Alex Murshteyn, Site Acquisition Consultant
c/o T-Mobile Northeast LLC ("T-Mobile")
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

March 23, 2018

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

RE: Notice of Exempt Modification // Site Number: CT11106A (ATC: 88014)
16 Titicus Mountain Road, New Fairfield, CT 06812
N 41.45066 // W 73.51598

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile") currently maintains 9 antennas at the 193-foot level of the existing 187.5-foot self-supporting lattice tower at 16 Titicus Mountain Road, New Fairfield, CT. The Council has allowed T-Mobile's shared use of the existing tower since 2002, although the original approval for its co-location was granted by the Board of Selectmen of the Town of New Fairfield on February 17, 2000, without any conditions. The tower and property are both owned by American Tower Corporation. T-Mobile now intends to install 1 new microwave backhaul channel (10.0 GHz) with its existing antenna array. T-Mobile will also install 1 new coax cable in order to connect the microwave dish.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Pat Del Monaco, First Selectman for the Town of New Fairfield, the Town's Zoning Enforcement Officer Evan White, including for Zoning and Planning Commission, and the tower and property owner, American Tower Corporation.

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

Enclosed to accommodate this filing are construction drawings dated March 15, 2018 by A.T. Engineering Service, PLLC a structural analysis dated February 28, 2018 by A.T. Engineering Service, PLLC and an RF Emissions Analysis Report dated March 2, 2018 by EBI Consulting.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antenna will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated February 28, 2018.

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

Sincerely,

Alex Murshteyn, Site Acquisition Consultant
c/o T-Mobile Northeast LLC
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Pat Del Monaco, First Selectman, Town of New Fairfield - as elected official - 1Z9Y45030327067259
Evan White, Zoning Enforcement Officer - as P&Z official - 1Z9Y45030334511862
American Tower Corporation - as tower & property owner - 1Z9Y45030339949471

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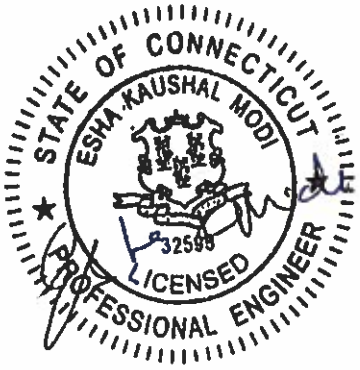
Structural Analysis Report

Structure	:	**187.5 ft Self Supported Tower**
ATC Site Name	:	**New Fairfield, CT**
ATC Site Number	:	**88014**
Engineering Number	:	**OAA723223_C3_02**
Proposed Carrier	:	**T-Mobile**
Carrier Site Name	:	**CT11106A**
Carrier Site Number	:	**CT11106A**
Site Location	:	**22 Titicus Mtn Road** **New Fairfield, CT 06812-2565** **41.450700,-73.516000**
County	:	**Fairfield**
Date	:	**February 28, 2018**
Max Usage	:	**87%**
Result	:	**Pass**

Prepared By:
Aaron Black
Structural Engineer I

Reviewed By:



Feb 28 2018 5:26 PM cosign

COA: PEC.0001553

AMERICAN TOWER CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 187.5 ft self supported tower to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Analysis by CSEI, ATC Eng. #26464321, dated August 21, 2006.
Foundation Drawing	Mapping By Geotel Report #E08-291-F, dated May 19, 2008
Geotechnical Report	Geotel Report #E08-291-G, dated May 19, 2008

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	90 mph (3-Second Gust, V_{ASD}) / 115 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	Ss = 0.22, S_1 = 0.07
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
193.0	193.0	3	Ericsson RRUS 11 B12	Platform	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile
		3	Commscope LNX-6515DS-VTM			
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		3	Ericsson KRY 112 144/1			
170.3	170.3	-	-	Catwalk	-	-
168.0	170.0	3	RFS APXVSPP18-C-A20	Sector Frames	(3) 1 1/4" Hybriflex (1) 1 1/4" (1.25") Fiber	Sprint Nextel
		3	RFS RFS APXV9TM14-ALU-I20			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	Alcatel-Lucent 4x40W RRH			
		3	Alcatel-Lucent 2X50W RRH w/o Filter			
160.0	160.0	3	CCI HPA-65R-BUU-H6	Sector Frames	(2) 0.74" 8 AWG 7 (6) 1 5/8" Coax (1) 3" conduit (1) 0.28" Fiber	AT&T Mobility
		3	Allgon 7770.00			
		3	Ericsson RRUS 32 B2			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			
		1	Raycap DC6-48-60-18-8F			
	159.0	6	Powerwave LGP21401			
145.0	147.0	3	Antel BXA-171085-8BF-EDIN-X	Sector Frames	(12) 1 5/8" Coax	Verizon
		3	Antel BXA-70063/6CF_			
		4	Antel LPA-80063/4CF			
		2	Antel LPA-80080/4CF___			
		6	RFS FD9R6004/2C-3L			
137.5	137.5	-	-	Rest Platform	-	-
112.5	122.5	1	Dielectric TLP-16A-1E	Side Arm	-	Other
100.0	100.0	-	-	Platform	-	-
87.5	87.5	-	-	Rest Platform	-	
70.0	80.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	US Dept Of Homeland Security
50.0	50.0	-	-	Rest Platform	-	-
33.3	-	-	-	-	(4) Coax Cage	

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading is considered as to be removed						

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
193.0	193.0	1	RFS SC2-W100AB	Platform	(1) 1/4" Coax	T-Mobile

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax alongside existing T-Mobile coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	52%	Pass
Diagonals	87%	Pass
Horizontals	42%	Pass
Anchor Bolts	32%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	152.9	57%
Axial (Kips)	209.0	24%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
193.0	RFS SC2-W100AB	T-Mobile	0.101	0.328	0.179

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G**

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Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

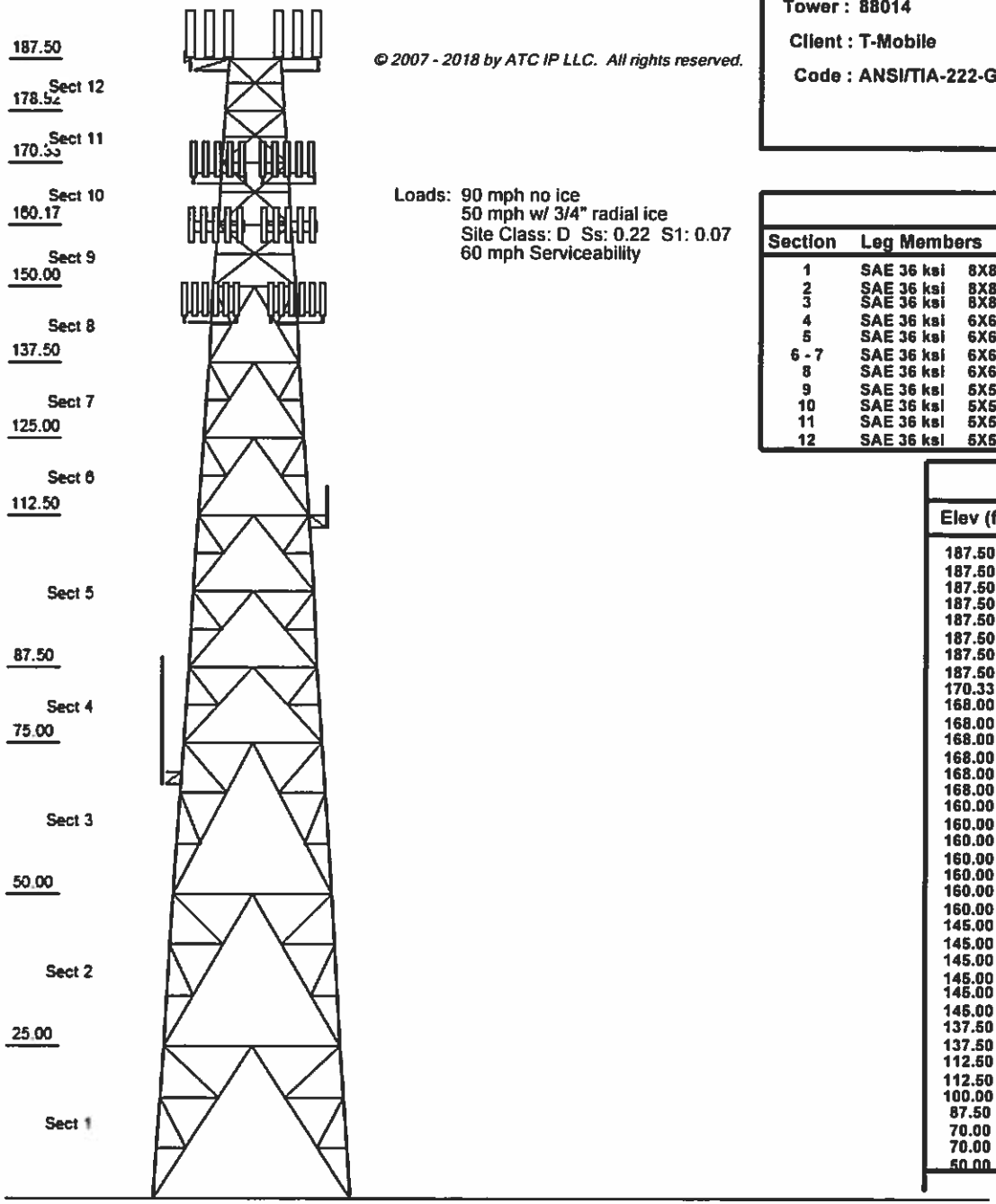
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.



Loads: 90 mph no ice
50 mph w/ 3/4" radial ice
Site Class: D Ss: 0.22 S1: 0.07
60 mph Serviceability

Job Information

Tower : 88014	Location : New Fairfield, CT	Base Width : 32.45 ft
Client : T-Mobile		Top Width : 9.00 ft
Code : ANSI/TIA-222-G		Tower Ht : 187.50 ft
		Shape : Square

Sections Properties

Section	Leg Members		Diagonal Members	Horizontal Members
1	SAE 36 ksi	8X8X0.875	DAS 36 ksi 3.5X3X0.25	DAL 36 ksi 3X2.5X0.3125
2	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAL 36 ksi 3X2.5X0.25
3	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
4	SAE 36 ksi	6X6X0.875	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
5	SAE 36 ksi	6X6X0.75	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
6 - 7	SAE 36 ksi	6X6X0.5625	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
8	SAE 36 ksi	6X6X0.4375	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
9	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	SAU 36 ksi 3X2.5X0.25
10	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	DAL 36 ksi 3X2.5X0.25
11	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	SAU 36 ksi 3X2.5X0.25
12	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	CHN 36 ksi C8 x 11.5

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
187.50	Dish	1	RFS SC2-W100AB
187.50	Panel	3	Commscope LNX-6515DS-VTM
187.50	Panel	3	Ericsson RRUS 11 B12
187.50	Panel	3	Ericsson AIR 21, 1.3 M, B2A B4
187.50	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P
187.50	Panel	3	Ericsson KRY 112 144/1
187.50	Straight Arm	6	Pipe Mount
187.50	Platform	1	Platform
170.33	Platform	1	Catwalk
168.00	Mounting Frame	3	Flat Light Sector Frames
168.00	Panel	3	RFS APXVSPP18-C-A20
168.00	Panel	3	RFS RFS APXV9TM14-ALU-I20
168.00	Panel	3	Alcatel-Lucent TD-RRH8x20-25 w
168.00	Panel	3	Alcatel-Lucent 4x40W RRH
168.00	Panel	3	Alcatel-Lucent 2X50W RRH w/o F
160.00	Mounting Frame	3	Flat Light Sector Frames
160.00	Panel	3	CCI HPA-65R-BUU-H6
160.00	Panel	3	Allgon 7770.00
160.00	Panel	3	Ericsson RRUS 32 B2
160.00	Panel	3	Ericsson RRUS 11 (Band 12) (55
160.00	Panel	1	Raycap DC6-48-60-18-8F
160.00	Panel	6	Powerwave LGP21401
145.00	Panel	3	Amphenol Antel BXA-171085-8BF-
145.00	Mounting Frame	3	Flat Light Sector Frames
145.00	Panel	3	Antel BXA-70063/6CF_
145.00	Panel	4	Antel LPA-80063/4CF
145.00	Panel	2	Antel LPA-80080/4CF ___
145.00	Panel	6	RFS FD9R6004/2C-3L
137.50	Straight Arm	1	Flat Side Arm
137.50	Mounting Frame	1	Rest Platform
112.50	Whip	1	Dielectric TLP-16A-1E
112.50	Straight Arm	1	Flat Side Arm
100.00	Platform	1	Platform
87.50	Mounting Frame	1	Rest Platform
70.00	Whip	1	Andrew DB616E-BC
70.00	Straight Arm	1	Flat Side Arm
50.00	Mounting Frame	1	Rest Platform

Job Information

Tower : 88014	Location : New Fairfield, CT	Base Width : 32.45 ft
Client : T-Mobile		Top Width : 9.00 ft
Code : ANSI/TIA-222-G		Tower Ht : 187.50 ft
		Shape : Square

Linear Appurtenance

Elev (ft) From	To	Qty	Description
5.00	187.50	1	Wave Guide
5.00	187.50	1	Climbing Ladder
5.00	187.50	1	1/4" Coax
5.00	187.50	1	1 5/8" Fiber
5.00	187.50	6	1 5/8" Coax
5.00	187.50	6	1 5/8" Coax
5.00	182.00	1	Wave Guide
5.00	168.00	3	1 1/4" Hybriflex Cab
5.00	168.00	1	1 1/4" (1.25", 31.8m
5.00	160.00	1	Wave Guide
5.00	160.00	1	3" conduit
5.00	160.00	6	1 5/8" Coax
5.00	160.00	2	0.74" (18.7mm) 8 AWG
5.00	160.00	1	0.28" (7mm) Fiber
5.00	145.00	1	Wave Guide
5.00	145.00	12	1 5/8" Coax
0.00	70.00	1	7/8" Coax
8.33	33.33	4	Coax Cage

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	8,122.47	127.99	72.09
DL + WL + IL	2,942.28	293.90	26.74

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
209.01	152.91	29.06

Site Number:	88014	**Code:**	ANSI/TIA-222-G	
Site Name:	New Fairfield, CT	**Engineering Number:**	OAA723223_C3_02	2/28/2018 1:59:50 PM
Customer:	T-Mobile			

Analysis Parameters

Location:	FAIRFIELD County, CT	**Height (ft):**	187.5
Code:	ANSI/TIA-222-G	**Base Elevation (ft):**	0.00
Shape:	Square	**Bottom Face Width (ft):**	32.45
Tower Manufacturer:	AT&T TAG	**Top Face Width (ft):**	9.00
Tower Type:	Self Support	**Anchor Bolt Detail Type**	c
Kd:			
Ke:			

Ice & Wind Parameters

Structure Class:	II	**Design Windspeed Without Ice:**	90 mph
Exposure Category:	B	**Design Windspeed With Ice:**	50 mph
Topographic Category:	1	**Operational Windspeed:**	60 mph
Crest Height:	0 ft	**Design Ice Thickness:**	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	0.65				
T_L (sec):	6	**p:**	1.3	**C_s:**	0.055
S_s:	0.215	**S_1:**	0.067	**C_s, Max:**	0.055
F_a:	1.600	**F_v:**	2.400	**C_s, Min:**	0.030
S_{ds}:	0.229	**S_{d1}:**	0.107		

Load Cases

1.2D + 1.6W Normal	90 mph Normal to Face with No Ice
1.2D + 1.6W 45 deg	90 mph 45 degree with No Ice
1.2D + 1.6W 90 deg	90 mph 90 degree with No Ice
1.2D + 1.6W 135 deg	90 mph 135 degree with No Ice
1.2D + 1.6W 180 deg	90 mph 180 degree with No Ice
1.2D + 1.6W 225 deg	90 mph 225 degree with No Ice
1.2D + 1.6W 270 deg	90 mph 270 degree with No Ice
1.2D + 1.6W 315 deg	90 mph 315 degree with No Ice
0.9D + 1.6W Normal	90 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 45 deg	90 mph 45 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	90 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 135 deg	90 mph 135 deg with No Ice (Reduced DL)
0.9D + 1.6W 180 deg	90 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 225 deg	90 mph 225 deg with No Ice (Reduced DL)
0.9D + 1.6W 270 deg	90 mph 270 deg with No Ice (Reduced DL)
0.9D + 1.6W 315 deg	90 mph 315 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	50 mph 45 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 135 deg	50 mph 135 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 225 deg	50 mph 225 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 270 deg	50 mph 270 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 315 deg	50 mph 315 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 45 deg	Seismic 45 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 135 deg	Seismic 135 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 225 deg	Seismic 225 deg
(1.2 + 0.2Sds) * DL + E 270 deg	Seismic 270 deg
(1.2 + 0.2Sds) * DL + E 315 deg	Seismic 315 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 45 deg	Seismic (Reduced DL) 45 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 135 deg	Seismic (Reduced DL) 135 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 225 deg	Seismic (Reduced DL) 225 deg
(0.9 - 0.2Sds) * DL + E 270 deg	Seismic (Reduced DL) 270 deg
(0.9 - 0.2Sds) * DL + E 315 deg	Seismic (Reduced DL) 315 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 135 deg	Serviceability - 60 mph Wind 135 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 225 deg	Serviceability - 60 mph Wind 225 deg
1.0D + 1.0W Service 270 deg	Serviceability - 60 mph Wind 270 deg
1.0D + 1.0W Service 315 deg	Serviceability - 60 mph Wind 315 deg

Site Number: 88014 | Code: ANSI/TIA-222-G |

Site Name: New Fairfield, CT | Engineering Number: OAA723223_C3_02 | 2/28/2018 1:59:50 PM

Customer: T-Mobile

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	79.0	20.99	18	40
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	183
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691.6	20.94	564	1080
187.5	RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	754.6	21.02	137	26
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	1655.1	20.99	368	299
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	1642.6	20.99	365	293
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	3088.3	20.99	686	181
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	9600
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	7800
168.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	182.6	20.27	91	191
168.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	291.7	20.27	146	328
168.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	359.1	20.27	180	252
168.0	RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	553.7	20.27	277	198
168.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	732.2	20.27	366	205
168.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.20	830	1440
160.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	71.4	19.89	71	102
160.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	19.92	24	24
160.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.92	110	198
160.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.92	119	191
160.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.92	233	126
160.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.92	433	184
160.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.92	818	1440
145.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	47.0	19.44	23	19
145.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	265.0	19.44	132	38
145.0	Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	292.5	19.44	146	29
145.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	789.8	19.44	395	96
145.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	624.6	19.44	312	61
145.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.37	796	1440
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	180
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	600
112.5	Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	5949.4	18.46	595	348
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	180
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	6600
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	600
70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	180
70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	61
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	600
	Totals	94	29509	739.8									14589	35411

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	79.0	20.99	18	30
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	137
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691.6	20.94	564	810
187.5	RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	754.6	21.02	137	20
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	1655.1	20.99	368	224
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	1642.6	20.99	365	220
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	3088.3	20.99	686	136
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	7200
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	5850

Tower Loading

168.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	182.6	20.27	91	143
168.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	291.7	20.27	146	246
168.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	359.1	20.27	180	189
168.0	RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	553.7	20.27	277	149
168.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	732.2	20.27	366	154
168.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.20	830	1080
160.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	71.4	19.89	71	76
160.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	19.92	24	18
160.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.92	110	149
160.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.92	119	143
160.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.92	233	95
160.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.92	433	138
160.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.92	818	1080
145.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	47.0	19.44	23	14
145.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	265.0	19.44	132	28
145.0	Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	292.5	19.44	146	22
145.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	789.8	19.44	395	72
145.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	624.6	19.44	312	46
145.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.37	796	1080
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	135
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	450
112.5	Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	5949.4	18.46	595	261
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	135
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	4950
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	450
70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	135
70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	46
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	450
	Totals	94	29509	739.8									14589	26559

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a(DL) (lb)
187.5	Ericsson KRY 112	3	28	0.6	0.6	6.1	2.7	1.00	0.50	4.5	23.8	6.48	5	90
187.5	Ericsson RRUS 11	3	139	3.5	1.6	17.0	7.2	1.00	0.67	5.5	212.4	6.49	39	448
187.5	Pipe Mount	6	417	5.7	6.0	6.0	6.0	1.00	1.00	3.0	558.7	6.46	186	2682
187.5	RFS SC2-W100AB	1	38	8.2	2.2	26.4	11.5	1.00	1.00	5.5	249.2	6.49	45	42
187.5	Ericsson AIR 21, 1.3	3	256	7.2	4.7	12.0	8.0	1.00	0.71	4.5	378.5	6.48	84	818
187.5	Ericsson AIR 21,	3	255	7.2	4.7	12.1	7.9	1.00	0.70	4.5	375.5	6.48	83	813
187.5	Commscope LNX-	3	320	13.1	8.0	11.9	7.1	1.00	0.70	4.5	683.5	6.48	152	991
187.5	Platform	1	13868	101.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.43	555	15468
170.3	Catwalk	1	11173	82.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.26	439	12473
168.0	Alcatel-Lucent	3	184	4.2	2.6	13.0	12.2	0.80	0.67	2.0	71.3	6.26	36	585
168.0	Alcatel-Lucent	3	218	3.1	1.9	13.0	17.3	0.80	0.67	2.0	53.8	6.26	27	710
168.0	Alcatel-Lucent TD-	3	166	5.4	2.2	18.6	6.7	0.80	0.67	2.0	92.3	6.26	46	539
168.0	RFS RFS	3	194	8.5	4.7	12.6	6.3	0.80	0.66	2.0	143.9	6.26	72	616
168.0	RFS APXVSPP18-C-	3	259	9.3	6.0	11.8	7.0	0.80	0.69	2.0	164.3	6.26	82	811
168.0	Flat Light Sector	3	705	33.2	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.23	297	2354
160.0	Powerwave	6	48	1.6	1.2	9.2	2.6	0.80	0.50	-1.0	19.6	6.14	20	304
160.0	Raycap DC6-48-60-	1	101	2.5	2.0	9.7	9.7	0.80	1.00	0.0	0.0	6.15	11	105
160.0	Ericsson RRUS 11	3	136	3.2	1.5	17.0	7.2	0.80	0.67	0.0	0.0	6.15	27	440
160.0	Ericsson RRUS 32 B2	3	141	3.5	2.3	12.1	7.0	0.80	0.67	0.0	0.0	6.15	29	456
160.0	Allgon 7770.00	3	171	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	6.15	54	533
160.0	CCI HPA-65R-BUU-H6	3	300	11.0	6.0	14.8	9.0	0.80	0.69	0.0	0.0	6.15	95	931
160.0	Flat Light Sector	3	703	33.1	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.15	292	2348

