T-Mobile

March 17, 2009

EM-T-MOBILE-002-090316

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

ORIGINAL

RECEIVED
MAR 16 2009
CONNECTICUT
SITING COUNCIL

Re: Notice of Exempt Modification
American Tower Corporation Telecommunications Facility
401 Wakelee Avenue, Ansonia, Connecticut
T-Mobile Site CT11810A

Dear Mr. Phelps:

Omnipoint Communications, a subsidiary of T-Mobile USA, Inc. ("T-Mobile"), intends to replace existing antennas, install additional antennas and replace existing ground equipment at 196-foot lattice tower facility owned by American Tower Corporation and located at 401 Wakelee Avenue, Ansonia, Connecticut ("Facility"). T-Mobile is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation. This installation constitutes an exempt modification pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes Section 16-50g *et. seq.* (PUESA), and Section 16-50j-72(b)(2) of the Regulations of the Connecticut State Agencies adopted pursuant to PUESA. In accordance with R.C.S.A. Section 16-50j-73, a copy of this notice has been sent to James T. Della Volpe, Mayor, Town of Ansonia.

The existing Facility consists of a 196-foot self-supporting lattice tower capable of supporting multiple carriers within a fenced compound. The coordinates for the Facility are **Lat: 41°-21'-22"** and **Long: 73°–05'-30".** The tower is located at 401 Wakelee Avenue, Ansonia. The Facility is at the north end of a municipal recreation complex, between Route 8 (a few hundred feet to the west) and Wakelee Avenue (a few hundred feet to the east). The Facility is in the northern portion of Ansonia, roughly 800 feet west of the Naugatuck River and roughly 1,300 feet south of the Seymour town line (see Site Map, attached as Exhibit A). The tower currently supports Pocket Wireless antennas at the one hundred fifty seven foot level (157') centerline AGL (above ground level), AT&T antennas at the one hundred sixty eight foot level (168') AGL, Verizon antennas at the one hundred seventy eight foot level (178') AGL, Sprint antennas at the one hundred eighty four foot level (184') AGL and Sprint Nextel at the one hundred ninety four foot level (194') AGL. T-Mobile currently has antennas on the tower at the one hundred forty eight foot level (148') level AGL. The current T-Mobile antenna configuration is one per sector, for a total of three antennas. T-Mobile proposes to add three additional antennas to the existing antennas, for a proposed configuration of two antennas per sector with a total of six. T-Mobile proposes to install threeAPX16DWV-16DWV antennas on the existing mounts at the same elevation, (148') level centerline AGL. T-Mobile also intends to add a UMTS 3106 BTS equipment cabinet to its current configuration of one existing S12000 equipment cabinet. The two cabinets will both be mounted on existing concrete pads located

T-Mobile USA, Inc.
Office: (860) 692-7100
Fax: (860) 692-7159
35 Griffin Rd S
Bloomfield, CT 06002

adjacent to the tower, within the compound. T-Mobile's equipment will be contained within it's existing lease area. T-Mobile intends to run new coaxial cable on its existing ice bridge from its current equipment pad to the existing tower. Utilities will be run via a proposed underground conduit from existing utility sources at the Facility (See Design Drawings and Equipment Specifications, attached as Exhibits B and C respectively).

For the following reasons, the proposed modifications to the Wakelee Avenue Facility meet the exempt modification criteria set forth in R.C.S.A. Section 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the tower as T-Mobile seeks to replace its existing antennas and install new antennas at a center line height of approximately 148 feet.

2. The installation and replacement of T-Mobile's antennas and ground equipment will not require an extension of the site boundaries.

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

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. The worst-case RF power density calculations for the proposed T-Mobile antennas would be 24.0688% of the FCC standard (see general power density calculations table, attached as Exhibit D).

Also attached, Exhibit E, is a structural assessment confirming that the tower can support the existing and proposed antennas and associated equipment.

For the foregoing reasons, T-Mobile respectfully submits that the proposed antenna installation and equipment at the Ansonia Facility constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(2).

Respectfully Submitted,

Mark Richard
UMTS Project Manager
Agent for T-Mobile

cc: James T. Della Volpe, Mayor, Town of Ansonia (Town of Ansonia is also underlying property owner).
Carrie L. Larson

35 Griffin Rd S
Bloomfield, CT 06002

Exhibit A

Site Map

T-Mobile Site CT11810A

401 Wakelee Avenue

Ansonia, