front Wind Load

**Equivalent Flat Plate** 

72.0/14.6/8.0 in (1829/372/204 mm)

(2) 7-16 DIN Female

220-265 lbf-in (25-30 N-m)

Back

35.0 lbs

13.2 lbs (6.0 kg)

CSS P/N 919011

0-12°

Ultra High Strength Luran, UV Stabilized, ASTM D1925

150 mph (241 km/h)

205.39 lbf (913.65 N) @100mph

4.09 sq-ft (c=2) @ 100mph

#### **RET Information**

Model

CSS-RET-200

**Mounting Location** 

Rear of Antenna

Weight

1.2 lb (0.54 kg)

**Communication Standard** 

**AISG 2.0** 

**Control System** 

CSS-PCU-220



#### Order Information

Model	Description
X7C-FRO-660-VRO	Antenna with manual RET adjust electrical downtilt 0-10°
X7C-FRO-660-VR4	Antenna with manual RET adjust electrical downtilt 4-14°
X7C-FRO-660-VM0	Antenna with remote MET adjust electrical downtilt 0-10°
X7C-FRO-660-VM4	Antenna with remote MET adjust electrical downtilt 4-14°

## **Optional Bracket Kit**

All Specifications are subject to change.

919036

Bracket Kit, 2-Point, 12 deg D-tilt, For 4.5" OD Pole

# **ATTACHMENT 3**



PROJECT: STRUCTURAL ANALYSIS of Existing 1339ft LRM3700 Guyed Mast

CUSTOMER: **VitalSite Services, Inc** 

SITE: Rattlesnake (aka Farmington), CT

TURRIS FILE: **14-0846 January 26, 2015** 



#### STRUCTURAL ANALYSIS OF

### Existing 1339 Ft. LRM3700 Guyed Mast

## at Rattlesnake (aka Farmington), CT

FOR:

**VitalSite Services, Inc** 

Attention: Stephen Schadler VitalSite Services, Inc. Real Estate Consultant / Verizon Wireless 99 East River Drive, 9<sup>th</sup> Floor East Hartford, CT 06810

CC: Joe Legere Communications Site Management LLC. Goodwin Square 225 Asylum Street, 29<sup>th</sup> Floor Hartford, CT 06103

Prepared by: Meimei Lam
TURRIS CORP.
70 Todd Road, Georgetown, ON, Canada L7G 4R7
Phone: (905) 877-8885 Fax: (905) 877-8835

Reviewed By: Tony Fonseca, P.E.
Turris Engineering Inc.
9 Apple Lane, Moorestown, NJ 08057
Mob: (803) 873-1562



#### Introduction

We have completed the structural analysis of the existing 1339ft LRM3700 guyed mast at Rattlesnake (aka Farmington), CT, and are pleased to submit our report for your attention.

The purpose of this analysis is to evaluate the tower for compliance with ANSI/TIA-222-G-2009 Add. 2 with modifications to existing antenna on the tower based on information provided by VitalSite Services, Inc on December 23, 2014. Table 1 tabulates Verizon's current inventory on the tower. Table 2 tabulates the removed equipment from the tower.

Table 1 – Verizon's Current Inventory

ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	AZ	Comments
81a		Swedcom SCE-6016 Rev 2	1	116			0	
81b		Swedcom SACP 2x5516	1	116	7		0	
81c		CSS / X7C-FRO-660-VR4	1	116	]		0	
81d		Swedcom SCE-6016 Rev 2	1	116			0	
82		NA			1 5/8"	12		
83a		Swedcom SCE-6016 Rev 2	1	116			270	2 existing Andrew CBC721-DF
83b		CSS / X7C-FRO-660-VR4	1	116	7		270	
83c		Swedcom SACP 2x5516	1	116			270	
83d		Swedcom SCE-6016 Rev 2	1	116			270	

Table 2 – Removed Equipment

			T					
ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	AZ	Comments
77		Hyperlink 3ft dish w/ radome	1	210	Cat 5 Cable	1	39	Computer hospital
78		Proxim 5054R-LR Base panels	2	210	Cat 5 Cable	3	159	Computer hospital

As requested by Communications Site Management, LLC, the current analysis does not include the AT&T's previously proposed antenna in Structural Analysis Report (Job: 14-0660) by Turris dated October 9, 2014.

We trust the analysis and recommendations presented in the report will meet your requirements. However, please do not hesitate to contact us if you have any questions, or require any further information regarding this study.