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Tower Loading

145.0	RFS FD9R6004/2C-3L	6	16	0.6	0.5	6.5	1.5	0.80	0.50	2.0	14.2	6.00	7	97
145.0	Amphenol Antel BXA-	3	93	3.8	4.0	6.1	4.1	0.80	0.71	2.0	66.1	6.00	33	286
145.0	Antel LPA-80080/4CF	2	147	3.5	3.9	5.5	13.2	0.80	0.64	2.0	36.1	6.00	18	298
145.0	Antel LPA-80063/4CF	4	225	7.2	4.0	15.2	13.2	0.80	0.76	2.0	178.3	6.00	89	917
145.0	Antel BXA-	3	184	8.8	5.9	11.2	4.5	0.80	0.65	2.0	140.5	6.00	70	561
145.0	Flat Light Sector	3	700	33.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.98	283	2341
137.5	Flat Side Arm	1	222	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	44	252
137.5	Rest Platform	1	872	27.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	138	972
112.5	Dielectric TLP-16A-	1	459	4.3	4.9	10.0	10.0	1.00	1.00	10.0	208.7	5.70	21	517
112.5	Flat Side Arm	1	220	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.56	41	250
100.0	Platform	1	9261	66.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.38	304	10361
87.50	Rest Platform	1	855	26.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.17	118	955
70.00	Flat Side Arm	1	217	8.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.86	35	247
70.00	Andrew DB616E-BC	1	300	13.1	19.3	3.5	3.5	1.00	1.00	10.0	560.4	5.04	56	310
50.00	Rest Platform	1	828	26.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.41	98	928
	Totals	94	57948	1062.2									4029	63850

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	21.9	9.33	5	33
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	244.9	9.34	45	152
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	469.9	9.31	157	900
187.5	RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	209.6	9.34	38	22
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	459.8	9.33	102	249
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	456.3	9.33	101	245
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	857.9	9.33	191	151
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.26	551	8000
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.01	421	6500
168.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	50.7	9.01	25	159
168.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	81.0	9.01	41	273
168.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	99.7	9.01	50	210
168.0	RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	153.8	9.01	77	165
168.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	203.4	9.01	102	171
168.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.98	231	1200
160.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	19.8	8.84	20	85
160.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	8.85	7	20
160.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	8.85	30	165
160.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	8.85	33	159
160.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	8.85	65	105
160.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	8.85	120	153
160.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.85	227	1200
145.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	13.0	8.64	7	16
145.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	73.6	8.64	37	32
145.0	Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	81.2	8.64	41	24
145.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	219.4	8.64	110	80
145.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	173.5	8.64	87	51
145.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.61	221	1200
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	45	150
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	108	500
112.5	Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	1652.6	8.20	165	290
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.01	43	150
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.74	296	5500
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.45	95	500
70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.99	37	150

Site Number:	88014	**Code:**	ANSI/TIA-222-G	
Site Name:	New Fairfield, CT	**Engineering Number:**	OAA723223_C3_02	2/28/2018 1:59:50 PM
Customer:	T-Mobile			

Tower Loading

70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	415.5	7.26	42	51
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.35	81	500
	Totals	94	29509	739.8									4053	29509

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Customer: T-Mobile

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
5.00	187.5	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
5.00	187.5	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	1 5/8" Fiber	1	1.63	1.61	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	1/4" Coax	1	0.34	0.06	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Climbing Ladder	1	2.00	6.90	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	182.0	Wave Guide	1	2.00	6.00	0	4	Individual	0.00	N	1.00	1.00	0.00
5.00	168.0	1 1/4" (1.25",	1	1.25	1.05	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	168.0	1 1/4" Hybriflex	3	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	0.28" (7mm) Fiber	1	0.28	0.04	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	0.74" (18.7mm) 8	2	0.74	0.49	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	1 5/8" Coax	6	1.98	0.82	0	3	Individual	0.00	N	0.00	1.00	0.00
5.00	160.0	3" conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	145.0	1 5/8" Coax	12	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	145.0	Wave Guide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
0.00	70.00	7/8" Coax	1	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
8.33	33.33	Coax Cage	4	12.0	25.0	0	2,4	Individual	0.00	N	1.00	1.00	0.00

Site Number: 88014 | Code: ANSI/TIA-222-G |

Site Name: New Fairfield, CT | Engineering Number: OAA723223_C3_02 | 2/28/2018 1:59:51 PM

Customer: T-Mobile

Equivalent Lateral Force Method

(Based on ASCE7-10 Chapters 11, 12 & 15)

Spectral Response Acceleration for Short Period (S_s):	0.22
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.23
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Seismic Response Coefficient (C_s):	0.05
Upper Limit C_s:	0.05
Lower Limit C_s:	0.03
Period based on Rayleigh Method (sec):	0.65
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.08
Total Unfactored Dead Load:	106.66 k
Seismic Base Shear (E):	7.62 k

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
12	183.21	1,999	541,867	0.035	269	2,490
11	174.62	1,663	428,088	0.028	212	2,072
10	165.25	2,589	628,264	0.041	312	3,226
9	155.08	2,540	575,690	0.037	286	3,165
8	143.75	4,037	843,203	0.055	418	5,030
7	131.25	4,527	857,348	0.056	425	5,640
6	118.75	4,692	797,956	0.052	396	5,845
5	100.00	10,878	1,537,88	0.100	763	13,552
4	81.25	5,933	670,991	0.044	333	7,392
3	62.50	10,964	935,167	0.061	464	13,660
2	37.50	12,370	609,207	0.040	302	15,411
1	12.50	14,956	226,047	0.015	112	18,633
Ericsson KRY 112 144/1	187.50	33	9,171	0.001	5	41
Ericsson RRUS 11 B12	187.50	152	42,272	0.003	21	189
Pipe Mount	187.50	900	250,131	0.016	124	1,121
RFS SC2-W100AB	187.50	22	6,114	0.000	3	27
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	69,203	0.005	34	310
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	67,952	0.004	34	305
Commscope LNX-6515DS-VTM	187.50	151	41,939	0.003	21	188
Platform	187.50	8,000	2,223,38	0.145	1,103	9,967
Catwalk	170.33	6,500	1,629,26	0.106	808	8,098
Alcatel-Lucent 2X50W RRH w/o Filter	168.00	159	39,268	0.003	19	198
Alcatel-Lucent 4x40W RRH	168.00	273	67,423	0.004	33	340

Equivalent Lateral Force Method

Alcatel-Lucent TD-RRH8x20-25 w/ Solar	168.00	210	51,864	0.003	26	262
RFS RFS APXV9TM14-ALU-I20	168.00	165	40,824	0.003	20	206
RFS APXVSPP18-C-A20	168.00	171	42,232	0.003	21	213
Flat Light Sector Frames	168.00	1,200	296,366	0.019	147	1,495
Powerwave LGP21401	160.00	85	19,826	0.001	10	105
Raycap DC6-48-60-18-8F	160.00	20	4,687	0.000	2	25
Ericsson RRUS 11 (Band 12) (55 lb)	160.00	165	38,668	0.003	19	206
Ericsson RRUS 32 B2	160.00	159	37,262	0.002	18	198
Allgon 7770.00	160.00	105	24,607	0.002	12	131
CCI HPA-65R-BUU-H6	160.00	153	35,855	0.002	18	191
Flat Light Sector Frames	160.00	1,200	281,220	0.018	139	1,495
RFS FD9R6004/2C-3L	145.00	16	3,289	0.000	2	19
Amphenol Antel BXA-171085-8BF-EDIN-X	145.00	32	6,641	0.000	3	39
Antel LPA-80080/4CF ___	145.00	24	5,060	0.000	3	30
Antel LPA-80063/4CF	145.00	80	16,865	0.001	8	100
Antel BXA-70063/6CF_	145.00	51	10,751	0.001	5	64
Flat Light Sector Frames	145.00	1,200	252,976	0.016	125	1,495
Flat Side Arm	137.50	150	29,867	0.002	15	187
Rest Platform	137.50	500	99,556	0.006	49	623
Dielectric TLP-16A-1E	112.50	290	46,536	0.003	23	361
Flat Side Arm	112.50	150	24,071	0.002	12	187
Platform	100.00	5,500	777,602	0.051	386	6,852
Rest Platform	87.50	500	61,237	0.004	30	623
Flat Side Arm	70.00	150	14,452	0.001	7	187
Andrew DB616E-BC	70.00	51	4,914	0.000	2	64
Rest Platform	50.00	500	33,550	0.002	17	623
		106,657	15,358,620	1.000	7,618	132,880

LoadCase (0.9 - 0.2Sds) * DL + E

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
12	183.21	1,999	541,867	0.035	269	1,707
11	174.62	1,663	428,088	0.028	212	1,420
10	165.25	2,589	628,264	0.041	312	2,212
9	155.08	2,540	575,690	0.037	286	2,170
8	143.75	4,037	843,203	0.055	418	3,448
7	131.25	4,527	857,349	0.056	425	3,866
6	118.75	4,692	797,956	0.052	396	4,007
5	100.00	10,878	1,537,88	0.100	763	9,291
4	81.25	5,933	670,991	0.044	333	5,068
3	62.50	10,964	935,167	0.061	464	9,365
2	37.50	12,370	609,207	0.040	302	10,566
1	12.50	14,956	226,047	0.015	112	12,774
Ericsson KRY 112 144/1	187.50	33	9,171	0.001	5	28
Ericsson RRUS 11 B12	187.50	152	42,272	0.003	21	130
Pipe Mount	187.50	900	250,131	0.016	124	769
RFS SC2-W100AB	187.50	22	6,114	0.000	3	19
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	69,203	0.005	34	213
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	67,952	0.004	34	209
Commscope LNX-6515DS-VTM	187.50	151	41,939	0.003	21	129
Platform	187.50	8,000	2,223,38	0.145	1,103	6,833
Catwalk	170.33	6,500	1,629,26	0.106	808	5,552
Alcatel-Lucent 2X50W RRH w/o Filter	168.00	159	39,268	0.003	19	136

Equivalent Lateral Force Method

Alcatel-Lucent 4x40W RRH	168.00	273	67,423	0.004	33	233
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	168.00	210	51,864	0.003	26	179
RFS RFS APXV9TM14-ALU-I20	168.00	165	40,824	0.003	20	141
RFS APXVSPP18-C-A20	168.00	171	42,232	0.003	21	146
Flat Light Sector Frames	168.00	1,200	296,366	0.019	147	1,025
Powerwave LGP21401	160.00	85	19,826	0.001	10	72
Raycap DC6-48-60-18-8F	160.00	20	4,687	0.000	2	17
Ericsson RRUS 11 (Band 12) (55 lb)	160.00	165	38,668	0.003	19	141
Ericsson RRUS 32 B2	160.00	159	37,262	0.002	18	136
Allgon 7770.00	160.00	105	24,607	0.002	12	90
CCI HPA-65R-BUU-H6	160.00	153	35,855	0.002	18	131
Flat Light Sector Frames	160.00	1,200	281,220	0.018	139	1,025
RFS FD9R6004/2C-3L	145.00	16	3,289	0.000	2	13
Amphenol Antel BXA-171085-8BF-EDIN-X	145.00	32	6,641	0.000	3	27
Antel LPA-80080/4CF ___	145.00	24	5,060	0.000	3	20
Antel LPA-80063/4CF	145.00	80	16,865	0.001	8	68
Antel BXA-70063/6CF_	145.00	51	10,751	0.001	5	44
Flat Light Sector Frames	145.00	1,200	252,976	0.016	125	1,025
Flat Side Arm	137.50	150	29,867	0.002	15	128
Rest Platform	137.50	500	99,556	0.006	49	427
Dielectric TLP-16A-1E	112.50	290	46,536	0.003	23	248
Flat Side Arm	112.50	150	24,071	0.002	12	128
Platform	100.00	5,500	777,602	0.051	386	4,698
Rest Platform	87.50	500	61,237	0.004	30	427
Flat Side Arm	70.00	150	14,452	0.001	7	128
Andrew DB616E-BC	70.00	51	4,914	0.000	2	44
Rest Platform	50.00	500	33,550	0.002	17	427
		106,657	15,358,620	1.000	7,618	91,099

Site Number: 88014 Code: ANSI/TIA-222-G

Site Name: New Fairfield, CT Engineering Number: OAA723223_C3_02 2/28/2018 1:59:51 PM

Customer: T-Mobile

Equivalent Modal Analysis Method

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.22
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.23
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Period Based on Rayleigh Method (sec):	0.65
Redundancy Factor (p):	1.30

LoadCase (1.2 + 0.2Sds) * DL + E Seismic

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
12	183.21	1,999	1.804	1.559	0.985	0.466	404	2,490
11	174.62	1,663	1.639	0.905	0.725	0.361	260	2,072
10	165.25	2,589	1.468	0.425	0.506	0.269	301	3,226
9	155.08	2,540	1.293	0.111	0.330	0.194	214	3,165
8	143.75	4,037	1.111	-0.064	0.194	0.139	243	5,030
7	131.25	4,527	0.926	-0.121	0.098	0.105	205	5,640
6	118.75	4,692	0.758	-0.103	0.043	0.089	180	5,845
5	100.00	10,878	0.538	-0.030	0.009	0.078	369	13,552
4	81.25	5,933	0.355	0.031	0.008	0.068	175	7,392
3	62.50	10,964	0.210	0.061	0.022	0.053	252	13,660
2	37.50	12,370	0.076	0.072	0.040	0.034	182	15,411
1	12.50	14,956	0.008	0.052	0.030	0.018	114	18,633
Ericsson KRY 112 144/1	187.50	33	1.890	1.980	1.140	0.527	8	41
Ericsson RRUS 11 B12	187.50	152	1.890	1.980	1.140	0.527	35	189
Pipe Mount	187.50	900	1.890	1.980	1.140	0.527	205	1,121
RFS SC2-W100AB	187.50	22	1.890	1.980	1.140	0.527	5	27
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	1.890	1.980	1.140	0.527	57	310
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	1.890	1.980	1.140	0.527	56	305
Commscope LNX-6515DS-VTM	187.50	151	1.890	1.980	1.140	0.527	34	188
Platform	187.50	8,000	1.890	1.980	1.140	0.527	1,826	9,967
Catwalk	170.33	6,500	1.560	0.659	0.617	0.316	889	8,098
Alcatel-Lucent 2X50W RRH w/o	168.00	159	1.517	0.545	0.564	0.293	20	198
Alcatel-Lucent 4x40W RRH	168.00	273	1.517	0.545	0.564	0.293	35	340
Alcatel-Lucent TD-RRH8x20-25	168.00	210	1.517	0.545	0.564	0.293	27	262
RFS RFS APXV9TM14-ALU-I20	168.00	165	1.517	0.545	0.564	0.293	21	206
RFS APXVSPP18-C-A20	168.00	171	1.517	0.545	0.564	0.293	22	213
Flat Light Sector Frames	168.00	1,200	1.517	0.545	0.564	0.293	152	1,495
Powerwave LGP21401	160.00	85	1.376	0.240	0.408	0.227	8	105
Raycap DC6-48-60-18-8F	160.00	20	1.376	0.240	0.408	0.227	2	25
Ericsson RRUS 11 (Band 12) (55	160.00	165	1.376	0.240	0.408	0.227	16	206
Ericsson RRUS 32 B2	160.00	159	1.376	0.240	0.408	0.227	16	198
Allgon 7770.00	160.00	105	1.376	0.240	0.408	0.227	10	131
CCI HPA-65R-BUU-H6	160.00	153	1.376	0.240	0.408	0.227	15	191
Flat Light Sector Frames	160.00	1,200	1.376	0.240	0.408	0.227	118	1,495
RFS FD9R6004/2C-3L	145.00	16	1.130	-0.051	0.206	0.144	1	19
Amphenol Antel BXA-171085-	145.00	32	1.130	-0.051	0.206	0.144	2	39
Antel LPA-80080/4CF ___	145.00	24	1.130	-0.051	0.206	0.144	1	30
Antel LPA-80063/4CF	145.00	80	1.130	-0.051	0.206	0.144	5	100

Equivalent Modal Analysis Method

Antel BXA-70063/6CF_	145.00	51	1.130	-0.051	0.206	0.144	3	64
Flat Light Sector Frames	145.00	1,200	1.130	-0.051	0.206	0.144	75	1,495
Flat Side Arm	137.50	150	1.016	-0.105	0.140	0.119	8	187
Rest Platform	137.50	500	1.016	-0.105	0.140	0.119	26	623
Dielectric TLP-16A-1E	112.50	290	0.680	-0.081	0.026	0.084	11	361
Flat Side Arm	112.50	150	0.680	-0.081	0.026	0.084	5	187
Platform	100.00	5,500	0.538	-0.030	0.009	0.078	187	6,852
Rest Platform	87.50	500	0.412	0.014	0.006	0.072	16	623
Flat Side Arm	70.00	150	0.263	0.053	0.016	0.059	4	187
Andrew DB616E-BC	70.00	51	0.263	0.053	0.016	0.059	1	64
Rest Platform	50.00	500	0.134	0.069	0.032	0.043	9	623
		106,657	57.390	23.829	20.608	11.330	6,830	132,880

LoadCase (0.9 - 0.2Sds) * DL + E — Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
12	183.21	1,999	1.804	1.559	0.985	0.466	404	1,707
11	174.62	1,663	1.639	0.905	0.725	0.361	260	1,420
10	165.25	2,589	1.468	0.425	0.506	0.269	301	2,212
9	155.08	2,540	1.293	0.111	0.330	0.194	214	2,170
8	143.75	4,037	1.111	-0.064	0.194	0.139	243	3,448
7	131.25	4,527	0.926	-0.121	0.098	0.105	205	3,866
6	118.75	4,692	0.758	-0.103	0.043	0.089	180	4,007
5	100.00	10,878	0.538	-0.030	0.009	0.078	369	9,291
4	81.25	5,933	0.355	0.031	0.008	0.068	175	5,068
3	62.50	10,964	0.210	0.061	0.022	0.053	252	9,365
2	37.50	12,370	0.076	0.072	0.040	0.034	182	10,566
1	12.50	14,956	0.008	0.052	0.030	0.018	114	12,774
Ericsson KRY 112 144/1	187.50	33	1.890	1.980	1.140	0.527	8	28
Ericsson RRUS 11 B12	187.50	152	1.890	1.980	1.140	0.527	35	130
Pipe Mount	187.50	900	1.890	1.980	1.140	0.527	205	769
RFS SC2-W100AB	187.50	22	1.890	1.980	1.140	0.527	5	19
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	1.890	1.980	1.140	0.527	57	213
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	1.890	1.980	1.140	0.527	56	209
Commscope LNX-6515DS-VTM	187.50	151	1.890	1.980	1.140	0.527	34	129
Platform	187.50	8,000	1.890	1.980	1.140	0.527	1,826	6,833
Catwalk	170.33	6,500	1.560	0.659	0.617	0.316	889	5,552
Alcatel-Lucent 2X50W RRH w/o	168.00	159	1.517	0.545	0.564	0.293	20	136
Alcatel-Lucent 4x40W RRH	168.00	273	1.517	0.545	0.564	0.293	35	233
Alcatel-Lucent TD-RRH8x20-25	168.00	210	1.517	0.545	0.564	0.293	27	179
RFS RFS APXV9TM14-ALU-I20	168.00	165	1.517	0.545	0.564	0.293	21	141
RFS APXVSPP18-C-A20	168.00	171	1.517	0.545	0.564	0.293	22	146
Flat Light Sector Frames	168.00	1,200	1.517	0.545	0.564	0.293	152	1,025
Powerwave LGP21401	160.00	85	1.376	0.240	0.408	0.227	8	72
Raycap DC6-48-60-18-8F	160.00	20	1.376	0.240	0.408	0.227	2	17
Ericsson RRUS 11 (Band 12) (55	160.00	165	1.376	0.240	0.408	0.227	16	141
Ericsson RRUS 32 B2	160.00	159	1.376	0.240	0.408	0.227	16	136
Allgon 7770.00	160.00	105	1.376	0.240	0.408	0.227	10	90
CCI HPA-65R-BUU-H6	160.00	153	1.376	0.240	0.408	0.227	15	131
Flat Light Sector Frames	160.00	1,200	1.376	0.240	0.408	0.227	118	1,025
RFS FD9R6004/2C-3L	145.00	16	1.130	-0.051	0.206	0.144	1	13
Amphenol Antel BXA-171085-	145.00	32	1.130	-0.051	0.206	0.144	2	27
Antel LPA-80080/4CF ___	145.00	24	1.130	-0.051	0.206	0.144	1	20
Antel LPA-80063/4CF	145.00	80	1.130	-0.051	0.206	0.144	5	68
Antel BXA-70063/6CF_	145.00	51	1.130	-0.051	0.206	0.144	3	44
Flat Light Sector Frames	145.00	1,200	1.130	-0.051	0.206	0.144	75	1,025
Flat Side Arm	137.50	150	1.016	-0.105	0.140	0.119	8	128
Rest Platform	137.50	500	1.016	-0.105	0.140	0.119	26	427
Dielectric TLP-16A-1E	112.50	290	0.680	-0.081	0.026	0.084	11	248
Flat Side Arm	112.50	150	0.680	-0.081	0.026	0.084	5	128
Platform	100.00	5,500	0.538	-0.030	0.009	0.078	187	4,698
Rest Platform	87.50	500	0.412	0.014	0.006	0.072	16	427

