COHEN and WOLF P.C.
ATTORNEYS AT LAW

RACHEL A. SCHWARTZMAN

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

August 22, 2014

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

Re: Notice of Exempt Modification
Message Center Management/T-Mobile co-location
T-Mobile Site ID CT11319C
20 Volunteer Drive, Windsor Locks, CT aka 2-4 Volunteer Drive, Windsor Locks, CT

Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, Message Center Management owns the existing lattice telecommunications tower and related facility at 20 Volunteer Drive, Windsor Locks, CT (41.928033/-72.646797). T-Mobile intends to replace existing antennas with 3 new antennas at this existing telecommunications facility in Windsor Locks ("Windsor Locks Facility"). Please accept this letter as notification, pursuant to R.C.S.A. §16-50j-73, of construction which 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 the First Selectman, Steven N. Wawruck, Jr., and the property owner, Town of Windsor Locks.

The existing Windsor Locks Facility consists of a 190- foot lattice tower.[1] T-Mobile plans to replace antennas with 3 new antennas on pipe masts, with smart bias tees mounted behind, at a centerline of 146 feet. (See the plans revised to August 1, 2014 attached hereto as **Exhibit A**). T-Mobile will also install three remote radio units at the ground level and install coax cables from the existing equipment cabinets to the proposed T-Mobile equipment. The existing Windsor Locks Facility is structurally capable of supporting T-Mobile's proposed modifications,[2] as indicated in the structural analysis dated August 6, 2014, and attached hereto as **Exhibit B**.

---

[1] While the online docket for the Connecticut Siting Council does not provide a docket or petition number for approval of this structure, it does reference this structure in connection with a notices of intent captioned EM-VER-165-080919, EM-POCKET-165-090713, EM-T-MOBILE-165-090817, EM-CLEARWIRE-165-090921, EM-VER-165-100222, EM-SPRINT-165-111205, EM-CING-165-120515, EM-METROPCS-165-130118, EM-VER-165-140114.

[2] The recommendations proposed on page 2 of the structural analysis will be performed prior to installation.

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

1. The proposed modification will not increase the height of the tower. T-Mobile's existing antennas are at a centerline of 146 feet; the replacement antennas will be installed at the same 146 foot level. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

2. The proposed modifications will not require an extension on the site boundaries or lease area, as depicted on Sheet 1 of Exhibit A. T-Mobile's equipment will be located entirely within the existing compound area.

3. The proposed modification to the Facility will not increase the noise levels at the existing facility by six decibels or more.

4. The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated August 13, 2014. T-Mobile's operations would add 5.49 % of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 61.74% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as **Exhibit C.**

For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Windsor Locks Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Upon acknowledgement of this exempt modification, T-Mobile shall commence construction approximately sixty days from the receipt of the Council's decision.

Sincerely,

Rachel Schwartzman

Rachel A. Schwartzman, Esq.

cc: Town of Windsor Locks, First Selectman, Steven N. Wawruck, Jr.
Town of Windsor Locks
Message Center Management
Jamie Ford, EBI Consulting

T-MOBILE USA, INC.
12920 SE 38TH STREET
BELLEVUE, WA 98006
(425) 378-4000

2917449
8/8/2014
2000011160

Invoice Number	Inv. Date	Description	Deductions	Voucher	Amount Paid
CT11319C-1	8/5/2014	Exempt Mod Filing Fees	0.00	1101580022	625.00

DO NOT ACCEPT THIS CHECK UNLESS THE FACE FADES FROM BLACK TO RED WITH LOGO IN BACKGROUND. THE BACK OF THIS DOCUMENT HAS HEAT-SENSITIVE INK THAT CHANGES FROM ORANGE TO YELLOW.
COPYBAN CAPTURE ANTI-FRAUD PROTECTION

T-MOBILE USA, INC.
12920 SE 38th Street
Bellevue, WA 98006
(425) 378-4000

The Bank of New York Mellon
Pittsburgh, PA
60-160/433

2917449
8/8/2014
VID 2000011160

PAY $625 00 CTS CTS
SIX TWO FIVE

*$625.00

Six Hundred Twenty Five Dollars Only*******

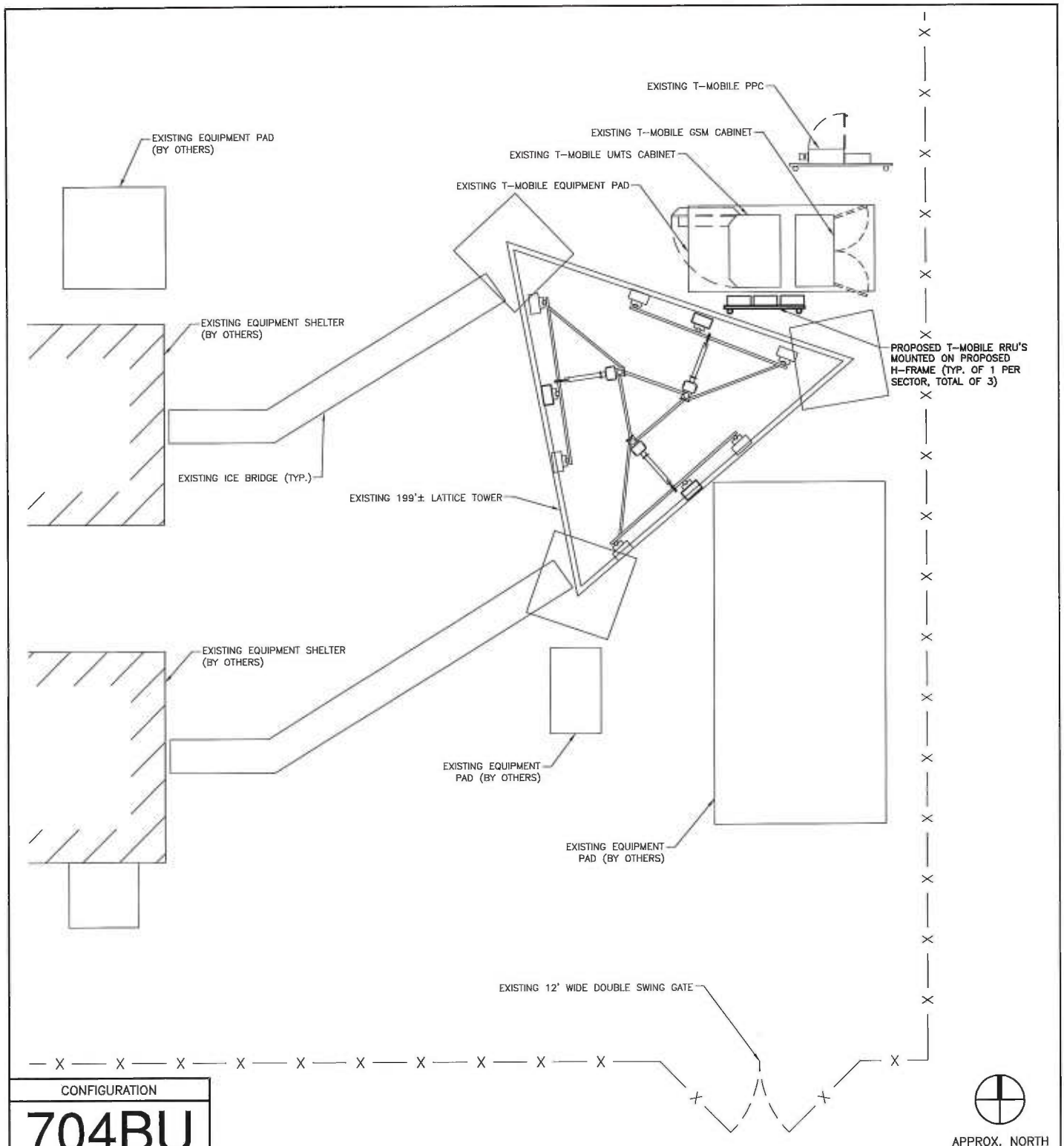
To The Order Of
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQ
NEW BRITAIN, CT 06051

VOID AFTER 180 DAYS
THIS CHECK CLEARS THROUGH POSITIVE PAY

⑈000291744 9⑈ ⑆043301601⑆ 013⑈8430⑈

THE ORIGINAL DOCUMENT HAS A REFLECTIVE WATERMARK ON THE BACK. HOLD AT AN ANGLE TO VIEW. DO NOT CASH IF MISSING

EXHIBIT A



CONFIGURATION

704BU

NOTE:
ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE STRUCTURAL AND RF ENGINEERS.

SITE PLAN

SCALE: 1/8" = 1'-0"

PREPARED BY:
EBI Consulting
environmental | engineering | due diligence
21 B Street | Burlington, MA 01803
Tel: (781) 273-2500 | Fax: (781) 273-3311
www.ebiconsulting.com
EBI JOB NO.: 81140811

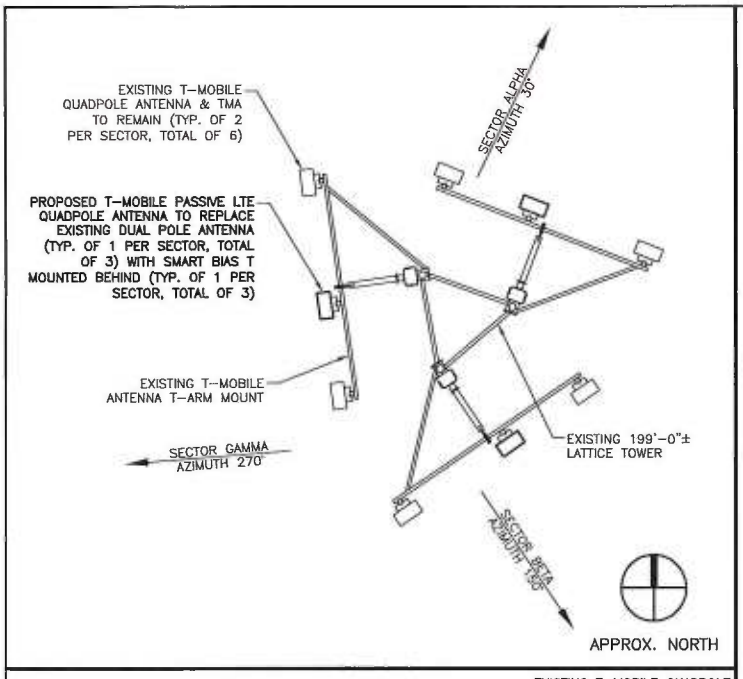
CLIENT:
T-Mobile Northeast, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860.692.7100

