

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

May 17, 2013

David Martin
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Cellco Partnership d/b/a Verizon Wireless**
EM-VER-066-121114- 133 Clearview Avenue, Harwinton, CT
EM-VER-037-121004- 71 Pleasant View Road, Derby, CT
EM-VER-074-120917- 1291 Bantam Road, Litchfield, CT
EM-VER-108-120907- Willenbrock Road, Oxford, CT

Dear Mr. Martin:

As a condition of the acknowledgement for each of the above-referenced locations Cellco was required to provide the Council with a letter stating that the recommendations specified in the structural report were implemented. Attached are Tower Modification Certification Letters verifying that these conditions have been satisfied. All construction associated with these modifications has now been completed.

If you have any questions please do not hesitate to contact me or Rachel Mayo.



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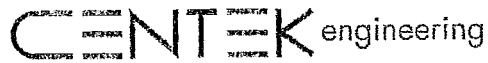
Sincerely,



Kenneth C. Baldwin

Attachment
Copy to:

Sandy M. Carter
Brian Ragozzine
Mark Gauger



Centered on SolutionsSM

May 15, 2013

Mr. Mark Gauger
 Verizon Wireless
 99 East River Drive
 East Hartford, Connecticut 06108

Re: Existing Telecommunications Facility Tower Modification Certification Letter

Project: Verizon ~ Harwinton NW
 133 Clearview Ave
 Harwinton, CT

Tower Owner: SBA Communications Corporation
 5900 Broken Sound Parkway NW
 Boca Raton, Florida 33487

Engineer: FDH Engineering
 2730 Rowland Ave Raleigh, NC 27615

Centek Project No.: 13008.011

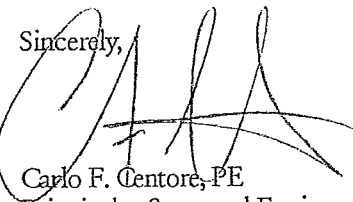
Dear Mr. Gauger,

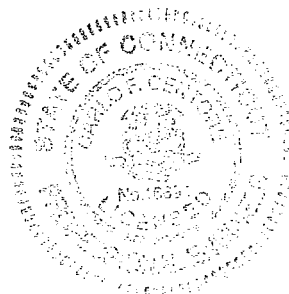
We are providing this "Existing Telecommunications Facility Tower Modification Certification Letter" with regard to the antenna upgrade by Verizon Wireless at the above referenced project.

The following are the basis for substantiating compliance with the design documents prepared by FDH Engineering:

- Review of the FDH structural analysis dated 10/09/2012.
- Field observations by Centek personnel of coax installation on 05/13/2013 which determined all coax lines were installed in general compliance with the recommendations of the structural analysis report prepared by FDH on 10/09/2012.

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 referenced above.

Sincerely,

 Carlo F. Centore, PE
 Principal ~ Structural Engineer



CC: Rachel Mayo, Tim Parks, Tom Nolan, Brian Ragozzine

CEN TEK engineering

Centered on SolutionsSM

May 15, 2013

Mr. Mark Gauger
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Re: Existing Telecommunications Facility Tower Modification Certification Letter

Project: Verizon ~ Derby North
71 Pleasant View Road
Derby, CT

Tower Owner: SBA Communications Corporation
5900 Broken Sound Parkway NW
Boca Raton, Florida 33487

Engineer: FDH Engineering
2730 Rowland Ave Raleigh, NC 27615

Centek Project No.: 13008.018

Dear Mr. Gauger,

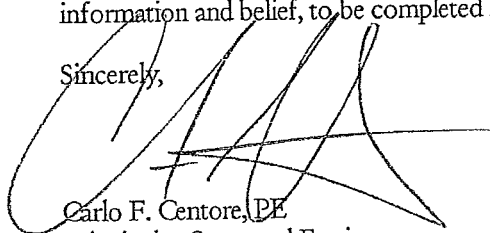
We are providing this "Existing Telecommunications Facility Tower Modification Certification Letter" with regard to the antenna upgrade by Verizon Wireless at the above referenced project.

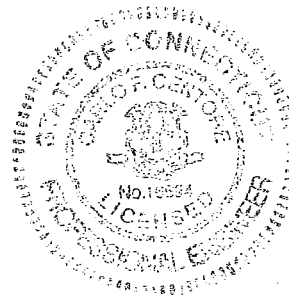
The following are the basis for substantiating compliance with the design documents prepared by FDH Engineering:

- Review of the FDH structural analysis dated 09/18/2012.
- Field observations by Centek personnel of coax installation on 05/10/2013 which determined all coax lines were installed in general compliance with the recommendations of the structural analysis report prepared by FDH on 09/18/2012.

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 referenced above.

Sincerely,


Carlo F. Centore, PE
Principal ~ Structural Engineer



CC: Rachel Mayo, Tim Parks, Steve Schadler, Brian Ragozzine

CEN TEK engineering

Centered on Solutions™

May 15, 2013

Mr. Mark Gauger
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Re: Existing Telecommunications Facility Tower Modification Certification Letter

Project: Verizon ~ Litchfield SW
1291 Bantam Road
Litchfield, CT

Tower Owner: SBA Communications Corporation
5900 Broken Sound Parkway NW
Boca Raton, Florida 33487

Engineer: FDH Engineering
2730 Rowland Ave Raleigh, NC 27615

Centek Project No.: 13008.004

Dear Mr. Gauger,

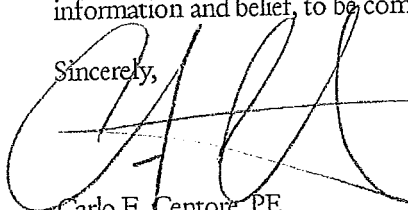
We are providing this "Existing Telecommunications Facility Tower Modification Certification Letter" with regard to the antenna upgrade by Verizon Wireless at the above referenced project.

The following are the basis for substantiating compliance with the design documents prepared by FDH Engineering:

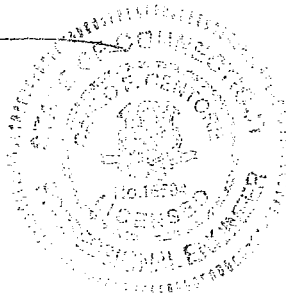
- Review of the FDH structural analysis dated 12/28/2011.
- Field observations by Centek personnel of coax installation on 05/13/2013 which determined all coax lines were installed in general compliance with the recommendations of the structural analysis report prepared by FDH on 12/28/2011.

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 referenced above.

Sincerely,



Carlo F. Centore, PE
Principal ~ Structural Engineer



CC: Rachel Mayo, Tim Parks, Tom Nolan, Brian Ragozzine

CEN TEK engineering

Centered on Solutions™

May 15, 2013

Mr. Mark Gauger
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Re: Existing Telecommunications Facility Tower Modification Certification Letter

Project: Verizon ~ Southford
106 Willenbrock Road
Oxford, CT

Tower Owner: SBA Communications Corporation
5900 Broken Sound Parkway NW
Boca Raton, Florida 33487

Engineer: FDH Engineering
2730 Rowland Ave Raleigh, NC 27615

Centek Project No.: 13008.033

Dear Mr. Gauger,

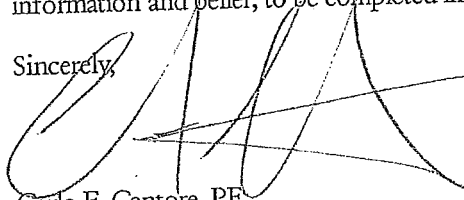
We are providing this "Existing Telecommunications Facility Tower Modification Certification Letter" with regard to the antenna upgrade by Verizon Wireless at the above referenced project.

The following are the basis for substantiating compliance with the design documents prepared by FDH Engineering:

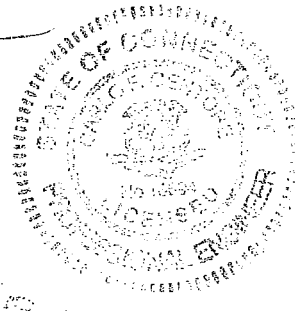
- Review of the FDH structural analysis dated 08/03/2012.
- Field observations by Centek personnel of coax installation on 05/10/2013 which determined all coax lines were installed in general compliance with the recommendations of the structural analysis report prepared by FDH on 08/03/2012.

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 referenced above.

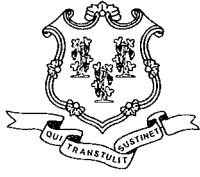
Sincerely,



Carlo F. Centore, PE
Principal ~ Structural Engineer



CC: Rachel Mayo, Tim Parks, Steve Schadler, Brian Ragozzine



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

November 8, 2012

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-037-121004**- Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 71 Pleasant View Road, Derby, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The coax lines shall be installed in accordance with the recommendations made in the Structural Analysis Report prepared by FDH Engineering dated September 18, 2012 and stamped by Christopher Murphy;
- Following the installation of the proposed equipment, Verizon shall provide documentation certifying that the installation complied with the engineer's recommendation;
- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated October 3, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,



Linda Roberts
Executive Director

LR/CDM/jbw

c: The Honorable Anthony Staffieri, Mayor, City of Derby
David Kopjanski, Building Official, City of Derby
Sean Gormley, SBA

EM-VER-037-121004

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

ORIGINAL

October 3, 2012

RECEIVED
OCT - 4 2012
CONNECTICUT
SITING COUNCIL

Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification – Antenna Swap
71 Pleasant View Road, Derby, Connecticut**

Dear Ms. Roberts:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains three (3) wireless telecommunications antennas at the 107-foot level inside an existing 119-foot flagpole tower at the above-referenced address. The tower is owned by SBA. Cellco’s use of the tower was approved by the Council in 2007. Cellco now intends to replace all of its antennas with three (3) model DBXNH-6565B-VTM dual-band antennas at the same level within the flagpole tower. Cellco also intends to install six (6) additional coax cables inside the flagpole. Attached behind Tab 1 are the specifications for Cellco’s replacement antenna.

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 being sent to Anthony Staffieri, Mayor of the City of Derby. A copy of this letter is also being sent to St. Jude Roman Catholic Church, the owner of the property on which the tower is located.

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 will be located at the same 107-foot level inside the existing flagpole tower.



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ROBINSON & COLE LLP

Linda Roberts
October 3, 2012
Page 2

2. The proposed modifications do not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundaries.

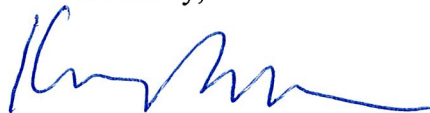
3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

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) adopted safety standard. A cumulative General Power Density table for Cellco's modified facility is included behind Tab 2.

Also attached is a Structural Analysis confirming that the tower and foundation can support Cellco's proposed modifications. (See Tab 3).

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:

Anthony Staffieri, Derby Mayor
St. Jude Roman Catholic Church
Sandy Carter



Product Specifications

COMMSCOPE®



Andrew Solutions

DBXNH-6565B-VTM

DualPol® Dual Band Teletilt® Antenna, 698–896 and 1710–2180 MHz, 65° horizontal beamwidth, RET compatible

- Ultra wideband capability for LTE 700 MHz and 850 MHz cellular technology
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- The RF connectors are IP67 rated and the radome is IP56 rated

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1710–1880	1850–1990	1920–2180
Gain, dBi	15.2	16.0	19.2	19.1	18.2
Beamwidth, Horizontal, degrees	67	65	62	61	64
Beamwidth, Vertical, degrees	12.5	10.8	5.5	5.1	4.8
Beam Tilt, degrees	0–10	0–10	0–6	0–6	0–6
USLS, typical, dB	15	15	15	15	15
Front-to-Back Ratio at 180°, dB	25	25	32	34	32
Front-to-Back Total Power at 180° ± 20°, dB	20	20	28	28	25
CPR at Boresight, dB	24	20	25	22	20
CPR at Sector, dB	10	8	10	10	8
Isolation, dB	30	30	30	30	30
Isolation, Intersystem, dB	30	30	30	30	30
VSWR Return Loss, dB	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	400	400	300	300	300
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm
Lightning Protection	dc Ground	dc Ground	dc Ground	dc Ground	dc Ground

Mechanical Specifications

Color Radome Material	Light gray Fiberglass, UV resistant
Connector Interface Location Quantity	7-16 DIN Female Bottom 4
Wind Loading, maximum	617.7 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h 149.8 mph

Dimensions

Depth	181.0 mm 7.1 in
Length	1847.00 mm 72.72 in
Width	301.00 mm 11.85 in
Net Weight	21.00 kg 46.30 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator DBXNH-6565B-R2M

Model with Factory Installed AISG 2.0 Actuator DBXNH-6565B-A2M

Regulatory Compliance/Certifications

Product Specifications

COMMSCOPE®

DBXNH-6565B-VTM



Agency

RoHS 2002/95/EC
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system



Included Products

DB380 — Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Used for wide panel antennas. Includes two clamp sets.

