COHEN and WOLF P.C.
ATTORNEYS AT LAW

RACHEL A. SCHWARTZMAN

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

September 17, 2014

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

Re: Notice of Exempt Modification
The Stop & Shop Supermarket Company LLC/T-Mobile co-location
Site ID CTHA241C
207 West Street, Cromwell, CT

Dear Attorney Bachman:

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

In this case, the Stop & Shop Supermarket Company LLC owns the existing monopole telecommunications tower and related facility at 207 West Street, Cromwell, CT (41.602222/ -72.680003). T-Mobile intends to replace three (3) existing antennas with three (3) new antennas at a centerline of 51 feet, add three (3) new antennas at the 41-foot centerline, and install related equipment at this existing telecommunications facility in Cromwell ("Cromwell Facility"). Please accept this letter as notification, pursuant to R.C.S.A. §16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R. C.S.A. § 16-50j-73, a copy of this letter is being sent to the Town Manager, Jonathan Sistare, and the property owner, Columbia Property Investors Cromwell LLC.

The existing Cromwell Facility consists of a 54-foot monopole tower.[1] T-Mobile plans to replace three (3) existing antennas on pipe mounts with three (3) new antennas on pipe mounts at a centerline of 51 feet, and add three (3) new antennas on pipe mounts at the 41-foot centerline. T-Mobile will also remove three (3) tower-mounted amplifiers (TMAs) at the 51-foot centerline, install three (3) remote radio units (RRUs) mounted to chain mounts at the 41-foot centerline, install hybrid fiber cables routed inside the monopole and inside underground conduits, and reuse existing coax cables routed inside the monopole and inside underground conduits. (See the plans revised to September 15, 2014 attached hereto as **Exhibit A**). The existing Cromwell Facility is structurally capable of supporting T-Mobile's proposed modifications, as indicated in the structural analysis dated September 4, 2014, and attached hereto as **Exhibit B**.

[1] The Cromwell Facility was approved at a height of 54 feet (Petition No. 799), which is consistent with this filing.

1115 Broad Street
P.O. Box 1821
Bridgeport, CT 06601-1821
Tel: (203) 368-0211
Fax: (203) 394-9901

158 Deer Hill Avenue
Danbury, CT 06810
Tel: (203) 792-2771
Fax: (203) 791-8149

320 Post Road West
Westport, CT 06880
Tel: (203) 222-1034
Fax: (203) 227-1373

657 Orange Center Road
Orange, CT 06477
Tel: (203) 298-4066
Fax: (203) 298-4068

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

1. The proposed modification will not increase the height of the tower. T-Mobile's existing antennas are at a centerline of 51 feet; the replacement and additional antennas will be installed at the 51-foot and 41- foot levels. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

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

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

4. The operation of the replacement and additional antennas and equipment will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated September 8, 2014, T-Mobile's operations would add 70.81% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 70.81% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as **Exhibit C.**

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

Sincerely,

Rachel Schwartzman

Rachel A. Schwartzman, Esq.

cc: Town Manager Jonathan Sistare, Town of Cromwell
The Stop & Shop Supermarket Company LLC
Columbia Property Investors Cromwell LLC
Sheldon Freincle, Northeast Site Solutions