SITE INFO:
CT11319C
WINDSOR LOCKS/RT 20
20 VOLUNTEER DRIVE
WINDSOR LOCKS, CT 06069

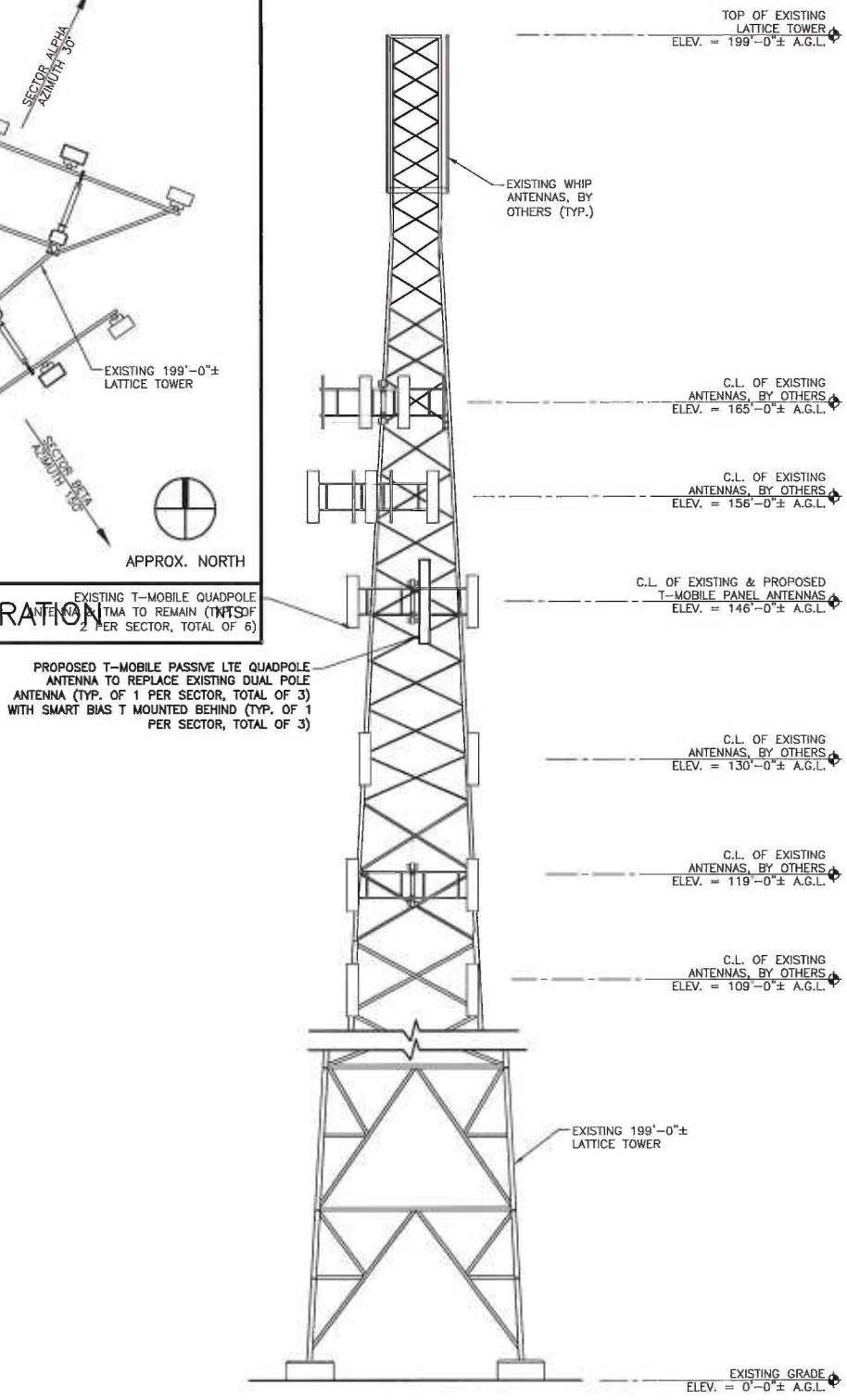
SUBMITTALS			
NO.	DATE	DESCRIPTION	BY
A	08/01/14	FOR REVIEW	JT

DRAWN BY: JT
CHECKED BY: PM
DATE: 08/01/14

SHEET NO: LE-1



ANTENNA CONFIGURATION



CONFIGURATION

704BU

NOTE:
ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE STRUCTURAL AND RF ENGINEERS.

TOWER ELEVATION

SCALE: 1/16" = 1'-0"

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Tel: (781) 273-2500 | Fax: (781) 273-3311
www.ebiconsulting.com
EBI JOB NO.: 81140811

CLIENT:
T-Mobile Northeast, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860.692.7100

SITE INFO:
CT11319C
WINDSOR LOCKS/RT 20
20 VOLUNTEER DRIVE
WINDSOR LOCKS, CT 06069

SUBMITTALS			
NO.	DATE	DESCRIPTION	BY
A	08/01/14	FOR REVIEW	JT

DRAWN BY: JT
CHECKED BY: PM
DATE: 08/01/14

SHEET NO: LE-2

EXHIBIT B

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STRUCTURAL ANALYSIS REPORT

August 6, 2014

T-Mobile, USA
35 Griffin Road South
Bloomfield, CT 06002
Attention: Mark Richard

Subject: 700 MHz Upgrade Project
Site #: CT-11139C
EBI Reference #: 81140811
Site Name: Windsor Locks/Rt. 20
Address: 20 Volunteer Drive, Windsor Locks, CT 06069

Dear Mr. Richard:

EBI Consulting's structural engineers have prepared this structural report for the self-supporting lattice tower at the above address, in accordance with the CT State Building Code (with amendments) and ANSI/TIA/EIA-222 Revision F. Information from the following sources was utilized in our analysis:

1. Tower analysis by Ramaker & Associates, Inc., dated February 11, 2014
2. Photographs from site visit by EBI on June 18, 2014
3. Tower analysis by Centek Engineering dated November 19, 2013 (partial pages)

The tower was analyzed for a wind speed of 80 mph without ice and with 1/2" radial ice at a reduced wind speed of 69 mph.

The proposed (3) Commscope SBNHH-1D65C panel antennas shall be installed on proposed 2-7/8" O.D. pipe masts, mounted to existing sector frames. Additionally, (6) 1-5/8" coax cables will be installed from the equipment cabinets to the proposed T-Mobile equipment, following the route of the existing coaxial cable installations. The three proposed RRUS11 B12 remote radio units are proposed to be mounted at the ground level.

Local Equipment Support:

Calculations for local support are included herein and are found to be **NOT adequate**. The sector frame is estimated to consist of:

- (2) 13' wide welded sector frame made from 2-3/8" O.D. Sched. 40 pipes
- Outriggers extending 4' from the tower leg connection and made from (1) vertical 4.5" O.D. Sched. 40 pipe and (2) HSS4x4x1/4 horizontal steel tubes.
- Tower leg connection made from (2) HSS2x2x1/4 tubes bolted small diameter standoffs attached to the tower truss leg and cantilevers to the outrigger support.

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It is recommended that the tower leg connection be removed and the 4.5"O.D. vertical connection pipe be directly mounted to the tower truss legs.

Summary of Results: (Refer to attached TNX Tower Analysis for detailed analysis results)

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
T1	199 - 189	Leg	1 1/2	3	-1832.72	45098.86	4.1	Pass
		Diagonal	3/4	15	-303.97	5101.35	6.0	Pass
		Horizontal	3/4	16	-7.78	2918.06	0.3	Pass
		Top Girt	7/8	6	-21.23	5406.06	0.4	Pass
		Bottom Girt	7/8	9	-60.29	5406.06	1.1	Pass
T2	189 - 174	Leg	1 1/2	38	8428.43	33498.42	25.2	Pass
		Diagonal	3/4	50	-1574.43	5109.28	30.8	Pass
		Horizontal	3/4	59	-139.45	2918.06	4.8	Pass
		Top Girt	7/8	42	-32.15	5406.06	0.6	Pass
		Bottom Girt	7/8	44	-233.84	5406.06	4.3	Pass
T3	174 - 154	Leg	2	89	-35918.80	95295.77	37.7	Pass
		Diagonal	1	101	-2802.91	11222.53	25.0	Pass
		Horizontal	7/8	102	-353.41	3660.95	9.7	Pass
		Top Girt	1	91	-72.04	9403.64	0.8	Pass
		Bottom Girt	1	93	-888.39	5927.88	15.0	Pass
T4	154 - 144	Leg	Pirod 105244	153	-42189.90	122940.05	34.3	Pass
		Diagonal	L2 1/2x2 1/2x3/16	159	-6675.13	12052.33	55.4	Pass
T5	144 - 124	Leg	Pirod 105217	162	-83282.00	184672.48	45.1	Pass
		Diagonal	L2 1/2x2 1/2x3/16	171	-7234.38	9507.09	76.1	Pass
		Top Girt	L2 1/2x2 1/2x3/16	163	-1120.47	12234.51	9.2	Pass
T6	124 - 104	Leg	Pirod 105218	178	-125881.00	258238.08	48.7	Pass
		Diagonal	L3x3x3/16	185	-8651.64	13195.89	65.6	Pass
T7	104 - 84	Leg	Pirod 105218	193	-168492.00	258238.08	65.2	Pass
		Diagonal	L3x3x3/16	200	-8621.90	10547.75	81.7	Pass
T8	84 - 64	Leg	Pirod 105219	208	-208729.00	343622.06	60.7	Pass
		Diagonal	L3x3x5/16	215	-8931.02	13703.91	65.2	Pass
T9	64 - 44	Leg	Pirod 105219	223	-246322.00	343622.06	71.7	Pass
		Diagonal	L3x3x5/16	230	-9233.48	11203.93	82.4	Pass
T10	44 - 24	Leg	Pirod 105220	238	-282545.00	440811.08	64.1	Pass
		Diagonal	L3 1/2x3 1/2x5/16	245	-9624.73	14946.80	64.4	Pass
T11	24 - 4	Leg	Pirod 105220	253	-316544.00	440811.08	71.8	Pass
		Diagonal	L3 1/2x3 1/2x5/16	260	-10868.40	12525.32	86.8	Pass
							Summary	
						Leg (T11)	71.8	Pass
						Diagonal (T11)	86.8	Pass
						Horizontal (T3)	9.7	Pass
						Top Girt (T5)	9.2	Pass
						Bottom Girt (T3)	15.0	Pass
						Bolt Checks	94.4	Pass
						RATING =	**94.4**	**Pass**

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The maximum stress under the proposed conditions and configurations is **94.4%** of the tower capacity, governed by the bolts, and is considered adequate.

