

RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

August 20, 2014

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501

RECEIVED
AUG 21 2014
CONNECTICUT
SITING COUNCIL

Re: EM-T-MOBILE-025-130528
T-Mobile Site ID CT11308D
490-500 Highland Avenue, Cheshire, CT
(a/k/a 500 Highland Avenue, Cheshire, CT)
Notice of Construction Completion

ORIGINAL

Dear Attorney Bachman:

The Connecticut Siting Council ("Council") acknowledged the above referenced T-Mobile Northeast LLC ("T-Mobile") notice of exempt modification on June 26, 2013. T-Mobile hereby notifies the Council that construction of the acknowledged modifications were complete as of May 20, 2014.

Please don't hesitate to contact me with any questions.

Sincerely,

Rachel A. Schwartzman

cc: Samuel Simons, T-Mobile
Mark Richard, T-Mobile
Alex Giannaras, HPC Wireless
Julie Kohler, Esq.



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

June 26, 2013

Rick Woods
SBA Communications Corporation
33 Boston Post Road West
Suite 320
Marlborough, MA 01752

RE: **EM-T-MOBILE-025-130528** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 490-500 Highland Avenue, Cheshire, Connecticut.

Dear Mr. Woods:

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:

- 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 May 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.

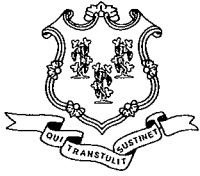
Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/CDM/jb

c: The Honorable Timothy Slocum, Chairman, Town of Cheshire
Michael A. Milone, Town Manager, Town of Cheshire
William S. Voelker, AICP, Town Planner, Town of Cheshire
Cheshire Police Department





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

May 29, 2013

The Honorable Timothy Slocum
Council Chairman
Town of Cheshire
Town Hall
84 South Main Street
Cheshire, CT 06410

RE: **EM-T-MOBILE-025-130528** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 490-500 Highland Avenue, Cheshire, Connecticut.

Dear Chairman Slocum:

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 June 12, 2013.

Thank you for your cooperation and consideration.

Very truly yours,

Melanie Bachman
Acting Executive Director

MB/jb

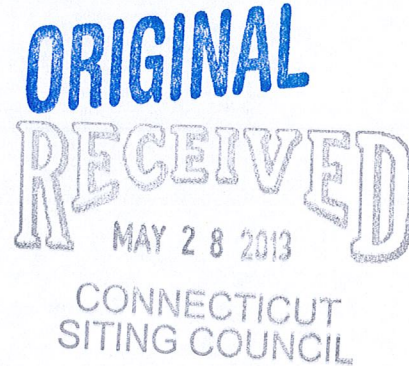
c: Michael A. Milone, Town Manager, Town of Cheshire
William S. Voelker, AICP, Town Planner, Town of Cheshire

EM-T-MOBILE-025-130528



May 23, 2013

David Martin and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051



RE: Notice of Exempt Modification
490-500 Highland Ave
Cheshire, CT 06410
N 41° 30' 40"
W -72° 53' 55"

Dear Mr. Martin and Members of the Siting Council:

On behalf of T-Mobile, SBA Communications is submitting an exempt modification application to the Connecticut Siting Council for modification of existing equipment at a tower facility located at 490-500 Highland Ave, Cheshire, CT.

The 490-500 Highland Ave. facility consists of a 160' MONOPOLE owned and operated by SBA Site Management. In order to accommodate technological changes and enhance system performance in the State of Connecticut, T-Mobile plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

As part of T-Mobile's modernization project, T-Mobile desires to upgrade their equipment to meet the new standards of 4G technology. The new equipment will allow customers to download files and browse the internet at a high rate of speed while also allowing their phones to be compatible with the latest 4G technology.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in T-Mobile's operations at the site along with the required fee of \$625.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be

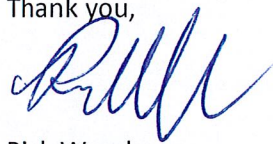
significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The overall height of the structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than the new equipment cabinets.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. The changes in radio frequency power density will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, SBA Communications on behalf of T-Mobile, respectfully submits that he proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (508) 614-0389 with any questions you may have concerning this matter.

Thank you,



Rick Woods
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-1691 x 319 + T
508-251-1755 + F
508-614-0389 + C
rwoods@sbsite.com



T-Mobile Equipment Modification

490-500 Highland Ave., Cheshire, CT
Site number CT11308D

Tower Owner: SBA Site Management

Equipment Configuration: Monopole Tower

Current and/or approved:

- (3) RFS/APX16-PV-6PVL
- (3) RX/RFS/ATMA
- (17) 1-5/8" Coax
- (1) 1-5/8" Fiber line

Planned Modifications:

- (3) Ericsson AIR B2A/B4P
- (3) Ericsson AIR B4A B2P
- (3) Ericsson KRY 112 TMAs
- (12) 1-5/8" Coax
- (1) 1-5/8" Fiber Line

Structural Information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed modifications.

Power Density:

The anticipated Maximum Composite contributions from the T-Mobile facility are .510% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 69.790% of the allowable FCC established general public limit sampled at the ground level.

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.510%
AT&T	25.220%
Verizon Wireless	20.050%
Nextel	6.640%
Sprint	5.810%
MetroPCS	6.430%
Town Emergency Svcs	5.130%
Total Site MPE %	69.790%



May 23, 2013

Tim Slocum, Mayor
Town of Cheshire
84 South Main Street
Cheshire, CT 06410

RE: Telecommunications Facility @ 490-500 Highland Ave., Cheshire, CT

Dear Mayor Slocum,

In order to accommodate technological changes and enhance system performance in the State of Connecticut, T-Mobile will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies (R.C.S.A.) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review T-Mobile's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes T-Mobile's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (508) 614-0389.

Thank you,

A handwritten signature in blue ink, appearing to read "Rick Woods", is written over the "Thank you," text.

Rick Woods
SBA Communications Company
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-1691 x 319 + T
508-251-1755 + F
508-614-0389 + C
rwoods@sbsite.com

STRUCTURAL ANALYSIS REPORT

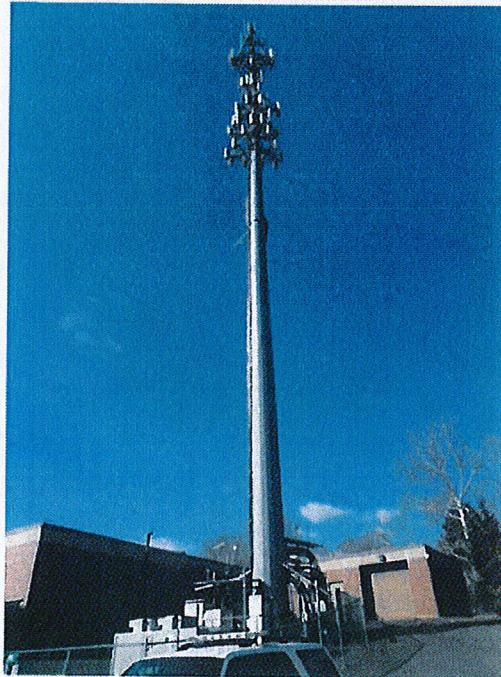
For

SBA Site No: CT11308-D

TOWER VENTURES CHESHIRE POLICE DEPARTMENT

500 Highland Avenue
Cheshire, CT 06410

Antennas Mounted to the Monopole



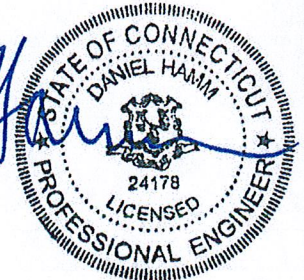
Prepared for:



Dated:

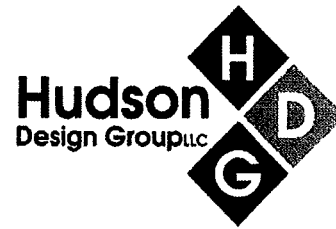
May 6, 2013

Prepared by:



1600 Osgood Street Building 20 North, Suite 3090
North Andover, MA 01845
Phone: (978) 557-5553

www.hudsondesigngroupllc.com



SCOPE OF WORK:

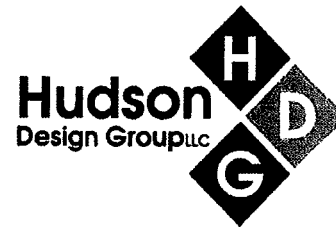
Hudson Design Group LLC (HDG) has been authorized by SBA to conduct a structural evaluation of the 160' monopole supporting the proposed T-Mobile antennas located at elevation 149'± above the ground level.

This report represents this office's findings, conclusions and recommendations pertaining to the support of Sprint's existing and proposed antennas listed within this report.

Record drawing prepared by Sabre Communications Corp., dated July 10, 2003 was available and obtained for our use. The previous structural analysis report prepared by Malouf Engineering Intl., Inc., dated August 31, 2007 was also available and obtained for our use. A previous Structural Analysis prepared by Hudson Design Group on June 14, 2012 was used for reference. This office conducted an on-site visual survey on February 28, 2012.

CONCLUSION SUMMARY:

Based on our evaluation, we have determined that the existing monopole, base plate and anchor bolts **are in conformance** with the ANSI/TIA-222-F Standard for the loading considered under the criteria listed in this report. The monopole structure is rated at 94.4% - Base Plate Controlling.