Equivalent Modal Analysis Method

Flat Side Arm	70.00	150	0.263	0.053	0.016	0.059	4	128
Andrew DB616E-BC	70.00	51	0.263	0.053	0.016	0.059	1	44
Rest Platform	50.00	500	0.134	0.069	0.032	0.043	9	427
		106,657	57.390	23.829	20.608	11.330	6,830	91,099

Force/Stress Summary

Section: 1 1 Bot Elev (ft): 0.00 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.875	-183.60	1.2D + 1.6W 45	25.10	33	33	33	63.3	36.0	347.12	0	0	0.00	0.00	52	Member Z
HORIZDAL - 3X2.5X0.3125	-9.19	1.2D + 1.6W	14.66	100	100	17	171.7	36.0	24.84	0	0	0.00	0.00	37	Member X
DIAG DAS - 3.5X3X0.25	-19.56	1.2D + 1.6W 90	29.84	33	66	8	145.0	36.0	33.61	0	0	0.00	0.00	58	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.875	132.52	0.9D + 1.6W 45	36	58	428.65	0	0	0.00	0.00		30	Member
HORIZDAL - 3X2.5X0.3125	9.87	1.2D + 1.6W	36	58	104.98	0	0	0.00	0.00	0.00	9	Member
DIAG DAS - 3.5X3X0.25	17.69	1.2D + 1.6W	36	58	101.41	0	0	0.00	0.00	0.00	17	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	131.66	0.9D + 1.6W 315	0.00	0	0	
Top Compression	182.67	1.2D + 1.6W 315	0.00	0		
Bot Tension	155.44	0.9D + 1.6W 315	602.76	32	4	2 1/4 A36
Bot Compression	209.22	1.2D + 1.6W 315	0.00	0		

Section: 2 2 Bot Elev (ft): 25.00 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	-154.58	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	51	Member Z
HORIZDAL - 3X2.5X0.25	-8.96	1.2D + 1.6W	13.09	100	100	17	155.3	36.0	24.63	0	0	0.00	0.00	36	Member X
DIAG DAS - 3X2.5X0.25	-21.11	1.2D + 1.6W 90	29.02	33	65	8	156.7	36.0	24.19	0	0	0.00	0.00	87	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	109.42	0.9D + 1.6W 45	36	58	370.66	0	0	0.00	0.00		29	Member
HORIZDAL - 3X2.5X0.25	9.40	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	11	Member
DIAG DAS - 3X2.5X0.25	18.85	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	22	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	108.59	0.9D + 1.6W 315	0.00	0	0	
Top Compression	153.71	1.2D + 1.6W 45	0.00	0		
Bot Tension	131.66	0.9D + 1.6W 315	0.00	0		
Bot Compression	182.67	1.2D + 1.6W 315	0.00	0		

Force/Stress Summary

Section: 3 3 Bot Elev (ft): 50.00 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	-124.26	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	41	Member Z
HORIZ DAE - 2.5X2.5X0.25	-8.24	0.9D + 1.6W 90	11.53	100	100	17	165.7	36.0	19.57	0	0	0.00	0.00	42	Member X
DIAG DAS - 3X2.5X0.25	-21.10	1.2D + 1.6W	28.26	33	66	8	155.0	36.0	24.73	0	0	0.00	0.00	85	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	85.55	0.9D + 1.6W 45	36	58	370.66	0	0	0.00	0.00		23	Member
HORIZ DAE - 2.5X2.5X0.25	8.68	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	11	Member
DIAG DAS - 3X2.5X0.25	19.24	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	22	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	84.80	0.9D + 1.6W 315	0.00	0	0	
Top Compression	123.45	1.2D + 1.6W 45	0.00	0		
Bot Tension	108.59	0.9D + 1.6W 315	0.00	0		
Bot Compression	153.71	1.2D + 1.6W 45	0.00	0		

Section: 4 4 Bot Elev (ft): 75.00 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.875	-108.76	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	253.50	0	0	0.00	0.00	42	Member Z
HORIZ DAE - 2.5X2.5X0.25	-7.26	1.2D + 1.6W	10.75	100	100	20	156.5	36.0	21.97	0	0	0.00	0.00	33	Member X
DIAG DAE - 2.5X2.5X0.25	-12.39	1.2D + 1.6W	17.02	50	100	12	167.1	36.0	19.26	0	0	0.00	0.00	64	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.875	74.61	0.9D + 1.6W 45	36	58	315.25	0	0	0.00	0.00		23	Member
HORIZ DAE - 2.5X2.5X0.25	7.76	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	10	Member
DIAG DAE - 2.5X2.5X0.25	11.17	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	14	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	73.94	0.9D + 1.6W 315	0.00	0	0	
Top Compression	108.04	1.2D + 1.6W 45	0.00	0		
Bot Tension	84.80	0.9D + 1.6W 315	0.00	0		
Bot Compression	123.45	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 5 5 Bot Elev (ft): 87.50 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	-93.91	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	219.89	0	0	0.00	0.00	42	Member Z
HORIZ DAE - 2.5X2.5X0.25	-6.96	0.9D + 1.6W 90	9.971	100	100	20	147.2	36.0	24.83	0	0	0.00	0.00	28	Member X
DIAG DAE - 2.5X2.5X0.25	-12.13	1.2D + 1.6W 90	16.50	50	100	12	162.8	36.0	20.29	0	0	0.00	0.00	59	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	63.03	0.9D + 1.6W 45	36	58	273.46	0	0	0.00	0.00		23	Member
HORIZ DAE - 2.5X2.5X0.25	7.09	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	9	Member
DIAG DAE - 2.5X2.5X0.25	10.87	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	14	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	52.22	0.9D + 1.6W 315	0.00	0	0	
Top Compression	77.29	1.2D + 1.6W 315	0.00	0		
Bot Tension	73.94	0.9D + 1.6W 315	0.00	0		
Bot Compression	108.04	1.2D + 1.6W 45	0.00	0		

Section: 6 6 Bot Elev (ft): 112.5 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-63.70	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	37	Member Z
HORIZ DAE - 2.5X2.5X0.25	-5.56	1.2D + 1.6W	8.408	100	100	25	128.6	36.0	32.30	0	0	0.00	0.00	17	Member X
DIAG DAL - 2.5X2X0.25	-10.93	1.2D + 1.6W	15.53	50	100	12	188.1	36.0	13.60	0	0	0.00	0.00	80	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	41.50	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00		19	Member
HORIZ DAE - 2.5X2.5X0.25	5.87	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	7	Member
DIAG DAL - 2.5X2X0.25	10.06	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	14	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	40.99	0.9D + 1.6W 45	0.00	0	0	
Top Compression	63.15	1.2D + 1.6W 45	0.00	0		
Bot Tension	52.22	0.9D + 1.6W 315	0.00	0		
Bot Compression	77.29	1.2D + 1.6W 315	0.00	0		

Force/Stress Summary

Section: 7 6 Bot Elev (ft): 125.0 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-49.60	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	29	Member Z
HORIZ DAE - 2.5X2.5X0.25	-5.17	1.2D + 1.6W 90	7.626	100	120	25	119.0	36.0	36.59	0	0	0.00	0.00	14	Member X
DIAG DAL - 2.5X2X0.25	-10.76	1.2D + 1.6W 90	15.08	50	100	12	183.4	36.0	14.30	0	0	0.00	0.00	75	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	29.85	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00		14	Member
HORIZ DAE - 2.5X2.5X0.25	5.27	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	6	Member
DIAG DAL - 2.5X2X0.25	9.74	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	14	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	29.38	0.9D + 1.6W 45	0.00	0	0	
Top Compression	49.11	1.2D + 1.6W 45	0.00	0		
Bot Tension	40.99	0.9D + 1.6W 45	0.00	0		
Bot Compression	63.15	1.2D + 1.6W 45	0.00	0		

Section: 8 7 Bot Elev (ft): 137.5 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	-35.59	1.2D + 1.6W 45	12.55	50	50	50	63.3	36.0	132.79	0	0	0.00	0.00	26	Member Z
HORIZ DAE - 2.5X2.5X0.25	-4.25	0.9D + 1.6W	6.845	100	107	25	106.8	36.0	42.29	0	0	0.00	0.00	10	Member X
DIAG DAL - 2.5X2X0.25	-10.21	1.2D + 1.6W	14.66	50	100	12	179.1	36.0	15.01	0	0	0.00	0.00	68	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	18.44	0.9D + 1.6W 45	36	58	163.94	0	0	0.00	0.00		11	Member
HORIZ DAE - 2.5X2.5X0.25	5.20	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	6	Member
DIAG DAL - 2.5X2X0.25	9.50	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	13	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	17.98	0.9D + 1.6W 45	0.00	0	0	
Top Compression	35.00	1.2D + 1.6W 45	0.00	0		
Bot Tension	29.38	0.9D + 1.6W 45	0.00	0		
Bot Compression	49.11	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 9 8 - lower Bot Elev (ft): 150.0 Height (ft): 10.167

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-27.83	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	25	Member Z
HORIZSAU - 3X2.5X0.25	-1.07	0.9D + 1.6W	12.41	50	100	50	167.9	36.0	10.50	0	0	0.00	0.00	10	Member Y
DIAG SAE - 3.5X3.5X0.25	-5.81	1.2D + 1.6W 90	16.55	50	50	50	138.6	36.0	19.86	0	0	0.00	0.00	29	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	14.23	0.9D + 1.6W 45	36	58	135.43	0	0	0.00	0.00		10	Member
HORIZSAU - 3X2.5X0.25	2.24	1.2D + 1.6W	36	58	42.44	0	0	0.00	0.00	0.00	5	Member
DIAG SAE - 3.5X3.5X0.25	4.39	0.9D + 1.6W 90	36	58	54.76	0	0	0.00	0.00	0.00	8	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	9.71	0.9D + 1.6W 45	0.00	0	0	
Top Compression	24.93	1.2D + 1.6W 45	0.00	0		
Bot Tension	17.98	0.9D + 1.6W 45	0.00	0		
Bot Compression	35.00	1.2D + 1.6W 45	0.00	0		

Section: 10 8 - upper Bot Elev (ft): 160.1 Height (ft): 10.167

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-18.38	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	16	Member Z
HORIZDAL - 3X2.5X0.25	-0.62	0.9D + 1.6W	11.14	50	100	50	172.4	36.0	19.99	0	0	0.00	0.00	3	Member Y
DIAG SAE - 3.5X3.5X0.25	-4.89	1.2D + 1.6W	15.57	50	50	50	132.1	36.0	21.85	0	0	0.00	0.00	22	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	7.17	0.9D + 1.6W 45	36	58	135.43	0	0	0.00	0.00		5	Member
HORIZDAL - 3X2.5X0.25	1.39	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	1	Member
DIAG SAE - 3.5X3.5X0.25	3.33	1.2D + 1.6W	36	58	54.76	0	0	0.00	0.00	0.00	6	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	2.78	0.9D + 1.6W 135	0.00	0	0	
Top Compression	17.52	1.2D + 1.0Dl +	0.00	0		
Bot Tension	9.71	0.9D + 1.6W 45	0.00	0		
Bot Compression	24.93	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 11 9 - lower Bot Elev (ft): 170.3 Height (ft): 8.583

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-9.40	1.2D + 1.6W 45	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	11	Member Z
HORIZSAU - 3X2.5X0.25	-0.23	0.9D + 1.6W	10.07	50	100	50	144.9	36.0	14.09	0	0	0.00	0.00	1	Member Y
DIAG SAE - 3X3X0.25	-2.96	1.2D + 1.6W 90	13.65	50	50	50	134.1	36.0	18.10	0	0	0.00	0.00	16	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	3.34	0.9D + 1.6W 45	36	58	98.17	0	0	0.00	0.00		3	Member
HORIZSAU - 3X2.5X0.25	0.92	1.2D + 1.6W	36	58	42.44	0	0	0.00	0.00	0.00	2	Member
DIAG SAE - 3X3X0.25	2.06	1.2D + 1.6W 90	36	58	46.66	0	0	0.00	0.00	0.00	4	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.92	0.9D + 1.6W 135	0.00	0	0	
Top Compression	9.51	1.2D + 1.0Dl +	0.00	0		
Bot Tension	2.78	0.9D + 1.6W 135	0.00	0		
Bot Compression	17.52	1.2D + 1.0Dl +	0.00	0		

Section: 12 9 - upper Bot Elev (ft): 178.9 Height (ft): 8.583

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-6.15	1.2D + 1.0Dl +	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	7	Member Z
HORIZCHN - C8 x 11.5	-0.03	1.2D + 1.6W	9.001	100	100	100	160.3	36.0	29.72	0	0	0.00	0.00	0	Member Y
DIAG SAE - 3X3X0.25	-2.99	1.2D + 1.6W	12.84	50	50	50	127.8	36.0	19.75	0	0	0.00	0.00	15	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZCHN - C8 x 11.5	0.09	1.2D + 1.6W	36	58	109.51	0	0	0.00	0.00	0.00	0	Member
DIAG SAE - 3X3X0.25	2.02	1.2D + 1.6W	36	58	46.66	0	0	0.00	0.00	0.00	4	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	7.09	1.2D + 1.0Dl +	0.00	0		
Bot Tension	0.92	0.9D + 1.6W 135	0.00	0		
Bot Compression	9.51	1.2D + 1.0Dl +	0.00	0		

Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal	22.94	00.00	45	1	-9.80	151.34	-19.45	
	22.94	00.00	135	1a	5.11	-87.34	-14.87	
	22.94	00.00	225	1b	-5.11	-87.34	-14.87	
	22.94	00.00	315	1c	9.80	151.34	-19.45	
1.2D + 1.6W 45 deg	22.94	00.00	45	1	-20.57	209.01	-20.54	
	22.94	00.00	135	1a	-9.55	31.53	-4.88	
	22.94	00.00	225	1b	-16.01	-145.02	-15.98	
	22.94	00.00	315	1c	-4.85	32.46	-9.58	
1.2D + 1.6W 90 deg	22.94	00.00	45	1	-19.45	150.68	-9.76	
	22.94	00.00	135	1a	-19.45	150.68	9.76	
	22.94	00.00	225	1b	-14.87	-86.69	-5.07	
	22.94	00.00	315	1c	-14.87	-86.69	5.07	
1.2D + 1.6W 135 deg	22.94	00.00	45	1	-9.55	31.53	4.88	
	22.94	00.00	135	1a	-20.57	209.01	20.54	
	22.94	00.00	225	1b	-4.85	32.46	9.58	
	22.94	00.00	315	1c	-16.01	-145.02	15.98	
1.2D + 1.6W 180 deg	22.94	00.00	45	1	5.11	-87.34	14.87	
	22.94	00.00	135	1a	-9.80	151.34	19.45	
	22.94	00.00	225	1b	9.80	151.34	19.45	
	22.94	00.00	315	1c	-5.11	-87.34	14.87	
1.2D + 1.6W 225 deg	22.94	00.00	45	1	16.01	-145.02	15.98	
	22.94	00.00	135	1a	4.85	32.46	9.58	
	22.94	00.00	225	1b	20.57	209.01	20.54	
	22.94	00.00	315	1c	9.55	31.53	4.88	
1.2D + 1.6W 270 deg	22.94	00.00	45	1	14.87	-86.69	5.07	
	22.94	00.00	135	1a	14.87	-86.69	-5.07	
	22.94	00.00	225	1b	19.45	150.68	9.76	
	22.94	00.00	315	1c	19.45	150.68	-9.76	
1.2D + 1.6W 315 deg	22.94	00.00	45	1	4.85	32.46	-9.58	
	22.94	00.00	135	1a	16.01	-145.02	-15.98	
	22.94	00.00	225	1b	9.55	31.53	-4.88	
	22.94	00.00	315	1c	20.57	209.01	-20.54	
0.9D + 1.6W Normal	22.94	00.00	45	1	-9.21	143.26	-18.86	
	22.94	00.00	135	1a	5.69	-95.27	-15.46	
	22.94	00.00	225	1b	-5.69	-95.27	-15.46	
	22.94	00.00	315	1c	9.21	143.26	-18.86	
0.9D + 1.6W 45 deg	22.94	00.00	45	1	-19.98	200.90	-19.95	
	22.94	00.00	135	1a	-8.97	23.53	-5.47	
	22.94	00.00	225	1b	-16.59	-152.91	-16.56	
	22.94	00.00	315	1c	-5.44	24.46	-9.00	
0.9D + 1.6W 90 deg	22.94	00.00	45	1	-18.86	142.61	-9.17	
	22.94	00.00	135	1a	-18.86	142.61	9.17	
	22.94	00.00	225	1b	-15.46	-94.61	-5.65	
	22.94	00.00	315	1c	-15.46	-94.61	5.65	
0.9D + 1.6W 135 deg	22.94	00.00	45	1	-8.97	23.53	5.47	
	22.94	00.00	135	1a	-19.98	200.90	19.95	
	22.94	00.00	225	1b	-5.44	24.46	9.00	
	22.94	00.00	315	1c	-16.59	-152.91	16.56	

0.9D + 1.6W 180 deg	22.94	00.00	45	1	5.69	-95.27	15.46
	22.94	00.00	135	1a	-9.21	143.26	18.86
	22.94	00.00	225	1b	9.21	143.26	18.86
	22.94	00.00	315	1c	-5.69	-95.27	15.46
0.9D + 1.6W 225 deg	22.94	00.00	45	1	16.59	-152.91	16.56
	22.94	00.00	135	1a	5.44	24.46	9.00
	22.94	00.00	225	1b	19.98	200.90	19.95
	22.94	00.00	315	1c	8.97	23.53	5.47
0.9D + 1.6W 270 deg	22.94	00.00	45	1	15.46	-94.61	5.65
	22.94	00.00	135	1a	15.46	-94.61	-5.65
	22.94	00.00	225	1b	18.86	142.61	9.17
	22.94	00.00	315	1c	18.86	142.61	-9.17
0.9D + 1.6W 315 deg	22.94	00.00	45	1	5.44	24.46	-9.00
	22.94	00.00	135	1a	16.59	-152.91	-16.56
	22.94	00.00	225	1b	8.97	23.53	-5.47
	22.94	00.00	315	1c	19.98	200.90	-19.95
1.2D + 1.0Di + 1.0Wi Normal	22.94	00.00	45	1	-7.96	116.27	-11.59
	22.94	00.00	135	1a	-2.60	30.68	-1.05
	22.94	00.00	225	1b	2.60	30.68	-1.05
	22.94	00.00	315	1c	7.96	116.27	-11.59
1.2D + 1.0Di + 1.0Wi 45 deg	22.94	00.00	45	1	-12.01	137.60	-12.00
	22.94	00.00	135	1a	-8.00	73.38	2.56
	22.94	00.00	225	1b	-1.47	9.35	-1.46
	22.94	00.00	315	1c	2.56	73.57	-8.00
1.2D + 1.0Di + 1.0Wi 90 deg	22.94	00.00	45	1	-11.59	116.14	-7.95
	22.94	00.00	135	1a	-11.59	116.14	7.95
	22.94	00.00	225	1b	-1.05	30.81	2.61
	22.94	00.00	315	1c	-1.05	30.81	-2.61
1.2D + 1.0Di + 1.0Wi 135 deg	22.94	00.00	45	1	-8.00	73.38	-2.56
	22.94	00.00	135	1a	-12.01	137.60	12.00
	22.94	00.00	225	1b	2.56	73.57	8.00
	22.94	00.00	315	1c	-1.47	9.35	1.46
1.2D + 1.0Di + 1.0Wi 180 deg	22.94	00.00	45	1	-2.60	30.68	1.05
	22.94	00.00	135	1a	-7.96	116.27	11.59
	22.94	00.00	225	1b	7.96	116.27	11.59
	22.94	00.00	315	1c	2.60	30.68	1.05
1.2D + 1.0Di + 1.0Wi 225 deg	22.94	00.00	45	1	1.47	9.35	1.46
	22.94	00.00	135	1a	-2.56	73.57	8.00
	22.94	00.00	225	1b	12.01	137.60	12.00
	22.94	00.00	315	1c	8.00	73.38	-2.56
1.2D + 1.0Di + 1.0Wi 270 deg	22.94	00.00	45	1	1.05	30.81	-2.61
	22.94	00.00	135	1a	1.05	30.81	2.61
	22.94	00.00	225	1b	11.59	116.14	7.95
	22.94	00.00	315	1c	11.59	116.14	-7.95
1.2D + 1.0Di + 1.0Wi 315 deg	22.94	00.00	45	1	-2.56	73.57	-8.00
	22.94	00.00	135	1a	1.47	9.35	-1.46
	22.94	00.00	225	1b	8.00	73.38	2.56
	22.94	00.00	315	1c	12.01	137.60	-12.00
(1.2 + 0.2Sds) * DL + E Normal M1	22.94	00.00	45	1	-3.46	48.13	-4.32
	22.94	00.00	135	1a	-1.41	15.21	0.55
	22.94	00.00	225	1b	1.41	15.21	0.55
	22.94	00.00	315	1c	3.46	48.13	-4.32