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EXHIBIT A

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

KEY MAP
SCALE: N.T.S

1
LE-1

PROJECT : L700
CONFIGURATION
702CC

SUBMITTALS	
LE REV A	08.20.14
LE REV 0	08.28.14
LE REV 1	09.15.14

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

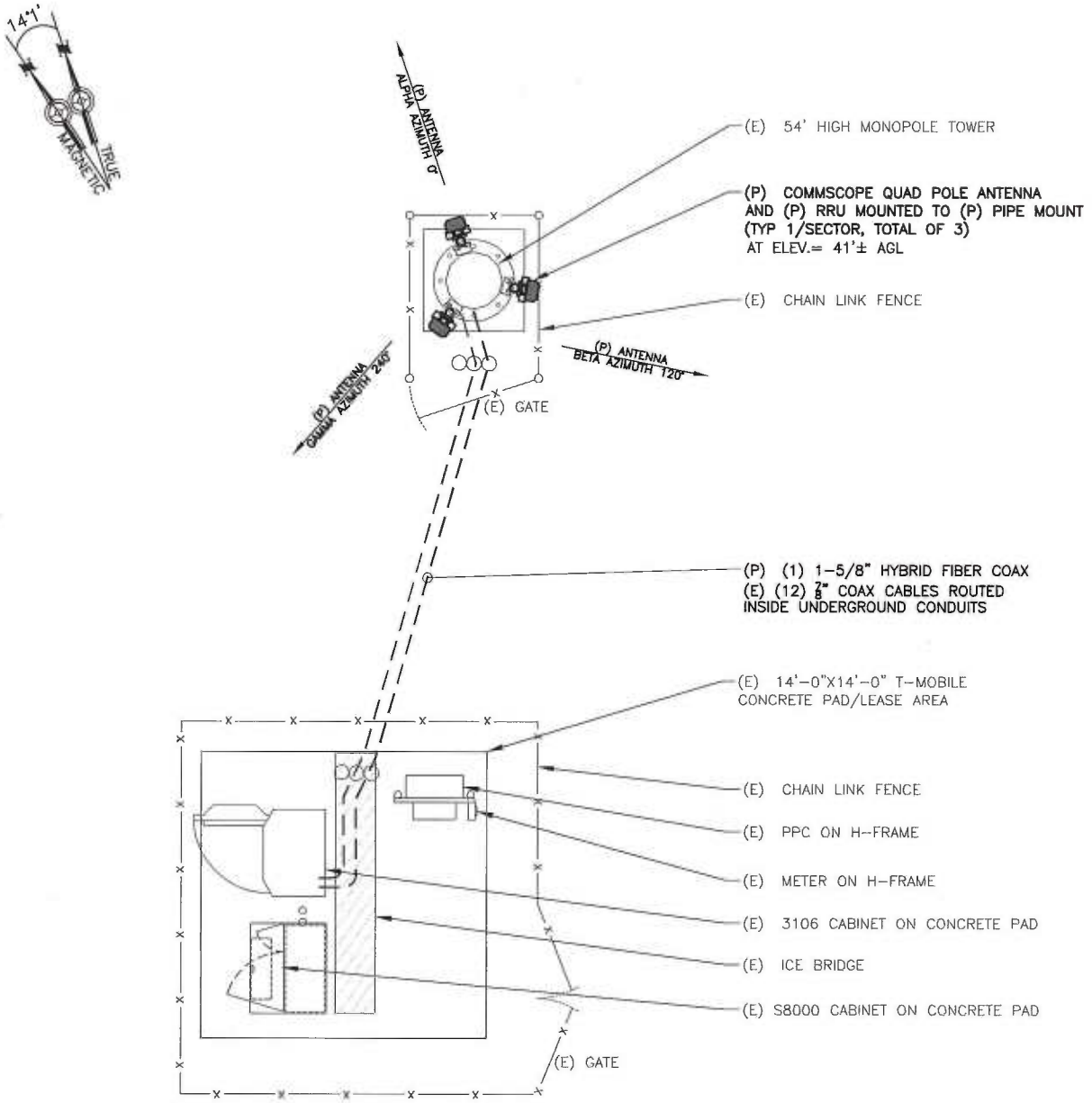
SITE NUMBER:
CTHA241C

SITE NAME:
HA241 / EXXON SIGN

SITE ADDRESS:
207 WEST STREET
CROMWELL, CT, 06416

NORTHEAST SITE SOLUTIONS
54 MAIN STREET, UNIT 3
STURBRIDGE, MA 01566
(508) 434-5237
FOR
T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: FG | CHECKED BY: SM



SITE PLAN

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

1
LE-2

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

PROJECT : L700

CONFIGURATION

702CC

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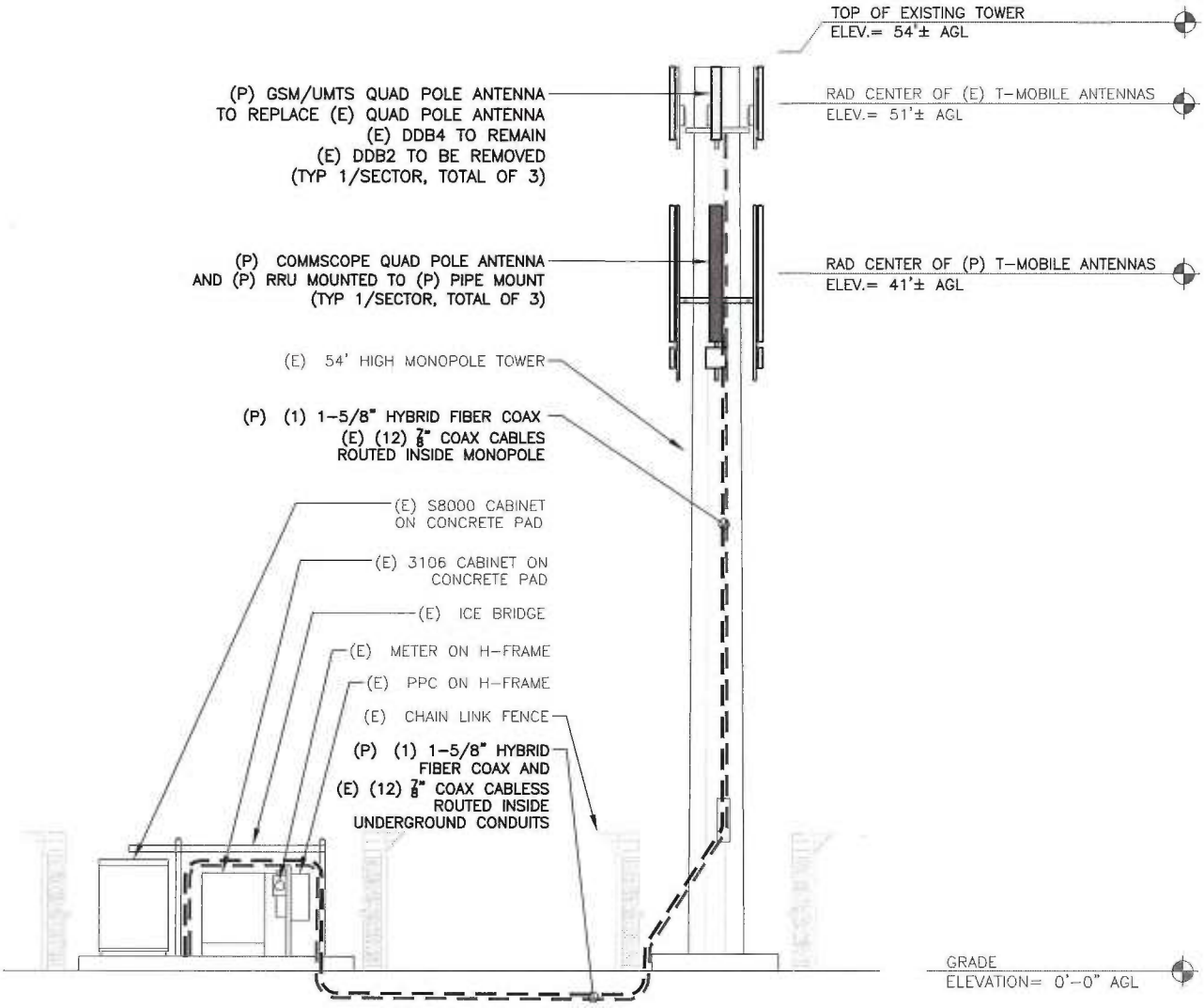