APPURTENANCES CONFIGURATION:

Tenant	Appurtenances	Elev.	Mount
	Lighting Rod	159'	Monopole
	(2) DB212-1	159'	T-Frame
	DB810K-XT	159'	3' Side Mount Standoff
Sprint	(3) 5' Pipes	158'	Low Profile Platform
Sprint	(3) APXVSP18 Antennas	158'	Low Profile Platform
Sprint	(6) RRHs	156'	Ring Mount
T-Mobile	(3) Ericsson/AIR B2A B4P	149'	Low Profile Platform
T-Mobile	(3) Ericsson/AIR B4A B2P	149'	Low Profile Platform
T-Mobile	(3) RFS/APX16-PV-6PVL	149'	Low Profile Platform
T-Mobile	(3) Ericsson KRY112 TMA	149'	Low Profile Platform
T-Mobile	(3) RX/RFS/ATMA	149'	Low Profile Platform
	(3) Panel Antennas	139'	3' Side Mount Standoff
	(6) DUO1414-8686 Antennas	127'	Low Profile Platform
	(6) ADC CG-1900 TMAs	127'	Low Profile Platform
	(3) ADC Diplexers	127'	Low Profile Platform
	(3) 5' Pipes	127'	Low Profile Platform
	(3) 7770 Antennas	127'	Low Profile Platform
	(6) LGP13519 Diplexers	127'	Low Profile Platform
	(3) 7060 Converters	127'	Low Profile Platform
	(3) 7020 RET	127'	Low Profile Platform
	(12) Panel Antennas	119'	Low Profile Platform
	(12) Panel Antennas	109'	Low Profile Platform
	(3) UHF/VHF Antennas	80'	Ring Mount
Sprint	PCTEL GPS	80'	Ring Mount

**Proposed T-Mobile Appurtenances shown in Bold.*

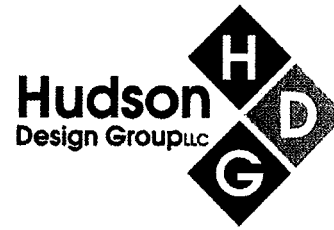
T-Mobile EXISTING/PROPOSED COAX CABLES:

Tenant	Coax Cables	Elev.	Mount
T-Mobile	(17) 1 5/8" Cables	149'	Inside Monopole
T-Mobile	(1) 1 5/8" Fiber Line	149'	Inside Monopole

**Proposed T-Mobile Coax Cables shown in Bold.*

ANALYSIS RESULTS SUMMARY:

Component	Max. Stress Ratio	Elev. of Component (ft)	Pass/Fail	Comments
Pole Section-L1	36.2 %	146.0 – 160.0	PASS	
Pole Section-L2	82.6 %	95.25 – 146.0	PASS	
Pole Section-L3	83.1 %	46.5 – 95.25	PASS	
Pole Section-L4	86.6 %	0 – 46.5	PASS	
Base Plate	94.4 %	Base of Monopole	PASS	



DESIGN CRITERIA:

1. EIA/TIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures

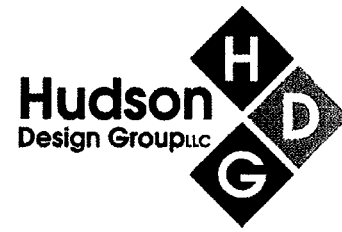
County: New Haven
Wind Load: 85 mph (fastest mile)
105 mph (3 second gust)
Nominal Ice Thickness: 1/2 inch

2. Approximate height above grade to proposed antennas: 149'

Calculations and referenced documents are attached

ASSUMPTIONS:

1. The monopole dimensions, member sizes are as indicated in the Record Drawing by Sabre Communications Corp., dated July 10, 2003.
2. The appurtenances configuration is as stated in this report. The appurtenances configuration is based on previous structural analysis report prepared by Malouf Engineering Intl., Inc., dated August 31, 2007 and best estimate from the photos taken by HDG.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
4. The monopole and foundation are properly constructed and maintained. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
5. The support mounts and platforms are not analyzed and are considered adequate to support the loading. The analysis is limited to the primary support structure itself.
6. All prior structural modifications, if any, are assumed to be as per the data supplied (if available), and installed properly.
7. The foundation of the monopole was not checked due to lack of information. As-built foundation drawings and geotechnical report would be required to determine whether the foundation is adequate



SUPPORT RECOMMENDATIONS:

HDG recommends that the proposed antennas be mounted on the existing platform supported by the monopole.

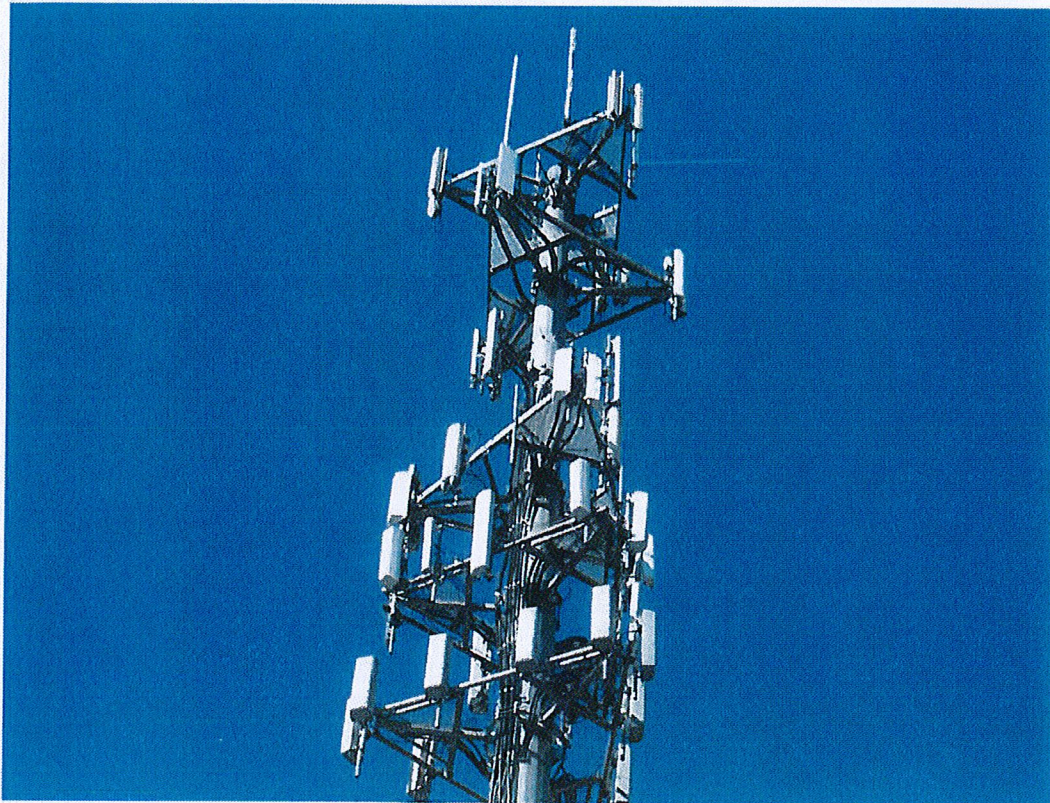
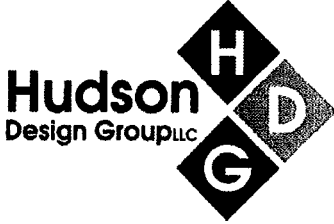
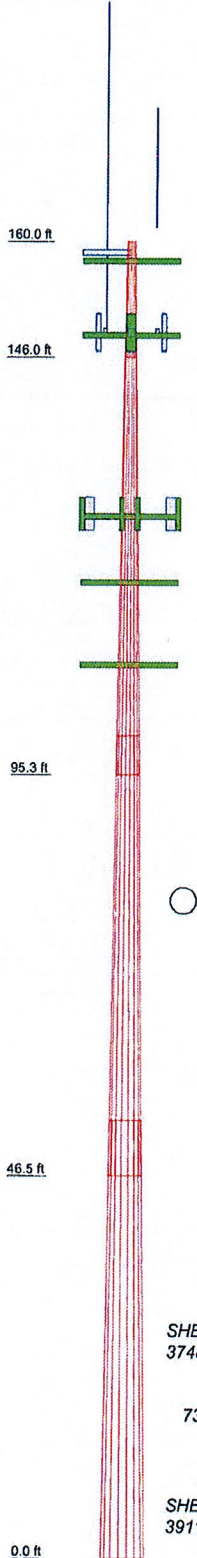


Photo 1: Photo illustrating the monopole with Appurtenances shown.



CALCULATIONS

Section	1	2	3	4	
Length (ft)	14.00	53.50	53.50	53.25	25115.2
Number of Sides	18	18	18	18	
Thickness (in)	0.1875	0.3125	0.3750	0.3750	
Socket Length (ft)	2.75	4.75	6.75		
Top Dia (in)	12.2880	15.5480	31.0217	45.9565	
Bot Dia (in)	16.8128	33.2152	48.9712	64.0000	
Grade			A572-65	11776.4	
Weight (lb)	407.2	4346.3	8685.3	11776.4	