#### 1.0 Terms of Reference

The following documents and drawings were examined:

Tower Profile: Radian dwg. No. 37-1030-E01-01 Rev. 2 dated Jan/10/2005.

Tower Foundations: LeBlanc dwg. No. 3.7A1001-FE10 Issue 2 dated Aug/31/84.

LeBlanc dwg. No. 3.7A1001-FE1 Issue 1 dated May/7/84. LeBlanc dwg. No. 3.7A1001-FE2 Issue 1 dated May/1/84. LeBlanc dwg. No. 3.7A1001-FE3 Issue 1 dated Apr/30/84. LeBlanc dwg. No. 3.7A1001-FE4 Issue 1 dated Apr/30/84. LeBlanc dwg. No. 3.7A1001-FE5 Issue 1 dated May/1/84. LeBlanc dwg. No. 3.7A1001-FE6 Issue 1 dated Apr/30/84. Radian dwg. No. 37-1030-F01-01 Rev. 0 dated Oct/4/2004. Radian dwg. No. 37-1030-F02-01 Rev. 0 dated Oct/5/2004.

Radian dwg. No. 37-1030-F02-01 Rev. 0 dated Oct/5/2004. Radian dwg. No. 37-1030-F03-01 Rev. 0 dated Oct/5/2004.

Antenna Inventory: Mapping by Communications Site Management, LLC dated December 22,

2014 and refer to Appendix A.

Soil Report: Dr. Clarence Welti, Geotechnical Engineering

Report dated January 30, 2004

A tower inspection was not performed in conjunction with this analysis. The tower and loading data used in this analysis are based on and is as accurate as the data furnished/obtained.

#### 2.0 Analysis Parameters

Standard: ANSI/TIA-222-G-2009 Add. 2

County: Hartford, CT
 Basic Wind Speed: 100.00(mph)
 Basic Wind Speed With Ice: 50.00(mph)

• Design Ice Thickness: 1.00(in)

• Structure Class: II

• Exposure Category: C

Topographic Category: 1



#### 3.0 Assumptions

- 1. The tower is in good, non-corroded conditions.
- 2. The tower and its foundation system have been properly constructed as per the original design drawings and specifications and able to resist the original design loads.
- 3. This analysis assumes that all previous reinforcing recommendations and antenna rearrangement have been implemented.
- 4. All existing/future tx lines less than 3" in diameter are considered grouped together in blocks based on an assumed arrangement for this analysis.
- 5. This analysis assumes that the back-to-back diagonals at sections 6, 7, 12, 13, 19, 20, 21, and 33 had been upgraded with (1) 5/8" stitch bolt on each side of the existing middle stitch bolt.
- 6. This analysis assumes that the antenna mount at elevation 120' has the structural capacities to support the equipment at elev. 120'.
- 7. The base foundation was analyzed based on the soil parameters as stated in the original foundation drawing (Dwg. 3.7A1001-FE10 Issue 2). Allowable bearing capacity = 50 ksf.
- 8. The inner and outer anchors were analyzed based on the following assumed dry soil parameters: density = 130.5 pcf, angle of internal friction = 30 deg, Kp = 3.

#### 4.0 Analysis Results

Appendix A shows the tower profile, along with the antennas, transmission lines and ancillary loading considered in this analysis. The existing structure was analyzed using the comprehensive computer program "TSTower". Graphical and tabular results are presented in Appendix B.

#### 5.0 Conclusions & Recommendations

The existing 1339 ft LRM3700 guyed tower at Rattlesnake (aka Farmington), CT, was examined for compliance with American standard ANSI/TIA-222-G-2009 Add. 2. A summary of member stresses are listed below:

Summary of member stress ratios

Member Type	Section	Panel	Member size	Ratio	Comment
Leg	15	2	SR 6	0.96	Acceptable
Diagonal	6	4	2L3x2x1/4	0.64	Acceptable

#### Summary of base reactions

Committee y of	oute redetion
Axial (Kips)	Shear (Kips)
3623.98	62.1

Base foundation is acceptable.