(1.2 + 0.2Sds) * DL + E Normal M2	22.94	00.00	45	1	-3.46	48.07	-4.12
	22.94	00.00	135	1a	-1.41	15.26	0.75
	22.94	00.00	225	1b	1.41	15.26	0.75
	22.94	00.00	315	1c	3.46	48.07	-4.12
(1.2 + 0.2Sds) * DL + E 45 deg M1	22.94	00.00	45	1	-4.50	54.94	-4.50
	22.94	00.00	135	1a	-3.04	31.67	1.83
	22.94	00.00	225	1b	0.37	8.39	0.37
	22.94	00.00	315	1c	1.83	31.67	-3.04
(1.2 + 0.2Sds) * DL + E 45 deg M2	22.94	00.00	45	1	-4.35	54.87	-4.35
	22.94	00.00	135	1a	-2.90	31.67	1.97
	22.94	00.00	225	1b	0.51	8.47	0.51
	22.94	00.00	315	1c	1.97	31.67	-2.90
(1.2 + 0.2Sds) * DL + E 90 deg M1	22.94	00.00	45	1	-4.32	48.13	-3.46
	22.94	00.00	135	1a	-4.32	48.13	3.46
	22.94	00.00	225	1b	0.55	15.21	1.41
	22.94	00.00	315	1c	0.55	15.21	-1.41
(1.2 + 0.2Sds) * DL + E 90 deg M2	22.94	00.00	45	1	-4.12	48.07	-3.46
	22.94	00.00	135	1a	-4.12	48.07	3.46
	22.94	00.00	225	1b	0.75	15.26	1.41
	22.94	00.00	315	1c	0.75	15.26	-1.41
(1.2 + 0.2Sds) * DL + E 135 deg M1	22.94	00.00	45	1	-3.04	31.67	-1.83
	22.94	00.00	135	1a	-4.50	54.94	4.50
	22.94	00.00	225	1b	1.83	31.67	3.04
	22.94	00.00	315	1c	0.37	8.39	-0.37
(1.2 + 0.2Sds) * DL + E 135 deg M2	22.94	00.00	45	1	-2.90	31.67	-1.97
	22.94	00.00	135	1a	-4.35	54.87	4.35
	22.94	00.00	225	1b	1.97	31.67	2.90
	22.94	00.00	315	1c	0.51	8.47	-0.51
(1.2 + 0.2Sds) * DL + E 180 deg M1	22.94	00.00	45	1	-1.41	15.21	-0.55
	22.94	00.00	135	1a	-3.46	48.13	4.32
	22.94	00.00	225	1b	3.46	48.13	4.32
	22.94	00.00	315	1c	1.41	15.21	-0.55
(1.2 + 0.2Sds) * DL + E 180 deg M2	22.94	00.00	45	1	-1.41	15.26	-0.75
	22.94	00.00	135	1a	-3.46	48.07	4.12
	22.94	00.00	225	1b	3.46	48.07	4.12
	22.94	00.00	315	1c	1.41	15.26	-0.75
(1.2 + 0.2Sds) * DL + E 225 deg M1	22.94	00.00	45	1	-0.37	8.39	-0.37
	22.94	00.00	135	1a	-1.83	31.67	3.04
	22.94	00.00	225	1b	4.50	54.94	4.50
	22.94	00.00	315	1c	3.04	31.67	-1.83
(1.2 + 0.2Sds) * DL + E 225 deg M2	22.94	00.00	45	1	-0.51	8.47	-0.51
	22.94	00.00	135	1a	-1.97	31.67	2.90
	22.94	00.00	225	1b	4.35	54.87	4.35
	22.94	00.00	315	1c	2.90	31.67	-1.97
(1.2 + 0.2Sds) * DL + E 270 deg M1	22.94	00.00	45	1	-0.55	15.21	-1.41
	22.94	00.00	135	1a	-0.55	15.21	1.41
	22.94	00.00	225	1b	4.32	48.13	3.46
	22.94	00.00	315	1c	4.32	48.13	-3.46
(1.2 + 0.2Sds) * DL + E 270 deg M2	22.94	00.00	45	1	-0.75	15.26	-1.41
	22.94	00.00	135	1a	-0.75	15.26	1.41
	22.94	00.00	225	1b	4.12	48.07	3.46
	22.94	00.00	315	1c	4.12	48.07	-3.46
(1.2 + 0.2Sds) * DL + E 315 deg M1	22.94	00.00	45	1	-1.83	31.67	-3.04

	22.94	00.00	135	1a	-0.37	8.39	0.37
	22.94	00.00	225	1b	3.04	31.67	1.83
	22.94	00.00	315	1c	4.50	54.94	-4.50
(1.2 + 0.2Sds) * DL + E 315 deg M2	22.94	00.00	45	1	-1.97	31.67	-2.90
	22.94	00.00	135	1a	-0.51	8.47	0.51
	22.94	00.00	225	1b	2.90	31.67	1.97
	22.94	00.00	315	1c	4.35	54.87	-4.35
(0.9 - 0.2Sds) * DL + E Normal M1	22.94	00.00	45	1	-2.70	38.15	-3.56
	22.94	00.00	135	1a	-0.64	5.27	-0.22
	22.94	00.00	225	1b	0.64	5.27	-0.22
	22.94	00.00	315	1c	2.70	38.15	-3.56
(0.9 - 0.2Sds) * DL + E Normal M2	22.94	00.00	45	1	-2.69	38.10	-3.36
	22.94	00.00	135	1a	-0.64	5.32	-0.02
	22.94	00.00	225	1b	0.64	5.32	-0.02
	22.94	00.00	315	1c	2.69	38.10	-3.36
(0.9 - 0.2Sds) * DL + E 45 deg M1	22.94	00.00	45	1	-3.73	44.97	-3.73
	22.94	00.00	135	1a	-2.28	21.71	1.06
	22.94	00.00	225	1b	-0.39	-1.55	-0.39
	22.94	00.00	315	1c	1.06	21.71	-2.28
(0.9 - 0.2Sds) * DL + E 45 deg M2	22.94	00.00	45	1	-3.59	44.89	-3.59
	22.94	00.00	135	1a	-2.14	21.71	1.20
	22.94	00.00	225	1b	-0.25	-1.47	-0.25
	22.94	00.00	315	1c	1.20	21.71	-2.14
(0.9 - 0.2Sds) * DL + E 90 deg M1	22.94	00.00	45	1	-3.56	38.15	-2.70
	22.94	00.00	135	1a	-3.56	38.15	2.70
	22.94	00.00	225	1b	-0.22	5.27	0.64
	22.94	00.00	315	1c	-0.22	5.27	-0.64
(0.9 - 0.2Sds) * DL + E 90 deg M2	22.94	00.00	45	1	-3.36	38.10	-2.69
	22.94	00.00	135	1a	-3.36	38.10	2.69
	22.94	00.00	225	1b	-0.02	5.32	0.64
	22.94	00.00	315	1c	-0.02	5.32	-0.64
(0.9 - 0.2Sds) * DL + E 135 deg M1	22.94	00.00	45	1	-2.28	21.71	-1.06
	22.94	00.00	135	1a	-3.73	44.97	3.73
	22.94	00.00	225	1b	1.06	21.71	2.28
	22.94	00.00	315	1c	-0.39	-1.55	0.39
(0.9 - 0.2Sds) * DL + E 135 deg M2	22.94	00.00	45	1	-2.14	21.71	-1.20
	22.94	00.00	135	1a	-3.59	44.89	3.59
	22.94	00.00	225	1b	1.20	21.71	2.14
	22.94	00.00	315	1c	-0.25	-1.47	0.25
(0.9 - 0.2Sds) * DL + E 180 deg M1	22.94	00.00	45	1	-0.64	5.27	0.22
	22.94	00.00	135	1a	-2.70	38.15	3.56
	22.94	00.00	225	1b	2.70	38.15	3.56
	22.94	00.00	315	1c	0.64	5.27	0.22
(0.9 - 0.2Sds) * DL + E 180 deg M2	22.94	00.00	45	1	-0.64	5.32	0.02
	22.94	00.00	135	1a	-2.69	38.10	3.36
	22.94	00.00	225	1b	2.69	38.10	3.36
	22.94	00.00	315	1c	0.64	5.32	0.02
(0.9 - 0.2Sds) * DL + E 225 deg M1	22.94	00.00	45	1	0.39	-1.55	0.39
	22.94	00.00	135	1a	-1.06	21.71	2.28
	22.94	00.00	225	1b	3.73	44.97	3.73
	22.94	00.00	315	1c	2.28	21.71	-1.06
(0.9 - 0.2Sds) * DL + E 225 deg M2	22.94	00.00	45	1	0.25	-1.47	0.25
	22.94	00.00	135	1a	-1.20	21.71	2.14

	22.94	00.00	225	1b	3.59	44.89	3.59
	22.94	00.00	315	1c	2.14	21.71	-1.20
(0.9 - 0.2Sds) * DL + E 270 deg M1	22.94	00.00	45	1	0.22	5.27	-0.64
	22.94	00.00	135	1a	0.22	5.27	0.64
	22.94	00.00	225	1b	3.56	38.15	2.70
	22.94	00.00	315	1c	3.56	38.15	-2.70
(0.9 - 0.2Sds) * DL + E 270 deg M2	22.94	00.00	45	1	0.02	5.32	-0.64
	22.94	00.00	135	1a	0.02	5.32	0.64
	22.94	00.00	225	1b	3.36	38.10	2.69
	22.94	00.00	315	1c	3.36	38.10	-2.69
(0.9 - 0.2Sds) * DL + E 315 deg M1	22.94	00.00	45	1	-1.06	21.71	-2.28
	22.94	00.00	135	1a	0.39	-1.55	-0.39
	22.94	00.00	225	1b	2.28	21.71	1.06
	22.94	00.00	315	1c	3.73	44.97	-3.73
(0.9 - 0.2Sds) * DL + E 315 deg M2	22.94	00.00	45	1	-1.20	21.71	-2.14
	22.94	00.00	135	1a	0.25	-1.47	-0.25
	22.94	00.00	225	1b	2.14	21.71	1.20
	22.94	00.00	315	1c	3.59	44.89	-3.59
1.0D + 1.0W Service Normal	22.94	00.00	45	1	-4.03	59.83	-6.74
	22.94	00.00	135	1a	0.12	-6.50	-2.84
	22.94	00.00	225	1b	-0.12	-6.50	-2.84
	22.94	00.00	315	1c	4.03	59.83	-6.74
1.0D + 1.0W Service 45 deg	22.94	00.00	45	1	-7.04	75.86	-7.03
	22.94	00.00	135	1a	-3.97	26.53	-0.07
	22.94	00.00	225	1b	-3.14	-22.53	-3.14
	22.94	00.00	315	1c	-0.06	26.79	-3.98
1.0D + 1.0W Service 90 deg	22.94	00.00	45	1	-6.74	59.65	-4.01
	22.94	00.00	135	1a	-6.74	59.65	4.01
	22.94	00.00	225	1b	-2.84	-6.32	-0.11
	22.94	00.00	315	1c	-2.84	-6.32	0.11
1.0D + 1.0W Service 135 deg	22.94	00.00	45	1	-3.97	26.53	0.07
	22.94	00.00	135	1a	-7.04	75.86	7.03
	22.94	00.00	225	1b	-0.06	26.79	3.98
	22.94	00.00	315	1c	-3.14	-22.53	3.14
1.0D + 1.0W Service 180 deg	22.94	00.00	45	1	0.12	-6.50	2.84
	22.94	00.00	135	1a	-4.03	59.83	6.74
	22.94	00.00	225	1b	4.03	59.83	6.74
	22.94	00.00	315	1c	-0.12	-6.50	2.84
1.0D + 1.0W Service 225 deg	22.94	00.00	45	1	3.14	-22.53	3.14
	22.94	00.00	135	1a	0.06	26.79	3.98
	22.94	00.00	225	1b	7.04	75.86	7.03
	22.94	00.00	315	1c	3.97	26.53	0.07
1.0D + 1.0W Service 270 deg	22.94	00.00	45	1	2.84	-6.32	0.11
	22.94	00.00	135	1a	2.84	-6.32	-0.11
	22.94	00.00	225	1b	6.74	59.65	4.01
	22.94	00.00	315	1c	6.74	59.65	-4.01
1.0D + 1.0W Service 315 deg	22.94	00.00	45	1	0.06	26.79	-3.98
	22.94	00.00	135	1a	3.14	-22.53	-3.14
	22.94	00.00	225	1b	3.97	26.53	-0.07
	22.94	00.00	315	1c	7.04	75.86	-7.03

Site Number:	**88014**	**Code:**	**ANSI/TIA-222-G**	
Site Name:	**New Fairfield, CT**	**Engineering Number:**	**OAA723223_C3_02**	2/28/2018 1:59:51 PM
Customer:	**T-Mobile**			

Max Uplift:	**152.91 (kip)**	**Moment Ice:**	**2,942.28 (kip-ft)**	**Moment:**	**8,122.47 (kip-ft)**	**1.2D + 1.6W 315 deg**
Max Down:	**209.01 (kip)**	**Total Down Ice:**	**293.90 (kip)**	**Total Down:**	**127.99 (kip)**	
Max Shear:	**29.06 (kip)**	**Total Shear Ice:**	**26.74 (kip)**	**Total Shear:**	**72.09 (kip)**	

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
90 mph Normal to Face with No Ice	50.00	0.040	0.1074	0.0813	0.1346
90 mph Normal to Face with No Ice	75.00	0.078	0.1658	0.1120	0.1999
90 mph Normal to Face with No Ice	87.50	0.099	-0.2261	0.1130	0.2525
90 mph Normal to Face with No Ice	100.00	0.121	0.2943	0.1188	0.3173
90 mph Normal to Face with No Ice	112.50	0.147	-0.3601	0.1982	0.4106
90 mph Normal to Face with No Ice	137.50	0.207	0.4829	0.1783	0.5145
90 mph Normal to Face with No Ice	150.00	0.240	-0.5582	0.2254	0.6013
90 mph Normal to Face with No Ice	160.17	0.268	-0.6543	0.1825	0.6789
90 mph Normal to Face with No Ice	170.33	0.297	-0.7464	0.2843	0.7977
90 mph Normal to Face with No Ice	187.50	0.347	-0.9155	0.6585	1.1265
90 mph 45 degree with No Ice	50.00	0.042	0.1633	0.0809	0.1822
90 mph 45 degree with No Ice	75.00	0.082	0.2496	0.1000	0.2689
90 mph 45 degree with No Ice	87.50	0.103	0.3378	0.1061	0.3541
90 mph 45 degree with No Ice	100.00	0.127	0.4385	0.1206	0.4548
90 mph 45 degree with No Ice	112.50	0.154	0.5352	0.1505	0.5560
90 mph 45 degree with No Ice	137.50	0.217	0.7169	0.1690	0.7366
90 mph 45 degree with No Ice	150.00	0.252	0.8272	0.1901	0.8488
90 mph 45 degree with No Ice	160.17	0.281	0.9679	0.1847	0.9854
90 mph 45 degree with No Ice	170.33	0.311	1.1027	0.2245	1.1253
90 mph 45 degree with No Ice	187.50	0.362	1.3497	0.6226	1.4092
90 mph 90 degree with No Ice	50.00	0.040	0.1169	0.0720	0.1373
90 mph 90 degree with No Ice	75.00	0.078	-0.1771	0.0716	0.1910
90 mph 90 degree with No Ice	87.50	0.098	-0.2381	0.0823	0.2518
90 mph 90 degree with No Ice	100.00	0.121	-0.3080	0.1073	0.3260
90 mph 90 degree with No Ice	112.50	0.146	0.3751	0.0463	0.3780
90 mph 90 degree with No Ice	137.50	0.205	0.5012	0.1249	0.5162
90 mph 90 degree with No Ice	150.00	0.238	0.5772	0.0878	0.5838
90 mph 90 degree with No Ice	160.17	0.265	-0.6738	0.1536	0.6906
90 mph 90 degree with No Ice	170.33	0.293	0.7665	0.0459	0.7679
90 mph 90 degree with No Ice	187.50	0.341	-0.9364	0.3493	0.9970
90 mph 135 degree with No Ice	50.00	0.042	0.1538	0.0809	0.1822
90 mph 135 degree with No Ice	75.00	0.082	0.2352	0.1000	0.2689
90 mph 135 degree with No Ice	87.50	0.103	0.3183	0.1061	0.3541
90 mph 135 degree with No Ice	100.00	0.127	0.4130	0.1206	0.4548
90 mph 135 degree with No Ice	112.50	0.154	0.5040	0.1505	0.5560
90 mph 135 degree with No Ice	137.50	0.217	0.6741	0.1690	0.7366
90 mph 135 degree with No Ice	150.00	0.252	0.7775	0.1901	0.8488
90 mph 135 degree with No Ice	160.17	0.281	0.9093	0.1847	0.9854
90 mph 135 degree with No Ice	170.33	0.311	1.0354	0.2245	1.1253
90 mph 135 degree with No Ice	187.50	0.362	1.2665	0.6226	1.4092
90 mph 180 degree with No Ice	50.00	0.040	0.1074	0.0813	0.1346
90 mph 180 degree with No Ice	75.00	0.078	0.1658	0.1120	0.1999
90 mph 180 degree with No Ice	87.50	0.099	0.2261	0.1130	0.2525
90 mph 180 degree with No Ice	100.00	0.121	0.2943	0.1188	0.3173
90 mph 180 degree with No Ice	112.50	0.147	0.3601	0.1982	0.4106
90 mph 180 degree with No Ice	137.50	0.207	0.4829	0.1783	0.5145
90 mph 180 degree with No Ice	150.00	0.240	0.5582	0.2254	0.6013
90 mph 180 degree with No Ice	160.17	0.268	0.6543	0.1825	0.6789
90 mph 180 degree with No Ice	170.33	0.297	0.7464	0.2843	0.7977
90 mph 180 degree with No Ice	187.50	0.347	0.9155	0.6585	1.1265
90 mph 225 degree with No Ice	50.00	0.042	0.1633	0.0809	0.1822
90 mph 225 degree with No Ice	75.00	0.082	0.2496	0.1000	0.2689
90 mph 225 degree with No Ice	87.50	0.103	0.3378	0.1061	0.3541
90 mph 225 degree with No Ice	100.00	0.127	0.4385	0.1206	0.4548
90 mph 225 degree with No Ice	112.50	0.154	0.5352	0.1505	0.5560

90 mph 225 degree with No Ice	137.50	0.217	0.7169	0.1690	0.7366
90 mph 225 degree with No Ice	150.00	0.252	0.8272	0.1901	0.8488
90 mph 225 degree with No Ice	160.17	0.281	0.9679	0.1847	0.9854
90 mph 225 degree with No Ice	170.33	0.311	1.1027	0.2245	1.1253
90 mph 225 degree with No Ice	187.50	0.362	1.3497	0.6226	1.4092
90 mph 270 degree with No Ice	50.00	0.040	0.1169	0.0720	0.1373
90 mph 270 degree with No Ice	75.00	0.078	0.1771	0.0716	0.1910
90 mph 270 degree with No Ice	87.50	0.098	0.2381	0.0823	0.2518
90 mph 270 degree with No Ice	100.00	0.121	0.3080	0.1073	0.3260
90 mph 270 degree with No Ice	112.50	0.146	0.3751	0.0463	0.3780
90 mph 270 degree with No Ice	137.50	0.205	0.5012	0.1249	0.5162
90 mph 270 degree with No Ice	150.00	0.238	0.5772	0.0878	0.5838
90 mph 270 degree with No Ice	160.17	0.265	0.6738	0.1536	0.6906
90 mph 270 degree with No Ice	170.33	0.293	0.7665	0.0459	0.7679
90 mph 270 degree with No Ice	187.50	0.341	0.9364	0.3493	0.9970
90 mph 315 degree with No Ice	50.00	0.042	0.1538	0.0809	0.1822
90 mph 315 degree with No Ice	75.00	0.082	0.2352	0.1000	0.2689
90 mph 315 degree with No Ice	87.50	0.103	0.3183	0.1061	0.3541
90 mph 315 degree with No Ice	100.00	0.127	0.4130	0.1206	0.4548
90 mph 315 degree with No Ice	112.50	0.154	0.5040	0.1505	0.5560
90 mph 315 degree with No Ice	137.50	0.217	0.6741	0.1690	0.7366
90 mph 315 degree with No Ice	150.00	0.252	0.7775	0.1901	0.8488
90 mph 315 degree with No Ice	160.17	0.281	0.9093	0.1847	0.9854
90 mph 315 degree with No Ice	170.33	0.311	1.0354	0.2245	1.1253
90 mph 315 degree with No Ice	187.50	0.362	1.2665	0.6226	1.4092
90 mph Normal to Face with No Ice (Reduced DL)	50.00	0.040	0.1074	0.0811	0.1345
90 mph Normal to Face with No Ice (Reduced DL)	75.00	0.078	-0.1658	0.1119	0.1998
90 mph Normal to Face with No Ice (Reduced DL)	87.50	0.098	0.2261	0.1128	0.2524
90 mph Normal to Face with No Ice (Reduced DL)	100.00	0.121	0.2943	0.1186	0.3173
90 mph Normal to Face with No Ice (Reduced DL)	112.50	0.147	-0.3601	0.1980	0.4105
90 mph Normal to Face with No Ice (Reduced DL)	137.50	0.206	-0.4829	0.1781	0.5144
90 mph Normal to Face with No Ice (Reduced DL)	150.00	0.240	0.5582	0.2252	0.6012
90 mph Normal to Face with No Ice (Reduced DL)	160.17	0.268	0.6543	0.1823	0.6788
90 mph Normal to Face with No Ice (Reduced DL)	170.33	0.297	0.7464	0.2840	0.7976
90 mph Normal to Face with No Ice (Reduced DL)	187.50	0.346	-0.9155	0.6581	1.1263
90 mph 45 deg with No Ice (Reduced DL)	50.00	0.042	0.1632	0.0808	0.1821
90 mph 45 deg with No Ice (Reduced DL)	75.00	0.082	0.2495	0.0999	0.2688
90 mph 45 deg with No Ice (Reduced DL)	87.50	0.103	0.3378	0.1059	0.3540
90 mph 45 deg with No Ice (Reduced DL)	100.00	0.127	0.4384	0.1204	0.4547
90 mph 45 deg with No Ice (Reduced DL)	112.50	0.154	0.5352	0.1504	0.5559
90 mph 45 deg with No Ice (Reduced DL)	137.50	0.216	0.7169	0.1687	0.7365
90 mph 45 deg with No Ice (Reduced DL)	150.00	0.252	0.8272	0.1900	0.8487
90 mph 45 deg with No Ice (Reduced DL)	160.17	0.281	0.9678	0.1844	0.9852
90 mph 45 deg with No Ice (Reduced DL)	170.33	0.311	1.1026	0.2242	1.1252
90 mph 45 deg with No Ice (Reduced DL)	187.50	0.362	1.3496	0.6223	1.4090
90 mph 90 deg with No Ice (Reduced DL)	50.00	0.040	0.1169	0.0719	0.1372
90 mph 90 deg with No Ice (Reduced DL)	75.00	0.078	-0.1771	0.0715	0.1910
90 mph 90 deg with No Ice (Reduced DL)	87.50	0.098	0.2381	0.0821	0.2517
90 mph 90 deg with No Ice (Reduced DL)	100.00	0.121	0.3080	0.1071	0.3260
90 mph 90 deg with No Ice (Reduced DL)	112.50	0.146	-0.3751	0.0463	0.3780
90 mph 90 deg with No Ice (Reduced DL)	137.50	0.205	-0.5011	0.1247	0.5161
90 mph 90 deg with No Ice (Reduced DL)	150.00	0.238	-0.5772	0.0876	0.5838
90 mph 90 deg with No Ice (Reduced DL)	160.17	0.265	0.6738	0.1534	0.6905
90 mph 90 deg with No Ice (Reduced DL)	170.33	0.293	0.7665	0.0458	0.7679
90 mph 90 deg with No Ice (Reduced DL)	187.50	0.341	-0.9364	0.3496	0.9971
90 mph 135 deg with No Ice (Reduced DL)	50.00	0.042	0.1538	0.0808	0.1821
90 mph 135 deg with No Ice (Reduced DL)	75.00	0.082	0.2352	0.0999	0.2688
90 mph 135 deg with No Ice (Reduced DL)	87.50	0.103	0.3183	0.1059	0.3540
90 mph 135 deg with No Ice (Reduced DL)	100.00	0.127	0.4130	0.1204	0.4547
90 mph 135 deg with No Ice (Reduced DL)	112.50	0.154	0.5040	0.1504	0.5559
90 mph 135 deg with No Ice (Reduced DL)	137.50	0.216	0.6741	0.1687	0.7365
90 mph 135 deg with No Ice (Reduced DL)	150.00	0.252	0.7775	0.1900	0.8487

90 mph 135 deg with No Ice (Reduced DL)	160.17	0.281	0.9093	0.1844	0.9852
90 mph 135 deg with No Ice (Reduced DL)	170.33	0.311	1.0354	0.2242	1.1252
90 mph 135 deg with No Ice (Reduced DL)	187.50	0.362	1.2665	0.6223	1.4090
90 mph 180 deg with No Ice (Reduced DL)	50.00	0.040	0.1074	0.0811	0.1345
90 mph 180 deg with No Ice (Reduced DL)	75.00	0.078	0.1658	0.1119	0.1998
90 mph 180 deg with No Ice (Reduced DL)	87.50	0.098	0.2261	0.1128	0.2524
90 mph 180 deg with No Ice (Reduced DL)	100.00	0.121	0.2943	0.1186	0.3173
90 mph 180 deg with No Ice (Reduced DL)	112.50	0.147	0.3601	0.1980	0.4105
90 mph 180 deg with No Ice (Reduced DL)	137.50	0.206	0.4829	0.1781	0.5144
90 mph 180 deg with No Ice (Reduced DL)	150.00	0.240	0.5582	0.2252	0.6012
90 mph 180 deg with No Ice (Reduced DL)	160.17	0.268	0.6543	0.1823	0.6788
90 mph 180 deg with No Ice (Reduced DL)	170.33	0.297	0.7464	0.2840	0.7976
90 mph 180 deg with No Ice (Reduced DL)	187.50	0.346	0.9155	0.6581	1.1263
90 mph 225 deg with No Ice (Reduced DL)	50.00	0.042	0.1632	0.0808	0.1821
90 mph 225 deg with No Ice (Reduced DL)	75.00	0.082	0.2495	0.0999	0.2688
90 mph 225 deg with No Ice (Reduced DL)	87.50	0.103	0.3378	0.1059	0.3540
90 mph 225 deg with No Ice (Reduced DL)	100.00	0.127	0.4384	0.1204	0.4547
90 mph 225 deg with No Ice (Reduced DL)	112.50	0.154	0.5352	0.1504	0.5559
90 mph 225 deg with No Ice (Reduced DL)	137.50	0.216	0.7169	0.1687	0.7365
90 mph 225 deg with No Ice (Reduced DL)	150.00	0.252	0.8272	0.1900	0.8487
90 mph 225 deg with No Ice (Reduced DL)	160.17	0.281	0.9678	0.1844	0.9852
90 mph 225 deg with No Ice (Reduced DL)	170.33	0.311	1.1026	0.2242	1.1252
90 mph 225 deg with No Ice (Reduced DL)	187.50	0.362	1.3496	0.6223	1.4090
90 mph 270 deg with No Ice (Reduced DL)	50.00	0.040	0.1169	0.0719	0.1372
90 mph 270 deg with No Ice (Reduced DL)	75.00	0.078	0.1771	0.0715	0.1910
90 mph 270 deg with No Ice (Reduced DL)	87.50	0.098	0.2381	0.0821	0.2517
90 mph 270 deg with No Ice (Reduced DL)	100.00	0.121	0.3080	0.1071	0.3260
90 mph 270 deg with No Ice (Reduced DL)	112.50	0.146	0.3751	0.0463	0.3780
90 mph 270 deg with No Ice (Reduced DL)	137.50	0.205	0.5011	0.1247	0.5161
90 mph 270 deg with No Ice (Reduced DL)	150.00	0.238	0.5772	0.0876	0.5838
90 mph 270 deg with No Ice (Reduced DL)	160.17	0.265	0.6738	0.1534	0.6905
90 mph 270 deg with No Ice (Reduced DL)	170.33	0.293	0.7665	0.0458	0.7679
90 mph 270 deg with No Ice (Reduced DL)	187.50	0.341	0.9364	0.3496	0.9971
90 mph 315 deg with No Ice (Reduced DL)	50.00	0.042	0.1538	0.0808	0.1821
90 mph 315 deg with No Ice (Reduced DL)	75.00	0.082	0.2352	0.0999	0.2688
90 mph 315 deg with No Ice (Reduced DL)	87.50	0.103	0.3183	0.1059	0.3540
90 mph 315 deg with No Ice (Reduced DL)	100.00	0.127	0.4130	0.1204	0.4547
90 mph 315 deg with No Ice (Reduced DL)	112.50	0.154	0.5040	0.1504	0.5559
90 mph 315 deg with No Ice (Reduced DL)	137.50	0.216	0.6741	0.1687	0.7365
90 mph 315 deg with No Ice (Reduced DL)	150.00	0.252	0.7775	0.1900	0.8487
90 mph 315 deg with No Ice (Reduced DL)	160.17	0.281	0.9093	0.1844	0.9852
90 mph 315 deg with No Ice (Reduced DL)	170.33	0.311	1.0354	0.2242	1.1252
90 mph 315 deg with No Ice (Reduced DL)	187.50	0.362	1.2665	0.6223	1.4090
50 mph Normal with 0.75 in Radial Ice	50.00	0.017	-0.0139	0.0288	0.0320
50 mph Normal with 0.75 in Radial Ice	75.00	0.031	0.0218	0.0389	0.0446
50 mph Normal with 0.75 in Radial Ice	87.50	0.038	0.0294	0.0355	0.0460
50 mph Normal with 0.75 in Radial Ice	100.00	0.046	0.0378	0.0413	0.0560
50 mph Normal with 0.75 in Radial Ice	112.50	0.054	-0.0464	0.0471	0.0661
50 mph Normal with 0.75 in Radial Ice	137.50	0.074	0.0684	0.0533	0.0866
50 mph Normal with 0.75 in Radial Ice	150.00	0.085	-0.0829	0.0644	0.1049
50 mph Normal with 0.75 in Radial Ice	160.17	0.094	0.1021	0.0536	0.1153
50 mph Normal with 0.75 in Radial Ice	170.33	0.104	0.1215	0.0798	0.1453
50 mph Normal with 0.75 in Radial Ice	187.50	0.120	-0.1599	0.1749	0.2369
50 mph 45 deg with 0.75 in Radial Ice	50.00	0.019	0.0250	0.0307	0.0393
50 mph 45 deg with 0.75 in Radial Ice	75.00	0.033	0.0381	0.0364	0.0527
50 mph 45 deg with 0.75 in Radial Ice	87.50	0.041	0.0505	0.0368	0.0625
50 mph 45 deg with 0.75 in Radial Ice	100.00	0.049	0.0645	0.0419	0.0769
50 mph 45 deg with 0.75 in Radial Ice	112.50	0.058	0.0787	0.0458	0.0910
50 mph 45 deg with 0.75 in Radial Ice	137.50	0.079	0.1142	0.0544	0.1265
50 mph 45 deg with 0.75 in Radial Ice	150.00	0.091	0.1368	0.0574	0.1482
50 mph 45 deg with 0.75 in Radial Ice	160.17	0.100	0.1666	0.0574	0.1762
50 mph 45 deg with 0.75 in Radial Ice	170.33	0.110	0.1961	0.0640	0.2063

50 mph 45 deg with 0.75 in Radial Ice	187.50	0.127	0.2529	0.1626	0.2727
50 mph 90 deg with 0.75 in Radial Ice	50.00	0.017	0.0174	0.0288	0.0337
50 mph 90 deg with 0.75 in Radial Ice	75.00	0.031	-0.0259	0.0284	0.0384
50 mph 90 deg with 0.75 in Radial Ice	87.50	0.038	0.0336	0.0333	0.0473
50 mph 90 deg with 0.75 in Radial Ice	100.00	0.046	-0.0425	0.0366	0.0561
50 mph 90 deg with 0.75 in Radial Ice	112.50	0.054	0.0516	0.0374	0.0638
50 mph 90 deg with 0.75 in Radial Ice	137.50	0.074	0.0746	0.0474	0.0883
50 mph 90 deg with 0.75 in Radial Ice	150.00	0.085	-0.0892	0.0383	0.0971
50 mph 90 deg with 0.75 in Radial Ice	160.17	0.094	-0.1086	0.0531	0.1209
50 mph 90 deg with 0.75 in Radial Ice	170.33	0.103	-0.1282	0.0276	0.1310
50 mph 90 deg with 0.75 in Radial Ice	187.50	0.119	0.1665	0.0718	0.1814
50 mph 135 deg with 0.75 in Radial Ice	50.00	0.019	0.0245	0.0307	0.0393
50 mph 135 deg with 0.75 in Radial Ice	75.00	0.033	0.0374	0.0364	0.0527
50 mph 135 deg with 0.75 in Radial Ice	87.50	0.041	0.0496	0.0368	0.0625
50 mph 135 deg with 0.75 in Radial Ice	100.00	0.049	0.0632	0.0419	0.0769
50 mph 135 deg with 0.75 in Radial Ice	112.50	0.058	0.0771	0.0458	0.0910
50 mph 135 deg with 0.75 in Radial Ice	137.50	0.079	0.1119	0.0544	0.1265
50 mph 135 deg with 0.75 in Radial Ice	150.00	0.091	0.1340	0.0574	0.1482
50 mph 135 deg with 0.75 in Radial Ice	160.17	0.100	0.1632	0.0574	0.1762
50 mph 135 deg with 0.75 in Radial Ice	170.33	0.110	0.1921	0.0640	0.2063
50 mph 135 deg with 0.75 in Radial Ice	187.50	0.127	0.2476	0.1626	0.2727
50 mph 180 deg with 0.75 in Radial Ice	50.00	0.017	0.0139	0.0288	0.0320
50 mph 180 deg with 0.75 in Radial Ice	75.00	0.031	0.0218	0.0389	0.0446
50 mph 180 deg with 0.75 in Radial Ice	87.50	0.038	0.0294	0.0355	0.0460
50 mph 180 deg with 0.75 in Radial Ice	100.00	0.046	0.0378	0.0413	0.0560
50 mph 180 deg with 0.75 in Radial Ice	112.50	0.054	0.0464	0.0471	0.0661
50 mph 180 deg with 0.75 in Radial Ice	137.50	0.074	0.0684	0.0533	0.0866
50 mph 180 deg with 0.75 in Radial Ice	150.00	0.085	0.0829	0.0644	0.1049
50 mph 180 deg with 0.75 in Radial Ice	160.17	0.094	0.1021	0.0536	0.1153
50 mph 180 deg with 0.75 in Radial Ice	170.33	0.104	0.1215	0.0798	0.1453
50 mph 180 deg with 0.75 in Radial Ice	187.50	0.120	0.1599	0.1749	0.2369
50 mph 225 deg with 0.75 in Radial Ice	50.00	0.019	0.0250	0.0307	0.0393
50 mph 225 deg with 0.75 in Radial Ice	75.00	0.033	0.0381	0.0364	0.0527
50 mph 225 deg with 0.75 in Radial Ice	87.50	0.041	0.0505	0.0368	0.0625
50 mph 225 deg with 0.75 in Radial Ice	100.00	0.049	0.0645	0.0419	0.0769
50 mph 225 deg with 0.75 in Radial Ice	112.50	0.058	0.0787	0.0458	0.0910
50 mph 225 deg with 0.75 in Radial Ice	137.50	0.079	0.1142	0.0544	0.1265
50 mph 225 deg with 0.75 in Radial Ice	150.00	0.091	0.1368	0.0574	0.1482
50 mph 225 deg with 0.75 in Radial Ice	160.17	0.100	0.1666	0.0574	0.1762
50 mph 225 deg with 0.75 in Radial Ice	170.33	0.110	0.1961	0.0640	0.2063
50 mph 225 deg with 0.75 in Radial Ice	187.50	0.127	0.2529	0.1626	0.2727
50 mph 270 deg with 0.75 in Radial Ice	50.00	0.017	0.0174	0.0288	0.0337
50 mph 270 deg with 0.75 in Radial Ice	75.00	0.031	0.0259	0.0284	0.0384
50 mph 270 deg with 0.75 in Radial Ice	87.50	0.038	0.0336	0.0333	0.0473
50 mph 270 deg with 0.75 in Radial Ice	100.00	0.046	0.0425	0.0366	0.0561
50 mph 270 deg with 0.75 in Radial Ice	112.50	0.054	0.0516	0.0374	0.0638
50 mph 270 deg with 0.75 in Radial Ice	137.50	0.074	0.0746	0.0474	0.0883
50 mph 270 deg with 0.75 in Radial Ice	150.00	0.085	0.0892	0.0383	0.0971
50 mph 270 deg with 0.75 in Radial Ice	160.17	0.094	0.1086	0.0531	0.1209
50 mph 270 deg with 0.75 in Radial Ice	170.33	0.103	0.1282	0.0276	0.1310
50 mph 270 deg with 0.75 in Radial Ice	187.50	0.119	0.1665	0.0718	0.1814
50 mph 315 deg with 0.75 in Radial Ice	50.00	0.019	0.0245	0.0307	0.0393
50 mph 315 deg with 0.75 in Radial Ice	75.00	0.033	0.0374	0.0364	0.0527
50 mph 315 deg with 0.75 in Radial Ice	87.50	0.041	0.0496	0.0368	0.0625
50 mph 315 deg with 0.75 in Radial Ice	100.00	0.049	0.0632	0.0419	0.0769
50 mph 315 deg with 0.75 in Radial Ice	112.50	0.058	0.0771	0.0458	0.0910
50 mph 315 deg with 0.75 in Radial Ice	137.50	0.079	0.1119	0.0544	0.1265
50 mph 315 deg with 0.75 in Radial Ice	150.00	0.091	0.1340	0.0574	0.1482
50 mph 315 deg with 0.75 in Radial Ice	160.17	0.100	0.1632	0.0574	0.1762
50 mph 315 deg with 0.75 in Radial Ice	170.33	0.110	0.1921	0.0640	0.2063
50 mph 315 deg with 0.75 in Radial Ice	187.50	0.127	0.2476	0.1626	0.2727
Seismic Normal M1	50.00	0.005	0.0006	0.0103	0.0103

Seismic Normal M1	75.00	0.010	0.0008	0.0136	0.0136
Seismic Normal M1	87.50	0.013	0.0010	0.0154	0.0154
Seismic Normal M1	100.00	0.017	0.0011	0.0179	0.0179
Seismic Normal M1	112.50	0.021	0.0012	0.0199	0.0200
Seismic Normal M1	137.50	0.031	0.0016	0.0252	0.0252
Seismic Normal M1	150.00	0.036	0.0017	0.0270	0.0271
Seismic Normal M1	160.17	0.041	0.0018	0.0290	0.0291
Seismic Normal M1	170.33	0.046	0.0019	0.0300	0.0300
Seismic Normal M1	187.50	0.055	0.0019	0.0310	0.0311
Seismic Normal M2	50.00	0.004	0.0006	0.0096	0.0096
Seismic Normal M2	75.00	0.009	0.0008	0.0135	0.0135
Seismic Normal M2	87.50	0.012	0.0010	0.0161	0.0161
Seismic Normal M2	100.00	0.016	0.0012	0.0191	0.0191
Seismic Normal M2	112.50	0.020	0.0014	0.0218	0.0219
Seismic Normal M2	137.50	0.032	0.0018	0.0291	0.0291
Seismic Normal M2	150.00	0.038	0.0020	0.0322	0.0323
Seismic Normal M2	160.17	0.044	0.0022	0.0356	0.0356
Seismic Normal M2	170.33	0.051	0.0023	0.0373	0.0374
Seismic Normal M2	187.50	0.062	0.0024	0.0392	0.0393
Seismic 45 deg M1	50.00	0.005	0.0009	0.0104	0.0104
Seismic 45 deg M1	75.00	0.010	0.0012	0.0136	0.0136
Seismic 45 deg M1	87.50	0.013	0.0013	0.0154	0.0154
Seismic 45 deg M1	100.00	0.017	0.0016	0.0180	0.0180
Seismic 45 deg M1	112.50	0.021	0.0017	0.0200	0.0200
Seismic 45 deg M1	137.50	0.031	0.0022	0.0253	0.0253
Seismic 45 deg M1	150.00	0.036	0.0024	0.0273	0.0273
Seismic 45 deg M1	160.17	0.041	0.0025	0.0292	0.0292
Seismic 45 deg M1	170.33	0.046	0.0026	0.0300	0.0300
Seismic 45 deg M1	187.50	0.055	0.0027	0.0312	0.0312
Seismic 45 deg M2	50.00	0.004	0.0008	0.0096	0.0096
Seismic 45 deg M2	75.00	0.009	0.0012	0.0135	0.0135
Seismic 45 deg M2	87.50	0.012	0.0014	0.0161	0.0161
Seismic 45 deg M2	100.00	0.016	0.0017	0.0192	0.0192
Seismic 45 deg M2	112.50	0.020	0.0019	0.0219	0.0219
Seismic 45 deg M2	137.50	0.032	0.0026	0.0292	0.0292
Seismic 45 deg M2	150.00	0.038	0.0028	0.0326	0.0326
Seismic 45 deg M2	160.17	0.045	0.0031	0.0357	0.0357
Seismic 45 deg M2	170.33	0.051	0.0033	0.0373	0.0373
Seismic 45 deg M2	187.50	0.062	0.0034	0.0394	0.0394
Seismic 90 deg M1	50.00	0.005	0.0006	0.0103	0.0103
Seismic 90 deg M1	75.00	0.010	0.0008	0.0136	0.0136
Seismic 90 deg M1	87.50	0.013	0.0010	0.0154	0.0154
Seismic 90 deg M1	100.00	0.017	0.0011	0.0179	0.0179
Seismic 90 deg M1	112.50	0.021	0.0012	0.0199	0.0200
Seismic 90 deg M1	137.50	0.031	0.0016	0.0252	0.0252
Seismic 90 deg M1	150.00	0.036	0.0017	0.0270	0.0271
Seismic 90 deg M1	160.17	0.041	0.0018	0.0290	0.0291
Seismic 90 deg M1	170.33	0.046	0.0019	0.0300	0.0300
Seismic 90 deg M1	187.50	0.055	0.0019	0.0310	0.0311
Seismic 90 deg M2	50.00	0.004	0.0006	0.0096	0.0096
Seismic 90 deg M2	75.00	0.009	0.0008	0.0135	0.0135
Seismic 90 deg M2	87.50	0.012	0.0010	0.0161	0.0161
Seismic 90 deg M2	100.00	0.016	0.0012	0.0191	0.0191
Seismic 90 deg M2	112.50	0.020	0.0014	0.0218	0.0219
Seismic 90 deg M2	137.50	0.032	0.0018	0.0291	0.0291
Seismic 90 deg M2	150.00	0.038	0.0020	0.0322	0.0323
Seismic 90 deg M2	160.17	0.044	0.0022	0.0356	0.0356
Seismic 90 deg M2	170.33	0.051	0.0023	0.0373	0.0374
Seismic 90 deg M2	187.50	0.062	0.0024	0.0392	0.0393
Seismic 135 deg M1	50.00	0.005	-0.0009	0.0104	0.0104
Seismic 135 deg M1	75.00	0.010	-0.0012	0.0136	0.0136
Seismic 135 deg M1	87.50	0.013	0.0013	0.0154	0.0154

Seismic 135 deg M1	100.00	0.017	0.0016	0.0180	0.0180
Seismic 135 deg M1	112.50	0.021	-0.0017	0.0200	0.0200
Seismic 135 deg M1	137.50	0.031	-0.0022	0.0253	0.0253
Seismic 135 deg M1	150.00	0.036	-0.0024	0.0273	0.0273
Seismic 135 deg M1	160.17	0.041	0.0025	0.0292	0.0292
Seismic 135 deg M1	170.33	0.046	0.0026	0.0300	0.0300
Seismic 135 deg M1	187.50	0.055	-0.0027	0.0312	0.0312
Seismic 135 deg M2	50.00	0.004	0.0008	0.0096	0.0096
Seismic 135 deg M2	75.00	0.009	-0.0012	0.0135	0.0135
Seismic 135 deg M2	87.50	0.012	0.0014	0.0161	0.0161
Seismic 135 deg M2	100.00	0.016	-0.0017	0.0192	0.0192
Seismic 135 deg M2	112.50	0.020	-0.0019	0.0219	0.0219
Seismic 135 deg M2	137.50	0.032	-0.0026	0.0292	0.0292
Seismic 135 deg M2	150.00	0.038	0.0028	0.0326	0.0326
Seismic 135 deg M2	160.17	0.045	0.0031	0.0357	0.0357
Seismic 135 deg M2	170.33	0.051	-0.0033	0.0373	0.0373
Seismic 135 deg M2	187.50	0.062	-0.0034	0.0394	0.0394
Seismic 180 deg M1	50.00	0.005	0.0006	0.0103	0.0103
Seismic 180 deg M1	75.00	0.010	0.0008	0.0136	0.0136
Seismic 180 deg M1	87.50	0.013	-0.0010	0.0154	0.0154
Seismic 180 deg M1	100.00	0.017	-0.0011	0.0179	0.0179
Seismic 180 deg M1	112.50	0.021	-0.0012	0.0199	0.0200
Seismic 180 deg M1	137.50	0.031	0.0016	0.0252	0.0252
Seismic 180 deg M1	150.00	0.036	-0.0017	0.0270	0.0271
Seismic 180 deg M1	160.17	0.041	0.0018	0.0290	0.0291
Seismic 180 deg M1	170.33	0.046	0.0019	0.0300	0.0300
Seismic 180 deg M1	187.50	0.055	0.0019	0.0310	0.0311
Seismic 180 deg M2	50.00	0.004	0.0006	0.0096	0.0096
Seismic 180 deg M2	75.00	0.009	0.0008	0.0135	0.0135
Seismic 180 deg M2	87.50	0.012	-0.0010	0.0161	0.0161
Seismic 180 deg M2	100.00	0.016	0.0012	0.0191	0.0191
Seismic 180 deg M2	112.50	0.020	-0.0014	0.0218	0.0219
Seismic 180 deg M2	137.50	0.032	0.0018	0.0291	0.0291
Seismic 180 deg M2	150.00	0.038	0.0020	0.0322	0.0323
Seismic 180 deg M2	160.17	0.044	-0.0022	0.0356	0.0356
Seismic 180 deg M2	170.33	0.051	0.0023	0.0373	0.0374
Seismic 180 deg M2	187.50	0.062	-0.0024	0.0392	0.0393
Seismic 225 deg M1	50.00	0.005	0.0009	0.0104	0.0104
Seismic 225 deg M1	75.00	0.010	0.0012	0.0136	0.0136
Seismic 225 deg M1	87.50	0.013	0.0013	0.0154	0.0154
Seismic 225 deg M1	100.00	0.017	0.0016	0.0180	0.0180
Seismic 225 deg M1	112.50	0.021	0.0017	0.0200	0.0200
Seismic 225 deg M1	137.50	0.031	0.0022	0.0253	0.0253
Seismic 225 deg M1	150.00	0.036	0.0024	0.0273	0.0273
Seismic 225 deg M1	160.17	0.041	0.0025	0.0292	0.0292
Seismic 225 deg M1	170.33	0.046	0.0026	0.0300	0.0300
Seismic 225 deg M1	187.50	0.055	0.0027	0.0312	0.0312
Seismic 225 deg M2	50.00	0.004	0.0008	0.0096	0.0096
Seismic 225 deg M2	75.00	0.009	0.0012	0.0135	0.0135
Seismic 225 deg M2	87.50	0.012	0.0014	0.0161	0.0161
Seismic 225 deg M2	100.00	0.016	0.0017	0.0192	0.0192
Seismic 225 deg M2	112.50	0.020	0.0019	0.0219	0.0219
Seismic 225 deg M2	137.50	0.032	0.0026	0.0292	0.0292
Seismic 225 deg M2	150.00	0.038	0.0028	0.0326	0.0326
Seismic 225 deg M2	160.17	0.045	0.0031	0.0357	0.0357
Seismic 225 deg M2	170.33	0.051	0.0033	0.0373	0.0373
Seismic 225 deg M2	187.50	0.062	0.0034	0.0394	0.0394
Seismic 270 deg M1	50.00	0.005	0.0006	0.0103	0.0103
Seismic 270 deg M1	75.00	0.010	0.0008	0.0136	0.0136
Seismic 270 deg M1	87.50	0.013	0.0010	0.0154	0.0154
Seismic 270 deg M1	100.00	0.017	0.0011	0.0179	0.0179
Seismic 270 deg M1	112.50	0.021	0.0012	0.0199	0.0200

Seismic 270 deg M1	137.50	0.031	0.0016	0.0252	0.0252
Seismic 270 deg M1	150.00	0.036	0.0017	0.0270	0.0271
Seismic 270 deg M1	160.17	0.041	0.0018	0.0290	0.0291
Seismic 270 deg M1	170.33	0.046	0.0019	0.0300	0.0300
Seismic 270 deg M1	187.50	0.055	0.0019	0.0310	0.0311
Seismic 270 deg M2	50.00	0.004	0.0006	0.0096	0.0096
Seismic 270 deg M2	75.00	0.009	0.0008	0.0135	0.0135
Seismic 270 deg M2	87.50	0.012	0.0010	0.0161	0.0161
Seismic 270 deg M2	100.00	0.016	0.0012	0.0191	0.0191
Seismic 270 deg M2	112.50	0.020	0.0014	0.0218	0.0219
Seismic 270 deg M2	137.50	0.032	0.0018	0.0291	0.0291
Seismic 270 deg M2	150.00	0.038	0.0020	0.0322	0.0323
Seismic 270 deg M2	160.17	0.044	0.0022	0.0356	0.0356
Seismic 270 deg M2	170.33	0.051	0.0023	0.0373	0.0374
Seismic 270 deg M2	187.50	0.062	0.0024	0.0392	0.0393
Seismic 315 deg M1	50.00	0.005	0.0009	0.0104	0.0104
Seismic 315 deg M1	75.00	0.010	0.0012	0.0136	0.0136
Seismic 315 deg M1	87.50	0.013	0.0013	0.0154	0.0154
Seismic 315 deg M1	100.00	0.017	0.0016	0.0180	0.0180
Seismic 315 deg M1	112.50	0.021	0.0017	0.0200	0.0200
Seismic 315 deg M1	137.50	0.031	0.0022	0.0253	0.0253
Seismic 315 deg M1	150.00	0.036	0.0024	0.0273	0.0273
Seismic 315 deg M1	160.17	0.041	0.0025	0.0292	0.0292
Seismic 315 deg M1	170.33	0.046	0.0026	0.0300	0.0300
Seismic 315 deg M1	187.50	0.055	0.0027	0.0312	0.0312
Seismic 315 deg M2	50.00	0.004	0.0008	0.0096	0.0096
Seismic 315 deg M2	75.00	0.009	0.0012	0.0135	0.0135
Seismic 315 deg M2	87.50	0.012	0.0014	0.0161	0.0161
Seismic 315 deg M2	100.00	0.016	0.0017	0.0192	0.0192
Seismic 315 deg M2	112.50	0.020	0.0019	0.0219	0.0219
Seismic 315 deg M2	137.50	0.032	0.0026	0.0292	0.0292
Seismic 315 deg M2	150.00	0.038	0.0028	0.0326	0.0326
Seismic 315 deg M2	160.17	0.045	0.0031	0.0357	0.0357
Seismic 315 deg M2	170.33	0.051	0.0033	0.0373	0.0373
Seismic 315 deg M2	187.50	0.062	0.0034	0.0394	0.0394
Seismic (Reduced DL) Normal M1	50.00	0.005	0.0006	0.0102	0.0102
Seismic (Reduced DL) Normal M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) Normal M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) Normal M1	100.00	0.017	0.0011	0.0177	0.0178
Seismic (Reduced DL) Normal M1	112.50	0.021	0.0012	0.0198	0.0198
Seismic (Reduced DL) Normal M1	137.50	0.030	0.0016	0.0251	0.0251
Seismic (Reduced DL) Normal M1	150.00	0.036	0.0017	0.0270	0.0270
Seismic (Reduced DL) Normal M1	160.17	0.041	0.0018	0.0288	0.0289
Seismic (Reduced DL) Normal M1	170.33	0.046	0.0019	0.0298	0.0298
Seismic (Reduced DL) Normal M1	187.50	0.055	0.0019	0.0308	0.0308
Seismic (Reduced DL) Normal M2	50.00	0.004	0.0006	0.0095	0.0095
Seismic (Reduced DL) Normal M2	75.00	0.009	0.0008	0.0134	0.0134
Seismic (Reduced DL) Normal M2	87.50	0.012	0.0010	0.0160	0.0160
Seismic (Reduced DL) Normal M2	100.00	0.016	0.0012	0.0189	0.0190
Seismic (Reduced DL) Normal M2	112.50	0.020	0.0013	0.0217	0.0218
Seismic (Reduced DL) Normal M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) Normal M2	150.00	0.038	0.0020	0.0322	0.0322
Seismic (Reduced DL) Normal M2	160.17	0.044	0.0022	0.0354	0.0355
Seismic (Reduced DL) Normal M2	170.33	0.051	0.0023	0.0371	0.0372
Seismic (Reduced DL) Normal M2	187.50	0.062	0.0024	0.0390	0.0390
Seismic (Reduced DL) 45 deg M1	50.00	0.005	0.0009	0.0102	0.0102
Seismic (Reduced DL) 45 deg M1	75.00	0.010	0.0012	0.0135	0.0135
Seismic (Reduced DL) 45 deg M1	87.50	0.013	0.0013	0.0153	0.0153
Seismic (Reduced DL) 45 deg M1	100.00	0.017	0.0015	0.0178	0.0178
Seismic (Reduced DL) 45 deg M1	112.50	0.021	0.0017	0.0198	0.0198
Seismic (Reduced DL) 45 deg M1	137.50	0.030	0.0022	0.0252	0.0252
Seismic (Reduced DL) 45 deg M1	150.00	0.036	0.0024	0.0272	0.0272

Seismic (Reduced DL) 45 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 45 deg M1	170.33	0.046	0.0026	0.0298	0.0298
Seismic (Reduced DL) 45 deg M1	187.50	0.055	0.0027	0.0309	0.0309
Seismic (Reduced DL) 45 deg M2	50.00	0.004	0.0008	0.0094	0.0094
Seismic (Reduced DL) 45 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 45 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 45 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Seismic (Reduced DL) 45 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 45 deg M2	137.50	0.032	0.0025	0.0291	0.0291
Seismic (Reduced DL) 45 deg M2	150.00	0.038	0.0028	0.0325	0.0325
Seismic (Reduced DL) 45 deg M2	160.17	0.044	0.0031	0.0355	0.0355
Seismic (Reduced DL) 45 deg M2	170.33	0.051	0.0033	0.0371	0.0372
Seismic (Reduced DL) 45 deg M2	187.50	0.062	0.0034	0.0391	0.0391
Seismic (Reduced DL) 90 deg M1	50.00	0.005	0.0006	0.0102	0.0102
Seismic (Reduced DL) 90 deg M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) 90 deg M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) 90 deg M1	100.00	0.017	0.0011	0.0177	0.0178
Seismic (Reduced DL) 90 deg M1	112.50	0.021	0.0012	0.0198	0.0198
Seismic (Reduced DL) 90 deg M1	137.50	0.030	0.0016	0.0251	0.0251
Seismic (Reduced DL) 90 deg M1	150.00	0.036	0.0017	0.0270	0.0270
Seismic (Reduced DL) 90 deg M1	160.17	0.041	0.0018	0.0288	0.0289
Seismic (Reduced DL) 90 deg M1	170.33	0.046	0.0019	0.0298	0.0298
Seismic (Reduced DL) 90 deg M1	187.50	0.055	0.0019	0.0308	0.0308
Seismic (Reduced DL) 90 deg M2	50.00	0.004	0.0006	0.0095	0.0095
Seismic (Reduced DL) 90 deg M2	75.00	0.009	0.0008	0.0134	0.0134
Seismic (Reduced DL) 90 deg M2	87.50	0.012	0.0010	0.0160	0.0160
Seismic (Reduced DL) 90 deg M2	100.00	0.016	0.0012	0.0189	0.0190
Seismic (Reduced DL) 90 deg M2	112.50	0.020	0.0013	0.0217	0.0218
Seismic (Reduced DL) 90 deg M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) 90 deg M2	150.00	0.038	0.0020	0.0322	0.0322
Seismic (Reduced DL) 90 deg M2	160.17	0.044	0.0022	0.0354	0.0355
Seismic (Reduced DL) 90 deg M2	170.33	0.051	0.0023	0.0371	0.0372
Seismic (Reduced DL) 90 deg M2	187.50	0.062	0.0024	0.0390	0.0390
Seismic (Reduced DL) 135 deg M1	50.00	0.005	-0.0009	0.0102	0.0102
Seismic (Reduced DL) 135 deg M1	75.00	0.010	-0.0012	0.0135	0.0135
Seismic (Reduced DL) 135 deg M1	87.50	0.013	0.0013	0.0153	0.0153
Seismic (Reduced DL) 135 deg M1	100.00	0.017	-0.0015	0.0178	0.0178
Seismic (Reduced DL) 135 deg M1	112.50	0.021	0.0017	0.0198	0.0198
Seismic (Reduced DL) 135 deg M1	137.50	0.030	-0.0022	0.0252	0.0252
Seismic (Reduced DL) 135 deg M1	150.00	0.036	-0.0024	0.0272	0.0272
Seismic (Reduced DL) 135 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 135 deg M1	170.33	0.046	-0.0026	0.0298	0.0298
Seismic (Reduced DL) 135 deg M1	187.50	0.055	-0.0027	0.0309	0.0309
Seismic (Reduced DL) 135 deg M2	50.00	0.004	0.0008	0.0094	0.0094
Seismic (Reduced DL) 135 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 135 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 135 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Seismic (Reduced DL) 135 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 135 deg M2	137.50	0.032	-0.0025	0.0291	0.0291
Seismic (Reduced DL) 135 deg M2	150.00	0.038	0.0028	0.0325	0.0325
Seismic (Reduced DL) 135 deg M2	160.17	0.044	0.0031	0.0355	0.0355
Seismic (Reduced DL) 135 deg M2	170.33	0.051	0.0033	0.0371	0.0372
Seismic (Reduced DL) 135 deg M2	187.50	0.062	-0.0034	0.0391	0.0391
Seismic (Reduced DL) 180 deg M1	50.00	0.005	-0.0006	0.0102	0.0102
Seismic (Reduced DL) 180 deg M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) 180 deg M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) 180 deg M1	100.00	0.017	-0.0011	0.0177	0.0178
Seismic (Reduced DL) 180 deg M1	112.50	0.021	-0.0012	0.0198	0.0198
Seismic (Reduced DL) 180 deg M1	137.50	0.030	-0.0016	0.0251	0.0251
Seismic (Reduced DL) 180 deg M1	150.00	0.036	-0.0017	0.0270	0.0270
Seismic (Reduced DL) 180 deg M1	160.17	0.041	0.0018	0.0288	0.0289
Seismic (Reduced DL) 180 deg M1	170.33	0.046	-0.0019	0.0298	0.0298

Seismic (Reduced DL) 180 deg M1	187.50	0.055	-0.0019	0.0308	0.0308
Seismic (Reduced DL) 180 deg M2	50.00	0.004	0.0006	0.0095	0.0095
Seismic (Reduced DL) 180 deg M2	75.00	0.009	0.0008	0.0134	0.0134
Seismic (Reduced DL) 180 deg M2	87.50	0.012	0.0010	0.0160	0.0160
Seismic (Reduced DL) 180 deg M2	100.00	0.016	-0.0012	0.0189	0.0190
Seismic (Reduced DL) 180 deg M2	112.50	0.020	-0.0013	0.0217	0.0218
Seismic (Reduced DL) 180 deg M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) 180 deg M2	150.00	0.038	-0.0020	0.0322	0.0322
Seismic (Reduced DL) 180 deg M2	160.17	0.044	0.0022	0.0354	0.0355
Seismic (Reduced DL) 180 deg M2	170.33	0.051	-0.0023	0.0371	0.0372
Seismic (Reduced DL) 180 deg M2	187.50	0.062	0.0024	0.0390	0.0390
Seismic (Reduced DL) 225 deg M1	50.00	0.005	0.0009	0.0102	0.0102
Seismic (Reduced DL) 225 deg M1	75.00	0.010	0.0012	0.0135	0.0135
Seismic (Reduced DL) 225 deg M1	87.50	0.013	0.0013	0.0153	0.0153
Seismic (Reduced DL) 225 deg M1	100.00	0.017	0.0015	0.0178	0.0178
Seismic (Reduced DL) 225 deg M1	112.50	0.021	0.0017	0.0198	0.0198
Seismic (Reduced DL) 225 deg M1	137.50	0.030	0.0022	0.0252	0.0252
Seismic (Reduced DL) 225 deg M1	150.00	0.036	0.0024	0.0272	0.0272
Seismic (Reduced DL) 225 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 225 deg M1	170.33	0.046	0.0026	0.0298	0.0298
Seismic (Reduced DL) 225 deg M1	187.50	0.055	0.0027	0.0309	0.0309
Seismic (Reduced DL) 225 deg M2	50.00	0.004	0.0008	0.0094	0.0094
Seismic (Reduced DL) 225 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 225 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 225 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Seismic (Reduced DL) 225 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 225 deg M2	137.50	0.032	0.0025	0.0291	0.0291
Seismic (Reduced DL) 225 deg M2	150.00	0.038	0.0028	0.0325	0.0325
Seismic (Reduced DL) 225 deg M2	160.17	0.044	0.0031	0.0355	0.0355
Seismic (Reduced DL) 225 deg M2	170.33	0.051	0.0033	0.0371	0.0372
Seismic (Reduced DL) 225 deg M2	187.50	0.062	0.0034	0.0391	0.0391
Seismic (Reduced DL) 270 deg M1	50.00	0.005	0.0006	0.0102	0.0102
Seismic (Reduced DL) 270 deg M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) 270 deg M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) 270 deg M1	100.00	0.017	0.0011	0.0177	0.0178
Seismic (Reduced DL) 270 deg M1	112.50	0.021	0.0012	0.0198	0.0198
Seismic (Reduced DL) 270 deg M1	137.50	0.030	0.0016	0.0251	0.0251
Seismic (Reduced DL) 270 deg M1	150.00	0.036	0.0017	0.0270	0.0270
Seismic (Reduced DL) 270 deg M1	160.17	0.041	0.0018	0.0288	0.0289
Seismic (Reduced DL) 270 deg M1	170.33	0.046	0.0019	0.0298	0.0298
Seismic (Reduced DL) 270 deg M1	187.50	0.055	0.0019	0.0308	0.0308
Seismic (Reduced DL) 270 deg M2	50.00	0.004	0.0006	0.0095	0.0095
Seismic (Reduced DL) 270 deg M2	75.00	0.009	0.0008	0.0134	0.0134
Seismic (Reduced DL) 270 deg M2	87.50	0.012	0.0010	0.0160	0.0160
Seismic (Reduced DL) 270 deg M2	100.00	0.016	0.0012	0.0189	0.0190
Seismic (Reduced DL) 270 deg M2	112.50	0.020	0.0013	0.0217	0.0218
Seismic (Reduced DL) 270 deg M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) 270 deg M2	150.00	0.038	0.0020	0.0322	0.0322
Seismic (Reduced DL) 270 deg M2	160.17	0.044	0.0022	0.0354	0.0355
Seismic (Reduced DL) 270 deg M2	170.33	0.051	0.0023	0.0371	0.0372
Seismic (Reduced DL) 270 deg M2	187.50	0.062	0.0024	0.0390	0.0390
Seismic (Reduced DL) 315 deg M1	50.00	0.005	0.0009	0.0102	0.0102
Seismic (Reduced DL) 315 deg M1	75.00	0.010	0.0012	0.0135	0.0135
Seismic (Reduced DL) 315 deg M1	87.50	0.013	0.0013	0.0153	0.0153
Seismic (Reduced DL) 315 deg M1	100.00	0.017	0.0015	0.0178	0.0178
Seismic (Reduced DL) 315 deg M1	112.50	0.021	0.0017	0.0198	0.0198
Seismic (Reduced DL) 315 deg M1	137.50	0.030	0.0022	0.0252	0.0252
Seismic (Reduced DL) 315 deg M1	150.00	0.036	0.0024	0.0272	0.0272
Seismic (Reduced DL) 315 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 315 deg M1	170.33	0.046	0.0026	0.0298	0.0298
Seismic (Reduced DL) 315 deg M1	187.50	0.055	0.0027	0.0309	0.0309
Seismic (Reduced DL) 315 deg M2	50.00	0.004	0.0008	0.0094	0.0094

Seismic (Reduced DL) 315 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 315 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 315 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Seismic (Reduced DL) 315 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 315 deg M2	137.50	0.032	0.0025	0.0291	0.0291
Seismic (Reduced DL) 315 deg M2	150.00	0.038	0.0028	0.0325	0.0325
Seismic (Reduced DL) 315 deg M2	160.17	0.044	0.0031	0.0355	0.0355
Seismic (Reduced DL) 315 deg M2	170.33	0.051	0.0033	0.0371	0.0372
Seismic (Reduced DL) 315 deg M2	187.50	0.062	0.0034	0.0391	0.0391
Serviceability - 60 mph Wind Normal	50.00	0.011	0.0241	0.0223	0.0328
Serviceability - 60 mph Wind Normal	75.00	0.022	0.0373	0.0306	0.0482
Serviceability - 60 mph Wind Normal	87.50	0.027	-0.0509	0.0307	0.0594
Serviceability - 60 mph Wind Normal	100.00	0.034	0.0664	0.0320	0.0737
Serviceability - 60 mph Wind Normal	112.50	0.041	-0.0814	0.0537	0.0975
Serviceability - 60 mph Wind Normal	137.50	0.057	0.1082	0.0476	0.1182
Serviceability - 60 mph Wind Normal	150.00	0.067	0.1252	0.0603	0.1390
Serviceability - 60 mph Wind Normal	160.17	0.075	0.1473	0.0480	0.1549
Serviceability - 60 mph Wind Normal	170.33	0.082	-0.1693	0.0762	0.1856
Serviceability - 60 mph Wind Normal	187.50	0.096	0.2121	0.1795	0.2778
Serviceability - 60 mph Wind 45 deg	50.00	0.012	0.0391	0.0226	0.0451
Serviceability - 60 mph Wind 45 deg	75.00	0.023	0.0598	0.0277	0.0659
Serviceability - 60 mph Wind 45 deg	87.50	0.029	0.0809	0.0293	0.0860
Serviceability - 60 mph Wind 45 deg	100.00	0.035	0.1051	0.0332	0.1102
Serviceability - 60 mph Wind 45 deg	112.50	0.043	0.1284	0.0412	0.1347
Serviceability - 60 mph Wind 45 deg	137.50	0.060	0.1710	0.0459	0.1770
Serviceability - 60 mph Wind 45 deg	150.00	0.070	0.1974	0.0508	0.2038
Serviceability - 60 mph Wind 45 deg	160.17	0.078	0.2314	0.0496	0.2366
Serviceability - 60 mph Wind 45 deg	170.33	0.086	0.2646	0.0594	0.2712
Serviceability - 60 mph Wind 45 deg	187.50	0.101	0.3278	0.1725	0.3451
Serviceability - 60 mph Wind 90 deg	50.00	0.011	0.0267	0.0205	0.0337
Serviceability - 60 mph Wind 90 deg	75.00	0.022	-0.0404	0.0205	0.0454
Serviceability - 60 mph Wind 90 deg	87.50	0.027	-0.0542	0.0236	0.0591
Serviceability - 60 mph Wind 90 deg	100.00	0.034	0.0702	0.0306	0.0765
Serviceability - 60 mph Wind 90 deg	112.50	0.041	-0.0856	0.0136	0.0867
Serviceability - 60 mph Wind 90 deg	137.50	0.057	-0.1133	0.0358	0.1188
Serviceability - 60 mph Wind 90 deg	150.00	0.066	0.1305	0.0257	0.1331
Serviceability - 60 mph Wind 90 deg	160.17	0.074	-0.1528	0.0436	0.1589
Serviceability - 60 mph Wind 90 deg	170.33	0.082	0.1749	0.0142	0.1755
Serviceability - 60 mph Wind 90 deg	187.50	0.095	-0.2178	0.0916	0.2361
Serviceability - 60 mph Wind 135 deg	50.00	0.012	0.0385	0.0226	0.0451
Serviceability - 60 mph Wind 135 deg	75.00	0.023	0.0589	0.0277	0.0659
Serviceability - 60 mph Wind 135 deg	87.50	0.029	0.0796	0.0293	0.0860
Serviceability - 60 mph Wind 135 deg	100.00	0.035	0.1034	0.0332	0.1102
Serviceability - 60 mph Wind 135 deg	112.50	0.043	0.1263	0.0412	0.1347
Serviceability - 60 mph Wind 135 deg	137.50	0.060	0.1681	0.0459	0.1770
Serviceability - 60 mph Wind 135 deg	150.00	0.070	0.1941	0.0508	0.2038
Serviceability - 60 mph Wind 135 deg	160.17	0.078	0.2275	0.0496	0.2366
Serviceability - 60 mph Wind 135 deg	170.33	0.086	0.2601	0.0594	0.2712
Serviceability - 60 mph Wind 135 deg	187.50	0.101	0.3221	0.1725	0.3451
Serviceability - 60 mph Wind 180 deg	50.00	0.011	0.0241	0.0223	0.0328
Serviceability - 60 mph Wind 180 deg	75.00	0.022	0.0373	0.0306	0.0482
Serviceability - 60 mph Wind 180 deg	87.50	0.027	0.0509	0.0307	0.0594
Serviceability - 60 mph Wind 180 deg	100.00	0.034	0.0664	0.0320	0.0737
Serviceability - 60 mph Wind 180 deg	112.50	0.041	0.0814	0.0537	0.0975
Serviceability - 60 mph Wind 180 deg	137.50	0.057	0.1082	0.0476	0.1182
Serviceability - 60 mph Wind 180 deg	150.00	0.067	0.1252	0.0603	0.1390
Serviceability - 60 mph Wind 180 deg	160.17	0.075	0.1473	0.0480	0.1549
Serviceability - 60 mph Wind 180 deg	170.33	0.082	0.1693	0.0762	0.1856
Serviceability - 60 mph Wind 180 deg	187.50	0.096	0.2121	0.1795	0.2778
Serviceability - 60 mph Wind 225 deg	50.00	0.012	0.0391	0.0226	0.0451
Serviceability - 60 mph Wind 225 deg	75.00	0.023	0.0598	0.0277	0.0659
Serviceability - 60 mph Wind 225 deg	87.50	0.029	0.0809	0.0293	0.0860

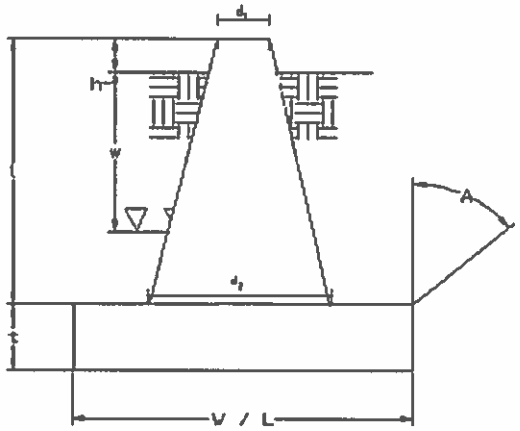
Serviceability - 60 mph Wind 225 deg	100.00	0.035	0.1051	0.0332	0.1102
Serviceability - 60 mph Wind 225 deg	112.50	0.043	0.1284	0.0412	0.1347
Serviceability - 60 mph Wind 225 deg	137.50	0.060	0.1710	0.0459	0.1770
Serviceability - 60 mph Wind 225 deg	150.00	0.070	0.1974	0.0508	0.2038
Serviceability - 60 mph Wind 225 deg	160.17	0.078	0.2314	0.0496	0.2366
Serviceability - 60 mph Wind 225 deg	170.33	0.086	0.2646	0.0594	0.2712
Serviceability - 60 mph Wind 225 deg	187.50	0.101	0.3278	0.1725	0.3451
Serviceability - 60 mph Wind 270 deg	50.00	0.011	0.0267	0.0205	0.0337
Serviceability - 60 mph Wind 270 deg	75.00	0.022	0.0404	0.0205	0.0454
Serviceability - 60 mph Wind 270 deg	87.50	0.027	0.0542	0.0236	0.0591
Serviceability - 60 mph Wind 270 deg	100.00	0.034	0.0702	0.0306	0.0765
Serviceability - 60 mph Wind 270 deg	112.50	0.041	0.0856	0.0136	0.0867
Serviceability - 60 mph Wind 270 deg	137.50	0.057	0.1133	0.0358	0.1188
Serviceability - 60 mph Wind 270 deg	150.00	0.066	0.1305	0.0257	0.1331
Serviceability - 60 mph Wind 270 deg	160.17	0.074	0.1528	0.0436	0.1589
Serviceability - 60 mph Wind 270 deg	170.33	0.082	0.1749	0.0142	0.1755
Serviceability - 60 mph Wind 270 deg	187.50	0.095	0.2178	0.0916	0.2361
Serviceability - 60 mph Wind 315 deg	50.00	0.012	0.0385	0.0226	0.0451
Serviceability - 60 mph Wind 315 deg	75.00	0.023	0.0589	0.0277	0.0659
Serviceability - 60 mph Wind 315 deg	87.50	0.029	0.0796	0.0293	0.0860
Serviceability - 60 mph Wind 315 deg	100.00	0.035	0.1034	0.0332	0.1102
Serviceability - 60 mph Wind 315 deg	112.50	0.043	0.1263	0.0412	0.1347
Serviceability - 60 mph Wind 315 deg	137.50	0.060	0.1681	0.0459	0.1770
Serviceability - 60 mph Wind 315 deg	150.00	0.070	0.1941	0.0508	0.2038
Serviceability - 60 mph Wind 315 deg	160.17	0.078	0.2275	0.0496	0.2366
Serviceability - 60 mph Wind 315 deg	170.33	0.086	0.2601	0.0594	0.2712
Serviceability - 60 mph Wind 315 deg	187.50	0.101	0.3221	0.1725	0.3451

Site Name:	New Fairfield, CT	*Program Last Updated:* *9/27/2016*
Site Number:	88014	*American Tower Corporation*
Engineering Number:	OAA723223	
Engineer:	Aaron.Black	
Date:	02/28/18	

Foundation

Design Loads (Factored)

Compression/Leg:	209.01	k
Uplift/Leg:	152.91	k
Face Width @ Top of Pier (d_1):	3.58	ft
Face Width @ Bottom of Pier (d_2):	6.00	ft
Total Length of Pier (l):	6.50	ft
Height of Pedestal Above Ground (h):	0.63	ft
Width of Pad (W):	16.00	ft
Length of Pad (L):	16.00	ft
Thickness of Pad (t):	3.00	ft
Water Table Depth (w):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	120.0	pcf
Unit Weight of Soil (Below Water Table):	55.0	pcf
Friction Angle of Uplift (A):	22	°
Ultimate Compressive Bearing Pressure:	4500	psf
Ultimate Skin Friction:	0	psf



Volume Pier (Total):	152.40	ft^3
Volume Pad (Total):	768.00	ft^3
Volume Soil (Total):	1841.06	ft^3
Volume Pier (Buoyant):	0.00	ft^3
Volume Pad (Buoyant):	0.00	ft^3
Volume Soil (Buoyant):	0.00	ft^3
Weight Pier:	22.86	k
Weight Pad:	115.20	k
Weight Soil:	220.93	k

Ultimate Skin Friction:	0.00	k
Difference in Soil Volume	572.10	ft^3
Difference in Soil Volume	84.83	ft^3
Difference in Soil Weight:	78.83	k

Uplift Check

ϕs Uplift Resistance	Ratio	Result
269.24	0.57	OK

Axial Check

ϕs Axial Resistance	Ratio	Result
864.00	0.24	OK

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

T-Mobile Existing Facility

Site ID: CT11106A

New Fairfield (AT&T)
16 Titicus Mountain Road
New Fairfield, CT 06812

March 2, 2018

EBI Project Number: 6218000557

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	8.680%

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

EBI Consulting
environmental | engineering | due diligence

March 2, 2018

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

Emissions Analysis for Site: **CT11106A – New Fairfield (AT&T)**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **16 Titicus Mountain Road, New Fairfield, 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 $\mu W/cm^2$ 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 population 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 population 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.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the 700 MHz Band is approximately 467 $\mu W/cm^2$, and the general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 10 GHz microwave bands is 1000 $\mu W/cm^2$. 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 **16 Titicus Mountain Road, New Fairfield, 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 and microwave 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 for panel antennas and 20 dB for parabolic microwave antennas, 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 (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

3) 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.

4) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

5) 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

6) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

7) 1 microwave backhaul channel (10 GHz) was considered for the microwave Link. This channel has a transmit power of 0.63 Watts.

8) 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.

9) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for panel antennas and 20 dB for parabolic microwave antennas, 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.

10) The antennas used in this modeling are the **Ericsson AIR21 B4A/B2P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **Commscope LNX-6515DS-A1M** for 700 MHz channels and the **RFS SC2-W100AB** for 10 GHz microwave backhaul. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR21 B4A/B2P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. the **RFS SC2-W100AB antenna** has a maximum gain of **31.65 dBd** at 10 GHz**.** The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for panel antennas and 20 dB for parabolic microwave antennas, 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.

11) The antenna mounting height centerlines of the proposed antennas are **193 feet & 191 feet** above ground level (AGL) for all standard panel antennas and **193 feet** above ground level for the proposed 10 GHz parabolic microwave antenna.

12) 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.

13) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	193	Height (AGL):	193	Height (AGL):	193
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	2	Channel Count	2	Channel Count	2
Total TX Power(W):	120	Total TX Power(W):	120	Total TX Power(W):	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE%	0.480	Antenna B1 MPE%	0.480	Antenna C1 MPE%	0.480
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	193	Height (AGL):	193	Height (AGL):	193
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(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	7,002.81	ERP (W):	7,002.81	ERP (W):	7,002.81
Antenna A2 MPE%	0.720	Antenna B2 MPE%	0.720	Antenna C2 MPE%	0.720
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	191	Height (AGL):	191	Height (AGL):	191
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.195	Antenna B3 MPE%	0.195	Antenna C3 MPE%	0.195

Antenna #:	**4 (Microwave)**
Make / Model:	RFS SC2-W100AB
Gain:	31.65 dBd
Height (AGL):	193
Frequency Bands	10.0 GHz
Channel Count	1
Total TX Power(W):	0.63
ERP (W):	1083.2 W
Antenna A4 MPE%	0.114

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile (Sector A)	**1.510%**
Sprint	0.580%
Clearwire	0.060%
Verizon Wireless	3.290%
AT&T	1.800%
Dept Homeland Security - ICE	1.440%
Site Total MPE %:	**8.68%**

T-Mobile Sector A Total:	1.510%
T-Mobile Sector B Total:	1.395%
T-Mobile Sector C Total:	1.395%
Site Total:	8.68%

T-Mobile Per Sector Maximum Power Values

T-Mobile _Max Values per sector (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	193	4.80	AWS - 2100 MHz	1000	0.480%
T-Mobile AWS - 2100 MHz UMTS	2	1,167.14	193	2.40	AWS - 2100 MHz	1000	0.240%
T-Mobile PCS - 1900 MHz UMTS	2	1,167.14	193	2.40	PCS - 1900 MHz	1000	0.240%
T-Mobile PCS - 1900 MHz GSM	2	1,167.14	193	2.40	PCS - 1900 MHz	1000	0.240%
T-Mobile 700 MHz LTE	1	865.21	191	0.91	700 MHz	467	0.195%
T-Mobile 10 GHz Microwave	1	10	193	0.25	5 GHz Microwave	1000	0.114%
						Total*:	**1.510%**

*NOTE: Totals may vary by 0.01% due to summing of remainders

Summary

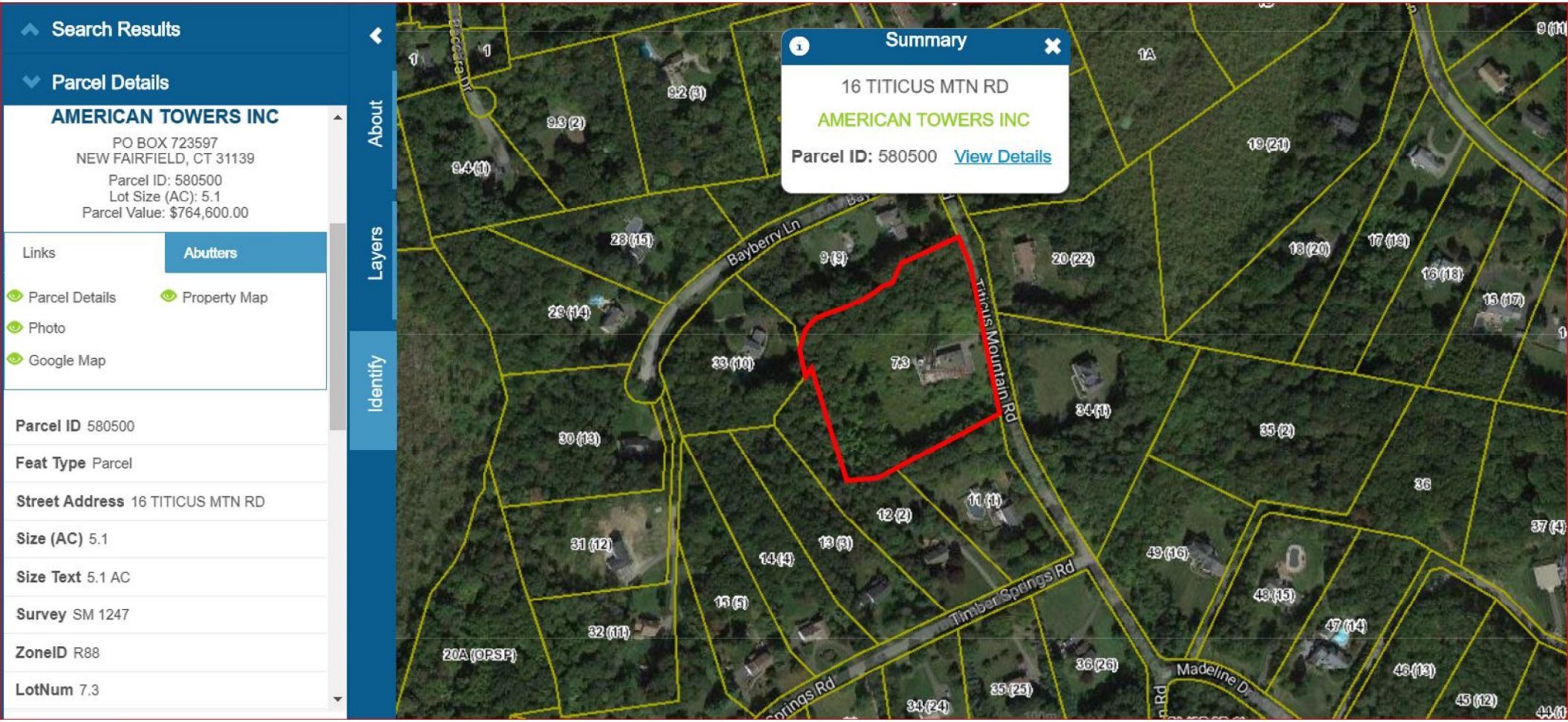
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

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 population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	1.510%
Sector B:	1.395%
Sector C:	1.395%
T-Mobile Per Sector Maximum:	1.510%
Site Total:	8.680%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **8.680%** of the allowable FCC established general population 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.


Search Results
Parcel Details
AMERICAN TOWERS INC
PO BOX 723597
NEW FAIRFIELD, CT 31139
Parcel ID: 580500
Lot Size (AC): 5.1
Parcel Value: $764,600.00
Links
Abutters
Parcel Details
Property Map
Photo
Google Map
Parcel ID 580500
Feat Type Parcel
Street Address 16 TITICUS MTN RD
Size (AC) 5.1
Size Text 5.1 AC
Survey SM 1247
ZoneID R88
LotNum 7.3
About
Layers
Identify
Summary
16 TITICUS MTN RD
AMERICAN TOWERS INC
Parcel ID: 580500 View Details
Bayberry Ln
Titicus Mountain Rd
Timber Springs Rd
Madeline Dr
7.3
9 (9)
28 (15)
29 (14)
33 (10)
30 (13)
31 (12)
32 (11)
20A (OPSF)
12 (2)
11 (1)
13 (3)
14 (4)
15 (5)
34 (1)
35 (2)
36
49 (16)
48 (15)
47 (14)
46 (13)
45 (12)
36 (26)
35 (25)
34 (24)
20 (22)
19 (21)
18 (20)
17 (19)
16 (18)
15 (17)
9.2 (3)
9.3 (2)
9.4 (1)

16 TITICUS MTN RD

Location	16 TITICUS MTN RD	**Mblu**	27/ 2/ 7.3/ /
Acct#	00580500	**Owner**	AMERICAN TOWERS INC
Assessment	$764,600	**Appraisal**	$1,092,300
PID	5837	**Building Count**	1

Assessing Distr...

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$835,100	$257,200	$1,092,300

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$584,600	$180,000	$764,600

Owner of Record

Owner	AMERICAN TOWERS INC	**Sale Price**	$359,641
Co-Owner	C/O AMERICAN TOWER CORPORATION	**Certificate**	
Address	PO BOX 723597 ATLANTA, GA 31139	**Book & Page**	301/ 274
		Sale Date	02/17/2000

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
AMERICAN TOWERS INC	$359,641		301/ 274	02/17/2000

Building Information

Building 1 : Section 1

Year Built:	1967
Living Area:	3,249
Replacement Cost:	$332,990
Building Percent Good:	38
Replacement Cost Less Depreciation:	$126,500

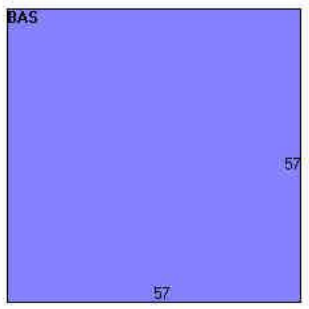
Building Attributes	
Field	**Description**
STYLE	Tower support
MODEL	Commercial
Grade	C
Stories:	1
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	

Building Photo

(http://images.vgsi.com/photos/NewFairfieldCTPhotos//\00\00\1

Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Typical
Heating Type	None
AC Type	Central
Bldg Use	Pub. Utility
1st Floor Use:	504
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUSP-CEIL ONLY
Rooms/Prtns	AVERAGE
Wall Height	14
% Comn Wall	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	3,249	3,249
		3,249	3,249

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	400
Description	Pub. Utility
Zone	2
Neighborhood	D
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	5.1
Depth	
Assessed Value	$180,000
Appraised Value	$257,200

Outbuildings

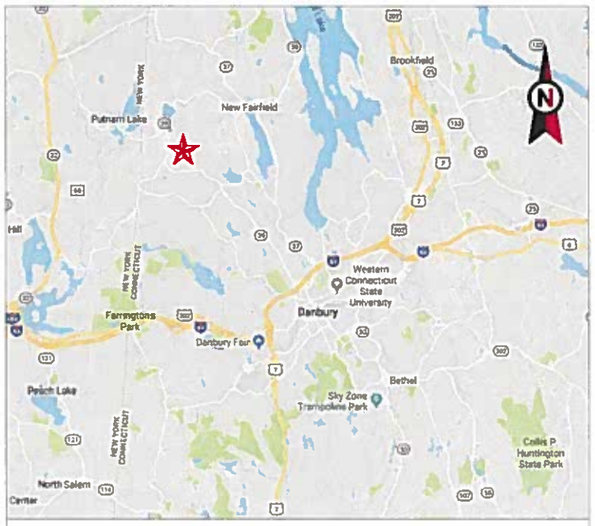
Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
PAV1	PAVING-ASPHALT			3200 S.F.	$1,700	1
SHD1	Shed			100 S.F.	$1,300	1
CELL	Cell Tenant			4 UNITS	$705,600	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$835,100	$257,200	$1,092,300
2016	$835,100	$257,200	$1,092,300
2014	$835,100	$257,200	$1,092,300

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**

2017	$584,600	$180,000	$764,600
2016	$584,600	$180,000	$764,600
2014	$584,600	$180,000	$764,600



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: NEW FAIRFIELD
ATC SITE NUMBER: 88014
T-MOBILE SITE ID: CT11106A
SITE ADDRESS: 22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812

LOCATION MAP

T-MOBILE MICROWAVE ADD

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: EVERSOURCE
PHONE: (877) 659-6326

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 376-6843

811
Know what's **below.**
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.45066
LONGITUDE: -73.51598
GROUND ELEVATION: 890 ' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

AMERICAN TOWER
116 HUNTINGTON AVE
BOSTON, MA 02116

APPLICANT:

T-MOBILE
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

CARRIER CONTACT:

RICH BANCROFT
(617) 586-6776

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

INSTALL (1) MICROWAVE DISH AND (1) 1/4" COAX CABLE.