DESIGNED APPURTENANCE LOADING

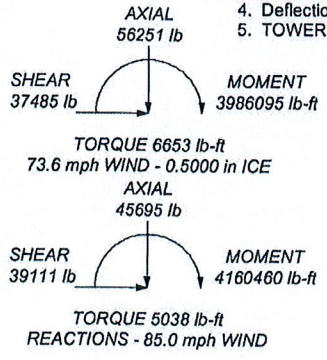
TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	159	(2) DUO1417-8686 w/Mount Pipe	127
Valmont T-Arm (1)	159	(2) DUO1417-8686 w/Mount Pipe	127
(2) DB212-1	159	(2) DUO1417-8686 w/Mount Pipe	127
3' Side Mount Standoff	159	(2) ADC CG-1900 TMA	127
DBB10K-XT	159	(2) ADC CG-1900 TMA	127
PIROD 15' Low Profile Platform (Sprint - existing)	158	(2) ADC CG-1900 TMA	127
2"x5' pipe (Sprint - existing)	158	ADC Diplexer	127
2"x5' pipe (Sprint - existing)	158	ADC Diplexer	127
2"x5' pipe (Sprint - existing)	158	ADC Diplexer	127
APXVSP18-C w/mount pipe (Sprint)	158	2"x5' pipe	127
APXVSP18-C w/mount pipe (Sprint)	158	2"x5' pipe	127
APXVSP18-C w/mount pipe (Sprint)	158	2"x5' pipe	127
Collar Mount (Sprint)	156	Powerwave 7770 w/mount pipe	127
(2) RRH (sprint) (Sprint)	156	Powerwave 7770 w/mount pipe	127
(2) RRH (sprint) (Sprint)	156	Powerwave 7770 w/mount pipe	127
(2) RRH (sprint) (Sprint)	156	(2) Powerwave LGP13519 diplexer	127
(2) RRH (sprint) (Sprint)	156	(2) Powerwave LGP13519 diplexer	127
PIROD 15' Low Profile Platform (T-Mobile)	149	(2) Powerwave LGP13519 diplexer	127
Ericsson AIR B2A B4P (T-Mobile)	149	Powerwave 7060.00 Converter	127
Ericsson AIR B4A B2P (T-Mobile)	149	Powerwave 7060.00 Converter	127
RFS APX16-PV-6PVL-C (T-Mobile)	149	(3) Panel Antenna 4"x12"x8" w/mount pipe	119
Ericsson AIR B2A B4P (T-Mobile)	149	(3) Panel Antenna 4"x12"x8" w/mount pipe	119
Ericsson AIR B4A B2P (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
RFS APX16-PV-6PVL-C (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
Ericsson AIR B2A B4P (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
Ericsson AIR B4A B2P (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
RFS APX16-PV-6PVL-C (T-Mobile)	149	PIROD 15' Low Profile Platform	119
Ericsson KRY112 TMA (T-Mobile)	149	(3) Panel Antenna 4"x12"x8" w/mount pipe	119
RX-RFS ATMAA1412D (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
Ericsson KRY112 TMA (T-Mobile)	149	Panel Antenna 72"x13.5"x4" w/mount pipe	119
RX-RFS ATMAA1412D (T-Mobile)	149	PIROD 15' Low Profile Platform	109
Ericsson KRY112 TMA (T-Mobile)	149	(4) Panel Antenna 4"x12"x8" w/mount pipe	109
RX-RFS ATMAA1412D (T-Mobile)	149	(4) Panel Antenna 4"x12"x8" w/mount pipe	109
3' Side Mount Standoff	139	(4) Panel Antenna 4"x12"x8" w/mount pipe	109
3' Side Mount Standoff	139	UHF/VHF Antenna	80
3' Side Mount Standoff	139	Collar Mount	80
Panel Antenna 6"x13"x5" w/mount pipe	139	UHF/VHF Antenna	80
Panel Antenna 6"x13"x5" w/mount pipe	139	UHF/VHF Antenna	80
Panel Antenna 6"x13"x5" w/mount pipe	139	PCTEL GPS-TMG-HR-26N (Sprint)	80
Powerwave 7060.00 Converter	127		
Powerwave 7020.00 Dual Band RET	127		
Powerwave 7020.00 Dual Band RET	127		
Powerwave 7020.00 Dual Band RET	127		
PIROD 15' Low Profile Platform	127		

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 85.0 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 73.6 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50.0 mph wind.
5. TOWER RATING: 94.4%



Hudson Design Group LLC		Job: CT11308D Town Ventures Cheshire PD	
1600 Osgood Street Bldg. 20N Suite 3090		Project: 160' Monopole	
North Andover, MA 01845		Client: SBA - T-Mobile	Drawn by: Michael Cabral
Phone: 978-557-5553 ext 231		Code: TIA/EIA-222-F	Date: 05/06/13
FAX:		Path:	Scale: NTS
			Dwg No. E-1

tnxTower Hudson Design Group LLC 1600 Osgood Street Bldg. 20N Suite 3090 North Andover, MA 01845 Phone: 978-557-5553 ext 231 FAX:	Job CT11308D Town Ventures Cheshire PD	Page 2 of 14
	Project 160' Monopole	Date 12:36:50 05/06/13
	Client SBA - T-Mobile	Designed by Michael Cabral

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft ²	in					in	in
L1 160.00-146.00				1	1	1		
L2 146.00-95.25				1	1	1		
L3 95.25-46.50				1	1	1		
L4 46.50-0.00				1	1	1		

Monopole Base Plate Data

Base Plate Data	
Base plate is square	√
Base plate is grouted	
Anchor bolt grade	A615-75
Anchor bolt size	2.2500 in
Number of bolts	16
Embedment length	72.0000 in
f_c	3.0 ksi
Grout space	3.5000 in
Base plate grade	A633-60
Base plate thickness	2.7500 in
Bolt circle diameter	74.0000 in
Outer diameter	73.0000 in
Inner diameter	36.0000 in
Corner clipped	10.0000 in
Base plate type	Plain Plate

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Component Type	Placement	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
			ft				in	in	plf
1 5/8	A	Surface Ar (CaAa)	139.00 - 0.00	6	6	0.000 0.000	1.9800		1.04

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement	Total Number		$C_A A_A$	Weight
				ft			ft ² /ft	plf
1 5/8	A	No	Inside Pole	129.00 - 0.00	12	No Ice 1/2" Ice	0.00 0.00	1.04 1.04
1 5/8	A	No	Inside Pole	119.00 - 0.00	12	No Ice 1/2" Ice	0.00 0.00	1.04 1.04
1 5/8	A	No	Inside Pole	109.00 - 0.00	12	No Ice 1/2" Ice	0.00 0.00	1.04 1.04
7/8	A	No	Inside Pole	80.00 - 0.00	3	No Ice 1/2" Ice	0.00 0.00	0.54 0.54
1/2	A	No	Inside Pole	80.00 - 0.00	1	No Ice 1/2" Ice	0.00 0.00	0.25 0.25

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Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf

1 5/8 Fiber Cable (Sprint)	A	No	Inside Pole	158.00 - 0.00	3	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8 (T-Mobile)	A	No	Inside Pole	149.00 - 0.00	17	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8 Fiber Line	C	No	Inside Pole	149.00 - 0.00	1	No Ice	0.00	1.20
						1/2" Ice	0.00	1.20

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight lb
L1	160.00-146.00	A	0.000	0.000	0.000	0.000	90.48
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	3.60
L2	146.00-95.25	A	0.000	0.000	51.975	0.000	2217.80
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	60.90
L3	95.25-46.50	A	0.000	0.000	57.915	0.000	3206.05
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	58.50
L4	46.50-0.00	A	0.000	0.000	55.242	0.000	3085.28
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	55.80

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight lb
L1	160.00-146.00	A	0.500	0.000	0.000	0.000	0.000	90.48
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	3.60
L2	146.00-95.25	A	0.500	0.000	0.000	106.954	0.000	2524.09
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	60.90
L3	95.25-46.50	A	0.500	0.000	0.000	119.177	0.000	3547.34
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	58.50
L4	46.50-0.00	A	0.500	0.000	0.000	113.677	0.000	3410.81
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	55.80

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
L1	160.00-146.00	0.0000	0.0000	0.0000	0.0000
L2	146.00-95.25	-1.0024	-0.5787	-1.3153	-0.7594

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Section	Elevation	CP _X	CP _Z	CP _X Ice	CP _Z Ice
	ft	in	in	in	in
L3	95.25-46.50	-1.1991	-0.6923	-1.6769	-0.9682
L4	46.50-0.00	-1.2741	-0.7356	-1.8740	-1.0820

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	lb
Lightning Rod	C	From Face	0.00 0.00 2.00	0.0000	159.00	No Ice 1/2" Ice	0.75 1.25	10.00 40.00
Valmont T-Arm (1)	A	From Face	3.00 0.00 0.00	0.0000	159.00	No Ice 1/2" Ice	10.54 14.45	336.00 412.00
(2) DB212-1	A	From Face	3.00 0.00 10.00	0.0000	159.00	No Ice 1/2" Ice	4.40 8.42	31.00 70.21
3' Side Mount Standoff	B	From Face	1.50 0.00 0.00	0.0000	159.00	No Ice 1/2" Ice	1.90 3.30	40.00 70.00
DB810K-XT	B	From Face	3.00 0.00 10.00	0.0000	159.00	No Ice 1/2" Ice	3.63 5.10	35.00 61.88

3' Side Mount Standoff	A	From Leg	1.50 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	1.90 3.30	40.00 70.00
3' Side Mount Standoff	B	From Leg	1.50 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	1.90 3.30	40.00 70.00
3' Side Mount Standoff	C	From Leg	1.50 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	1.90 3.30	40.00 70.00
Panel Antenna 6'x13"x5" w/mount pipe	A	From Leg	3.00 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	9.10 9.66	61.90 122.42
Panel Antenna 6'x13"x5" w/mount pipe	B	From Leg	3.00 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	9.10 9.66	61.90 122.42
Panel Antenna 6'x13"x5" w/mount pipe	C	From Leg	3.00 0.00 0.00	0.0000	139.00	No Ice 1/2" Ice	9.10 9.66	61.90 122.42

PiROD 15' Low Profile Platform	A	None		0.0000	127.00	No Ice 1/2" Ice	17.30 22.10	1500.00 2030.00
(2) DUO1417-8686 w/Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	127.00	No Ice 1/2" Ice	7.25 7.96	45.85 103.71
(2) DUO1417-8686 w/Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	127.00	No Ice 1/2" Ice	7.25 7.96	45.85 103.71

