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KENNETH C. BALDWIN

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ORIGINAL

May 12, 2014

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

Re: **EM-VER-085-131028A – Cellco Partnership d/b/a Verizon Wireless**
1428 Monroe Turnpike, Monroe, Connecticut

Dear Ms. Bachman:

On August 15, 2013, the Siting Council acknowledged receipt of Cellco's notice of intent to modify its telecommunications facility at 1428 Monroe Turnpike in Monroe. The modification involved the replacement of certain antennas.

As a condition of the acknowledgement, Cellco was required to provide the Council with a letter stating that the recommendations specified in the structural report were implemented. Attached is a Tower Modification Certification Letter 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.

Sincerely,

Kenneth C. Baldwin

Attachment
Copy to:
Sandy M. Carter
Brian Ragozzine
Mark Gauger

CENTEK engineering

Centered on Solutions℠

April 15, 2014

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

Re: Existing Telecommunications Facility Tower Modification Certification Letter

Project: Verizon – Monroe NE
1428 Monroe Turnpike
Monroe, CT

Owner: SBA Communications

Engineer: FDH Engineering
6521 Meridien Drive, Raleigh, NC 27616

Centek Project No.: 13017.064

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 FDH Engineering structural analysis report (FDH Project No. 13SCPJ1400) dated September 30, 2013:

- Review of the FDH structural analysis report dated 09/30/2013.
- Field observations by Centek personnel of the coax and diplexer installation on 04/14/2014 which determined all coax lines and diplexers were installed in general compliance with the recommendations of the structural analysis report prepared by FDH on 09/30/2013.

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,

STATE OF CONNECTICUT
CARLO F. CENTORE
No. 16694
LICENSED
PROFESSIONAL ENGINEER

Carlo F. Centore, PE
Principal ~ Structural Engineer

CC: Rachel Mayo, Tim Parks, Aleksey Tyurin

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 14, 2013

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

RE: **EM-VER-085-131028A** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1428 Monroe Turnpike, Monroe, 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 proposed feed lines and accessory equipment shall be installed as specified in the Structural Analysis Report prepared by FDH Engineering dated September 30, 2013 and stamped by Bradley Newman;
- Within 45 days following completion of the antenna installation, Verizon shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the structural analysis;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the 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;
- Within 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 23, 2013. 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,

Melanie A. Bachman
Acting Executive Director

MAB/CDM/jb

c: The Honorable Stephen Vavrek, First Selectman, Town of Monroe
William Agresta, Planning Administrator, Town of Monroe
Sean Gormley, SBA

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
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E-Mail: siting.council@ct.gov
www.ct.gov/csc

October 29, 2013

The Honorable Stephen Vavrek
First Selectman
Town of Monroe
Town Hall
7 Fan Hill Road
Monroe, CT 06468-1800

RE: **EM-VER-085-131028A** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1428 Monroe Turnpike, Monroe, Connecticut.

EM-VER-085-131028B – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 500 Moose Hill Road, Monroe, Connecticut.

Dear First Selectman Vavrek:

The Connecticut Siting Council (Council) received a request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72, a copy of which has already been provided to you.

If you have any questions or comments regarding the proposal, please call me or inform the Council by November 12, 2013.

Thank you for your cooperation and consideration.

Very truly yours,

Melanie Bachman
Acting Executive Director

MB/jb

c: William Agresta, Planning Administrator, Town of Monroe

ROBINSON & COL

EM-VER-085-131028A

KENNETH C. BALDWIN

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October 23, 2013

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

Re: **Notice of Exempt Modification – Antenna Swap**
1428 Monroe Turnpike, Monroe, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) wireless telecommunications antennas at the 130-foot level of the existing 159-foot tower at the above-referenced address. The tower is owned by SBA. The Council approved Cellco's shared use of this tower in 2005. Cellco now intends to replace one (1) of its existing antennas with one (1) model BXA-70040-6CF LTE antenna at the same level on the tower. Included in Attachment 1 are specifications for the 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 Steve Vavrek, First Selectman for the Town of Monroe. A copy of this letter is also being sent to Sisters of the Holy Nazareth USA, the owner of the property where 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 antenna will be located at the 130-foot level of the 159-foot tower.

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 modified facility 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 worst-case RF emissions calculation for Cellco's modified facility is provided in the General Power Density table included in Attachment 2.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation can support Cellco's proposed modifications. (*See* Structural Analysis included in Attachment 3). Contrary to the recommendations included on page 3 of the Structural Analysis, Cellco's proposed modifications do not include the installation of new antenna cables.

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:
Steve Vavrek, Monroe First Selectman
Sisters of the Holy Nazareth USA
Sandy M. Carter

ATTACHMENT 1

Amphenol ANTENNA SOLUTIONS

BXA-70040-6CF-EDIN-X

X-Pol | FET Panel | 40° | 16.0 dBd

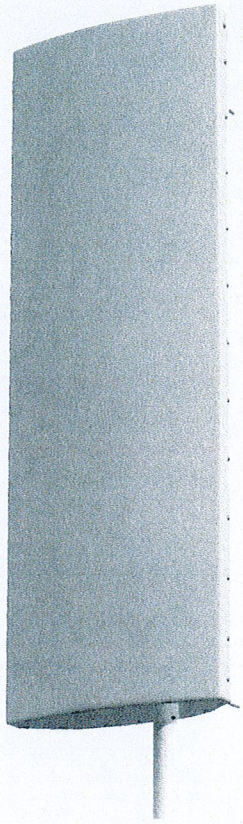
Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

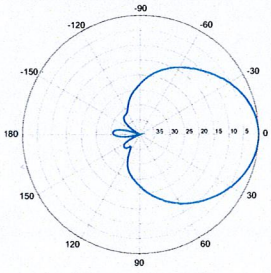
Electrical Characteristics	696-900 MHz	
Frequency bands	696-806 MHz	806-900 MHz
Polarization	±45°	
Horizontal beamwidth	42°	40°
Vertical beamwidth	12°	10°
Gain	15.5 dBd (17.6 dBi)	16.0 dBd (18.1 dBi)
Electrical downtilt (X)	0, 2, 4, 6, 8, 10	
Impedance	50Ω	
VSWR	≤1.35:1	
Upper sidelobe suppression (0°)	-12.1 dB	-13.4 dB
Front-to-back ratio (+/-30°)	-35.8 dB	-38.0 dB
Null fill	5% (-26.02 dB)	
Isolation between ports	< -27 dB	
Input power	500 W	
Lightning protection	Direct Ground	
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)	

Mechanical Characteristics		
Dimensions Length x Width x Depth	1806 x 606 x 200 mm	71.1 x 23.9 x 7.9 in
Depth with z-brackets	240 mm	9.4 in
Weight without mounting brackets	17 kg	38 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 1.09 m² Side: 0.36 m²	Front: 11.8 ft² Side: 3.9 ft²
Wind load @ 161 km/hr (100 mph)	Front:1564 N Side: 547 N	Front: 350 lbf Side: 123 lbf

Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting Bracket Kit	36210003	50-160 mm 2.0-6.3 in	6.3 kg 14 lbs
3-Point Downtilt Bracket Kit	36210004	50-160 mm 2.0-6.3 in	7.3 kg 16 lbs
Downtilt Mounting Applications	A mounting bracket and downtilt bracket kit must be ordered for downtilt applications		
Concealment Configurations	This model cannot be used in a standard FP concealment configuration		

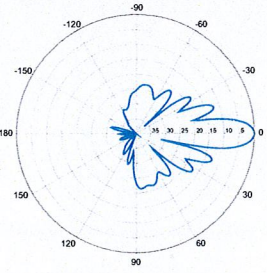


BXA-70040-6CF-EDIN-X



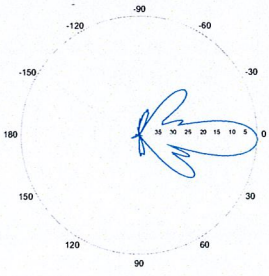
Horizontal | 750 MHz

BXA-70040-6CF-EDIN-0



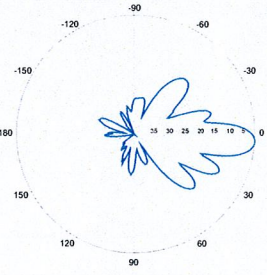
0° | Vertical | 750 MHz

BXA-70040-6CF-EDIN-2

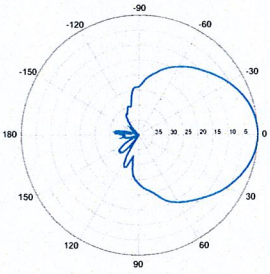


2° | Vertical | 750 MHz

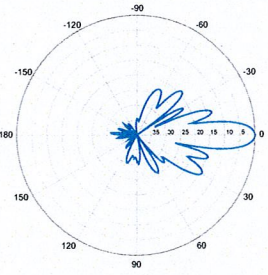
BXA-70040-6CF-EDIN-4



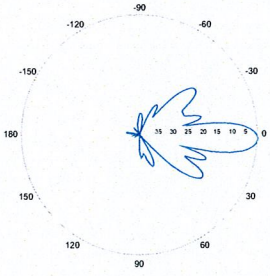
4° | Vertical | 750 MHz



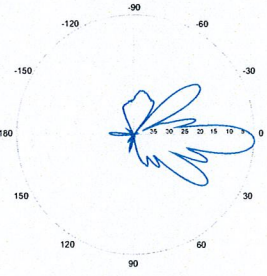
Horizontal | 850 MHz



0° | Vertical | 850 MHz



2° | Vertical | 850 MHz



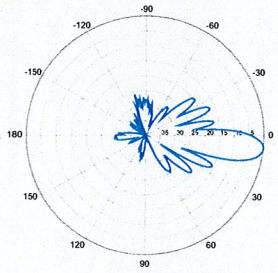
4° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

BXA-70040-6CF-EDIN-X

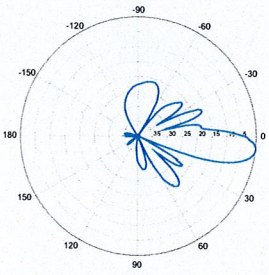
X-Pol | FET Panel | 40° | 16.0 dBd

BXA-70040-6CF-EDIN-6



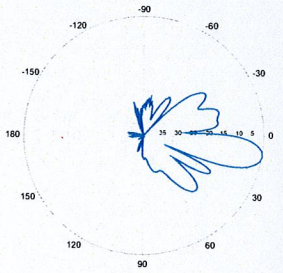
6° | Vertical | 750 MHz

BXA-70040-6CF-EDIN-8

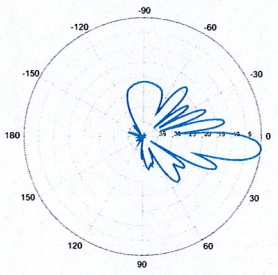


8° | Vertical | 750 MHz

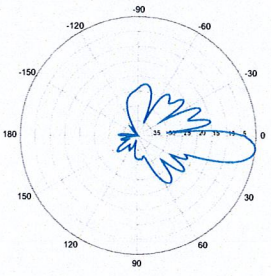
BXA-70040-6CF-EDIN-10



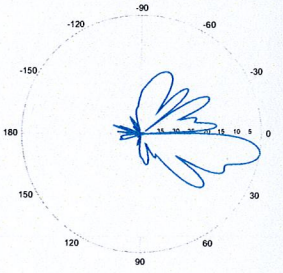
10° | Vertical | 750 MHz



6° | Vertical | 850 MHz



8° | Vertical | 850 MHz



10° | Vertical | 850 MHz

ATTACHMENT 2

	General	Power	Density					
Site Name: Monroe NE								
Tower Height: Verizon @ 130ft								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total
*AT&T UMTS	1	500	160	0.0070	880	0.5867	1.20%	
*AT&T UMTS	1	500	160	0.0070	1900	1.0000	0.70%	
*AT&T GSM	4	296	160	0.0166	880	0.5867	2.83%	
*AT&T GSM	2	427	160	0.0120	1900	1.0000	1.20%	
*AT&T LTE	1	500	160	0.0070	740	0.4933	1.42%	
*T-Mobile	8	309.48	140	0.0454	1935	1.0000	4.54%	
*Sprint	2	778	149	0.0252	1900	1.0000	2.52%	
*Sprint	1	438	149	0.0071	850	0.5667	1.25%	
*Town of Monroe	1	104	157	0.0015	453.6125	0.3024	0.50%	
*Town of Monroe	1	104	95	0.0041	460.2875	0.3069	1.35%	
*Town of Monroe	1	90	85	0.0045	453.7625	0.3025	1.48%	
Verizon PCS	**15**	**443**	**130**	**0.1414**	**1970**	**1.0000**	**14.14%**	
Verizon Cellular	**9**	**406**	**130**	**0.0777**	**869**	**0.5793**	**13.42%**	
Verizon AWS	**1**	**1750**	**130**	**0.0372**	**2145**	**1.0000**	**3.72%**	
Verizon 700	**1**	**840**	**130**	**0.0179**	**698**	**0.4653**	**3.84%**	
								54.13%
* Source: Siting Council								

ATTACHMENT 3

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

Structural Analysis for SBA Network Services, Inc.

159' Monopole Tower

SBA Site Name: Monroe Turnpike
SBA Site ID: CT13055-A-04
Verizon Site Name: Monroe NE

FDH Project Number 13SCPJ1400

Analysis Results

Tower Components	99.2 %	Sufficient
Foundation	90.0 %	Sufficient

Prepared By:

Mark S. Girgis, EI
Project Engineer

Reviewed By:

Bradley R. Newman, PE
Senior Project Engineer
CT PE License No. 29630

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

STATE OF CONNECTICUT
BRADLEY R. NEWMAN
29630
LICENSED
PROFESSIONAL ENGINEER
9/30/13

September 30, 2013

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

TABLE OF CONTENTS

EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the monopole located in Monroe, 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 the *2005 Connecticut Building Code (CBC)*. Information pertaining to the existing/proposed antenna loading, foundation dimensions, current tower geometry, soil parameters, and member sizes was obtained from:

- Sabre Communications Corporation (Job No. 04-05018) Stamped Permit Drawings dated August 18, 2003
- Clarence Welti Associates, Inc. (Tower CT54XC771) Geotechnical Study dated April 25, 2003
- FDH, Inc. (Job No. 08-07120T) TIA Inspection Report dated August 22, 2008
- SBA Network Services, Inc.

The *basic design wind speed* per the *TIA/EIA-222-F* standards and the *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 131 ft, the tower meets the requirements of the *TIA/EIA-222-F* standards and the *2005 CBC* provided the **Recommendations** listed below are satisfied. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see Sabre Job No. 04-05018), 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 the *2005 CBC* are met with the existing and proposed loading in place, we have the following recommendations:

1. The proposed feed lines should be installed inside the pole's shaft.
2. The existing diplexers should be installed directly behind the existing and proposed panel antennas.

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	Feed[1] Lines	Carrier	Mount Elevation (ft)	Mount Type
162	(3) Powerwave 7770 (3) Powerwave P65-16-XLH-RR (6) Powerwave LGP21401 TMAs (6) Ericsson RRUS-11 RRHs (1) Raycap DC6-48-60-18-8F Surge Suppressor	(6) 1-5/8" (1) 0.393" Fiber (1) 0.645" DC Power	New Cingular	159	(1) 12.5' Low Profile Platform
	(1) Decibel DB404-B	(1) 7/8"	Town		
151	(3) RFS APXVSPP18-C-A20 (3) Alcatel Lucent 1900 MHz RRH (3) Alcatel Lucent 800 MHz RRH (3) Alcatel Lucent 800 MHz Filter (4) RFS ACU-A20-N RET	(3) 1-1/4" Fiber	Sprint	149	(1) 12.5' Low Profile Platform
142.5	(12) EMS FR65-17-04DP (6) Remec S20057A1 TMAs	(12) 1-1/4"	T-Mobile	140	(1) 12.5' Low Profile Platform
131	(3) Antel BXA-70063/6CF (3) Antel BXA-171063/12BF (6) Antel LPA-80063/6CF (6) RFS FD9R6004/2C-3L Diplexers	(12) 5/8"	Verizon	130	(1) 12.5' Low Profile Platform
110	(1) Sinclair SCL329-HL Omni	(1) 7/8"[2]	Town	110	(1) 4' Standoff
80	(1) Sinclair SCL329-HL Omni	(1) 7/8"[2]		80	(1) 4' Standoff
50	(1) Decibel 26DB GPS	(1) 1/2"[3]	Sprint	47	(1) 4' Standoff

1. Feed lines installed inside the pole's shaft unless otherwise noted.
2. Currently, Town has (2) 7/8" coax installed outside the pole's shaft in a single row to 110 ft and 80 ft.
3. Currently, Sprint has (1) 1/2" coax installed outside the pole's shaft to 47 ft.

Proposed Loading:

Antenna Elevation (ft)	Description	Feed Lines	Carrier	Mount Elevation (ft)	Mount Type
131	(2) Antel BXA-70063/6CF (3) Antel BXA-171063-12BF (6) Antel LPA-80063-6CF (1) Antel BXA-70040-6CF (6) RFS FD9R6004/2C-3L Diplexers	(12) 5/8"	Verizon	130	(1) 12.5' Low Profile Platform

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	60 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. **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	159 - 149	Pole	TP14.93x12x0.1875	36.9	Pass
L2	149 - 97.5	Pole	TP29.64x13.969x0.3125	99.2	Pass
L3	97.5 - 47.75	Pole	TP43.6x27.9166x0.375	89.4	Pass
L4	47.75 - 0	Pole	TP56.84x41.189x0.375	89.6	Pass
		Anchor Bolts	(14) 2.25" Ø w/ BC = 64"	89.4	Pass
		Base Plate	PL 70" Ø x 2.25" thk	65.2	Pass

*Capacities include a 1/3 allowable stress increase for wind per *TIA/EIA-222-F* standards.

Table 4 - Maximum Base Reactions

Base Reactions	Current Analysis *(TIA/EIA-222-F)*	Original Design *(TIA/EIA-222-F)*
Axial	34 k	41 k
Shear	28 k	31 k
Moment	3,300 k-ft	3,665 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

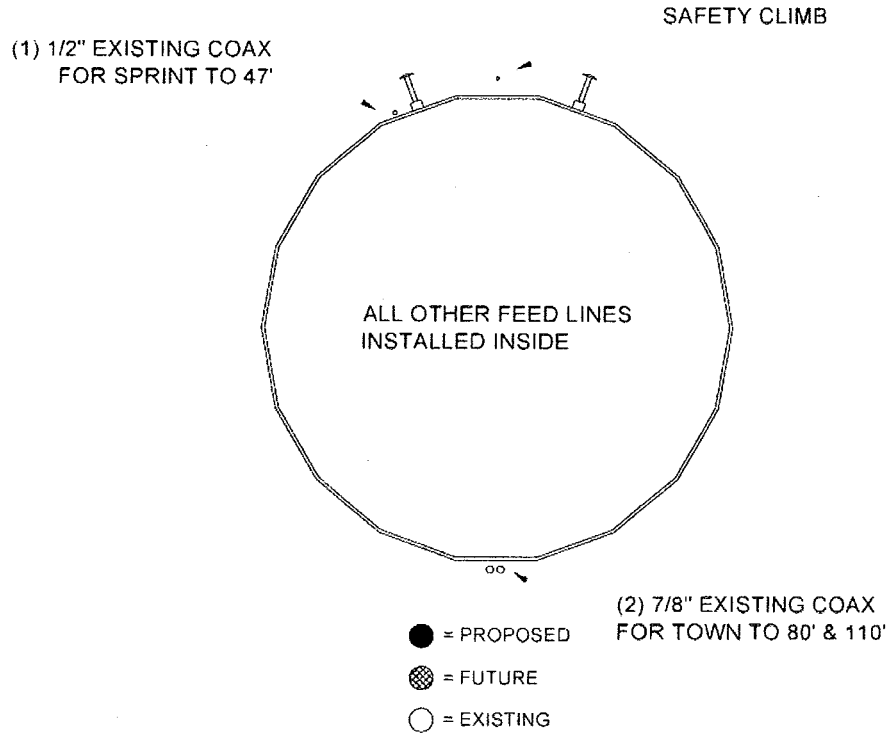
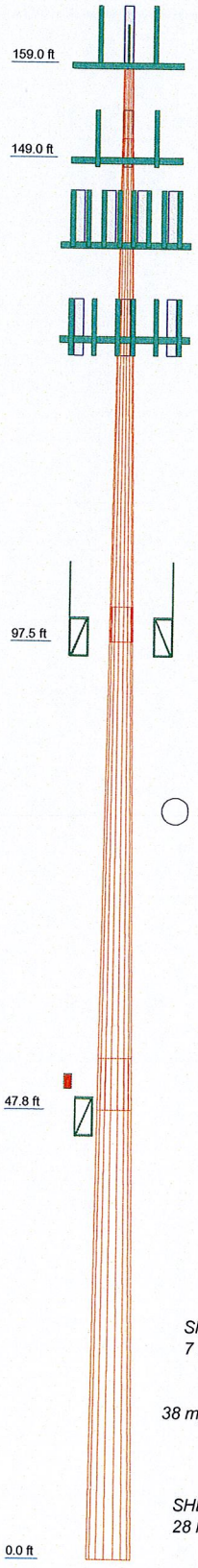


Figure 1 – Feed Line Layout

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	10.00	18	0.1875	2.00	12.0000	14.9300		0.3
2	53.50	18	0.3125	3.75	13.9690	29.6400		3.9
3	53.50	18	0.3750	5.50	27.9166	43.6000	A572-65	7.7
4	53.25	18	0.3750		41.2377	56.8400		10.5



AXIAL
47 K
SHEAR
7 K
MOMENT
850 kip-ft
TORQUE 0 kip-ft
38 mph WIND - 0.7500 in ICE

AXIAL
34 K
SHEAR
28 K
MOMENT
3300 kip-ft
TORQUE 0 kip-ft
REACTIONS - 85 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	159	(2) ACU-A20-N RET	149
7770.00 w/Mount Pipe	159	12.5' Low Profile Platform	149
7770.00 w/Mount Pipe	159	(4) FR65-17-04DP w/Mount Pipe	140
7770.00 w/Mount Pipe	159	(4) FR65-17-04DP w/Mount Pipe	140
P65-16-XLH-RR w/Mount Pipe	159	(4) FR65-17-04DP w/Mount Pipe	140
P65-16-XLH-RR w/Mount Pipe	159	(2) S20057A1	140
P65-16-XLH-RR w/Mount Pipe	159	(2) S20057A1	140
(2) LGP21401 TMA	159	(2) S20057A1	140
(2) LGP21401 TMA	159	14' Low Profile Platform	140
(2) LGP21401 TMA	159	BXA-70040-6CF w/ Mount Pipe	130
(2) RRUS-11	159	BXA-70063/6CF w/Mount Pipe	130
(2) RRUS-11	159	BXA-70063/6CF w/Mount Pipe	130
(2) RRUS-11	159	BXA-171063-12BF w/ Mount Pipe	130
DC6-48-60-18-8F Surge Arrestor	159	BXA-171063-12BF w/ Mount Pipe	130
12.5' Low Profile Platform	159	BXA-171063-12BF w/ Mount Pipe	130
DB404-B	159	(2) LPA-80063/6CF w/ Mount Pipe	130
APXVSPP18-C-A20 w/Mount Pipe	149	(2) LPA-80063/6CF w/ Mount Pipe	130
APXVSPP18-C-A20 w/Mount Pipe	149	(2) LPA-80063/6CF w/ Mount Pipe	130
APXVSPP18-C-A20 w/Mount Pipe	149	(2) FD9R6004/2C-3L Diplexer	130
1900 MHz RRH	149	(2) FD9R6004/2C-3L Diplexer	130
1900 MHz RRH	149	(2) FD9R6004/2C-3L Diplexer	130
1900 MHz RRH	149	12.5' Low Profile Platform	130
800 MHz RRH	149	SCL329-HL Omni	95
800 MHz RRH	149	SCL329-HL Omni	95
800 MHz RRH	149	4' Standoff	95
800 MHz Filter	149	4' Standoff	95
800 MHz Filter	149	Decibel 26DB GPS	47
800 MHz Filter	149	Pipe Mount	47
ACU-A20-N RET	149	4' Standoff	47
ACU-A20-N RET	149		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Fairfield 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 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 99.2%

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Job: Monroe Turnpike, CT13055-A-04			
Project: 13SCPJ1400			
Client: SBA Network Services, Inc.	Drawn by: Mark S. Girgis	App'd:	
Code: TIA/EIA-222-F	Date: 09/30/13	Scale: NTS	
Path:		Dwg No. E-1	