Foundation:

Max. corner reaction at base:	11-19-2013 Report Reactions (kips)	11-19-2013 Report Capacity Ratios	Proposed Loading Reactions (kips)
Axial (kips)	319	--	326
Uplift (kips)	257	60% (footing overturning)	254
Shear (kips)	33.6	51% (bolts)	33.8

The previous structural analysis was made available to EBI Consulting for comparing current reactions with previous reactions but only contained a portion of the full report. It can be seen that the current reactions are similar to the previous analysis and that the foundation will have adequate capacity for the proposed loading. EBI Consulting makes no claims about the ability of the tower foundation to support the proposed structural loads.

Limitations and Assumptions:

This report is based on the following:

1. Tower is properly installed and maintained.
2. All members are as specified in the original design documents and are in good condition.
3. All required members are in place.
4. All bolts are in place and are tightly fastened.
5. Tower is in plumb condition.
6. All member protective coatings are in good condition.
7. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
8. Modifications listed in the previous report have been installed.

EBI is not responsible for any modifications completed prior to or hereafter in which EBI is not or was not directly involved. Modifications include but are not limited to:

A. Adding antennas
B. Removing/replacing antennas
C. Adding coaxial cables

EBI hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any

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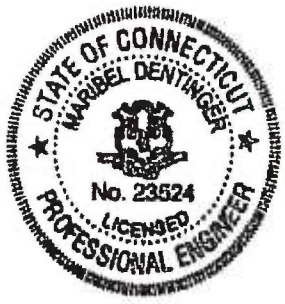
information which conflicts with that which is contained herein, or you are aware of any defects arising from the original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact EBI. EBI disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

THE CONCLUSION OF THE TOWER STRUCTURAL ANALYSIS IS THAT THE TOWER IS AT 94.4% CAPACITY FOR THE PROPOSED LOADING. Please contact this office should you have any questions regarding this matter.

Sincerely,
EBI Consulting
August 6, 2014

Matthew Hykes, P.E.
Professional Engineer

Maribel Dentinger, P.E.
Professional Engineer



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STRUCTURAL PHOTO LOG

Photo 1: General view of an existing T-Mobile sector.	
Photo 2: General view of an existing T-Mobile sector.	
Photo 3: Existing tower base.	

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Photo 4: Overall view of upper portion of tower.	

APPENDIX A

Mount Calculations

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EnviroBusiness, Inc.
21 B Street
Burlington, MA 01803
800.786.2346

Carrier: T-Mobile
Site ID: CT11319C

This spreadsheet calculates the wind and ice forces on proposed equipment. Shaded fields indicated user data entry.

Determine the wind loads on new equipment using TIA222 - Rev F design code:

sustained V=	80	mph (see structural criteria page)
Height above grade =	146	ft, center of antennas
Kz=	1.53	
Wind importance factor, I =	1.00	
qz=	25.1	psf, formula is $I*0.00256*Kz*V^2$
Gh for lattice structure formula	1.14	see table below for occurrence - use value only when not at a cantilever or on a monopole
Wind with ice / Wind ratio	0.75	
Ice thickness	0.50	
Ice density	56	pcf

Calculate wind at face of proposed equipment using the TIA-222-F code revision:

Description	Weight (lbs)	Height (in)	Width (in)	Depth (in)	Front Aspect ratio	Front C_a (TIA222F Table 3)	Side Aspect ratio	Side C_a (TIA222F Table 3)	Cant-ilever or mono-pole?	Sheilding factor, Ka	Wind force on face, no ice (lb)	Wind at face, with ice (lb)	Wind force on side, no ice (lb)	Wind at side, with ice (lb or plf)	Ice Load (lb or plf)
Flat Appurtenances															
Pr. Antenna	80	96	11.9	7.1	8.07	1.44	13.52	1.62	N	1.14	**324**	254.5	**217.8**	156.0	70.1
Ex. Antenna	80	56	9	6	6.22	1.40	9.33	1.48	N	1.14	**139**	111.3	**98.1**	76.2	32.2
Round Appurtenances															
Sector frame	144	360.0	2.4	2.4	-	1.20	150.00	1.20	N	1.14	**205**	185.9	-	185.9	71.3
P. 2-7/8" O.D. pipe	45	96.0	2.9	2.9	-	1.20	33.39	1.20	N	1.14	**65**	57.9	**65.4**	57.9	22.3
Standoff arm	160	48.0	8.0	8.0		1.20	6.00	1.20	N	1.14	**91**	73.3	**91.0**	73.3	28.9

Check Existing connection to tower leg (side loads from 2 ex. antennas, 1 pr. antennas, and mount)

Connection qty	2	tubes
Connection Size	HSS2x2x1/4	
Available Flexural Strength, LRFD	3330	ft-lbs per AISC Table 3-13
Total wind force	701	lbs
Total dead load, not incl. ice	678	lbs
Total ice load	302	lbs
Approx. distance to centroid	5.5	feet
Distance includes both standoff arm and small tube standoff		
Total wind +dead moment	7587.9	
Total dead +ice moment + 75% wind moment	8283.1	
Worst case stress ratio	124%	

–Connection tubes are no good - and the solid rounds and connection to the tower will have even higher stresses,

EXISTING MOUNT NO GOOD

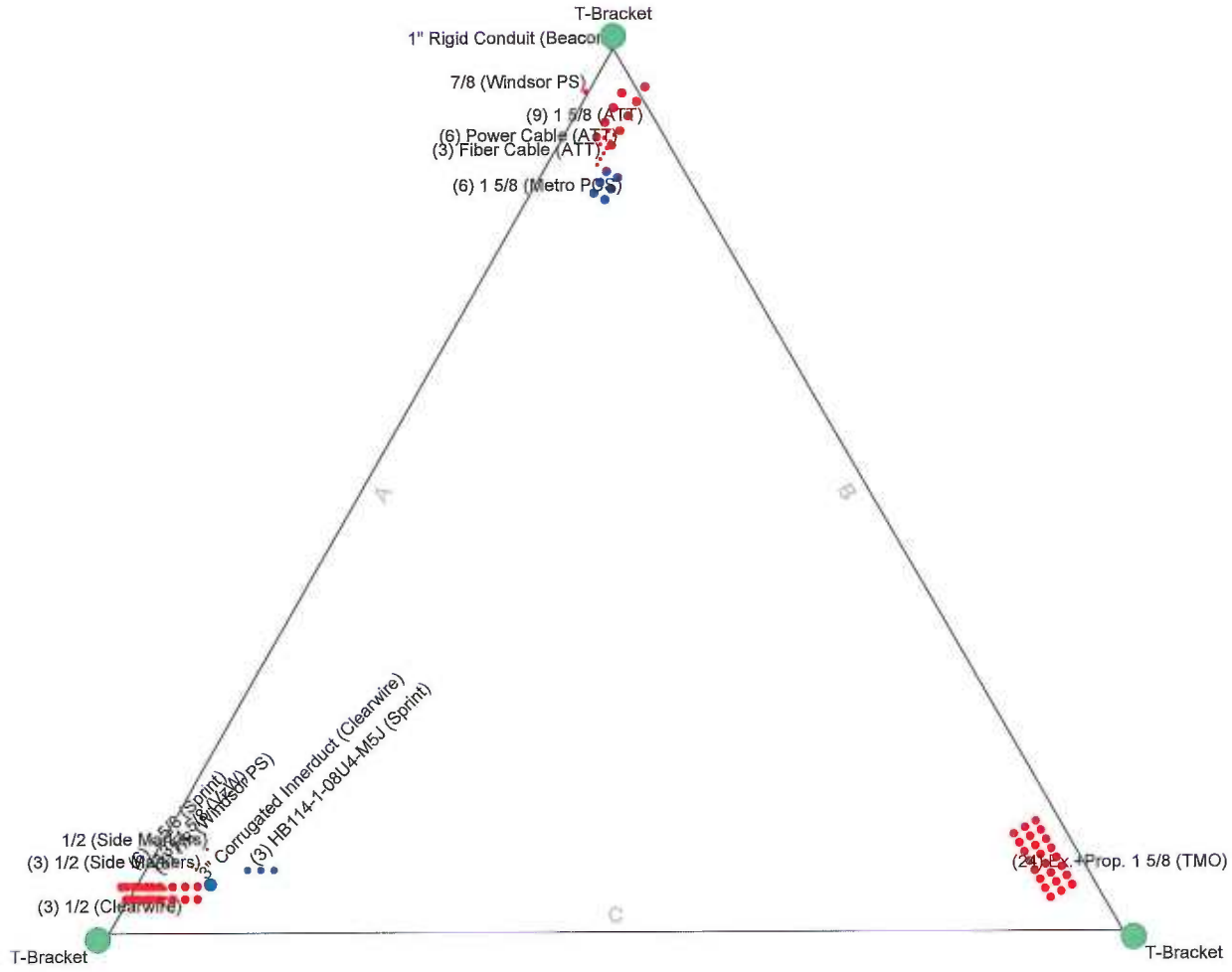
- see circled rods at picture on right

APPENDIX B

TNX Tower Results

Feed Line Plan

Round Flat App In Face App Out Face Truss-Leg



EBI 21 B Street Burlington, MA 01803 Phone: (781) 425-5100 FAX: (781) 425-5141	Job: ***CT11319C***		
	Project: ***81140811***		
	Client: T-Mobile	Drawn by: mhykes	App'd:
	Code: TIA/EIA-222-F	Date: 08/06/14	Scale: NTS
	Path: C:\Misc Jobs_Turnkey TMO CT\CT11319C\Structural\Calculations\lower\CT11319 TNX er		Dwg No. E-7

tnxTower	Job	Page
	CT11319C	1 of 22
EBI 21 B Street Burlington, MA 01803 Phone: (781) 425-5100 FAX: (781) 425-5141	Project 81140811	Date 09:48:23 08/06/14
	Client T-Mobile	Designed by mhykes