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral Vert						
			ft	ft	°	ft	ft ²	ft ²	lb	
(2) DUO1417-8686 w/Mount Pipe	C	From Leg	3.00		0.0000	127.00	No Ice	7.25	5.86	45.85
			0.00				1/2" Ice	7.96	6.96	103.71
(2) ADC CG-1900 TMA	A	From Leg	3.00		0.0000	127.00	No Ice	1.29	0.32	12.10
			0.00				1/2" Ice	1.44	0.42	19.34
(2) ADC CG-1900 TMA	B	From Leg	3.00		0.0000	127.00	No Ice	1.29	0.32	12.10
			0.00				1/2" Ice	1.44	0.42	19.34
(2) ADC CG-1900 TMA	C	From Leg	3.00		0.0000	127.00	No Ice	1.29	0.32	12.10
			0.00				1/2" Ice	1.44	0.42	19.34
ADC Diplexer	A	From Leg	3.00		0.0000	127.00	No Ice	0.91	0.32	12.10
			0.00				1/2" Ice	1.04	0.42	17.68
ADC Diplexer	B	From Leg	3.00		0.0000	127.00	No Ice	0.91	0.32	12.10
			0.00				1/2" Ice	1.04	0.42	17.68
ADC Diplexer	C	From Leg	3.00		0.0000	127.00	No Ice	0.91	0.32	12.10
			0.00				1/2" Ice	1.04	0.42	17.68
2"x5' pipe	A	From Leg	3.00		0.0000	127.00	No Ice	1.19	1.19	19.00
			0.00				1/2" Ice	1.50	1.50	28.09
2"x5' pipe	B	From Leg	3.00		0.0000	127.00	No Ice	1.19	1.19	19.00
			0.00				1/2" Ice	1.50	1.50	28.09
2"x5' pipe	C	From Leg	3.00		0.0000	127.00	No Ice	1.19	1.19	19.00
			0.00				1/2" Ice	1.50	1.50	28.09

Powerwave 7770 w/mount pipe	A	From Leg	3.00		0.0000	127.00	No Ice	6.02	4.10	57.25
			0.00				1/2" Ice	6.47	4.75	101.14
Powerwave 7770 w/mount pipe	B	From Leg	3.00		0.0000	127.00	No Ice	6.02	4.10	57.25
			0.00				1/2" Ice	6.47	4.75	101.14
Powerwave 7770 w/mount pipe	C	From Leg	3.00		0.0000	127.00	No Ice	6.02	4.10	57.25
			0.00				1/2" Ice	6.47	4.75	101.14
(2) Powerwave LGP13519 diplexer	A	From Leg	3.00		0.0000	127.00	No Ice	1.23	0.41	14.10
			0.00				1/2" Ice	1.38	0.52	21.29
(2) Powerwave LGP13519 diplexer	B	From Leg	3.00		0.0000	127.00	No Ice	1.23	0.41	14.10
			0.00				1/2" Ice	1.38	0.52	21.29
(2) Powerwave LGP13519 diplexer	C	From Leg	3.00		0.0000	127.00	No Ice	1.23	0.41	14.10
			0.00				1/2" Ice	1.38	0.52	21.29
Powerwave 7060.00 Converter	A	From Leg	3.00		0.0000	127.00	No Ice	0.11	0.07	2.00
			0.00				1/2" Ice	0.16	0.11	3.09
Powerwave 7060.00 Converter	B	From Leg	3.00		0.0000	127.00	No Ice	0.11	0.07	2.00
			0.00				1/2" Ice	0.16	0.11	3.09
Powerwave 7060.00 Converter	C	From Leg	3.00		0.0000	127.00	No Ice	0.11	0.07	2.00
			0.00				1/2" Ice	0.16	0.11	3.09

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
			0.00					
Powerwave 7020.00 Dual Band RET	A	From Leg	3.00	0.0000	127.00	No Ice 0.40	0.20	2.20
			0.00			1/2" Ice 0.49	0.27	5.13
			0.00					
Powerwave 7020.00 Dual Band RET	B	From Leg	3.00	0.0000	127.00	No Ice 0.40	0.20	2.20
			0.00			1/2" Ice 0.49	0.27	5.13
			0.00					
Powerwave 7020.00 Dual Band RET	C	From Leg	3.00	0.0000	127.00	No Ice 0.40	0.20	2.20
			0.00			1/2" Ice 0.49	0.27	5.13
			0.00					

PiROD 15' Low Profile Platform	A	None		0.0000	119.00	No Ice 17.30	17.30	1500.00
						1/2" Ice 22.10	22.10	2030.00
(3) Panel Antenna 4'x12"x8" w/mount pipe	A	From Leg	3.50	0.0000	119.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					
(3) Panel Antenna 4'x12"x8" w/mount pipe	B	From Leg	3.50	0.0000	119.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					
(3) Panel Antenna 4'x12"x8" w/mount pipe	C	From Leg	3.50	0.0000	119.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					
Panel Antenna 72"x13.5"x4" w/mount pipe	A	From Leg	3.50	0.0000	119.00	No Ice 9.74	5.55	80.53
			0.00			1/2" Ice 10.38	6.56	145.60
			0.00					
Panel Antenna 72"x13.5"x4" w/mount pipe	B	From Leg	3.50	0.0000	119.00	No Ice 9.74	5.55	80.53
			0.00			1/2" Ice 10.38	6.56	145.60
			0.00					
Panel Antenna 72"x13.5"x4" w/mount pipe	C	From Leg	3.50	0.0000	119.00	No Ice 9.74	5.55	80.53
			0.00			1/2" Ice 10.38	6.56	145.60
			0.00					

PiROD 15' Low Profile Platform	A	None		0.0000	109.00	No Ice 17.30	17.30	1500.00
						1/2" Ice 22.10	22.10	2030.00
(4) Panel Antenna 4'x12"x8" w/mount pipe	A	From Leg	3.50	0.0000	109.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					
(4) Panel Antenna 4'x12"x8" w/mount pipe	B	From Leg	3.50	0.0000	109.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					
(4) Panel Antenna 4'x12"x8" w/mount pipe	C	From Leg	3.50	0.0000	109.00	No Ice 5.84	4.92	48.25
			0.00			1/2" Ice 6.29	5.60	95.96
			0.00					

Collar Mount	C	None		0.0000	80.00	No Ice 1.40	1.40	20.00
						1/2" Ice 2.40	2.40	35.00
UHF/VHF Antenna	A	From Leg	2.50	0.0000	80.00	No Ice 1.83	2.58	60.00
			0.00			1/2" Ice 2.26	2.95	73.70
			0.00					
UHF/VHF Antenna	B	From Leg	2.50	0.0000	80.00	No Ice 1.83	2.58	60.00
			0.00			1/2" Ice 2.26	2.95	73.70
			0.00					
UHF/VHF Antenna	C	From Leg	2.50	0.0000	80.00	No Ice 1.83	2.58	60.00
			0.00			1/2" Ice 2.26	2.95	73.70
			0.00					

PiROD 15' Low Profile	A	None		0.0000	158.00	No Ice 17.30	17.30	1500.00

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A ₁ Front ft ²	C _A A ₂ Side ft ²	Weight lb
Platform (Sprint - existing)						1/2" Ice 22.10	22.10	2030.00
2"x5' pipe (Sprint - existing)	A	From Leg	3.00 -7.50 0.00	0.0000	158.00	No Ice 1.19 1/2" Ice 1.50	1.19 1.50	19.00 28.09
2"x5' pipe (Sprint - existing)	B	From Leg	3.00 -7.50 0.00	0.0000	158.00	No Ice 1.19 1/2" Ice 1.50	1.19 1.50	19.00 28.09
2"x5' pipe (Sprint - existing)	C	From Leg	3.00 -7.50 0.00	0.0000	158.00	No Ice 1.19 1/2" Ice 1.50	1.19 1.50	19.00 28.09
APXVSPP18-C w/mount pipe (Sprint)	A	From Leg	3.00 7.50 0.00	0.0000	158.00	No Ice 8.55 1/2" Ice 9.18	7.30 8.32	97.53 166.61
APXVSPP18-C w/mount pipe (Sprint)	B	From Leg	3.00 7.50 0.00	0.0000	158.00	No Ice 8.55 1/2" Ice 9.18	7.30 8.32	97.53 166.61
APXVSPP18-C w/mount pipe (Sprint)	C	From Leg	3.00 7.50 0.00	0.0000	158.00	No Ice 8.55 1/2" Ice 9.18	7.30 8.32	97.53 166.61
Collar Mount (Sprint)	A	None		0.0000	156.00	No Ice 1.40 1/2" Ice 2.40	1.40 2.40	20.00 35.00
(2) RRH (sprint) (Sprint)	A	From Leg	1.50 0.00 0.00	0.0000	156.00	No Ice 2.79 1/2" Ice 3.02	1.69 1.87	51.00 72.75
(2) RRH (sprint) (Sprint)	B	From Leg	1.50 0.00 0.00	0.0000	156.00	No Ice 2.79 1/2" Ice 3.02	1.69 1.87	51.00 72.75
(2) RRH (sprint) (Sprint)	C	From Leg	1.50 0.00 0.00	0.0000	156.00	No Ice 2.79 1/2" Ice 3.02	1.69 1.87	51.00 72.75
PCTEL GPS-TMG-HR-26N (Sprint)	A	From Leg	2.50 0.00 0.00	0.0000	80.00	No Ice 0.09 1/2" Ice 0.14	0.09 0.14	1.00 2.39
PiROD 15' Low Profile Platform (T-Mobile)	A	None		0.0000	149.00	No Ice 17.30 1/2" Ice 22.10	17.30 22.10	1500.00 2030.00
Ericsson AIR B2A B4P (T-Mobile)	A	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.52 1/2" Ice 6.97	4.26 4.66	91.50 132.89
Ericsson AIR B4A B2P (T-Mobile)	A	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.52 1/2" Ice 6.97	4.26 4.66	90.30 131.69
RFS APX16-PV-6PVL-C (T-Mobile)	A	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.70 1/2" Ice 7.13	1.94 2.26	20.00 51.01
Ericsson AIR B2A B4P (T-Mobile)	B	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.52 1/2" Ice 6.97	4.26 4.66	91.50 132.89
Ericsson AIR B4A B2P (T-Mobile)	B	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.52 1/2" Ice 6.97	4.26 4.66	90.30 131.69
RFS APX16-PV-6PVL-C (T-Mobile)	B	From Face	4.00 0.00 0.00	0.0000	149.00	No Ice 6.70 1/2" Ice 7.13	1.94 2.26	20.00 51.01
Ericsson AIR B2A B4P (T-Mobile)	C	From Face	4.00 0.00	0.0000	149.00	No Ice 6.52 1/2" Ice 6.97	4.26 4.66	91.50 132.89