#### 5.0 Conclusions & Recommendations (Cont'd)

Summary of anchor reactions

outricery o	A minusth	I	Elevation	II!4-1	17	A - ! - 1 T 1
Anchor#	Azimuth	Radius (ft)	Elevation	Horizontal	Vertical	Axial Load
1 11101101 17	(deg)	Addid (11)	(ft)	Load (Kips)	Load (Kips)	(Kips)
1C	39.0	685.00	-25.0	467.32	330.66	527.47
2C	159.0	645.00	-30.0	469.32	353.33	587.46
3C	279.0	729.00	-120.0	458.11	362.29	584.05
1B	39.0	845.00	-140.0	118.84	150.27	191.58
2B	159.0	735.00	-38.0	123.08	161.91	203.38
3B	279.0	827.00	-130.0	121.04	154.94	196.61
1A	39.0	875.00	-150.0	232.85	352.51	422.47
2A	159.0	765.00	-33.0	238.75	377.05	446.28
3A	279.0	857.00	-129.0	233.83	355.71	425.69

Soil report for the inner and outer anchors was not available at the time of study. Foundations were checked against soil conditions as stated in Section 3.0 and were considered to be structurally acceptable. The customer is advised to inform the engineer the actual soil conditions differ than the stated soil conditions. Turris recommends that a geotechnical report for the base, inner and outer anchors should be made available for future study.

The tower and the waveguide bridge are considered in compliance with ANSI/TIA-222-G-2009 Add. 2 with the assumptions and listed documentations as stated in this report.

Prepared by:

Reviewed by:

Meimei Lam Project Designer

Memulin

John Wahba, Ph.D, P.E., P.Eng. Principal Engineer



### SCOPE & LIMITATIONS FOR THE PROVISION OF PROFESSIONAL ENGINEERING SERVICES FOR STRUCTURES

All engineering services performed by Turris Corp. (Turris) in connection with the structural analysis of the tower is limited to the strength of the members and does not account for any variations due fabrication, including welding and connection capacities and installations, except as outlined in this Report.

This analysis report is based on assumptions that the information below, but is not necessarily limited to:

- information supplied by the client regarding the structure and its components, foundations, soil conditions, appurtenances loading on the structure, and other site-specific information.
- information from documents and/or drawings in the possession of Turris Corporation, or acquired from field inspections.

It is the responsibility of the client to ensure that the information provided to Turris, and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications provided, and are in non-corroded condition and have not deteriorated. Therefore, we assume that the member capacities have not changed from the "as new" condition.

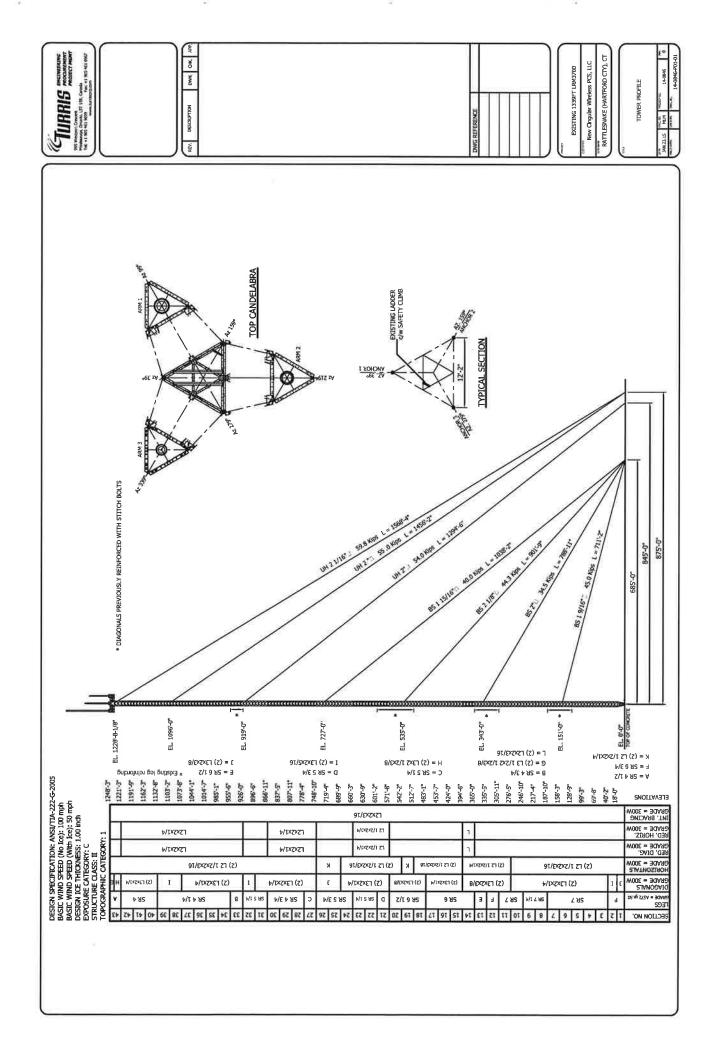
All services will be performed to meet the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed to in writing. If wind and ice loads or other relevant parameters are to be different than the minimum values recommended by the standards, the client shall specify the requirement.