DB5083 — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Includes a heavy-duty, galvanized steel downtilt mounting bracket assembly and associated hardware. This kit is compatible with the DB380 pipe mount kit for panel antennas that are equipped with two mounting brackets.

Site Name: Derby N		General		Power		Density							
Tower Height: Verizon @ 107Ft.													
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total					
*T-Mobile GSM	8	110	120	0.0220	1945	1.0000	2.20%						
*T-Mobile UMTS	2	737	114	0.0408	2100	1.0000	4.08%						
*Clearwire	2	153	84	0.0156	2496	1.0000	1.56%						
*Clearwire	1	211	84	0.0108	11 GHz	1.0000	1.08%						
*Pocket	3	631	97	0.0723	2130	1.0000	7.23%						
Verizon PCS	7	264	107	0.0580	1970	1.0000	5.80%						
Verizon Cellular	9	266	107	0.0752	869	0.5793	12.98%						
Verizon AWS	1	640	107	0.0201	2145	1.0000	2.01%						
Verizon 700	1	867	107	0.0272	698	0.4653	5.85%						
								42.79%					
* Source: Siting Council													



FDH Engineering, Inc., 6521 Meridien Drive Raleigh, NC 27616, Ph. 919.755.1012

**Structural Analysis for
SBA Network Services, Inc.**

119' Monopole Tower

**SBA Site Name: St. Judes
SBA Site ID: CT13616-A
Verizon Site Name: Derby North**

FDH Project Number 12-08965E S1

Analysis Results

Tower Components	28.7%	Sufficient
Foundation	43.5%	Sufficient

Prepared By:

Logan Poe, EI
Project Engineer

Reviewed By:

Christopher M Murphy, PE
President
CT PE License No. 25842

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
(919) 755-1012
info@fdh-inc.com



September 18, 2012

Prepared pursuant to TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures and 2005 Connecticut Building Code

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EXECUTIVE SUMMARY 3
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EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the monopole located in Derby, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads pursuant to the *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, TIA/EIA-222-F and 2005 Connecticut Building Code (CBC)*. Information pertaining to the existing/proposed antenna loading, current tower geometry, foundation dimensions, geotechnical data, and member sizes was obtained from:

- Paul J. Ford and Company (Job No. 29206-0266) original design drawings dated August 17, 2005
- FDH, Inc. (Job No. 08-07608T) TIA Inspection Report dated September 4, 2008
- JGI Eastern, Inc. (Project No. 06496G) Geotechnical Evaluation dated July 31, 2006
- SBA Network Services, Inc.

The *basic design wind speed* per the *TIA/EIA-222-F* standards and *2005 CBC* is 85 mph without ice and 38 mph with 3/4" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the existing and proposed antennas from Verizon in place at 107 ft, the tower meets the requirements of the *TIA/EIA-222-F* standards and *2005 CBC* provided the **Recommendations** listed below are satisfied. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see Paul J. Ford Job No. 29206-0266), the foundation should have the necessary capacity to support the existing and proposed loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e., the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *TIA/EIA-222-F* standards and *2005 CBC* are met with the existing and proposed loading in place, we have the following recommendations:

1. The proposed coax must be installed inside the pole's shaft.
2. The proposed loading must be installed inside the concealment cylinder.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from the layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 - Appurtenance Loading

Existing Loading:

Antenna Elevation (ft)	Description	Coax and Lines ¹	Carrier	Mount Elevation (ft)	Mount Type
114	(3) RFS V18-209014 (3) RFS Twin PCS TMAs (3) RFS Twin AWS TMAs	(6) 1-5/8"	T-Mobile	114	Inside Concealment Cylinder
113	(1) 12'x18' Flag	---	---	113	Direct
107	(3) Rymasa TGA D3-400TV	(6) 1-5/8"	Verizon	107	Inside Concealment Cylinder
94	(3) RFS APXV18-206517S-C	(6) 7/8"	Pocket	94	
84	(3) Argus LLPX310R (1) Andrew FPA5250D06-N (3) Redconnex AN-80i BTSs	(2) 1/2" (3) 5/8" (3) 1/4"	Clearwire	84	

¹ Coax installed inside the pole's shaft, unless otherwise noted.