EXISTING (9) PANELS, (6) TTAs, AND (12) 1-5/8" COAX CABLES TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM DANBURY, CT:

TAKE I-84 TO EXIT 5. TURN LEFT ONTO RT 39 AND PROCEED 5.3 MILES TO GILLOTTI RD. TURN RIGHT ONTO GILLOTTI RD AND PROCEED 0.3 MILES TO TITTICUS RD. TURN RIGHT ONTO TITTICUS RD. PROCEED 0.3 MILES TO SITE ON RIGHT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	03/15/18	ZDR
G-002	GENERAL NOTES	0	03/15/18	ZDR
C-101	DETAILED SITE PLAN & TOWER ELEVATION	0	03/15/18	ZDR
C-501	ANTENNA INFORMATION & SCHEDULE	0	03/15/18	ZDR
E-501	GROUNDING DETAILS	0	03/15/18	ZDR

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	03/15/18

ATC SITE NUMBER:
88014

ATC SITE NAME:
NEW FAIRFIELD

SITE ADDRESS:
22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812

SEAL:

Authorized by "EOR"
Mar 22 2018 2:16 PM cosign

T-Mobile

DRAWN BY:	ZDR
APPROVED BY:	PPB
DATE DRAWN:	03/15/18
ATC JOB NO:	12465206

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH T-MOBILE WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY T-MOBILE WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	03/15/18

ATC SITE NUMBER:
88014

ATC SITE NAME:
NEW FAIRFIELD

SITE ADDRESS:
22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812

SEAL:

Authorized by "EOR"
Mar 22 2018 2:16 PM cosign

T-Mobile

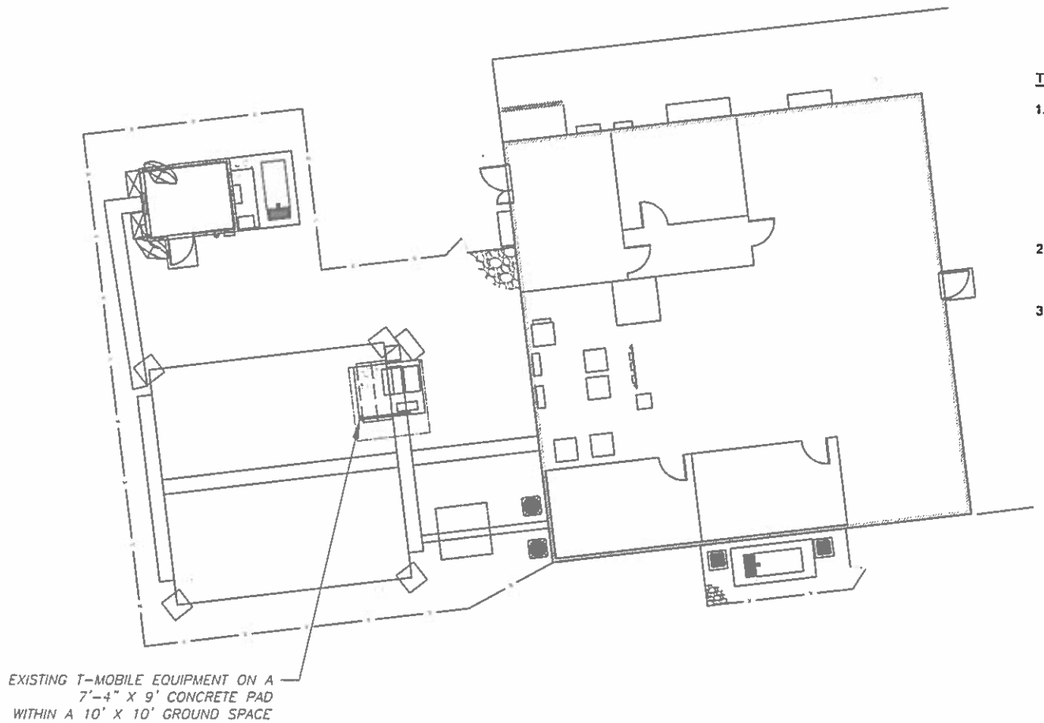
DRAWN BY:	ZDR
APPROVED BY:	PPB
DATE DRAWN:	03/15/18
ATC JOB NO:	12465206

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

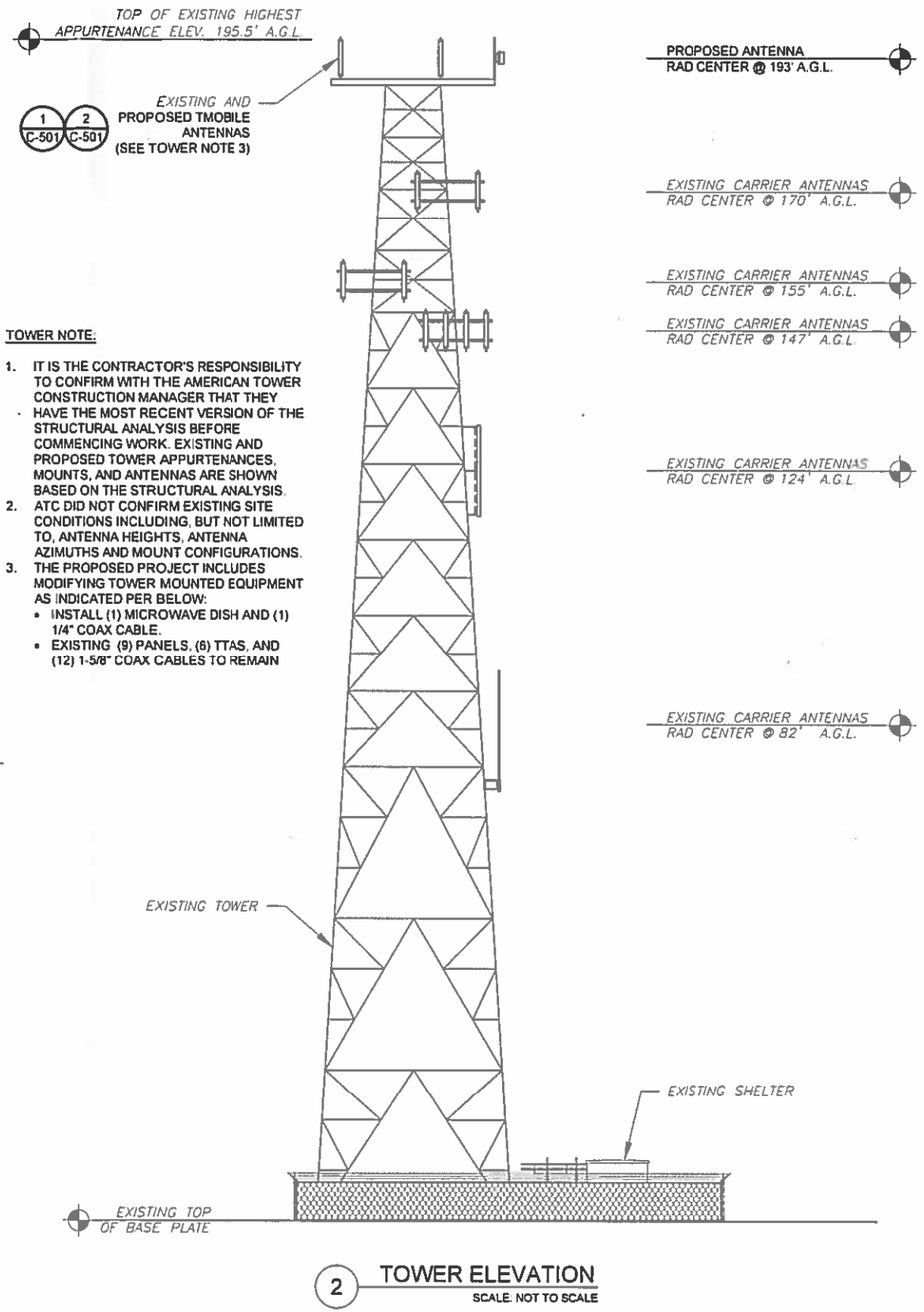
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)



TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.
3. THE PROPOSED PROJECT INCLUDES MODIFYING TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:
   - INSTALL (1) MICROWAVE DISH AND (1) 1/4" COAX CABLE.
   - EXISTING (9) PANELS, (6) TTAS, AND (12) 1-5/8" COAX CABLES TO REMAIN

2 TOWER ELEVATION

SCALE: NOT TO SCALE

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	03/15/18

ATC SITE NUMBER:
88014

ATC SITE NAME:
NEW FAIRFIELD

SITE ADDRESS:
22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812

SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28958
LICENSED
PROFESSIONAL ENGINEER

Authorized by "EOR"
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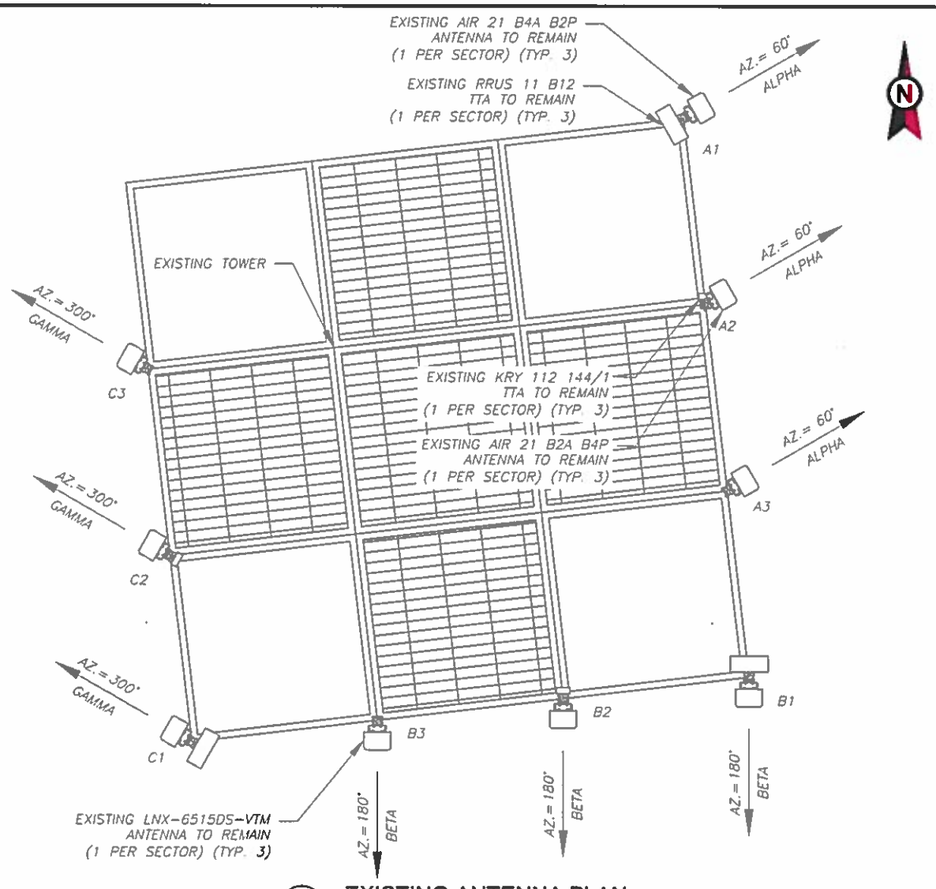
T-Mobile

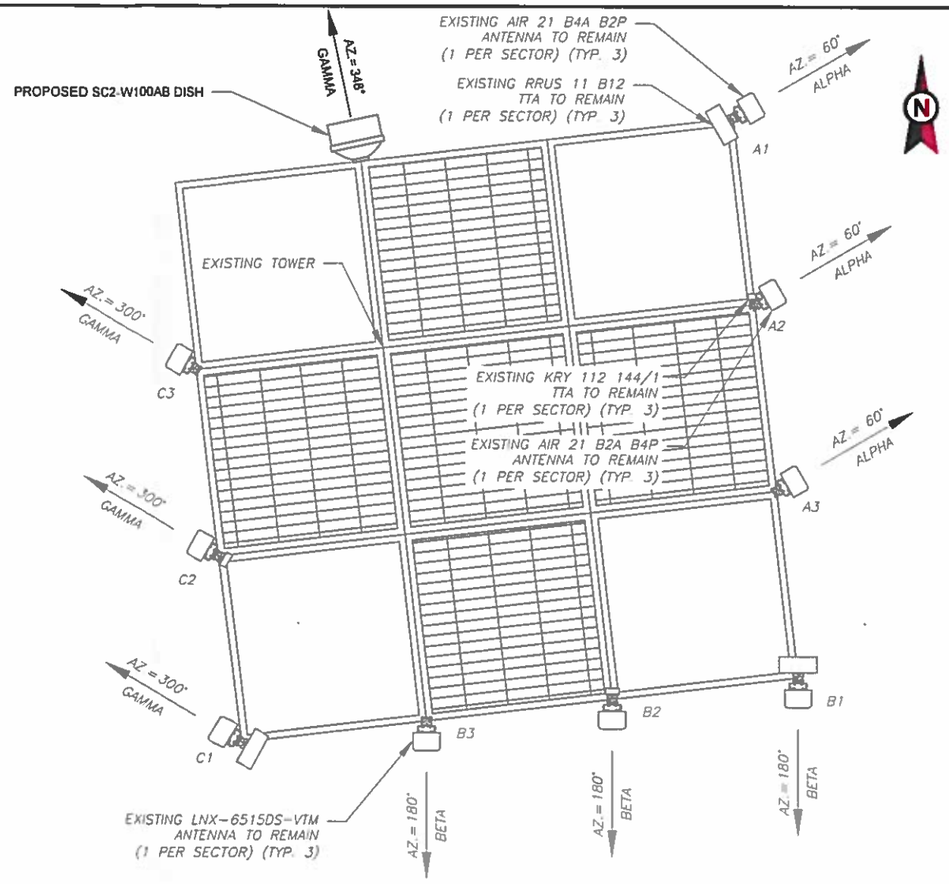
DRAWN BY:	ZDR
APPROVED BY:	PPB
DATE DRAWN:	03/15/18
ATC JOB NO:	12465206

DETAILED SITE PLAN & TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 EXISTING ANTENNA PLAN



2 FINAL ANTENNA PLAN

NOTES:

1. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.

NOTES:

1. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.

EXISTING ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR 21 B4A B2P	193'-0"	60°	-	-	RRUS 11 B12	(2) 1-5/8"
ALPHA	A2	AIR 21 B2A B4P	193'-0"	60°	-	-	KRY 112 144/1	(2) 1-5/8"
ALPHA	A3	LNX-6515DS-VTM	193'-0"	60°	-	-	-	-
BETA	B1	AIR 21 B4A B2P	193'-0"	180°	-	-	RRUS 11 B12	(2) 1-5/8"
BETA	B2	AIR 21 B2A B4P	193'-0"	180°	-	-	KRY 112 144/1	(2) 1-5/8"
BETA	B3	LNX-6515DS-VTM	193'-0"	180°	-	-	-	-
GAMMA	C1	AIR 21 B4A B2P	193'-0"	300°	-	-	RRUS 11 B12	(2) 1-5/8"
GAMMA	C2	AIR 21 B2A B4P	193'-0"	300°	-	-	KRY 112 144/1	(2) 1-5/8"
GAMMA	C3	LNX-6515DS-VTM	193'-0"	300°	-	-	-	-

3 ANTENNA SCHEDULE

FINAL ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR 21 B4A B2P	193'-0"	60°	-	-	RRUS 11 B12	(2) 1-5/8"
ALPHA	A2	AIR 21 B2A B4P	193'-0"	60°	-	-	KRY 112 144/1	(2) 1-5/8"
ALPHA	A3	LNX-6515DS-VTM	193'-0"	60°	-	-	-	-
BETA	B1	AIR 21 B4A B2P	193'-0"	180°	-	-	RRUS 11 B12	(2) 1-5/8"
BETA	B2	AIR 21 B2A B4P	193'-0"	180°	-	-	KRY 112 144/1	(2) 1-5/8"
BETA	B3	LNX-6515DS-VTM	193'-0"	180°	-	-	-	-
GAMMA	C1	AIR 21 B4A B2P	193'-0"	300°	-	-	RRUS 11 B12	(2) 1-5/8"
GAMMA	C2	AIR 21 B2A B4P	193'-0"	300°	-	-	KRY 112 144/1	(2) 1-5/8"
GAMMA	C3	LNX-6515DS-VTM	193'-0"	300°	-	-	-	-
GAMMA	C4	SC2-W100AB	193'-0"	348°	-	-	-	(1) 1/4"

1. BASED ON APPROVED ATC APPLICATION OAA723223, DATED 02-14-2018. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.

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22 TITICUS MTN ROAD
NEW FAIRFIELD, CT 06812

SEAL:

Authorized by "EOR"
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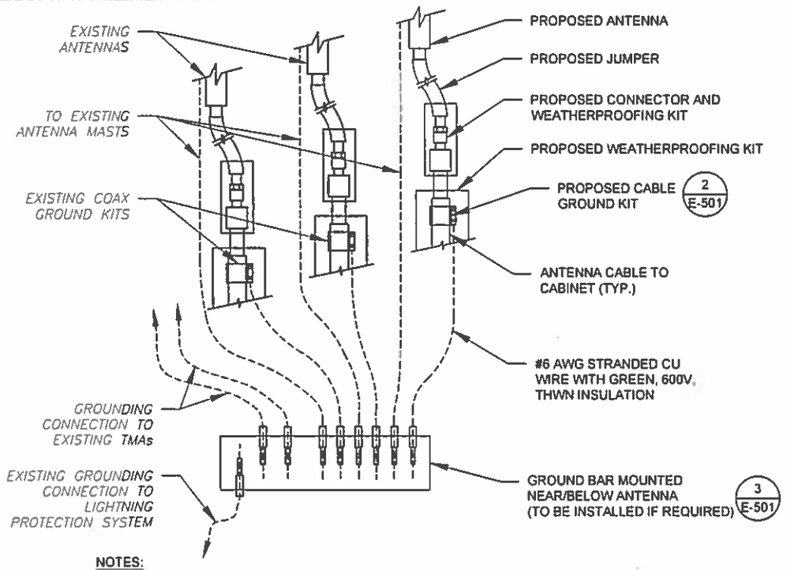
DRAWN BY:	ZDR
APPROVED BY:	PPB
DATE DRAWN:	03/15/18
ATC JOB NO:	12465206

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-501	0

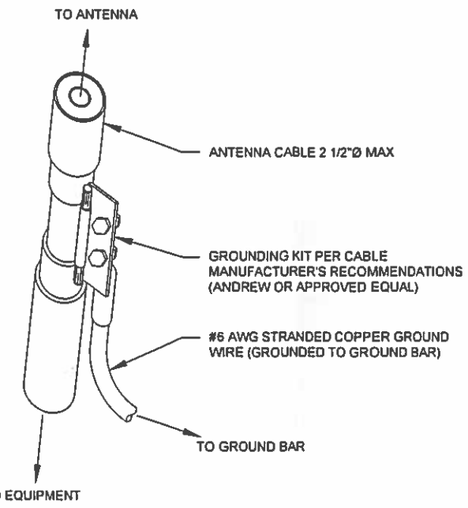


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: NOT TO SCALE

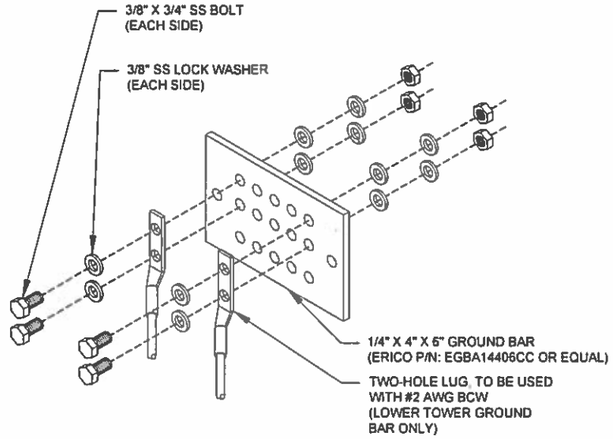


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: NOT TO SCALE



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: NOT TO SCALE

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DRAWN BY:	ZDR
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DATE DRAWN:	03/15/18
ATC JOB NO:	12465206

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0