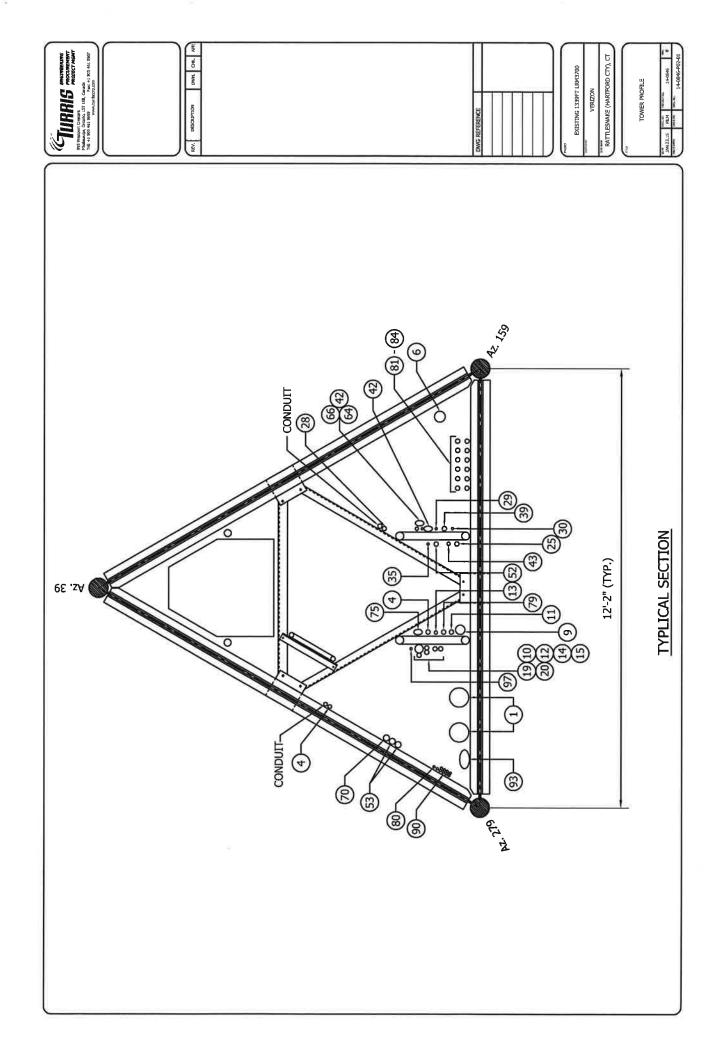
All services are performed in accordance with generally accepted engineering principles and practices. Turris is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Furthermore, Turris assumes no obligations to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulas are hereafter modified or revised. In addition, under no circumstances will Turris have any obligations or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the report and the maximum liability of Turris Corp., if any, pursuant to this Report shall be limited to the total funds actually received by Turris Corp. for preparation of this Report.