Proposed Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
107	(3) Andrew DBXNH-6565B-VTM	(12) 1-5/8"	Verizon	107	Inside Concealment Cylinder

RESULTS

The following yield strength of steel for individual members was used for analysis:

Table 2 - Material Strength

Member Type	Yield Strength
Tower Shaft Sections	65 ksi
Base Plate	50 ksi
Anchor Bolts	75 ksi

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. *Note: Capacities up to 105% are considered acceptable.* **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information

Table 3 - Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity	Pass Fail
L1	119 - 79	Concealment Cylinder	40"x30" Φ	OK	Pass
L2	79 - 40.5	Pole	TP35.775x30x0.25	20.3	Pass
L3	40.5 - 0	Pole	TP41.35x34.6x0.3125	28.7	Pass
		Anchor Bolts	(12) 2-1/4" Φ W/ 48" B.C.	20.7	Pass
		Base Plate	PL 2-3/4" thk. x 46" Square	24.0	Pass

Table 4 - Maximum Base Reactions

Base Reactions	Current Analysis (TIA/EIA-222-F)	Original Design (ANSI/TIA-222-G)
Axial	16 k	19 k
Shear	8 k	23 k
Moment	500 k-ft	1,550 k-ft

GENERAL COMMENTS

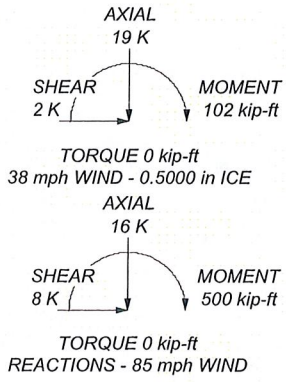
This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

Section	1	2	3	119.0 ft
Length (ft)	40.00	38.50	45.00	
Number of Sides	1	18	18	
Thickness (in)	0.2500	0.2500	0.3125	
Socket Length (ft)		4.50		
Top Dia (in)	30.0000	30.0000	34.6000	
Bot Dia (in)	30.0000	35.7750	41.3500	
Grade		A572-65		
Weight (K)	3.2	3.4	5.7	
				79.0 ft
				40.5 ft
				0.0 ft



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
V18-209014 (T-Mobile)	114	DBXNH-6565B-VTM w/ Mount Pipe (Verizon)	107
V18-209014 (T-Mobile)	114		
V18-209014 (T-Mobile)	114	APXV18-206517S-C (Pocket)	94
Twin PCS TMA (T-Mobile)	114	APXV18-206517S-C (Pocket)	94
Twin PCS TMA (T-Mobile)	114	APXV18-206517S-C (Pocket)	94
Twin PCS TMA (T-Mobile)	114	LLPX310R (Clearwire)	84
Twin AWS TMA (T-Mobile)	114	LLPX310R (Clearwire)	84
Twin AWS TMA (T-Mobile)	114	LLPX310R (Clearwire)	84
Twin AWS TMA (T-Mobile)	114	AN-80i (Clearwire)	84
12x18" Flag	113	AN-80i (Clearwire)	84
DBXNH-6565B-VTM w/ Mount Pipe (Verizon)	107	AN-80i (Clearwire)	84
DBXNH-6565B-VTM w/ Mount Pipe (Verizon)	107	FPA5250D06-N (Clearwire)	84

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 0.50 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 28.7%

<p>FDH Engineering 6521 Meridian Drive Raleigh, NC 27616 Tower Analysis Phone: (919)-755-1012 FAX: (919)-755-1031</p>	<p>Job: St. Judes (CT13616-A)</p>
	<p>Project: 12-08965E S1</p>
	<p>Client: SBA Network Services, Inc. Drawn by: Logan Poe App'd:</p>
	<p>Code: TIA/EIA-222-F Date: 09/18/12 Scale: NTS</p>
	<p>Path: _____ Dwg No. E-1</p>