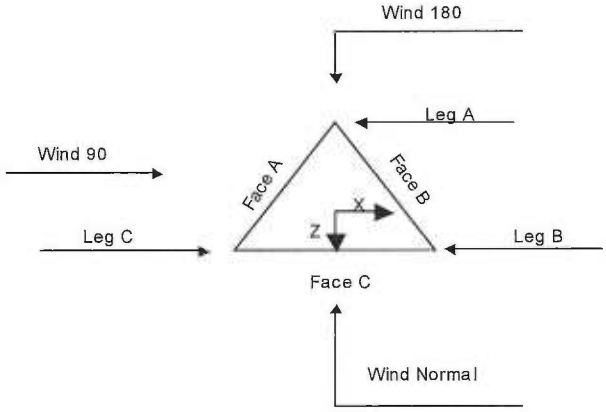
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 199.00 ft above the ground line.
The base of the tower is set at an elevation of 4.00 ft above the ground line.
The face width of the tower is 4.00 ft at the top and 20.00 ft at the base.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Basic wind speed of 80 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 69 mph is used in combination with ice.
Deflections calculated using a wind speed of 60 mph.
Weld together tower sections have flange connections..
Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications..
Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards..
Welds are fabricated with ER-70S-6 electrodes..
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.333.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Treat Feedline Bundles As Cylinder
Consider Moments - Horizontals	Assume Legs Pinned	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Diagonals	Assume Rigid Index Plate	√ Calculate Redundant Bracing Forces
Use Moment Magnification	√ Use Clear Spans For Wind Area	√ Ignore Redundant Members in FEA
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	√ SR Leg Bolts Resist Compression
√ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	√ All Leg Panels Have Same Allowable
Escalate Ice	Bypass Mast Stability Checks	Offset Girt At Foundation
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Consider Feedline Torque
Use Special Wind Profile	√ Project Wind Area of Appurt.	√ Include Angle Block Shear Check
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Poles
Leg Bolts Are At Top Of Section	SR Members Have Cut Ends	Include Shear-Torsion Interaction
√ Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	√ Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
Add IBC .6D+W Combination	Use TIA-222-G Tension Splice Capacity Exemption	



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	199.00-189.00			4.00	1	10.00
T2	189.00-174.00			4.00	1	15.00
T3	174.00-154.00			4.00	1	20.00
T4	154.00-144.00			5.00	1	10.00
T5	144.00-124.00			6.00	1	20.00
T6	124.00-104.00			8.00	1	20.00
T7	104.00-84.00			10.00	1	20.00
T8	84.00-64.00			12.00	1	20.00
T9	64.00-44.00			14.00	1	20.00
T10	44.00-24.00			16.00	1	20.00
T11	24.00-4.00			18.00	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	199.00-189.00	2.48	X Brace	No	Steps	0.0000	1.0000
T2	189.00-174.00	2.47	X Brace	No	Steps	1.0000	1.0000
T3	174.00-154.00	2.49	X Brace	No	Steps	1.0000	0.0000
T4	154.00-144.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T5	144.00-124.00	10.00	X Brace	No	No	0.0000	0.0000
T6	124.00-104.00	10.00	X Brace	No	No	0.0000	0.0000
T7	104.00-84.00	10.00	X Brace	No	No	0.0000	0.0000
T8	84.00-64.00	10.00	X Brace	No	No	0.0000	0.0000
T9	64.00-44.00	10.00	X Brace	No	No	0.0000	0.0000
T10	44.00-24.00	10.00	X Brace	No	No	0.0000	0.0000
T11	24.00-4.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 199.00-189.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	3/4	A36 (36 ksi)
T2 189.00-174.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	3/4	A36 (36 ksi)
T3 174.00-154.00	Solid Round	2	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T4 154.00-144.00	Truss Leg	Pirod 105244	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 144.00-124.00	Truss Leg	Pirod 105217	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 124.00-104.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T7 104.00-84.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T8 84.00-64.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Equal Angle	L3x3x5/16	A36 (36 ksi)
T9 64.00-44.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Equal Angle	L3x3x5/16	A36 (36 ksi)
T10 44.00-24.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x5/16	A36 (36 ksi)
T11 24.00-4.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x5/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 199.00-189.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 189.00-174.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 174.00-154.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T5 144.00-124.00	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 199.00-189.00	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 189.00-174.00	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T3 174.00-154.00	None	Flat Bar		A36 (36 ksi)	Solid Round	7/8	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T1 199.00-189.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T2 189.00-174.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T3 174.00-154.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T4 154.00-144.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T5 144.00-124.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T6 124.00-104.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T7 104.00-84.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T8 84.00-64.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T9 64.00-44.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T10 44.00-24.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T11 24.00-4.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 199.00-189.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T2	Yes	Yes	1	1	1	1	1	1	1	1
189.00-174.00				1	1	1	1	1	1	1
T3	Yes	Yes	1	1	1	1	1	1	1	1
174.00-154.00				1	1	1	1	1	1	1
T4	Yes	No	1	1	1	1	1	1	1	1
154.00-144.00				1	1	1	1	1	1	1
T5	Yes	No	1	1	1	1	1	1	1	1
144.00-124.00				1	1	1	1	1	1	1
T6	Yes	No	1	1	1	1	1	1	1	1
124.00-104.00				1	1	1	1	1	1	1
T7	Yes	No	1	1	1	1	1	1	1	1
104.00-84.00				1	1	1	1	1	1	1
T8	Yes	No	1	1	1	1	1	1	1	1
84.00-64.00				1	1	1	1	1	1	1
T9	Yes	No	1	1	1	1	1	1	1	1
64.00-44.00				1	1	1	1	1	1	1
T10	Yes	No	1	1	1	1	1	1	1	1
44.00-24.00				1	1	1	1	1	1	1
T11	Yes	No	1	1	1	1	1	1	1	1
24.00-4.00				1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Truss-Leg K Factors: Truss-Legs Used As Leg Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals	Truss-Legs Used As Inner Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals
T4	1	0.5	0.85	1	0.5	0.85
154.00-144.00						
T5	1	0.5	0.85	1	0.5	0.85
144.00-124.00						
T6	1	0.5	0.85	1	0.5	0.85
124.00-104.00						
T7	1	0.5	0.85	1	0.5	0.85
104.00-84.00						
T8	1	0.5	0.85	1	0.5	0.85
84.00-64.00						
T9	1	0.5	0.85	1	0.5	0.85
64.00-44.00						
T10	1	0.5	0.85	1	0.5	0.85
44.00-24.00						
T11	1	0.5	0.85	1	0.5	0.85
24.00-4.00						

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 199.00-189.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 189.00-174.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 174.00-154.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 154.00-144.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 144.00-124.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 124.00-104.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 104.00-84.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 84.00-64.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 64.00-44.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 44.00-24.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 24.00-4.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 199.00-189.00	Sleeve DS	0.5625 A325N	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 189.00-174.00	Sleeve DS	0.6250 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 174.00-154.00	Flange	1.0000 A325N	6	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 154.00-144.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 144.00-124.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 124.00-104.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 104.00-84.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 84.00-64.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T9 64.00-44.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T10 44.00-24.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T11 24.00-4.00	Flange	1.2500 A687-93	6	1.2500 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
1" Rigid Conduit (Beacon)	A	No	Ar (CfAe)	199.00 - 4.00	0.0000	0.5	1	1	1.0000 0.0000	1.0000		1.20
7/8 (Windsor PS)	A	No	Ar (CfAe)	199.00 - 4.00	0.0000	0.45	1	1	1.1000	1.1000		0.54
7/8 (Windsor PS)	C	No	Ar (CfAe)	176.00 - 4.00	-10.0000	0.45	8	4	1.1000	1.1000		0.54
1 5/8 (ATT)	A	No	Ar (CfAe)	165.00 - 4.00	-10.0000	0.45	9	5	1.9800	1.9800		1.04
Fiber Cable (ATT)	A	No	Ar (CfAe)	165.00 - 4.00	-10.0000	0.4	3	3	0.7900	0.7900		0.17
Power Cable (ATT)	A	No	Ar (CfAe)	165.00 - 4.00	-10.0000	0.42	6	3	0.8800	0.8800		0.60
1 5/8 (VzW)	C	No	Ar (CfAe)	154.00 - 4.00	-10.0000	0.45	13	7	1.0000	1.9800		1.04
Ex.+Prop. 1 5/8 (TMO)	B	No	Ar (CfAe)	144.00 - 4.00	-10.0000	0.4	24	8	0.5000 1.0000	1.9800		1.04
1 5/8 (Metro PCS)	A	No	Ar (CaAa)	134.00 - 4.00	-15.0000	0.38	6	3	1.0000	1.9800		1.04
1 5/8 (Sprint)	C	No	Ar (CfAe)	119.00 - 4.00	-10.0000	0.47	6	3	1.0000	1.9800		1.04
HB114-1-08U4-M5J (Sprint)	C	No	Ar (CaAa)	119.00 - 4.00	-14.0000	0.35	3	3	1.5400	1.5400		1.08
3" Corrugated Innerduct (Clearwire)	C	No	Ar (CaAa)	109.00 - 4.00	-10.0000	0.4	1	1	3.0000	3.0000		0.30
1/2 (Clearwire)	A	No	Ar (CfAe)	109.00 - 4.00	-10.0000	-0.45	3	1	0.5800	0.5800		0.25
1/2 (Side Markers)	A	No	Ar (CfAe)	99.00 - 4.00	-10.0000	-0.4	3	2	0.5800	0.5800		0.25
1/2 (Side Markers)	A	No	Ar (CfAe)	79.00 - 4.00	-10.0000	-0.38	1	1	0.5800	0.5800		0.25

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
T-Bracket	A	No	CaAa (Out Of Face)	165.00 - 4.00	1	No Ice	0.25	1.50
						1/2" Ice	0.36	2.06
T-Bracket	B	No	CaAa (Out Of Face)	165.00 - 4.00	1	No Ice	0.25	1.50
						1/2" Ice	0.36	2.06
T-Bracket	C	No	CaAa (Out Of Face)	165.00 - 4.00	1	No Ice	0.25	1.50
						1/2" Ice	0.36	2.06

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	199.00-189.00	A	1.750	0.000	0.000	0.000	17.40
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T2	189.00-174.00	A	2.625	0.000	0.000	0.000	26.10
		B	0.000	0.000	0.000	0.000	0.00
		C	0.733	0.000	0.000	0.000	8.64
T3	174.00-154.00	A	17.168	0.000	0.000	2.750	199.47
		B	0.000	0.000	0.000	2.750	16.50
		C	7.333	0.000	0.000	2.750	102.90
T4	154.00-144.00	A	14.175	0.000	0.000	2.500	167.10
		B	0.000	0.000	0.000	2.500	15.00
		C	15.217	0.000	0.000	2.500	193.40
T5	144.00-124.00	A	28.350	0.000	8.643	5.000	396.60
		B	26.400	0.000	0.000	5.000	529.20
		C	30.433	0.000	0.000	5.000	386.80
T6	124.00-104.00	A	28.592	0.000	17.287	5.000	462.75
		B	26.400	0.000	0.000	5.000	529.20
		C	37.858	0.000	8.430	5.000	530.50
T7	104.00-84.00	A	30.767	0.000	17.287	5.000	485.25
		B	26.400	0.000	0.000	5.000	529.20
		C	40.333	0.000	15.240	5.000	582.40
T8	84.00-64.00	A	31.975	0.000	17.287	5.000	492.75
		B	26.400	0.000	0.000	5.000	529.20
		C	40.333	0.000	15.240	5.000	582.40
T9	64.00-44.00	A	32.217	0.000	17.287	5.000	494.00
		B	26.400	0.000	0.000	5.000	529.20
		C	40.333	0.000	15.240	5.000	582.40
T10	44.00-24.00	A	32.217	0.000	17.287	5.000	494.00
		B	26.400	0.000	0.000	5.000	529.20
		C	40.333	0.000	15.240	5.000	582.40
T11	24.00-4.00	A	32.217	0.000	17.287	5.000	494.00
		B	26.400	0.000	0.000	5.000	529.20
		C	40.333	0.000	15.240	5.000	582.40