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _{Front}	C _A A _{Side}	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft ²	ft ²	lb
Ericsson AIR B4A B2P (T-Mobile)	C	From Face	0.00						
			4.00	0.0000	149.00	No Ice	6.52	4.26	90.30
			0.00			1/2" Ice	6.97	4.66	131.69
RFS APX16-PV-6PVL-C (T-Mobile)	C	From Face	0.00						
			4.00	0.0000	149.00	No Ice	6.70	1.94	20.00
			0.00			1/2" Ice	7.13	2.26	51.01
Ericsson KRY112 TMA (T-Mobile)	A	From Face	0.00						
			3.00	0.0000	149.00	No Ice	0.41	0.16	11.00
			0.00			1/2" Ice	0.50	0.22	14.04
RX-RFS ATMAA1412D (T-Mobile)	A	From Face	0.00						
			3.00	0.0000	149.00	No Ice	1.17	0.47	11.00
			0.00			1/2" Ice	1.31	0.57	18.62
Ericsson KRY112 TMA (T-Mobile)	B	From Face	0.00						
			3.00	0.0000	149.00	No Ice	0.41	0.16	11.00
			0.00			1/2" Ice	0.50	0.22	14.04
RX-RFS ATMAA1412D (T-Mobile)	B	From Face	0.00						
			3.00	0.0000	149.00	No Ice	1.17	0.47	11.00
			0.00			1/2" Ice	1.31	0.57	18.62
Ericsson KRY112 TMA (T-Mobile)	C	From Face	0.00						
			3.00	0.0000	149.00	No Ice	0.41	0.16	11.00
			0.00			1/2" Ice	0.50	0.22	14.04
RX-RFS ATMAA1412D (T-Mobile)	C	From Face	0.00						
			3.00	0.0000	149.00	No Ice	1.17	0.47	11.00
			0.00			1/2" Ice	1.31	0.57	18.62

Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice
3	Dead+Wind 30 deg - No Ice
4	Dead+Wind 60 deg - No Ice
5	Dead+Wind 90 deg - No Ice
6	Dead+Wind 120 deg - No Ice
7	Dead+Wind 150 deg - No Ice
8	Dead+Wind 180 deg - No Ice
9	Dead+Wind 210 deg - No Ice
10	Dead+Wind 240 deg - No Ice
11	Dead+Wind 270 deg - No Ice
12	Dead+Wind 300 deg - No Ice
13	Dead+Wind 330 deg - No Ice
14	Dead+Ice+Temp
15	Dead+Wind 0 deg+Ice+Temp
16	Dead+Wind 30 deg+Ice+Temp
17	Dead+Wind 60 deg+Ice+Temp
18	Dead+Wind 90 deg+Ice+Temp
19	Dead+Wind 120 deg+Ice+Temp
20	Dead+Wind 150 deg+Ice+Temp
21	Dead+Wind 180 deg+Ice+Temp

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Comb. No.	Description
22	Dead+Wind 210 deg+Ice+Temp
23	Dead+Wind 240 deg+Ice+Temp
24	Dead+Wind 270 deg+Ice+Temp
25	Dead+Wind 300 deg+Ice+Temp
26	Dead+Wind 330 deg+Ice+Temp
27	Dead+Wind 0 deg - Service
28	Dead+Wind 30 deg - Service
29	Dead+Wind 60 deg - Service
30	Dead+Wind 90 deg - Service
31	Dead+Wind 120 deg - Service
32	Dead+Wind 150 deg - Service
33	Dead+Wind 180 deg - Service
34	Dead+Wind 210 deg - Service
35	Dead+Wind 240 deg - Service
36	Dead+Wind 270 deg - Service
37	Dead+Wind 300 deg - Service
38	Dead+Wind 330 deg - Service

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Pole	Max. Vert	24	56251.44	37484.70	-0.00
	Max. H _x	11	45695.07	39110.98	0.00
	Max. H _z	2	45695.07	0.00	39110.98
	Max. M _x	2	4159121.01	0.00	39110.98
	Max. M _z	5	4154944.88	-39110.98	0.00
	Max. Torsion	16	6652.29	-18742.35	32462.70
	Min. Vert	1	45695.07	0.00	0.00
	Min. H _x	5	45695.07	-39110.98	0.00
	Min. H _z	8	45695.07	0.00	-39110.98
	Min. M _x	8	-415786.72	0.00	-39110.98
	Min. M _z	11	-4159962.80	39110.98	0.00
	Min. Torsion	22	-6652.52	18742.33	-32462.68

Tower Mast Reaction Summary

Load Combination	Vertical lb	Shear _x lb	Shear _z lb	Overturning Moment, M _x lb-ft	Overturning Moment, M _z lb-ft	Torque lb-ft
Dead Only	45695.07	-0.00	-0.00	-1627.17	2450.60	0.00
Dead+Wind 0 deg - No Ice	45695.07	-0.00	-39110.98	-4159121.01	2489.70	-4004.92
Dead+Wind 30 deg - No Ice	45695.07	19555.49	-33871.11	-3602114.81	-2076240.66	-5038.12
Dead+Wind 60 deg - No Ice	45695.07	33871.11	-19555.49	-2080371.69	-3597964.71	-4721.53
Dead+Wind 90 deg - No Ice	45695.07	39110.98	-0.00	-1648.30	-4154944.88	-3139.61
Dead+Wind 120 deg - No Ice	45695.07	33871.11	19555.49	2077065.67	-3597948.32	-716.36
Dead+Wind 150 deg - No Ice	45695.07	19555.49	33871.11	3598789.94	-2076224.22	1898.71
Dead+Wind 180 deg - No Ice	45695.07	-0.00	39110.98	4155786.72	2489.80	4005.12
Dead+Wind 210 deg - No Ice	45695.07	-19555.49	33871.11	3598806.62	2081213.39	5038.28
Dead+Wind 240 deg - No Ice	45695.07	-33871.11	19555.49	2077082.40	3602956.66	4721.27
Dead+Wind 270 deg - No Ice	45695.07	-39110.98	-0.00	-1648.19	4159962.80	3139.40
Dead+Wind 300 deg - No Ice	45695.07	-33871.11	-19555.49	-2080388.24	3602973.00	716.40
Dead+Wind 330 deg - No Ice	45695.07	-19555.49	-33871.11	-3602131.41	2081229.68	-1898.69
Dead+Ice+Temp	56251.44	-0.00	-0.00	-2939.93	4435.19	0.02

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	Client	SBA - T-Mobile	Designed by	Michael Cabral

Load Combination	Vertical lb	Shear _x lb	Shear _y lb	Overturing Moment, M _x lb-ft	Overturing Moment, M _y lb-ft	Torque lb-ft
Dead+Wind 0 deg+Ice+Temp	56251.44	0.00	-37484.70	-3983680.12	4476.86	-5358.26
Dead+Wind 30 deg+Ice+Temp	56251.44	18742.35	-32462.70	-3450344.72	-1985871.61	-6652.29
Dead+Wind 60 deg+Ice+Temp	56251.44	32462.68	-18742.33	-1993296.51	-3442886.57	-6164.07
Dead+Wind 90 deg+Ice+Temp	56251.44	37484.70	0.00	-2960.29	-3976171.79	-4024.03
Dead+Wind 120 deg+Ice+Temp	56251.44	32462.68	18742.33	1987359.35	-3442857.54	-805.55
Dead+Wind 150 deg+Ice+Temp	56251.44	18742.35	32462.70	3444374.26	-1985842.49	2628.65
Dead+Wind 180 deg+Ice+Temp	56251.44	0.00	37484.70	3977693.07	4477.14	5358.66
Dead+Wind 210 deg+Ice+Temp	56251.44	-18742.33	32462.68	3444408.65	1994816.30	6652.52
Dead+Wind 240 deg+Ice+Temp	56251.44	-32462.70	18742.35	1987391.50	3451866.68	6163.73
Dead+Wind 270 deg+Ice+Temp	56251.44	-37484.70	0.00	-2959.99	3985201.28	4023.67
Dead+Wind 300 deg+Ice+Temp	56251.44	-32462.68	-18742.33	-1993329.00	3451897.08	805.48
Dead+Wind 330 deg+Ice+Temp	56251.44	-18742.33	-32462.68	-3450378.89	1994845.03	-2628.49
Dead+Wind 0 deg - Service	45695.07	-0.00	-13533.22	-1442034.90	2522.42	-1400.30
Dead+Wind 30 deg - Service	45695.07	6766.61	-11720.11	-1249062.18	-717656.32	-1762.17
Dead+Wind 60 deg - Service	45695.07	11720.11	-6766.61	-721853.98	-1244862.23	-1651.91
Dead+Wind 90 deg - Service	45695.07	13533.22	-0.00	-1676.08	-1437831.81	-1098.97
Dead+Wind 120 deg - Service	45695.07	11720.11	6766.61	718500.70	-1244860.24	-251.55
Dead+Wind 150 deg - Service	45695.07	6766.61	11720.11	1245706.64	-717654.32	663.23
Dead+Wind 180 deg - Service	45695.07	-0.00	13533.22	1438678.24	2522.45	1400.34
Dead+Wind 210 deg - Service	45695.07	-6766.61	11720.11	1245708.66	722700.38	1762.22
Dead+Wind 240 deg - Service	45695.07	-11720.11	6766.61	718502.73	1249908.59	1651.87
Dead+Wind 270 deg - Service	45695.07	-13533.22	-0.00	-1676.03	1442881.30	1098.96
Dead+Wind 300 deg - Service	45695.07	-11720.11	-6766.61	-721855.95	1249910.55	251.59
Dead+Wind 330 deg - Service	45695.07	-6766.61	-11720.11	-1249064.16	722702.32	-663.23