# APPENDIX A Tower Profile and Antenna Loading Chart







## APPENDIX A

**Antenna Loading Chart** 

				AI	itenna Lo	ading (	nart		
ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	AZ	Comments	Status
Гор С	Candela	abra loading							
1	2b	TFU-16DSC-R C170	1	1273.00	7 3/16" **	** Shared		East Arm Bottom Up	E
	3a	TFU-18JTH/VP-R-04	1	1315.55	7 3/16" *	* Shared		NW Arm Top Up	E
	3b	TFU-18DSC/VP-R C170	1	1266.70	7 3/16" *	* Shared		NW Arm Bottom Up	E
				1248.25	6-1/8"	Spare			F
Misce	llaneo	us loading on tower mast							
4	4	Radio Waves PR09-DRB-2C	1	1221.16	1 5/8" + 1"	1 Each	39	Proscaniii	E
3		TLP24A	1	1096.42	4 1/16"	1	39	Leg mounted	E
	7	FM ERI-1183-1CP	1	847.81	3 1/2" + 1 5/8"	1	1 Bay Each Face	1 5/8" Future	E
0		DB809-H	1	802.9	3 1/8"	1	39		E
11	9	DB413	1	779.8 778.38	1 5/8"	1	39, S Face		E
12	10	DB413	1	761.65 756.23	1 5/8"	1	39, S Face		E
[3				750	1 1/4"	1			
4	13	ANT150D6-9	1	747.75	1 5/8"	1	159		E
5		DB809-H	1	729.78	1 5/8"	1	39		E
16	14	DB254C	1	716.15 713.69	None	None	S Face		E
17	15	DB8983P	1	715	None	None	279	Mounted to leg inside tower	E
8	16	DB420B	1	704.63	None	None	39		E
9		DB809K	1	690.47	1 5/8"	1	39		E
20		DB224	1	670.48	1 5/8"	1	39		E
25	25	Scala OGB9-900K	1	519.38	1 5/8"	1	39		E
26	26	Dish Mounts & I/G	3	510.8	None	None	39, 159, 279		E
28	30	BA80-67	1	440.81	1 5/8"	1	39		E
29	32	DB Dipole, 12' Whip	1	410.45	7/8"	1	39		E
30	33	SHPXA-4BC-HW-SP (without radome)	1	384.74	3 1/8"	1	159	WRCH	F
35	51	Scala OGB9-900N	1	323.45	7/8"	1	279		E
6	52	I/G	3	309.11	None	None	1 Each Face		E
9	55	Scala MF-950M	1	304.3	7/8"	1	279		E
2		PXL8	1	285.12	EW 63	2	279		E
13		MF900B	1	271.02	1 1/4"	1	279		E
2	64	BMR 10A	1	174	1 5/8"	1	39		E
3		DB950F65T4E-M	2	160.3	2 1/4"	2	279		E
4		DB950F65T4E-M	1	160	2 1/4"	1	39		F
4	66	PD400	1	120.51	7/8"	1	159		E
6		PD1110	1	107.46	1 1/4"	1	159		E
7	70	Ice Guards	1	99	None	None	39	RELOCATED	E
0		A-18A24	1	73.89	2 1/4"	1	39		E
'1		Dish Mount	1	60	None	None	39		E
2		Dish Mount	1	54	None	None	39		E
73		Dish Mount	1	43	None	None	39		E
74	73	Ice Guards	1	40.2	None	None	39		E
75	74	PL6	1	29.05	EW63	1	39		E



							January 20,	4U1
79	Scala PR-950U	1	330.08	1 5/8"	1	159	WJMJ Radio and TV	E
80	Scala PR-950U	1	48.07	7/8"	1	279	WJMJ Radio and TV	Œ
81a	Swedcom SCE-6016 Rev 2	1	116			D		E
81b	Swedcom SACP 2x5516	1	116			O		Œ
B1c	CSS / X7C-FRO-660-VR4	1	116		1	0		E
B1d	Swedcom SCE-6016 Rev 2	1	116		1	0		Æ
83a	Swedcom SCE-6016 Rev 2	1	116	1 5/8"	12	270	2 existing Andrew CB721-DF	E
83b	CSS / X7C-FRO-660-VR4	1	116			270		E
83c	Swedcom SACP 2x5516	1	116			270		Œ
83d	Swedcom SCE-6016 Rev 2	1	116			270		E
34	Andrew CBC721-DF	2	116					E
36	12' lightweight T-frame	1	116			0		Æ
38	12' lightweight T-frame	1	116			270		E
90	Andrew VHLP 2.5 (30")	6	198.71	7/8"	9	39, 159, 279	Two Dishes on Each Leg	E
91	Ice Shield (2'6"x 2'6")	1	37.6	None	None	159		E
92	Camera Sony SNC-RZ50N	1	35.27	Cat 5 cable + RG 6	1+2	159		E
93	TA-2355-DAB-M-T2	1	457.58	EW20	1	39	REUSE EXISTING EW20	E
94	Prodelin VSAT #1183 (1.8m dish)	1	35	RG6-QS	1	Leg 8 of WG Bridge	.298" dia. coax cable	E
95	Trimble GPS Unit #57860-30	1	34	RG6-QS	1	Leg 7 of WG Bridge	"298" dia. coax cable	E
96	Scala MF-950M	1	230	7/8"	1	279	Backup STL	F
97	-	-8	217	7/8"	1		-	E

Notes:

1) All measurements are to the base of the antennas.

2) ID 75 line is not attached to the cable ladder. The line goes from the waveguide bridge to the dish.