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_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	199.00-189.00	A	0.500	3.417	0.000	0.000	0.000	36.34
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T2	189.00-174.00	A	0.500	5.125	0.000	0.000	0.000	54.51
		B		0.000	0.000	0.000	0.000	0.00
		C		1.400	0.000	0.000	0.000	24.28
T3	174.00-154.00	A	0.500	23.856	6.123	0.000	3.960	487.38
		B		0.000	0.000	0.000	3.960	22.66
		C		14.000	0.000	0.000	3.960	265.44
T4	154.00-144.00	A	0.500	18.892	5.567	0.000	3.600	413.35
		B		0.000	0.000	0.000	3.600	20.60
		C		9.483	14.900	0.000	3.600	497.71
T5	144.00-124.00	A	0.500	37.783	11.133	14.086	7.200	1009.63
		B		4.967	28.933	0.000	7.200	1335.48
		C		18.967	29.800	0.000	7.200	995.43
T6	124.00-104.00	A	0.500	38.442	11.133	28.172	7.200	1206.22
		B		4.967	28.933	0.000	7.200	1335.48
		C		22.692	37.250	13.430	7.200	1386.71
T7	104.00-84.00	A	0.500	42.392	12.583	28.172	7.200	1285.82

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B		4.967	28.933	0.000	7.200	1335.48
		C		23.933	39.733	23.240	7.200	1549.64
T8	84.00-64.00	A	0.500	45.025	13.067	28.172	7.200	1312.36
		B		4.967	28.933	0.000	7.200	1335.48
		C		23.933	39.733	23.240	7.200	1549.64
T9	64.00-44.00	A	0.500	45.683	13.067	28.172	7.200	1316.91
		B		4.967	28.933	0.000	7.200	1335.48
		C		23.933	39.733	23.240	7.200	1549.64
T10	44.00-24.00	A	0.500	45.683	13.067	28.172	7.200	1316.91
		B		4.967	28.933	0.000	7.200	1335.48
		C		23.933	39.733	23.240	7.200	1549.64
T11	24.00-4.00	A	0.500	45.683	13.067	28.172	7.200	1316.91
		B		4.967	28.933	0.000	7.200	1335.48
		C		23.933	39.733	23.240	7.200	1549.64

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	199.00-189.00	-0.1025	-2.5420	-0.0983	-2.4716
T2	189.00-174.00	-0.6730	-2.4257	-0.6419	-2.3675
T3	174.00-154.00	-0.9475	-3.9519	-1.3132	-3.6176
T4	154.00-144.00	-3.5212	-2.6845	-3.2171	-2.6717
T5	144.00-124.00	-0.5102	-1.5591	-1.1373	-1.9957
T6	124.00-104.00	-2.4386	-1.5803	-2.7768	-1.9617
T7	104.00-84.00	-4.2762	-0.9555	-4.4915	-1.4509
T8	84.00-64.00	-5.1866	-0.8969	-5.4987	-1.4317
T9	64.00-44.00	-6.0428	-0.9197	-6.4379	-1.5133
T10	44.00-24.00	-6.6311	-0.9300	-7.1335	-1.5881
T11	24.00-4.00	-7.3782	-0.9666	-7.9526	-1.6940

User Defined Loads

Description	Elevation ft	Offset From Centroid ft	Azimuth Angle °		Weight lb	F_x lb	F_z lb	Wind Force lb	C_AA_C ft^2
CABIN	68.00	0.00	0.0000	No Ice	3000.00	0.00	0.00	**2157.15**	96.00
				Ice	3000.00	0.00	0.00	**1617.86**	96.00
				Service	3000.00	0.00	0.00	**1213.39**	96.00

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Flash Beacon Lighting	A	From Leg	0.00 0.00 0.00	0.0000	200.00	No Ice 1/2" Ice	2.70 3.10	2.70 3.10	50.00 70.00
Lightning Rod 5/8x4'	B	From Leg	0.00 0.00 2.00	0.0000	199.00	No Ice 1/2" Ice	0.25 0.66	0.25 0.66	10.00 13.00
DB264-A (Windsor PS)	C	From Leg	0.00 0.00 10.00	0.0000	195.00	No Ice 1/2" Ice	3.16 5.70	3.16 5.70	36.00 47.00
20' Omni (Windsor PS)	A	From Face	4.00 0.00 7.50	0.0000	176.00	No Ice 1/2" Ice	5.00 7.00	5.00 7.00	55.00 92.00
12' Omni (Windsor PS)	B	From Face	4.00 7.00 5.00	0.0000	176.00	No Ice 1/2" Ice	3.00 4.20	3.00 4.20	30.00 48.60
10' Omni (Windsor PS)	B	From Face	4.00 0.00 5.00	0.0000	176.00	No Ice 1/2" Ice	2.50 3.50	2.50 3.50	30.00 49.00
20' Omni (Windsor PS)	C	From Face	4.00 0.00 7.50	0.0000	176.00	No Ice 1/2" Ice	5.00 7.00	5.00 7.00	55.00 92.00
DB264-A (Windsor PS)	A	From Leg	4.00 -7.00 10.00	0.0000	176.00	No Ice 1/2" Ice	3.16 5.70	3.16 5.70	36.00 47.00
DB264-A (Windsor PS)	A	From Leg	4.00 0.00 10.00	0.0000	176.00	No Ice 1/2" Ice	3.16 5.70	3.16 5.70	36.00 47.00
DB264-A (Windsor PS)	C	From Leg	4.00 0.00 10.00	0.0000	176.00	No Ice 1/2" Ice	3.16 5.70	3.16 5.70	36.00 47.00
DB264-A (Windsor PS)	C	From Leg	4.00 7.00 10.00	0.0000	176.00	No Ice 1/2" Ice	3.16 5.70	3.16 5.70	36.00 47.00
PiROD 15' T-Frame (Windsor PS)	A	None		0.0000	176.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (Windsor PS)	B	None		0.0000	176.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (Windsor PS) **	C	None		0.0000	176.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
800 10121+pipe (ATT)	A	From Face	4.00 -2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	5.57 6.02	4.48 5.14	65.00 111.00
800 10121+pipe (ATT)	B	From Face	4.00 -2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	5.57 6.02	4.48 5.14	65.00 111.00
800 10121+pipe (ATT)	C	From Face	4.00 -2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	5.57 6.02	4.48 5.14	65.00 111.00
(2) LGP214nn (ATT)	A	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice	1.30 1.45	0.23 0.31	14.10 21.30
(2) LGP214nn (ATT)	B	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice	1.30 1.45	0.23 0.31	14.10 21.30
(2) LGP214nn (ATT)	C	From Face	4.00 0.00	0.0000	165.00	No Ice 1/2" Ice	1.30 1.45	0.23 0.31	14.10 21.30

tnxTower	Job	Page
	CT11319C	11 of 22
EBI *21 B Street* *Burlington, MA 01803* *Phone: (781) 425-5100* *FAX: (781) 425-5141*	**Project** 81140811	**Date** 09:48:23 08/06/14
	Client T-Mobile	**Designed by** mhykes

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral ft* / *Vert ft* / *ft*	*Azimuth Adjustment* °	*Placement* ft		*C_AA_A Front* ft^2	*C_AA_A Side* ft^2	*Weight* lb
			0.00						
SBNH-1D6565C+pipe (ATT)	A	From Face	4.00 2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	11.70 12.40	9.80 11.40	94.00 183.00
SBNH-1D6565C+pipe (ATT)	B	From Face	4.00 2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	11.70 12.40	9.80 11.40	94.00 183.00
SBNH-1D6565C+pipe (ATT)	C	From Face	4.00 2.00 0.00	0.0000	165.00	No Ice 1/2" Ice	11.70 12.40	9.80 11.40	94.00 183.00
(2) RRUS-11 (ATT)	A	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice	3.25 3.49	1.37 1.55	51.00 71.00
(2) RRUS-11 (ATT)	B	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice	3.25 3.49	1.37 1.55	51.00 71.00
(2) RRUS-11 (ATT)	C	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice	3.25 3.49	1.37 1.55	51.00 71.00
PiROD 15' T-Frame (ATT)	A	None		0.0000	165.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (ATT)	B	None		0.0000	165.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (ATT)	C	None		0.0000	165.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
**									
LNX-4514DS-A1M (VZW)	A	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	7.67 8.10	3.28 3.62	29.50 71.40
BXA-70063-6CF-EDIN-X+pipe (VZW)	A	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	8.00 8.60	5.80 7.00	43.00 104.00
(2) BXA-70063-6CF-EDIN-X+pipe (VZW)	B	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	8.00 8.60	5.80 7.00	43.00 104.00
(2) BXA-70063-6CF-EDIN-X+pipe (VZW)	C	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	8.00 8.60	5.80 7.00	43.00 104.00
BXA-185060/12CF +pipe (VZW)	A	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00
BXA-185060/12CF +pipe (VZW)	B	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00
BXA-185060/12CF +pipe (VZW)	C	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00
BXA-171063-12CF-EDIN-X +pipe (VZW)	A	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00
BXA-171063-12CF-EDIN-X +pipe (VZW)	B	From Face	4.00 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00
BXA-171063-12CF-EDIN-X +pipe	C	From Face	4.00 0.00	0.0000	150.00	No Ice 1/2" Ice	4.80 5.20	5.04 6.00	41.90 85.00

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EBI 21 B Street Burlington, MA 01803 Phone: (781) 425-5100 FAX: (781) 425-5141	Project 81140811	Date 09:48:23 08/06/14
	Client T-Mobile	Designed by mhykes