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ELEVATION

SCALE: 1" = 10'-0"

1 / LE-3

PROJECT : L700

CONFIGURATION

702CC

SUBMITTALS	
LE REV A	08.20.14
LE REV 0	08.28.14
LE REV 1	09.15.14

ATLANTIS GROUP
1340 Centre Street
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LEASE EXHIBIT

SITE NUMBER:
CTHA241C

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CROMWELL, CT, 06416

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BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: FG | CHECKED BY: SM

EXHIBIT B

STRUCTURAL ANALYSIS REPORT
MONOPOLE

Prepared For:

35 Griffin Road South
Bloomfield, CT 06002

Monopole Rating

Monopole:	**Pass (27.2%)**
Foundation:	**Pass (35.3%)**

Sincerely,
Atlantis Group, Inc.
9-4-2014

STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN. 27057
LICENSED
PROFESSIONAL ENGINEER

Ahmet Colakoglu, PE
CT Professional Engineer
License No: 27057

T-Mobile Site ID: CTHA241C
T-Mobile Site Name: HA241/Exxon_Sign
207 West Street
Cromwell, CT 06416

September 4, 2014

Prepared By:
Atlantis Group, Inc.
1340 Centre Street, Suite 212
Newton, Massachusetts 02459
Phone: 617-965-0789, Fax: 617-213-5056

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3.0 - CODES AND LOADING

4.0 - STANDARD CONDITIONS FOR ENGINEERING SERVICES ON EXISTING STRUCTURES

5.0 - ANALYSIS

6.0 - RESULTS AND CONCLUSION

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A - SOFTWARE OUTPUT

1.0 SUBJECT AND REFERENCES

The purpose of this analysis is to evaluate the structural capacity of the existing 53 feet high monopole located at 207 West St, Cromwell, CT 06416, for the addition and alteration of wireless telecommunication appurtenances proposed by T-Mobile.

The structural analysis is based on the following documentation:

- Structural Analysis Report prepared by the Armor Tower for T-Mobile Site ID CTHA241C dated April 8, 2009.
- Antenna information provided by T-Mobile.

1.1 STRUCTURE

The monopole is formed by the following section:

Section Length (ft)	Shaft Thickness (in)	Top Dia/Bottom Dia (in/in)	Steel Yield Strength (ksi)	Wall Thickness (in.)
53	.1875	18.0000/30.0000	65	0.1875

- The pole is 18-sided and connected to the foundation with anchor bolts and a base plate.

2.0 EXISTING AND PROPOSED APPURTENANCES

The analysis is based on the following existing and propose appurtenances:

Existing Configuration of T-MOBILE Appurtenances:

Rad Center (ft)	Antenna & TMA		Mount	Coax
51	GSM/UMTS TMA TMA	(3) APXV16DWV-16DWVS-E-A20 (3) dd B2 (3) dd B4	(3) Pipe Mounts	(12) 7/8" Coax Inside Shaft

Proposed and Final Configuration of T-MOBILE Appurtenances:

Rad Center (ft)	Antenna & TMA		Mount	Coax
51	GSM/UMTS TMA	(3) AIR-21B2A/B4P (3) dd B4	(3) Pipe Mounts	(12) 7/8" Coax Inside Shaft
41	LTE RRUS	(3) AIR21B4A/B12P-8 (3) RRUS11_B12	(3) Pipe Mounts	(1) 1 5/8" Fiber Cable Inside Shaft

3.0 CODES AND LOADING

The monopole was analyzed per ANSI/TIA/EIA-222-F-1996 as referenced by 2005 Connecticut Building Code (based on IBC 2003). The following wind loading was used in compliance with the standard for New Haven County.