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
1	0.00	-45695.07	0.00	0.00	45695.07	0.00	0.000%
2	0.00	-45695.07	-39110.98	0.00	45695.07	39110.98	0.000%
3	19555.49	-45695.07	-33871.11	-19555.49	45695.07	33871.11	0.000%
4	33871.11	-45695.07	-19555.49	-33871.11	45695.07	19555.49	0.000%
5	39110.98	-45695.07	0.00	-39110.98	45695.07	0.00	0.000%
6	33871.11	-45695.07	19555.49	-33871.11	45695.07	-19555.49	0.000%
7	19555.49	-45695.07	33871.11	-19555.49	45695.07	-33871.11	0.000%
8	0.00	-45695.07	39110.98	0.00	45695.07	-39110.98	0.000%
9	-19555.49	-45695.07	33871.11	19555.49	45695.07	-33871.11	0.000%
10	-33871.11	-45695.07	19555.49	33871.11	45695.07	-19555.49	0.000%
11	-39110.98	-45695.07	0.00	39110.98	45695.07	0.00	0.000%
12	-33871.11	-45695.07	-19555.49	33871.11	45695.07	19555.49	0.000%
13	-19555.49	-45695.07	-33871.11	19555.49	45695.07	33871.11	0.000%
14	0.00	-56251.44	0.00	0.00	56251.44	0.00	0.000%
15	0.00	-56251.44	-37484.67	-0.00	56251.44	37484.70	0.000%
16	18742.33	-56251.44	-32462.67	-18742.35	56251.44	32462.70	0.000%
17	32462.67	-56251.44	-18742.33	-32462.68	56251.44	18742.33	0.000%
18	37484.67	-56251.44	0.00	-37484.70	56251.44	-0.00	0.000%
19	32462.67	-56251.44	18742.33	-32462.68	56251.44	-18742.33	0.000%
20	18742.33	-56251.44	32462.67	-18742.35	56251.44	-32462.70	0.000%
21	0.00	-56251.44	37484.67	-0.00	56251.44	-37484.70	0.000%
22	-18742.33	-56251.44	32462.67	18742.33	56251.44	-32462.68	0.000%
23	-32462.67	-56251.44	18742.33	-32462.70	56251.44	-18742.35	0.000%
24	-37484.67	-56251.44	0.00	37484.70	56251.44	-0.00	0.000%
25	-32462.67	-56251.44	-18742.33	32462.68	56251.44	18742.33	0.000%
26	-18742.33	-56251.44	-32462.67	18742.33	56251.44	32462.68	0.000%
27	0.00	-45695.07	-13533.21	0.00	45695.07	13533.22	0.000%
28	6766.61	-45695.07	-11720.11	-6766.61	45695.07	11720.11	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
29	11720.11	-45695.07	-6766.61	-11720.11	45695.07	6766.61	0.000%
30	13533.21	-45695.07	0.00	-13533.22	45695.07	0.00	0.000%
31	11720.11	-45695.07	6766.61	-11720.11	45695.07	-6766.61	0.000%
32	6766.61	-45695.07	11720.11	-6766.61	45695.07	-11720.11	0.000%
33	0.00	-45695.07	13533.21	0.00	45695.07	-13533.22	0.000%
34	-6766.61	-45695.07	11720.11	6766.61	45695.07	-11720.11	0.000%
35	-11720.11	-45695.07	6766.61	11720.11	45695.07	-6766.61	0.000%
36	-13533.21	-45695.07	0.00	13533.22	45695.07	0.00	0.000%
37	-11720.11	-45695.07	-6766.61	11720.11	45695.07	6766.61	0.000%
38	-6766.61	-45695.07	-11720.11	6766.61	45695.07	11720.11	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.0000001	0.0000001
2	Yes	5	0.0000001	0.00006668
3	Yes	5	0.0000001	0.00037786
4	Yes	5	0.0000001	0.00046963
5	Yes	5	0.0000001	0.00006003
6	Yes	5	0.0000001	0.00040510
7	Yes	5	0.0000001	0.00040043
8	Yes	5	0.0000001	0.00006662
9	Yes	5	0.0000001	0.00047203
10	Yes	5	0.0000001	0.00037937
11	Yes	5	0.0000001	0.00006010
12	Yes	5	0.0000001	0.00042964
13	Yes	5	0.0000001	0.00043512
14	Yes	4	0.0000001	0.00001271
15	Yes	5	0.0000001	0.00026859
16	Yes	5	0.0000001	0.00095354
17	Yes	6	0.0000001	0.00006874
18	Yes	5	0.0000001	0.00024892
19	Yes	6	0.0000001	0.00005866
20	Yes	5	0.0000001	0.00099515
21	Yes	5	0.0000001	0.00026800
22	Yes	6	0.0000001	0.00006926
23	Yes	5	0.0000001	0.00095797
24	Yes	5	0.0000001	0.00024966
25	Yes	6	0.0000001	0.00006234
26	Yes	6	0.0000001	0.00006354
27	Yes	4	0.0000001	0.00029798
28	Yes	4	0.0000001	0.00064916
29	Yes	4	0.0000001	0.00095759
30	Yes	4	0.0000001	0.00026754
31	Yes	4	0.0000001	0.00068842
32	Yes	4	0.0000001	0.00067367
33	Yes	4	0.0000001	0.00029616
34	Yes	4	0.0000001	0.00096978
35	Yes	4	0.0000001	0.00065335
36	Yes	4	0.0000001	0.00026978
37	Yes	4	0.0000001	0.00079139
38	Yes	4	0.0000001	0.00081330

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Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	160 - 146	38.5092	37	2.4528	0.0376
L2	148.75 - 95.25	32.8533	37	2.3192	0.0187
L3	100 - 46.5	13.4938	37	1.3997	0.0038
L4	53.25 - 0	3.5395	37	0.6324	0.0012

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
159.00	Lightning Rod	37	37.9996	2.4417	0.0358	7410
158.00	PiROD 15' Low Profile Platform	37	37.4904	2.4305	0.0340	7410
156.00	Collar Mount	37	36.4743	2.4080	0.0304	7410
149.00	PiROD 15' Low Profile Platform	37	32.9757	2.3226	0.0191	3596
139.00	3' Side Mount Standoff	37	28.2599	2.1705	0.0082	3229
127.00	PiROD 15' Low Profile Platform	37	23.0931	1.9495	0.0025	3154
119.00	PiROD 15' Low Profile Platform	37	19.9528	1.7883	0.0018	3106
109.00	PiROD 15' Low Profile Platform	37	16.3760	1.5816	0.0027	3048
80.00	Collar Mount	37	8.2334	1.0367	0.0039	3183

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	160 - 146	110.4628	11	6.9926	0.1340
L2	148.75 - 95.25	94.3432	11	6.6435	0.0669
L3	100 - 46.5	38.8369	11	4.0274	0.0141
L4	53.25 - 0	10.1969	12	1.8219	0.0045

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
159.00	Lightning Rod	11	109.0113	6.9640	0.1276	2679
158.00	PiROD 15' Low Profile Platform	11	107.5607	6.9354	0.1211	2679
156.00	Collar Mount	11	104.6657	6.8772	0.1084	2679
149.00	PiROD 15' Low Profile Platform	11	94.6923	6.6525	0.0682	1299
139.00	3' Side Mount Standoff	11	81.2210	6.2353	0.0298	1171
127.00	PiROD 15' Low Profile Platform	11	66.4217	5.6106	0.0096	1138
119.00	PiROD 15' Low Profile Platform	11	57.4080	5.1485	0.0069	1110
109.00	PiROD 15' Low Profile Platform	11	47.1279	4.5526	0.0100	1077
80.00	Collar Mount	12	23.7030	2.9820	0.0142	1111

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Section No.	Elevation ft	Size	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
			P	f_{bx}	f_{by}			
L1	160 - 146 (1)	TP16.8128x12.288x0.1875	0.018	0.465	0.000	0.482	1.333	H1-3 ✓
L2	146 - 95.25 (2)	TP33.2152x15.549x0.3125	0.013	1.087	0.000	1.101	1.333	H1-3 ✓
L3	95.25 - 46.5 (3)	TP48.9712x31.0217x0.375	0.013	1.095	0.000	1.108	1.333	H1-3 ✓
L4	46.5 - 0 (4)	TP64x45.9565x0.375	0.016	1.139	0.000	1.155	1.333	H1-3 ✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	SF*P _{allow} lb	% Capacity	Pass Fail
L1	160 - 146	Pole	TP16.8128x12.288x0.1875	1	-6534.58	486867.57	36.2	Pass
L2	146 - 95.25	Pole	TP33.2152x15.549x0.3125	2	-16119.60	1615742.56	82.6	Pass
L3	95.25 - 46.5	Pole	TP48.9712x31.0217x0.375	3	-27968.70	2866882.98	83.1	Pass
L4	46.5 - 0	Pole	TP64x45.9565x0.375	4	-45669.20	3715510.74	86.6	Pass
Summary								
Pole (L4)							86.6	Pass
Base Plate							94.4	Pass
RATING =							94.4	Pass



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RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11308D

Tower Ventures Cheshire PD
500 Highland Avenue
Cheshire, CT 06410

May 22, 2013

EBI Project Number: 62136248



May 22, 2013

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Re: Emissions Values for Site: **CT11308D - Tower Ventures Cheshire PD**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 500 Highland Avenue, Cheshire, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 500 Highland Avenue, Cheshire, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (1935.000 MHz—to 1945.000 MHz / 1980.000 MHz—to 1985.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications



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- 7) The antenna mounting height centerline of the proposed antennas is **149 feet** above ground level (AGL)
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT11308D - Tower Ventures Cheshire PD
Site Address	500 Highland Avenue, Cheshire, CT 06410
Site Type	Monopole

Sector 1															
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	Antenna analysis height (ft)	Cable Loss Additional Loss (dB)	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	149	143	0	48.326044	0.0849601	0.08496%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	0	-3.95	149	143	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
Sector total Power Density Value:													0.170%		

Sector 2															
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	Antenna analysis height (ft)	Cable Loss Additional Loss (dB)	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	149	143	0	48.326044	0.0849601	0.08496%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	0	-3.95	149	143	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
Sector total Power Density Value:													0.170%		

Sector 3															
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	Antenna analysis height (ft)	Cable Loss Additional Loss (dB)	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	149	143	0	48.326044	0.0849601	0.08496%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	0	-3.95	149	143	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	149	143	0	24.163022	0.424801	0.04248%
Sector total Power Density Value:													0.170%		

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.510%
AT&T	25.220%
Verizon Wireless	20.050%
Nextel	6.640%
Sprint	5.810%
MetroPCS	6.430%
Town Emergency Svcs	5.130%
Total Site MPE %	69.790%



Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public exposure to RF Emissions.