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(VZW)			0.00						
ALU 2x40 RRH 700	A	From Face	3.00	0.0000	150.00	No Ice	2.50	2.15	50.00
(VZW)			0.00			1/2" Ice	2.70	2.36	71.00
			0.00						
ALU 2x40 RRH 700	B	From Face	3.00	0.0000	150.00	No Ice	2.50	2.15	50.00
(VZW)			0.00			1/2" Ice	2.70	2.36	71.00
			0.00						
ALU 2x40 RRH 700	C	From Face	3.00	0.0000	150.00	No Ice	2.50	2.15	50.00
(VZW)			0.00			1/2" Ice	2.70	2.36	71.00
			0.00						
(2) FD9R6004 Diplexer	A	From Face	3.00	0.0000	150.00	No Ice	0.37	0.08	2.60
(VZW)			0.00			1/2" Ice	0.45	0.14	4.90
			0.00						
(2) FD9R6004 Diplexer	B	From Face	3.00	0.0000	150.00	No Ice	0.37	0.08	2.60
(VZW)			0.00			1/2" Ice	0.45	0.14	4.90
			0.00						
(2) FD9R6004 Diplexer	C	From Face	3.00	0.0000	150.00	No Ice	0.37	0.08	2.60
(VZW)			0.00			1/2" Ice	0.45	0.14	4.90
			0.00						
DB-T1-6Z-8AB-0Z Dist. Box	A	From Face	3.00	0.0000	150.00	No Ice	5.60	2.33	44.00
(VZW)			0.00			1/2" Ice	5.92	2.56	80.00
			0.00						
PiROD 15' T-Frame	A	From Face	0.00	0.0000	150.00	No Ice	10.10	11.22	367.00
(ATT)			4.00			1/2" Ice	14.60	15.70	533.00
			0.00						
PiROD 15' T-Frame	B	From Face	0.00	0.0000	150.00	No Ice	10.10	11.22	367.00
(ATT)			4.00			1/2" Ice	14.60	15.70	533.00
			0.00						
PiROD 15' T-Frame	C	From Face	0.00	0.0000	150.00	No Ice	10.10	11.22	367.00
(ATT)			4.00			1/2" Ice	14.60	15.70	533.00
			0.00						
**									
RR90-17-DP	A	From Face	4.00	0.0000	140.00	No Ice	10.20	4.30	34.00
(TMO)			4.00			1/2" Ice	10.90	5.34	78.00
			0.00						
RR90-17-DP	B	From Face	4.00	0.0000	140.00	No Ice	10.20	4.30	34.00
(TMO)			4.00			1/2" Ice	10.90	5.34	78.00
			0.00						
RR90-17-DP	C	From Face	4.00	0.0000	140.00	No Ice	10.20	4.30	34.00
(TMO)			4.00			1/2" Ice	10.90	5.34	78.00
			0.00						
APX16DWV-16DWVS+pipe	A	From Face	4.00	0.0000	140.00	No Ice	7.10	2.15	41.00
(TMO)			0.00			1/2" Ice	7.50	2.50	74.00
			0.00						
APX16DWV-16DWVS+pipe	B	From Face	4.00	0.0000	140.00	No Ice	7.10	2.15	41.00
(TMO)			0.00			1/2" Ice	7.50	2.50	74.00
			0.00						
APX16DWV-16DWVS+pipe	C	From Face	4.00	0.0000	140.00	No Ice	7.10	2.15	41.00
(TMO)			0.00			1/2" Ice	7.50	2.50	74.00
			0.00						
SBNH-1D6565C+pipe	A	From Face	4.00	0.0000	140.00	No Ice	11.70	9.80	94.00
(TMO)			-4.00			1/2" Ice	12.40	11.40	183.00
			0.00						
SBNH-1D6565C+pipe	B	From Face	4.00	0.0000	140.00	No Ice	11.70	9.80	94.00
(TMO)			-4.00			1/2" Ice	12.40	11.40	183.00
			0.00						
SBNH-1D6565C+pipe	C	From Face	4.00	0.0000	140.00	No Ice	11.70	9.80	94.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(TMO)			-4.00 0.00			1/2" Ice	12.40	11.40	183.00
ATMAA1412D-1A20	A	From Face	4.00	0.0000	140.00	No Ice	1.17	0.47	13.00
(TMO)			4.00 0.00			1/2" Ice	1.31	0.57	20.60
ATMAA1412D-1A20	B	From Face	4.00	0.0000	140.00	No Ice	1.17	0.47	13.00
(TMO)			4.00 0.00			1/2" Ice	1.31	0.57	20.60
ATMAA1412D-1A20	C	From Face	4.00	0.0000	140.00	No Ice	1.17	0.47	13.00
(TMO)			4.00 0.00			1/2" Ice	1.31	0.57	20.60
PiROD 15' T-Frame	A	From Face	0.00	0.0000	140.00	No Ice	10.10	11.22	367.00
(ATT)			4.00 0.00			1/2" Ice	14.60	15.70	533.00
PiROD 15' T-Frame	B	From Face	0.00	0.0000	140.00	No Ice	10.10	11.22	367.00
(ATT)			4.00 0.00			1/2" Ice	14.60	15.70	533.00
PiROD 15' T-Frame	C	From Face	0.00	0.0000	140.00	No Ice	10.10	11.22	367.00
(ATT)			4.00 0.00			1/2" Ice	14.60	15.70	533.00
**									
APXV18-206517S-C+pipe	A	From Leg	1.00	0.0000	130.00	No Ice	5.40	4.70	52.00
(MetroPCS)			0.00 0.00			1/2" Ice	6.00	5.90	94.00
APXV18-206517S-C+pipe	B	From Leg	1.00	0.0000	130.00	No Ice	5.40	4.70	52.00
(MetroPCS)			0.00 0.00			1/2" Ice	6.00	5.90	94.00
APXV18-206517S-C+pipe	C	From Leg	1.00	0.0000	130.00	No Ice	5.40	4.70	52.00
(MetroPCS)			0.00 0.00			1/2" Ice	6.00	5.90	94.00
**									
(2) DB980F65T2E-M+pipe	A	From Leg	4.00	0.0000	119.00	No Ice	4.40	4.00	34.00
(Sprint)			0.00 0.00			1/2" Ice	5.00	5.00	73.50
(2) DB980F65T2E-M+pipe	B	From Leg	4.00	0.0000	119.00	No Ice	4.40	4.00	34.00
(Sprint)			0.00 0.00			1/2" Ice	5.00	5.00	73.50
(2) DB980F65T2E-M+pipe	C	From Leg	4.00	0.0000	119.00	No Ice	4.40	4.00	34.00
(Sprint)			0.00 0.00			1/2" Ice	5.00	5.00	73.50
APXVSPP18-C-A20 +pipe	A	From Leg	4.00	0.0000	119.00	No Ice	8.50	6.95	90.60
(Sprint)			0.00 0.00			1/2" Ice	9.20	8.13	159.00
APXVSPP18-C-A20 +pipe	B	From Leg	4.00	0.0000	119.00	No Ice	8.50	6.95	90.60
(Sprint)			0.00 0.00			1/2" Ice	9.20	8.13	159.00
APXVSPP18-C-A20 +pipe	C	From Leg	4.00	0.0000	119.00	No Ice	8.50	6.95	90.60
(Sprint)			0.00 0.00			1/2" Ice	9.20	8.13	159.00
1900MHz 4x40W RRH	A	From Leg	1.00	0.0000	119.00	No Ice	2.71	2.61	59.50
(Sprint)			0.00 -6.00			1/2" Ice	2.95	2.84	82.60
1900MHz 4x40W RRH	B	From Leg	1.00	0.0000	119.00	No Ice	2.71	2.61	59.50
(Sprint)			0.00 -6.00			1/2" Ice	2.95	2.84	82.60
1900MHz 4x40W RRH	C	From Leg	1.00	0.0000	119.00	No Ice	2.71	2.61	59.50
(Sprint)			0.00			1/2" Ice	2.95	2.84	82.60

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			-6.00						
800MHz 2x50W RRH (Sprint)	A	From Leg	1.00 0.00 -6.00	0.0000	119.00	No Ice 1/2" Ice	2.40 2.61	2.25 2.46	64.00 86.10
800MHz 2x50W RRH (Sprint)	B	From Leg	1.00 0.00 -6.00	0.0000	119.00	No Ice 1/2" Ice	2.40 2.61	2.25 2.46	64.00 86.10
800MHz 2x50W RRH (Sprint)	C	From Leg	1.00 0.00 -6.00	0.0000	119.00	No Ice 1/2" Ice	2.40 2.61	2.25 2.46	64.00 86.10
(6) 5'x3" Pipe Mount (Sprint)	C	From Leg	1.00 0.00 -6.00	0.0000	119.00	No Ice 1/2" Ice	1.50 1.81	1.50 1.81	37.90 56.90
PiROD 15' T-Frame (Sprint)	A	None		0.0000	119.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (Sprint)	B	None		0.0000	119.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
PiROD 15' T-Frame (Sprint)	C	None		0.0000	119.00	No Ice 1/2" Ice	10.10 14.60	11.22 15.70	367.00 533.00
**									
LLPX310R-V1+pipe (Clearwire)	A	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	5.10 5.50	3.00 3.54	44.00 80.30
LLPX310R-V1+pipe (Clearwire)	B	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	5.10 5.50	3.00 3.54	44.00 80.30
LLPX310R-V1+pipe (Clearwire)	C	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	5.10 5.50	3.00 3.54	44.00 80.30
RRH-P4 (Clearwire)	A	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	3.20 3.44	2.10 2.30	59.50 82.60
RRH-P4 (Clearwire)	B	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	3.20 3.44	2.10 2.30	59.50 82.60
RRH-P4 (Clearwire)	C	From Leg	3.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	3.20 3.44	2.10 2.30	59.50 82.60
(6) 5'x3" Pipe Mount (Clearwire)	C	None		0.0000	109.00	No Ice 1/2" Ice	1.50 1.81	1.50 1.81	37.90 56.90
2' standoff (Clearwire)	A	From Leg	1.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	1.80 3.30	1.80 3.30	33.00 59.00
2' standoff (Clearwire)	B	From Leg	1.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	1.80 3.30	1.80 3.30	33.00 59.00
2' standoff (Clearwire)	C	From Leg	1.00 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	1.80 3.30	1.80 3.30	33.00 59.00
**									
Small Beacon	A	From Leg	1.00 0.00 0.00	0.0000	99.00	No Ice 1/2" Ice	0.31 0.40	0.31 0.40	7.00 11.00
Small Beacon	A	From Leg	1.00 0.00 0.00	0.0000	99.00	No Ice 1/2" Ice	0.31 0.40	0.31 0.40	7.00 11.00
Small Beacon	A	From Leg	1.00	0.0000	99.00	No Ice	0.31	0.31	7.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00 0.00			1/2" Ice	0.40	0.40	11.00
GPS	C	From Leg	1.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	1.00 1.50	1.00 1.50	10.00 15.00

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
VHLP2-11	A	Paraboloid w/Shroud (HP)	From Leg	2.00 0.00 0.00	0.0000		109.00	2.00	No Ice 1/2" Ice	3.72 4.01	31.00 54.00
VHLP2-11	B	Paraboloid w/Shroud (HP)	From Leg	2.00 0.00 0.00	0.0000		109.00	2.00	No Ice 1/2" Ice	3.72 4.01	31.00 54.00
VHLP2-11	C	Paraboloid w/Shroud (HP)	From Leg	2.00 0.00 0.00	0.0000		109.00	2.00	No Ice 1/2" Ice	3.72 4.01	31.00 54.00

Truss-Leg Properties

Section Designation	Area in^2	Area Ice in^2	Self Weight lb	Ice Weight lb	Equiv. Diameter in	Equiv. Diameter Ice in	Leg Area in^2
Pirod 105244	1026.8606	1727.9786	562.76	211.31	7.1310	11.9999	3.6816
Pirod 105217	2130.7479	3520.4599	619.35	443.34	7.3984	12.2238	5.3014
Pirod 105218	2263.4687	3690.8612	754.52	458.46	7.8593	12.8155	7.2158
Pirod 105218	2263.4687	3690.8612	754.52	458.46	7.8593	12.8155	7.2158
Pirod 105219	2441.8688	3942.2854	944.27	485.72	8.4787	13.6885	9.4248
Pirod 105219	2441.8688	3942.2854	944.27	485.72	8.4787	13.6885	9.4248
Pirod 105220	2578.8005	4132.5504	1121.16	500.74	8.9542	14.3491	11.9282
Pirod 105220	2578.8005	4132.5504	1121.16	500.74	8.9542	14.3491	11.9282

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	199	Leg	A325N	0.5625	3	610.92	10437.20	0.059 ✔	1.333	Bolt DS
T2	189	Leg	A325N	0.6250	5	2146.07	12885.40	0.167 ✔	1.333	Bolt DS
T3	174	Leg	A325N	1.0000	6	4966.39	34557.50	0.144 ✔	1.333	Bolt Tension
T4	154	Leg	A325N	1.0000	6	5963.32	34556.00	0.173 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	5424.33	6117.19	0.887 ✔	1.333	Member Block Shear
T5	144	Leg	A325N	1.0000	6	11275.40	34557.40	0.326 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	7102.43	6117.19	1.161 ✔	1.333	Member Block Shear
T6	124	Leg	A325N	1.0000	6	16845.00	34557.30	0.487 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	8364.21	6796.88	1.231 ✔	1.333	Member Block Shear
T7	104	Leg	A325N	1.0000	6	22654.40	34557.40	0.656 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	8556.72	6796.88	1.259 ✔	1.333	Member Block Shear
T8	84	Leg	A325N	1.2500	6	27962.20	53995.80	0.518 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.2500	1	8890.24	11554.70	0.769 ✔	1.333	Member Block Shear
T9	64	Leg	A325N	1.2500	6	32967.10	53996.10	0.611 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.2500	1	9497.18	11554.70	0.822 ✔	1.333	Member Block Shear
T10	44	Leg	A325N	1.2500	6	37737.90	53996.10	0.699 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.2500	1	9741.75	13820.30	0.705 ✔	1.333	Member Block Shear
T11	24	Leg	A687-93	1.2500	6	42053.20	50216.40	0.837 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.2500	1	10474.40	13820.30	0.758 ✔	1.333	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio P / P_a
T1	199 - 189	1 1/2	10.00	2.48	79.3 K=1.00	19.145	1.7672	-1832.77	33832.60	0.054 ✔
T2	189 - 174	1 1/2	15.00	2.47	79.1 K=1.00	19.189	1.7672	-10730.30	33910.60	0.316 ✔
T3	174 - 154	2	20.01	2.49	59.8 K=1.00	22.756	3.1416	-35920.50	71489.70	0.502 ✔
T4	154 - 144	Pirod 105244	10.02	10.02	45.4 K=1.00	25.051	3.6816	-42192.00	92228.10	0.457 ✔
T5	144 - 124	Pirod 105217	20.03	10.02	37.8 K=1.00	26.132	5.3014	-83286.20	138539.00	0.601 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T6	124 - 104	Pirod 105218	20.03	10.02	32.4 K=1.00	26.848	7.2158	-125888.00	193727.00	0.650 ✔
T7	104 - 84	Pirod 105218	20.03	10.02	32.4 K=1.00	26.848	7.2158	-168521.00	193727.00	0.870 ✔
T8	84 - 64	Pirod 105219	20.03	10.02	28.4 K=1.00	27.351	9.4248	-209836.00	257781.00	0.814 ✔
T9	64 - 44	Pirod 105219	20.03	10.02	28.4 K=1.00	27.351	9.4248	-249651.00	257781.00	0.968 ✔
T10	44 - 24	Pirod 105220	20.03	10.02	25.2 K=1.00	27.723	11.9282	-287735.00	330691.00	0.870 ✔
T11	24 - 4	Pirod 105220	20.03	10.02	25.2 K=1.00	27.723	11.9282	-323215.00	330691.00	0.977 ✔

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	F_a ksi	A in^2	Actual V lb	Allow. V_a lb	Stress Ratio
T4	154 - 144	0.5	1.48	121.0	10.193	0.1963	935.95	2239.90	0.418 ✔
T5	144 - 124	0.5	1.47	120.0	10.279	0.1963	826.30	2258.95	0.366 ✔
T6	124 - 104	0.5	1.46	119.0	10.423	0.1963	668.79	2290.46	0.292 ✔
T7	104 - 84	0.5	1.46	119.0	10.423	0.1963	313.20	2290.46	0.137 ✔
T8	84 - 64	0.625	1.45	94.4	13.671	0.3068	635.78	4694.36	0.135 ✔
T9	64 - 44	0.625	1.45	94.4	13.671	0.3068	212.28	4694.36	0.045 ✔
T10	44 - 24	0.625	1.43	93.6	13.766	0.3068	225.65	4726.89	0.048 ✔
T11	24 - 4	0.625	1.43	93.6	13.766	0.3068	890.11	4726.89	0.188 ✔

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	3/4	4.71	2.28	131.3 K=0.90	8.662	0.4418	-303.99	3826.97	0.079 ✔
T2	189 - 174	3/4	4.70	2.28	131.2 K=0.90	8.676	0.4418	-1574.43	3832.92	0.411 ✔
T3	174 - 154	1	5.53	2.71	116.9 K=0.90	10.719	0.7854	-2803.08	8419.00	0.333 ✔
T4	154 - 144	L2 1/2x2 1/2x3/16	11.42	5.02	121.8	10.024	0.9020	-6675.50	9041.51	0.738

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
					K=1.00					✓
T5	144 - 124	L2 1/2x2 1/2x3/16	12.50	5.67	137.4 K=1.00	7.907	0.9020	-7234.98	7132.10	1.014 ✓
T6	124 - 104	L3x3x3/16	13.80	6.37	128.2 K=1.00	9.082	1.0900	-8652.13	9899.39	0.874 ✓
T7	104 - 84	L3x3x3/16	15.24	7.12	143.4 K=1.00	7.259	1.0900	-8625.70	7912.79	1.090 ✓
T8	84 - 64	L3x3x5/16	16.80	7.89	160.8 K=1.00	5.776	1.7800	-9210.62	10280.50	0.896 ✓
T9	64 - 44	L3x3x5/16	18.45	8.73	177.8 K=1.00	4.722	1.7800	-9791.26	8405.05	1.165 ✓
T10	44 - 24	L3 1/2x3 1/2x5/16	20.16	9.59	166.8 K=1.00	5.365	2.0900	-10114.30	11212.90	0.902 ✓
T11	24 - 4	L3 1/2x3 1/2x5/16	21.92	10.48	182.3 K=1.00	4.496	2.0900	-11275.70	9396.34	1.200 ✓

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	3/4	4.00	3.88	173.6 K=0.70	4.955	0.4418	-7.78	2189.09	0.004 ✓
T2	189 - 174	3/4	4.00	3.88	173.6 K=0.70	4.955	0.4418	-139.45	2189.09	0.064 ✓
T3	174 - 154	7/8	4.88	4.71	180.8 K=0.70	4.567	0.6013	-353.44	2746.40	0.129 ✓

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	7/8	4.00	3.88	148.8 K=0.70	6.744	0.6013	-21.23	4055.56	0.005 ✓
T2	189 - 174	7/8	4.00	3.88	148.8 K=0.70	6.744	0.6013	-32.15	4055.56	0.008 ✓
T3	174 - 154	1	4.00	3.84	128.9 K=0.70	8.982	0.7854	-72.06	7054.49	0.010 ✓
T5	144 - 124	L2 1/2x2 1/2x3/16	6.00	5.00	120.7 K=1.00	10.175	0.9020	-1120.65	9178.18	0.122 ✓

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	7/8	4.00	3.88	148.8 K=0.70	6.744	0.6013	-60.29	4055.56	0.015 ✔
T2	189 - 174	7/8	4.00	3.88	148.8 K=0.70	6.744	0.6013	-233.84	4055.56	0.058 ✔
T3	174 - 154	1	5.00	4.83	162.4 K=0.70	5.662	0.7854	-888.45	4447.02	0.200 ✔

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	1 1/2	10.00	2.48	79.3	32.500	0.8575	1340.98	27869.60	0.048 ✔
T2	189 - 174	1 1/2	15.00	2.47	79.1	32.500	0.7732	8428.87	25130.10	0.335 ✔
T3	174 - 154	2	20.01	2.49	59.8	30.000	3.1416	29798.30	94247.80	0.316 ✔
T4	154 - 144	Pirod 105244	10.02	10.02	45.4	30.000	3.6816	35779.90	110447.00	0.324 ✔
T5	144 - 124	Pirod 105217	20.03	10.02	37.8	30.000	5.3014	67652.10	159043.00	0.425 ✔
T6	124 - 104	Pirod 105218	20.03	10.02	32.4	30.000	7.2158	101070.00	216475.00	0.467 ✔
T7	104 - 84	Pirod 105218	20.03	10.02	32.4	30.000	7.2158	135927.00	216475.00	0.628 ✔
T8	84 - 64	Pirod 105219	20.03	10.02	28.4	30.000	9.4248	167773.00	282743.00	0.593 ✔
T9	64 - 44	Pirod 105219	20.03	10.02	28.4	30.000	9.4248	197803.00	282743.00	0.700 ✔
T10	44 - 24	Pirod 105220	20.03	10.02	25.2	30.000	11.9282	226427.00	357847.00	0.633 ✔
T11	24 - 4	Pirod 105220	20.03	10.02	25.2	30.000	11.9282	252319.00	357847.00	0.705 ✔