- Basic wind speed 85 mph (W) without ice.
- Basic wind speed 38 mph (W_i) with 3/4" radial ice.

The following load combinations were used with wind blowing at 0°, 60° and 90°, measured from a line normal to the face of the tower.

- D + W
- D + W_i + I

D: Dead Load W: Wind Load, without ice
W_i: Wind Load with ice I: Ice Gravity Load

4.0 STANDARD CONDITIONS FOR ENGINEERING SERVICES ON EXISTING STRUCTURES

The analysis is based on the information provided to Atlantis Group and is assumed to be current and correct. Unless otherwise noted, the structure is assumed to be in good condition, free of defects and can achieve theoretical strength.

It is assumed that the structure has been maintained and shall be maintained during its service. The superstructure and the foundation system are assumed to be designed with proper engineering practice and fabricated, constructed and erected in accordance with the design documents. Atlantis Group will accept no liability which may arise due to any existing deficiency in design, material, fabrication, erection, construction, etc. or lack of maintenance.

The analysis does not include a qualification of the mounts attached on the structure or their connections. The analysis is performed to verify the capacity of the main structural members, which is the current practice in the tower industry.

The analysis results presented in this report are only applicable for the previously mentioned existing and proposed appurtenances. Any deviation of the appurtenances and appurtenance placement will require Atlantis Group to generate an additional structural analysis. Additionally, the proposed linear appurtenances should be placed per recommendations of this report.

5.0 ANALYSIS and ASSUMPTIONS

The tower was analyzed by utilizing tnx Tower, a non-linear 3-Dimensional finite element software, a product of Tower Numerics, Inc. Software output for this analysis is provided in Appendix-A of this report.

6.0 RESULTS AND CONCLUSION

The existing monopole found to **have adequate** structural capacity for the proposed changes by T-Mobile. For the aforementioned load combinations, the only shaft from the ground level is stressed to **27.2%** of capacity as a maximum. Anchor bolts and base plate are stressed to maximum **21.3%** usage of capacity. However, Monopole foundation (Pad and Pier) is found to have adequate structural capacity at **35.3%** with a reaction comparison.

Reactions Comparison

Reactions	EEI Design Reactions	Atlantis Reactions	Comparison (%)
Base Shear (kips)	11.34	4	35.3%
Base Moment (kip-ft)	574.3	148	25.8%

Should you need any clarifications or have any questions about this letter, please contact me at (617) 965-0789.

Sincerely,

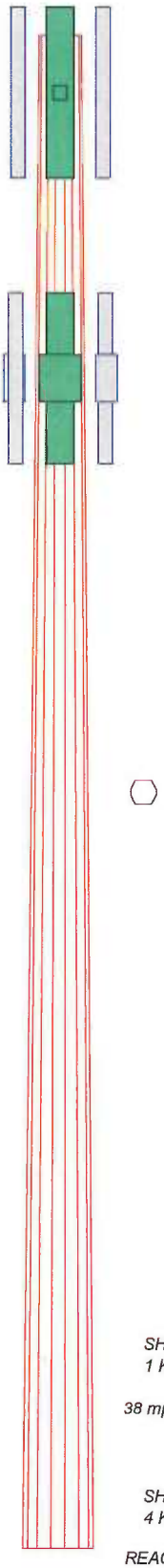
Atlantis Group

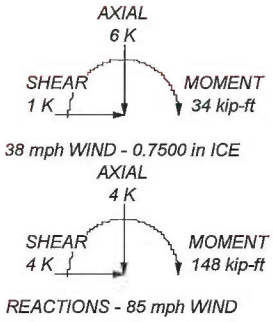
9-04-2014

Ahmet Colakoglu, PE
Connecticut Professional Engineer
License No: 27057

APPENDIX A
SOFTWARE OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	53.00	18	0.1875	18.0000	30.0000	A572-65	2.6
							2.6





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	51	dd B4 TMA	51
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	51	AIR 21 B4A/B12P-8 w/ Mount Pipe	41
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	51	AIR 21 B4A/B12P-8 w/ Mount Pipe	41
dd B4 TMA	51	AIR 21 B4A/B12P-8 w/ Mount Pipe	41
dd B4 TMA	51	RRUS 11 B12	41
		RRUS 11 B12	41
		RRUS 11 B12	41

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Middlesex County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 27.2%

Atlantis Group
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Newton, Ma 02459
Phone: 617-965-0789
FAX: 617-213-5056

Job: **CTHA241C**		
Project: **CTHA241C**		
Client: T-Mobile	Drawn by: Atlantis Group	App'd:
Code: TIA/EIA-222-F	Date: 09/04/14	Scale: NTS
Path: Z:\Projects\2014\17 - Atlantis\1417054 - CTHA241C - (Monopole)\TNX\CTHA241C.eo		Dwg No. E-1

tnxTower	Job	Page
	CTHA241C	1 of 9
Atlantis Group 1340 Centre Street Suite 212 Newton, Ma 02459 Phone: 617-965-0789 FAX: 617-213-5056	Project CTHA241C	Date 08:34:14 09/04/14
	Client T-Mobile	Designed by Atlantis Group