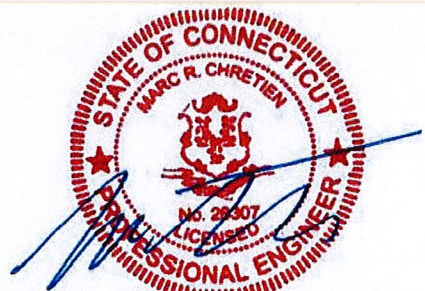
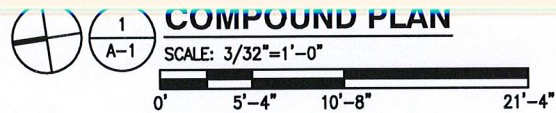
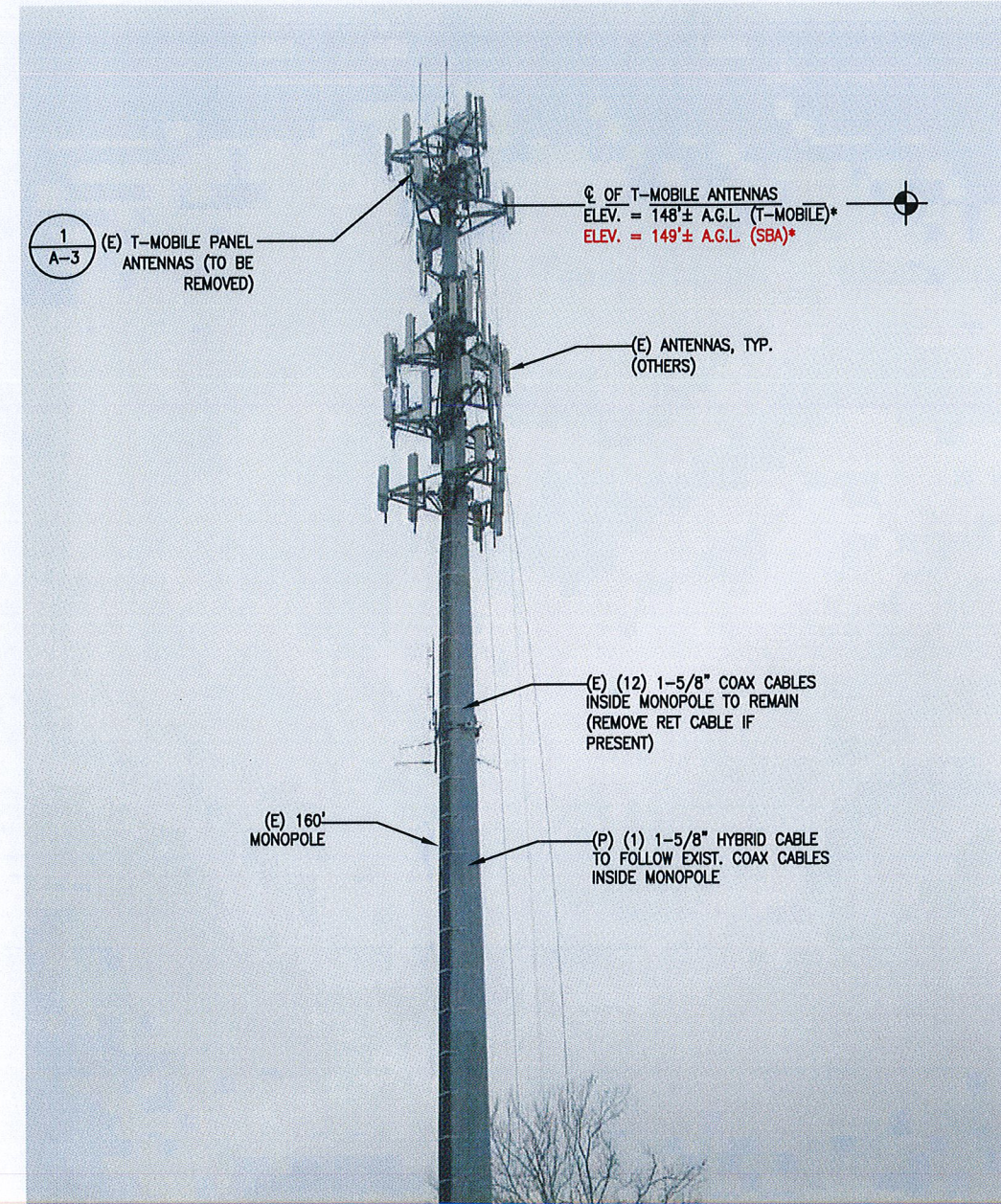
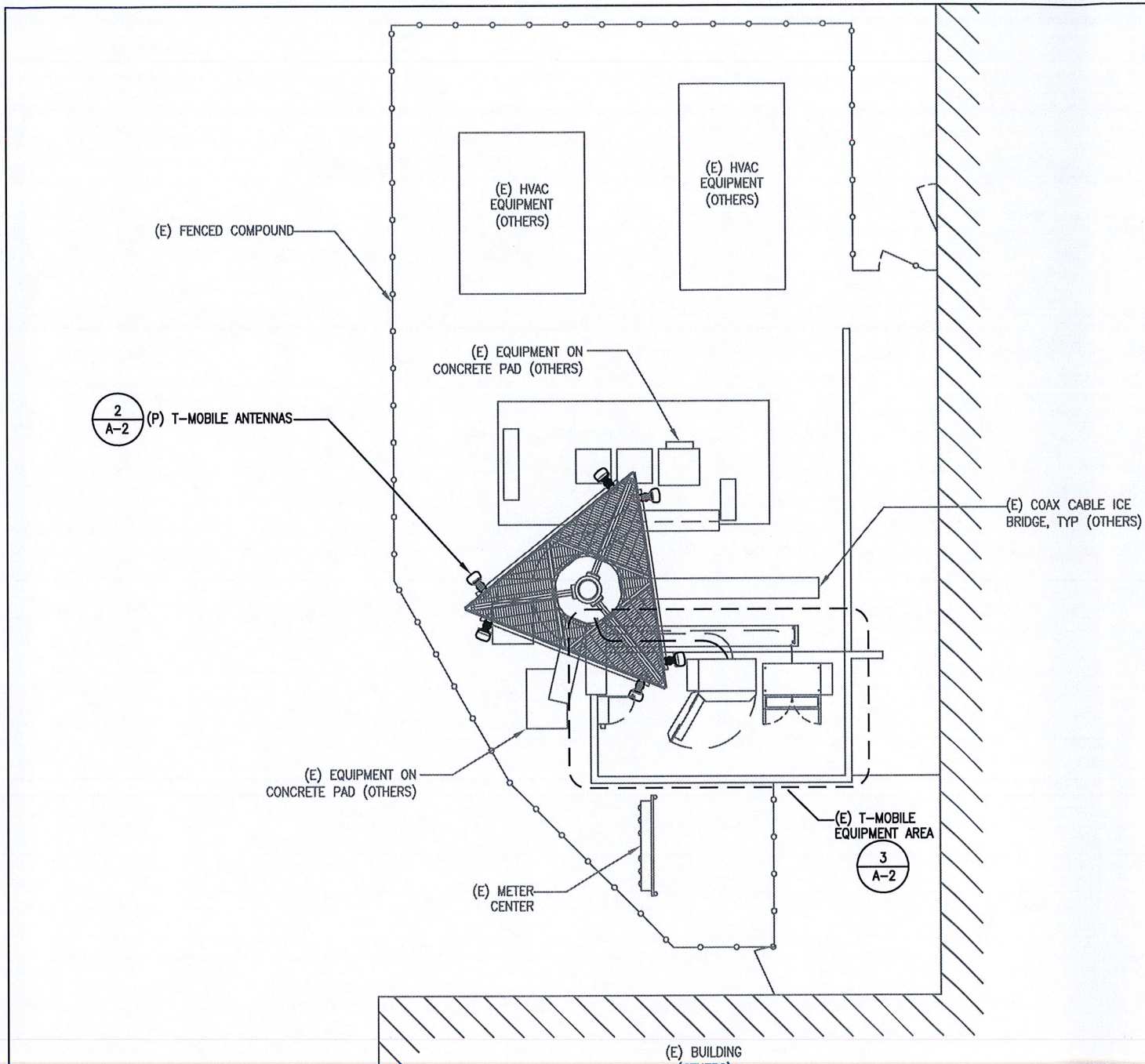
The anticipated Maximum Composite contributions from the T-Mobile facility are **0.510% (0.170% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **69.790%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were within the allowable 100% threshold standard per the federal government.