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	F_a ksi	A in^2	Actual V lb	Allow. V_a lb	Stress Ratio
T4	154 - 144	0.5	1.48	121.0	10.193	0.1963	935.95	2239.90	0.418 ✔
T5	144 - 124	0.5	1.47	120.0	10.279	0.1963	826.30	2258.95	0.366

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	F_a ksi	A in^2	Actual V lb	Allow. V_a lb	Stress Ratio
T6	124 - 104	0.5	1.46	119.0	10.423	0.1963	668.79	2290.46	0.292
T7	104 - 84	0.5	1.46	119.0	10.423	0.1963	313.20	2290.46	0.137
T8	84 - 64	0.625	1.45	94.4	13.671	0.3068	635.78	4694.36	0.135
T9	64 - 44	0.625	1.45	94.4	13.671	0.3068	212.28	4694.36	0.045
T10	44 - 24	0.625	1.43	93.6	13.766	0.3068	225.65	4726.89	0.048
T11	24 - 4	0.625	1.43	93.6	13.766	0.3068	890.11	4726.89	0.188

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	3/4	4.71	2.28	145.9	21.600	0.4418	298.57	9542.59	0.031
T2	189 - 174	3/4	4.70	2.28	145.8	21.600	0.4418	1588.79	9542.59	0.166
T3	174 - 154	1	5.20	2.54	122.0	21.600	0.7854	2915.41	16964.60	0.172
T4	154 - 144	L2 1/2x2 1/2x3/16	11.42	5.02	80.1	29.000	0.5183	5424.33	15030.60	0.361
T5	144 - 124	L2 1/2x2 1/2x3/16	12.50	5.67	90.0	29.000	0.5183	7102.43	15030.60	0.473
T6	124 - 104	L3x3x3/16	13.80	6.37	83.5	29.000	0.6593	8364.21	19119.60	0.437
T7	104 - 84	L3x3x3/16	14.50	6.77	88.6	29.000	0.6593	8556.72	19119.60	0.448
T8	84 - 64	L3x3x5/16	16.80	7.89	105.3	29.000	1.0127	8890.24	29369.30	0.303
T9	64 - 44	L3x3x5/16	17.62	8.32	110.8	29.000	1.0127	9497.18	29369.30	0.323
T10	44 - 24	L3 1/2x3 1/2x5/16	19.30	9.17	104.1	29.000	1.2452	9741.75	36111.80	0.270
T11	24 - 4	L3 1/2x3 1/2x5/16	21.92	10.48	118.6	29.000	1.2452	10474.40	36111.80	0.290

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	3/4	4.00	3.88	248.0	30.000	0.4418	27.85	13253.60	0.002 ✔
T2	189 - 174	3/4	4.00	3.88	248.0	30.000	0.4418	174.26	13253.60	0.013 ✔
T3	174 - 154	7/8	4.63	4.46	244.7	30.000	0.6013	557.84	18039.60	0.031 ✔

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	7/8	4.00	3.88	212.6	30.000	0.6013	13.88	18039.60	0.001 ✔
T2	189 - 174	7/8	4.00	3.88	212.6	30.000	0.6013	33.07	18039.60	0.002 ✔
T3	174 - 154	1	4.00	3.84	184.2	30.000	0.7854	73.72	23561.90	0.003 ✔
T5	144 - 124	L2 1/2x2 1/2x3/16	6.00	5.00	77.1	21.600	0.9020	1758.95	19483.20	0.090 ✔

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	199 - 189	7/8	4.00	3.88	212.6	30.000	0.6013	76.24	18039.60	0.004 ✔
T2	189 - 174	7/8	4.00	3.88	212.6	30.000	0.6013	243.43	18039.60	0.013 ✔
T3	174 - 154	1	5.00	4.83	232.0	30.000	0.7854	1294.01	23561.90	0.055 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
T1	199 - 189	Leg	1 1/2	3	-1832.77	45098.86	4.1	Pass
		Diagonal	3/4	15	-303.99	5101.35	6.0	Pass
		Horizontal	3/4	16	-7.78	2918.06	0.3	Pass
		Top Girt	7/8	6	-21.23	5406.06	0.4	Pass
		Bottom Girt	7/8	9	-60.29	5406.06	1.1	Pass
T2	189 - 174	Leg	1 1/2	38	8428.87	33498.42	25.2	Pass
		Diagonal	3/4	50	-1574.43	5109.28	30.8	Pass
		Horizontal	3/4	59	-139.45	2918.06	4.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
		Top Girt	7/8	42	-32.15	5406.06	0.6	Pass
		Bottom Girt	7/8	44	-233.84	5406.06	4.3	Pass
T3	174 - 154	Leg	2	89	-35920.50	95295.77	37.7	Pass
		Diagonal	1	101	-2803.08	11222.53	25.0	Pass
		Horizontal	7/8	102	-353.44	3660.95	9.7	Pass
		Top Girt	1	91	-72.06	9403.64	0.8	Pass
		Bottom Girt	1	93	-888.45	5927.88	15.0	Pass
T4	154 - 144	Leg	Pirod 105244	153	-42192.00	122940.05	34.3	Pass
		Diagonal	L2 1/2x2 1/2x3/16	159	-6675.50	12052.33	55.4	Pass
T5	144 - 124	Leg	Pirod 105217	162	-83286.20	184672.48	45.1	Pass
		Diagonal	L2 1/2x2 1/2x3/16	171	-7234.98	9507.09	76.1	Pass
		Top Girt	L2 1/2x2 1/2x3/16	163	-1120.65	12234.51	9.2	Pass
T6	124 - 104	Leg	Pirod 105218	178	-125888.00	258238.08	48.7	Pass
		Diagonal	L3x3x3/16	185	-8652.13	13195.89	65.6	Pass
T7	104 - 84	Leg	Pirod 105218	193	-168521.00	258238.08	65.3	Pass
		Diagonal	L3x3x3/16	200	-8625.70	10547.75	81.8	Pass
T8	84 - 64	Leg	Pirod 105219	208	-209836.00	343622.06	61.1	Pass
		Diagonal	L3x3x5/16	215	-9210.62	13703.91	67.2	Pass
T9	64 - 44	Leg	Pirod 105219	223	-249651.00	343622.06	72.7	Pass
		Diagonal	L3x3x5/16	230	-9791.26	11203.93	87.4	Pass
T10	44 - 24	Leg	Pirod 105220	238	-287735.00	440811.08	65.3	Pass
		Diagonal	L3 1/2x3 1/2x5/16	245	-10114.30	14946.80	67.7	Pass
T11	24 - 4	Leg	Pirod 105220	253	-323215.00	440811.08	73.3	Pass
		Diagonal	L3 1/2x3 1/2x5/16	260	-11275.70	12525.32	90.0	Pass
							Summary	
						Leg (T11)	73.3	Pass
						Diagonal (T11)	90.0	Pass
						Horizontal (T3)	9.7	Pass
						Top Girt (T5)	9.2	Pass
						Bottom Girt (T3)	15.0	Pass
						Bolt Checks	94.4	Pass
						RATING =	**94.4**	**Pass**

EXHIBIT C

EBI Consulting
environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11319C

Windsor Locks / Route 20
20 Volunteer Drive
Windsor Locks, CT 06069

August 13, 2014

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	61.74 %

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August 13, 2014

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

Emissions Analysis for Site: **CT11319C – Windsor Locks / Route 20**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **20 Volunteer Drive, Windsor Locks, 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of μW/cm2 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 (μW/cm2). The general population exposure limit for the 700 MHz Band is 567 μW/cm2, and the general population exposure limit for the PCS and AWS bands is 1000 μW/cm2. 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 **20 Volunteer Drive, Windsor Locks, 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, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of 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 (PCS Band - 1900 MHz)) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel

2) **2** UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

3) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

5) 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.

6) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

7) The antennas used in this modeling are the **RFS APX16DWV-16DWVS-E-A20** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope SBNHH-1D65C** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **RFS APX16DWV-16DWVS-E-A20** has a maximum gain of **15.6 dBd** at its main lobe. The **Commscope SBNHH-1D65C** has a maximum gain of **13.4 dBd** at its main lobe. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

8) The antenna mounting height centerline of the proposed antennas is **146 feet** above ground level (AGL).

9) 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 calculations were done with respect to uncontrolled / general public threshold limits.

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T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20
Gain:	15.6 dBd	Gain:	15.6 dBd	Gain:	15.6 dBd
Height (AGL):	146	Height (AGL):	146	Height (AGL):	146
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power:	240	Total TX Power:	240	Total TX Power:	240
ERP (W):	3,776.88	ERP (W):	3,776.88	ERP (W):	3,776.88
Antenna A1 MPE%	1.58 %	Antenna B1 MPE%	1.58 %	Antenna C1 MPE%	1.58 %
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope SBNHH-1D65C	Make / Model:	Commscope SBNHH-1D65C	Make / Model:	Commscope SBNHH-1D65C
Gain:	13.4 dBd	Gain:	13.4 dBd	Gain:	13.4 dBd
Height (AGL):	146	Height (AGL):	146	Height (AGL):	146
Frequency Bands	700 Mhz	Frequency Bands	700 Mhz	Frequency Bands	700 Mhz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power:	30	Total TX Power:	30	Total TX Power:	30
ERP (W):	396.59	ERP (W):	396.59	ERP (W):	396.59
Antenna A3 MPE%	0.12 %	Antenna B3 MPE%	0.12 %	Antenna C3 MPE%	0.12 %

T-Mobile Sector 1 Total:	1.83 %
T-Mobile Sector 2 Total:	1.83 %
T-Mobile Sector 3 Total:	1.83 %
Site Total:	61.74 %

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile	**5.49 %**
AT&T	9.17 %
Verizon Wireless	22.93 %
Clearwire	0.93 %
Clearwire MW	1.92%
Sprint	6.91%
Windsor Fire Dept	14.39 %
Site Total MPE %:	**61.74 %**

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Summary

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

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	1.83 %
Sector 2:	1.83 %
Sector 3 :	1.83 %
T-Mobile Total:	5.49 %
Site Total:	61.74 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **61.74%** 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 well within the allowable 100% threshold standard per the federal government.

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