Tower Input Data

There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Middlesex County, Connecticut.
Basic wind speed of 85 mph.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 38 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 50 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.333.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	53.00-0.00	53.00		18	18.0000	30.0000	0.1875	0.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	18.2777	10.6007	424.9328	6.3234	9.1440	46.4712	850.4248	5.3013	2.8380	15.136
	30.4628	17.7422	1992.2362	10.5834	15.2400	130.7242	3987.0939	8.8728	4.9500	26.4

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
L1 53.00-0.00				1	1	1		

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
AL5-50(7/8)	A	No	Inside Pole	51.00 - 0.00	12	No Ice	0.00	0.26
						1/2" Ice	0.00	0.26
						1" Ice	0.00	0.26
						2" Ice	0.00	0.26
						4" Ice	0.00	0.26
MLE Hybrid 9Power/18Fiber RL 2(1 5/8)	C	No	Inside Pole	41.00 - 0.00	1	No Ice	0.00	1.07
						1/2" Ice	0.00	1.07
						1" Ice	0.00	1.07
						2" Ice	0.00	1.07
						4" Ice	0.00	1.07

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	53.00-0.00	A	0.000	0.000	0.000	0.000	0.16
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	53.00-0.00	A	0.750	0.000	0.000	0.000	0.000	0.16
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	53.00-0.00	0.0000	0.0000	0.0000	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
51									
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	A	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	6.83 7.35 7.86 8.93 11.18	5.64 6.48 7.26 8.86 12.29	0.11 0.17 0.23 0.38 0.81
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	B	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	6.83 7.35 7.86 8.93 11.18	5.64 6.48 7.26 8.86 12.29	0.11 0.17 0.23 0.38 0.81
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	C	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	6.83 7.35 7.86 8.93 11.18	5.64 6.48 7.26 8.86 12.29	0.11 0.17 0.23 0.38 0.81
dd B4 TMA	A	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.64 0.82 1.00 1.43 2.47	0.52 0.71 0.91 1.39 2.57	0.02 0.03 0.04 0.07 0.18
dd B4 TMA	B	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.64 0.82 1.00 1.43 2.47	0.52 0.71 0.91 1.39 2.57	0.02 0.03 0.04 0.07 0.18
dd B4 TMA	C	From Face	1.00 0.00 0.00	0.0000	51.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.64 0.82 1.00 1.43 2.47	0.52 0.71 0.91 1.39 2.57	0.02 0.03 0.04 0.07 0.18
41									
AIR 21 B4A/B12P-8 w/ Mount Pipe	A	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	11.78 12.50 13.23 14.74 18.00	11.04 12.56 14.12 16.47 21.36	0.15 0.25 0.36 0.60 1.27
AIR 21 B4A/B12P-8 w/ Mount Pipe	B	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	11.78 12.50 13.23 14.74 18.00	11.04 12.56 14.12 16.47 21.36	0.15 0.25 0.36 0.60 1.27
AIR 21 B4A/B12P-8 w/ Mount Pipe	C	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice	11.78 12.50 13.23	11.04 12.56 14.12	0.15 0.25 0.36

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	14.74	16.47	0.60
						4" Ice	18.00	21.36	1.27
RRUS 11 B12	A	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.31 3.55 3.80 4.33 5.50	1.36 1.54 1.73 2.13 3.04	0.05 0.07 0.10 0.15 0.31
RRUS 11 B12	B	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.31 3.55 3.80 4.33 5.50	1.36 1.54 1.73 2.13 3.04	0.05 0.07 0.10 0.15 0.31
RRUS 11 B12	C	From Face	1.00 0.00 0.00	0.0000	41.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.31 3.55 3.80 4.33 5.50	1.36 1.54 1.73 2.13 3.04	0.05 0.07 0.10 0.15 0.31

Load Combinations

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

Comb. No.	Description
30	Dead+Wind 90 deg - Service
31	Dead+Wind 120 deg - Service
32	Dead+Wind 150 deg - Service
33	Dead+Wind 180 deg - Service
34	Dead+Wind 210 deg - Service
35	Dead+Wind 240 deg - Service
36	Dead+Wind 270 deg - Service
37	Dead+Wind 300 deg - Service
38	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	53 - 0	Pole	Max Tension	18	0.00	0.00	0.00
			Max. Compression	14	-5.88	0.00	0.00
			Max. Mx	5	-3.75	-147.94	0.00
			Max. My	8	-3.75	0.00	-147.94
			Max. Vy	5	4.30	-147.94	0.00
			Max. Vx	8	4.30	0.00	-147.94
			Max. Torque	7			0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	14	5.88	0.00	0.00
	Max. H_x	11	3.75	4.30	0.00
	Max. H_z	2	3.75	0.00	4.30
	Max. M_x	2	147.94	0.00	4.30
	Max. M_z	5	147.94	-4.30	0.00
	Max. Torsion	7	0.00	-2.15	-3.72
	Min. Vert	2	3.75	0.00	4.30
	Min. H_x	5	3.75	-4.30	0.00
	Min. H_z	8	3.75	0.00	-4.30
	Min. M_x	8	-147.94	0.00	-4.30
	Min. M_z	11	-147.94	4.30	0.00
	Min. Torsion	9	-0.00	2.15	-3.72

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	3.75	0.00	0.00	0.00	0.00	0.00
Dead+Wind 0 deg - No Ice	3.75	0.00	-4.30	-147.94	0.00	0.00
Dead+Wind 30 deg - No Ice	3.75	2.15	-3.72	-128.12	-73.97	0.00
Dead+Wind 60 deg - No Ice	3.75	3.72	-2.15	-73.97	-128.12	-0.00
Dead+Wind 90 deg - No Ice	3.75	4.30	0.00	0.00	-147.94	0.00

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 120 deg - No Ice	3.75	3.72	2.15	73.97	-128.12	0.00
Dead+Wind 150 deg - No Ice	3.75	2.15	3.72	128.12	-73.97	-0.00
Dead+Wind 180 deg - No Ice	3.75	0.00	4.30	147.94	0.00	0.00
Dead+Wind 210 deg - No Ice	3.75	-2.15	3.72	128.12	73.97	0.00
Dead+Wind 240 deg - No Ice	3.75	-3.72	2.15	73.97	128.12	-0.00
Dead+Wind 270 deg - No Ice	3.75	-4.30	0.00	0.00	147.94	0.00
Dead+Wind 300 deg - No Ice	3.75	-3.72	-2.15	-73.97	128.12	0.00
Dead+Wind 330 deg - No Ice	3.75	-2.15	-3.72	-128.12	73.97	-0.00
Dead+Ice+Temp	5.88	0.00	0.00	0.00	0.00	0.00
Dead+Wind 0 deg+Ice+Temp	5.88	0.00	-0.96	-33.51	0.00	0.00
Dead+Wind 30 deg+Ice+Temp	5.88	0.48	-0.83	-29.02	-16.75	0.00
Dead+Wind 60 deg+Ice+Temp	5.88	0.83	-0.48	-16.75	-29.02	0.00
Dead+Wind 90 deg+Ice+Temp	5.88	0.96	0.00	0.00	-33.51	0.00
Dead+Wind 120 deg+Ice+Temp	5.88	0.83	0.48	16.75	-29.02	0.00
Dead+Wind 150 deg+Ice+Temp	5.88	0.48	0.83	29.02	-16.75	0.00
Dead+Wind 180 deg+Ice+Temp	5.88	0.00	0.96	33.51	0.00	0.00
Dead+Wind 210 deg+Ice+Temp	5.88	-0.48	0.83	29.02	16.75	0.00
Dead+Wind 240 deg+Ice+Temp	5.88	-0.83	0.48	16.75	29.02	0.00
Dead+Wind 270 deg+Ice+Temp	5.88	-0.96	0.00	0.00	33.51	0.00
Dead+Wind 300 deg+Ice+Temp	5.88	-0.83	-0.48	-16.75	29.02	0.00
Dead+Wind 330 deg+Ice+Temp	5.88	-0.48	-0.83	-29.02	16.75	0.00
Dead+Wind 0 deg - Service	3.75	0.00	-1.49	-51.19	0.00	0.00
Dead+Wind 30 deg - Service	3.75	0.74	-1.29	-44.33	-25.60	0.00
Dead+Wind 60 deg - Service	3.75	1.29	-0.74	-25.60	-44.33	0.00
Dead+Wind 90 deg - Service	3.75	1.49	0.00	0.00	-51.19	0.00
Dead+Wind 120 deg - Service	3.75	1.29	0.74	25.60	-44.33	0.00
Dead+Wind 150 deg - Service	3.75	0.74	1.29	44.33	-25.60	0.00
Dead+Wind 180 deg - Service	3.75	0.00	1.49	51.19	0.00	0.00
Dead+Wind 210 deg - Service	3.75	-0.74	1.29	44.33	25.60	0.00
Dead+Wind 240 deg - Service	3.75	-1.29	0.74	25.60	44.33	0.00
Dead+Wind 270 deg - Service	3.75	-1.49	0.00	0.00	51.19	0.00
Dead+Wind 300 deg - Service	3.75	-1.29	-0.74	-25.60	44.33	0.00
Dead+Wind 330 deg - Service	3.75	-0.74	-1.29	-44.33	25.60	0.00

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-3.75	0.00	0.00	3.75	0.00	0.000%
2	0.00	-3.75	-4.30	0.00	3.75	4.30	0.002%
3	2.15	-3.75	-3.72	-2.15	3.75	3.72	0.002%
4	3.72	-3.75	-2.15	-3.72	3.75	2.15	0.002%
5	4.30	-3.75	0.00	-4.30	3.75	0.00	0.002%
6	3.72	-3.75	2.15	-3.72	3.75	-2.15	0.002%
7	2.15	-3.75	3.72	-2.15	3.75	-3.72	0.002%
8	0.00	-3.75	4.30	0.00	3.75	-4.30	0.002%
9	-2.15	-3.75	3.72	2.15	3.75	-3.72	0.002%
10	-3.72	-3.75	2.15	3.72	3.75	-2.15	0.002%
11	-4.30	-3.75	0.00	4.30	3.75	0.00	0.002%
12	-3.72	-3.75	-2.15	3.72	3.75	2.15	0.002%
13	-2.15	-3.75	-3.72	2.15	3.75	3.72	0.002%
14	0.00	-5.88	0.00	0.00	5.88	0.00	0.000%
15	0.00	-5.88	-0.96	0.00	5.88	0.96	0.004%
16	0.48	-5.88	-0.83	-0.48	5.88	0.83	0.004%
17	0.83	-5.88	-0.48	-0.83	5.88	0.48	0.004%
18	0.96	-5.88	0.00	-0.96	5.88	0.00	0.004%
19	0.83	-5.88	0.48	-0.83	5.88	-0.48	0.004%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
20	0.48	-5.88	0.83	-0.48	5.88	-0.83	0.004%
21	0.00	-5.88	0.96	0.00	5.88	-0.96	0.004%
22	-0.48	-5.88	0.83	0.48	5.88	-0.83	0.004%
23	-0.83	-5.88	0.48	0.83	5.88	-0.48	0.004%
24	-0.96	-5.88	0.00	0.96	5.88	0.00	0.004%
25	-0.83	-5.88	-0.48	0.83	5.88	0.48	0.004%
26	-0.48	-5.88	-0.83	0.48	5.88	0.83	0.004%
27	0.00	-3.75	-1.49	0.00	3.75	1.49	0.001%
28	0.74	-3.75	-1.29	-0.74	3.75	1.29	0.001%
29	1.29	-3.75	-0.74	-1.29	3.75	0.74	0.001%
30	1.49	-3.75	0.00	-1.49	3.75	0.00	0.001%
31	1.29	-3.75	0.74	-1.29	3.75	-0.74	0.001%
32	0.74	-3.75	1.29	-0.74	3.75	-1.29	0.001%
33	0.00	-3.75	1.49	0.00	3.75	-1.49	0.001%
34	-0.74	-3.75	1.29	0.74	3.75	-1.29	0.001%
35	-1.29	-3.75	0.74	1.29	3.75	-0.74	0.001%
36	-1.49	-3.75	0.00	1.49	3.75	0.00	0.001%
37	-1.29	-3.75	-0.74	1.29	3.75	0.74	0.001%
38	-0.74	-3.75	-1.29	0.74	3.75	1.29	0.001%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	7	0.00000001	0.00012755
3	Yes	7	0.00000001	0.00012122
4	Yes	7	0.00000001	0.00012122
5	Yes	7	0.00000001	0.00012755
6	Yes	7	0.00000001	0.00012122
7	Yes	7	0.00000001	0.00012122
8	Yes	7	0.00000001	0.00012755
9	Yes	7	0.00000001	0.00012122
10	Yes	7	0.00000001	0.00012122
11	Yes	7	0.00000001	0.00012755
12	Yes	7	0.00000001	0.00012122
13	Yes	7	0.00000001	0.00012122
14	Yes	6	0.00000001	0.00000001
15	Yes	6	0.00000001	0.00012723
16	Yes	6	0.00000001	0.00012706
17	Yes	6	0.00000001	0.00012706
18	Yes	6	0.00000001	0.00012723
19	Yes	6	0.00000001	0.00012706
20	Yes	6	0.00000001	0.00012706
21	Yes	6	0.00000001	0.00012723
22	Yes	6	0.00000001	0.00012706
23	Yes	6	0.00000001	0.00012706
24	Yes	6	0.00000001	0.00012723
25	Yes	6	0.00000001	0.00012706
26	Yes	6	0.00000001	0.00012706
27	Yes	7	0.00000001	0.00006587
28	Yes	7	0.00000001	0.00006546
29	Yes	7	0.00000001	0.00006546
30	Yes	7	0.00000001	0.00006587
31	Yes	7	0.00000001	0.00006546
32	Yes	7	0.00000001	0.00006546

33	Yes	7	0.00000001	0.00006587
34	Yes	7	0.00000001	0.00006546
35	Yes	7	0.00000001	0.00006546
36	Yes	7	0.00000001	0.00006587
37	Yes	7	0.00000001	0.00006546
38	Yes	7	0.00000001	0.00006546

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
L1	53 - 0 (1)	TP30x18x0.1875	53.00	0.00	0.0	38.001	17.7422	-3.75	674.21	0.006

Pole Bending Design Data

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
L1	53 - 0 (1)	TP30x18x0.1875	147.94	13.580	38.001	0.357	0.00	0.000	38.001	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V K	Actual f_v ksi	Allow. F_v ksi	Ratio $\frac{f_v}{F_v}$	Actual T kip-ft	Actual f_{vt} ksi	Allow. F_{vt} ksi	Ratio $\frac{f_{vt}}{F_{vt}}$
L1	53 - 0 (1)	TP30x18x0.1875	4.30	0.242	26.000	0.019	0.00	0.000	26.000	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Ratio $\frac{f_v}{F_v}$	Ratio $\frac{f_{vt}}{F_{vt}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	53 - 0 (1)	0.006	0.357	0.000	0.019	0.000	0.363 ✔	1.333	H1-3+VT ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
L1	53 - 0	Pole	TP30x18x0.1875	1	-3.75	898.73	27.2	Pass
							Summary	
						Pole (L1)	27.2	Pass
						RATING =	**27.2**	**Pass**

Stiffened or Unstiffened, Ungrouted, Circular Base Plate - Any Rod Material

TIA Rev F

Site Data

Site Name: *CTHA241C*

Pole Manufacturer:	*Other*

Anchor Rod Data		
Qty:	6	
Diam:	2.25	in
Rod Material:	A615-J	
Strength (Fu):	100	ksi
Yield (Fy):	75	ksi
Bolt Circle:	37	in

Plate Data		
Diam:	43	in
Thick:	1.75	in
Grade:	60	ksi
Single-Rod B-eff:	15.87	in

Stiffener Data (Welding at both sides)		
Config:	0	*
Weld Type:		
Groove Depth:		in **
Groove Angle:		degrees
Fillet H. Weld:		<-- Disregard
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

Pole Data		
Diam:	30	in
Thick:	0.1875	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None

Stress Increase Factor		
ASIF:	1.333	

Reactions		
Moment:	148	ft-kips
Axial:	4	kips
Shear:	4	kips

If No stiffeners, Criteria:	AISC ASD	<-Only Applcable to Unstiffened Cases

Anchor Rod Results

		Non-Rigid
Maximum Rod Tension:	31.3 Kips	Service, ASD
Allowable Tension:	195.0 Kips	Fty*ASIF
Anchor Rod Stress Ratio:	16.1% **Pass**	

Base Plate Results

	Flexural Check	Non-Rigid
Base Plate Stress:	12.8 ksi	Service ASD
Allowable Plate Stress:	60.0 ksi	0.75*Fy*ASIF
Base Plate Stress Ratio:	21.3% **Pass**	Y.L. Length: 17.50

n/a

Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, fb/Fb+(fv/Fv)^2:	n/a
Plate Tension+Shear, ft/Ft+(fv/Fv)^2:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check: n/a

* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

EXHIBIT C

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: CTHA241C

Exxon Sign
207 West Street
Cromwell, CT 06416

September 8, 2014

EBI Project Number: 62144296

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	70.81 %

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

EBI Consulting
environmental | engineering | due diligence

September 8, 2014

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

Emissions Analysis for Site: **CTHA241C – Exxon Sign**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **207 West Street, Cromwell, 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 public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the 700 MHz Band is 467 $\mu W/cm^2$, and the general population exposure limit for the PCS and AWS 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 **207 West Street, Cromwell, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

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

1) 2 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel

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

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

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

5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

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

7) The antennas used in this modeling are the **Ericsson AIR21 B4A/B2P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Ericsson AIR21 B4A/B12P-8** for 2100 MHz (AWS) and 700 MHz channels. 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 for 1900 MHz (PCS) and 2100 MHz (AWS) . The **Ericsson AIR21 B4A/B12P-8** has a maximum gain of **13.6 dBd** at 700 MHz and **15.9 dBd** at 2100 MHz (AWS) at its main lobe. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

8) The antenna mounting height centerline of the proposed antennas is **51 feet and 41 feet** above ground level (AGL).

9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

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T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	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):	51	Height (AGL):	51	Height (AGL):	51
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	4	Channel Count	4	# PCS Channels:	4
Total TX Power:	180	Total TX Power:	180	# AWS Channels:	180
ERP (W):	2,859.09	ERP (W):	2,859.09	ERP (W):	2,859.09
Antenna A1 MPE%	12.43	Antenna B1 MPE%	12.43	Antenna C1 MPE%	12.43
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 / 13.6 dBd	Gain:	15.9 dBd / 13.6 dBd	Gain:	15.9 dBd / 13.6 dBd
Height (AGL):	41	Height (AGL):	41	Height (AGL):	41
Frequency Bands	2100 MHz (AWS) / 700 MHz	Frequency Bands	2100 MHz (AWS) / 700 MHz	Frequency Bands	2100 MHz (AWS) / 700 MHz
Channel Count	3	Channel Count	3	Channel Count	3
Total TX Power:	90	Total TX Power:	90	Total TX Power:	90
ERP (W):	1,358.57	ERP (W):	1,358.57	ERP (W):	1,358.57
Antenna A2 MPE%	11.17	Antenna B2 MPE%	11.17	Antenna C2 MPE%	11.17

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile	**70.81**
Site Total MPE %:	**70.81 %**

T-Mobile Sector 1 Total:	23.60 %
T-Mobile Sector 2 Total:	23.60 %
T-Mobile Sector 3 Total:	23.60 %
Site Total:	70.81 %

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Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector 1:	23.60 %
Sector 2:	23.60 %
Sector 3 :	23.60 %
T-Mobile Total:	70.81 %
Site Total:	70.81 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **70.81%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

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