### Verizon's Current Inventory on the Turris Antenna Loading Chart

## Communications Site Management LLC. Rattlesnake Mountain Tower

ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	AZ	Comments
81a		Swedcom SCE-6016 Rev 2	1	120	1 5/8"	12	0	
81b		Swedcom SACP 2x5516	1	120	]		0	
81c		CSS / X7C-FRO-660-VR4	1	120	]		0	
81d		Swedcom SCE-6016 Rev 2	1	120			0	
82		NA			]			
83a		Swedcom SCE-6016 Rev 2	1	120			270	2 existing Andrew CBC721-DF
83b		CSS / X7C-FRO-660-VR4	1	120	]		270	
83c		Swedcom SACP 2x5516	1	120			270	
83d		Swedcom SCE-6016 Rev 2	1	120			270	

Updated: December 11, 2014

Communications Site Management LLC. Rattlesnake Tower

Farmington CT. Date: 12/23/2014

#### **Tower Changes:**

#### Remove:

ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	ΑZ	Comments	Status
77		Hyperlink 3ft dish w/ radome	1	210'	Cat 5 Cable	1	39	Computer hospital	E
78		Proxim 5054R-LR Base panels	2	210'	Cat 5 Cable	3	159	Computer hospital	E



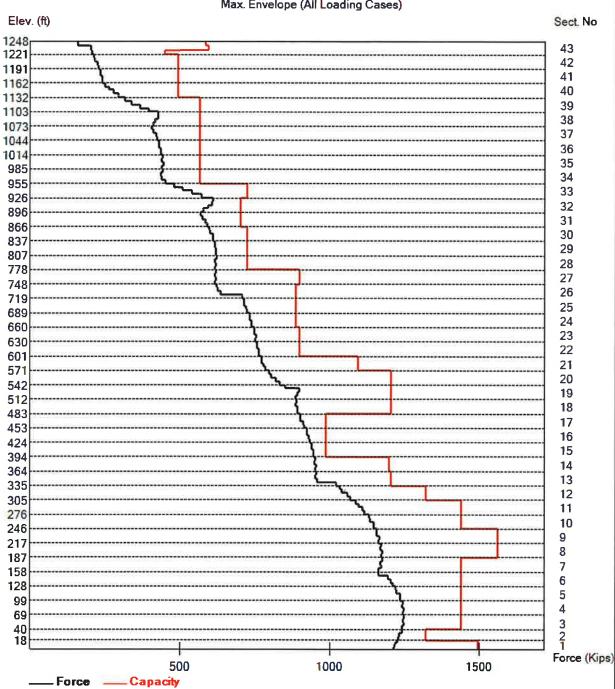
## APPENDIX B Results of Analysis

Guy Elevation	Guy Maximum Stress Levels (% of Rated Capacity)
(ft)	
1228.68	69
1096.00	66
919.00	63
727.00	65
535.00	58
343.00	49
151.00	59

Elevation	Maximum Beam Rotation (Degrees) for Serviceability
(ft)	Conditions
1221.16	1.08
802.90	0.49
747.75	0.52
729.78	0.52
690.47	0.54
670.48	0.55
410.45	0.57
330.08	0.55
285.12	0.54
198.71	0.44
116.00	0.31
107.46	0.29
48.07	0.20
29.05	0.19

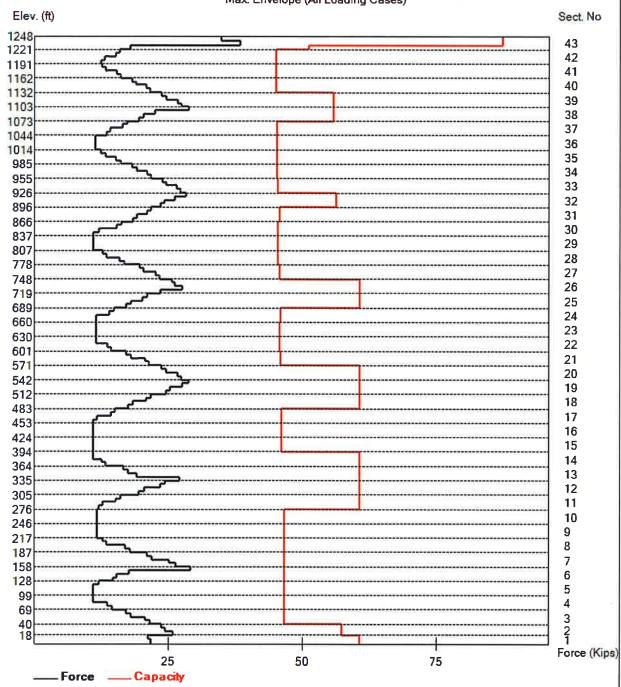


## Leg Load Compression Diagram Max. Envelope (All Loading Cases)





#### <u>Diag. Load Compression Diagram</u> Max. Envelope (All Loading Cases)





## Horiz, Load Compression Diagram