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803



NOTE:
GROUND EQUIPMENT NOT SHOWN FOR
CLARITY

2
A-1 EXISTING ELEVATION
SCALE: NTS

*NOTE:
ANTENNA ELEVATION BASED ON
CLIENT-PROVIDED INFORMATION

EG ADVANCED
ENGINEERING GROUP, P.C.
Civil Engineering - Site Development Surveying - Telecommunications
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SBA
SBA COMMUNICATIONS CORPORATION
33 BOSTON POST ROAD WEST, SUITE 320
MARLBOROUGH, MA 01752
PHONE: 508-366-5505

SITE NUMBER: CT11308D
SITE NAME: TOWER VENTURES CHESHIRE PD
500 HIGHLAND AVENUE
CHESHIRE, CT 06410

T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116

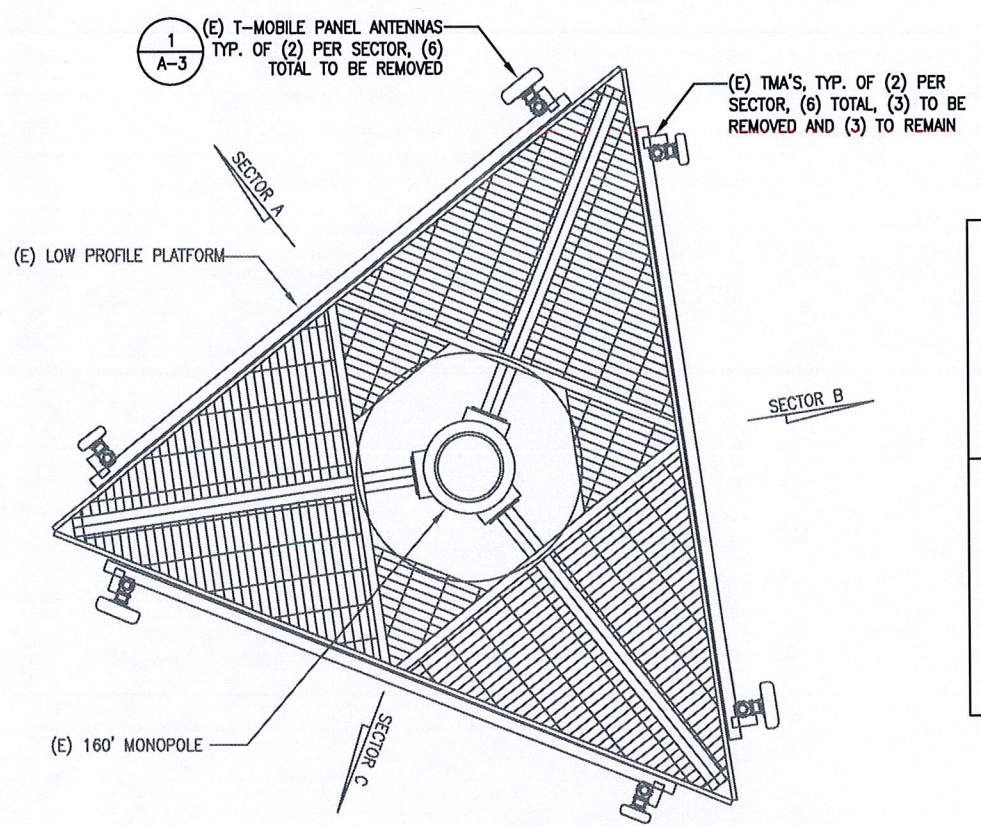
NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/03/13	CONSTRUCTION FINAL	BDJ	MRC	MRC
0	04/26/13	CONSTRUCTION	BDJ	MRC	MRC

SCALE: AS SHOWN DESIGNED BY: MRC DRAWN BY: BDJ

JOB NUMBER		DRAWING NUMBER		REV
CT11308D		A-1		1

T-MOBILE

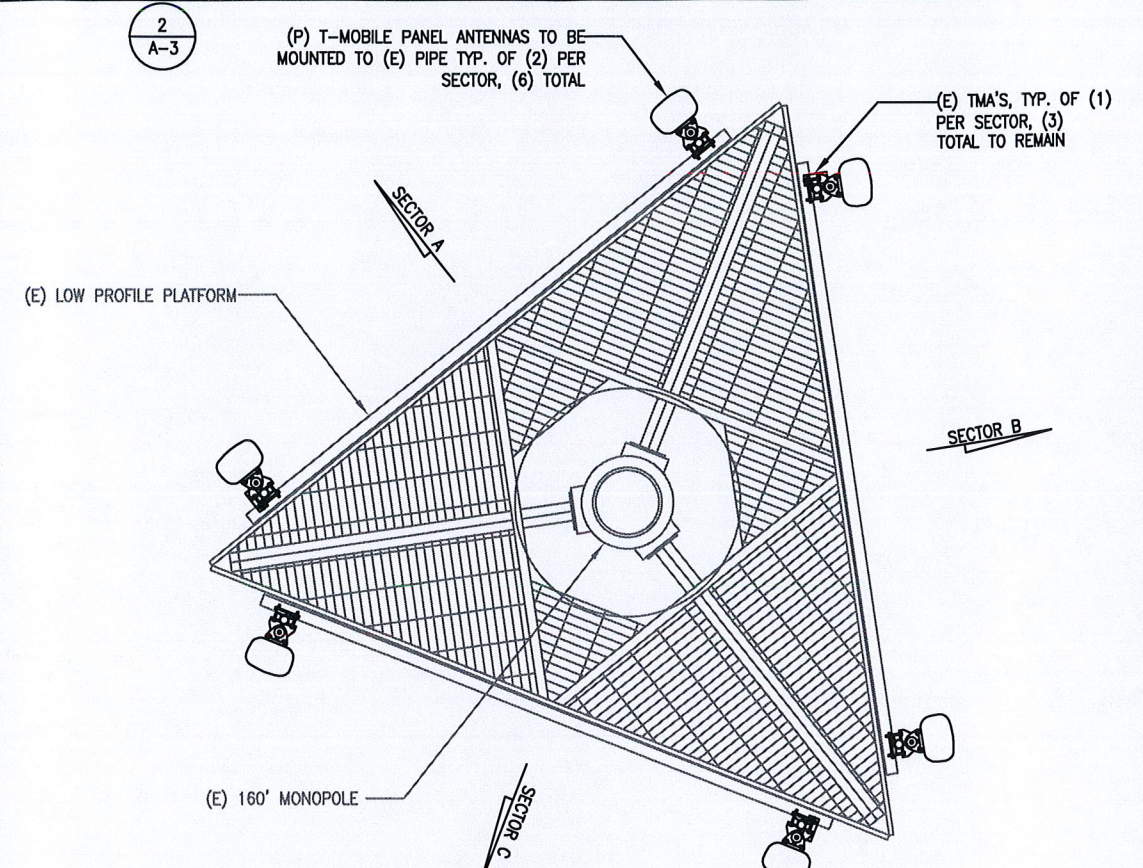
COMPOUND PLAN AND ELEVATION



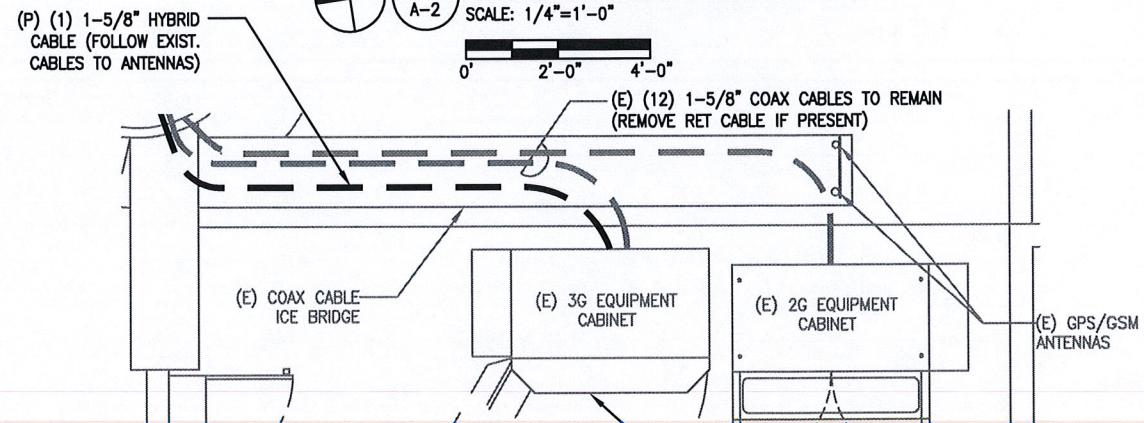
EXISTING ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	RFS	APX16DWV-16DWV-S	13x3.15x59.9
	ANDREWS	RR90-17-02DP	8x2.8x56
SECTOR B:	RFS	APX16DWV-16DWV-S	13x3.15x59.9
	ANDREWS	RR90-17-02DP	8x2.8x56
SECTOR C:	RFS	APX16DWV-16DWV-S	13x3.15x59.9
	ANDREWS	RR90-17-02DP	8x2.8x56

PROPOSED ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B2A/B4P	12x8x56
SECTOR B:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B2A/B4P	12x8x56
SECTOR C:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B2A/B4P	12x8x56

NOTE:
1. REFER TO FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

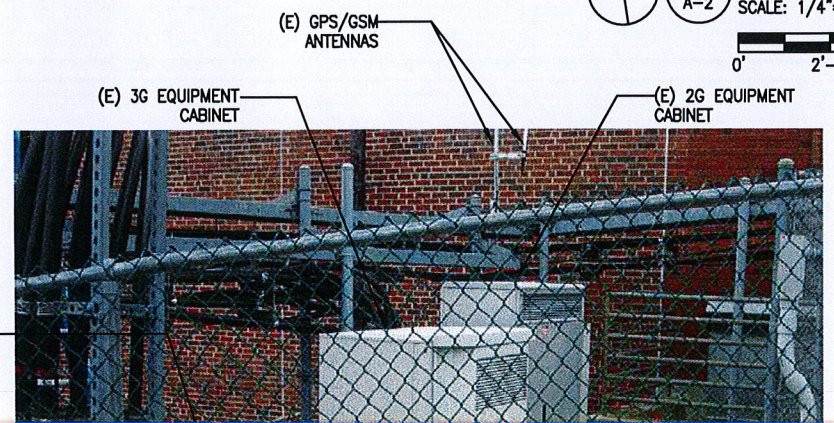


EXISTING ANTENNA PLAN
SCALE: 1/4"=1'-0"
0' 2'-0" 4'-0"



PROPOSED EQUIPMENT PLAN
SCALE: 1/4"=1'-0"
0' 2'-0" 4'-0"

PROPOSED ANTENNA PLAN
SCALE: 1/4"=1'-0"
0' 2'-0" 4'-0"



EXISTING EQUIPMENT AREA.
N.T.S.



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SCALE: AS SHOWN DESIGNED BY: MRC DRAWN BY: BDJ

T-MOBILE
PLANS AND ANTENNA SCHEDULES
JOB NUMBER: CT11308D DRAWING NUMBER: A-2 REV: 1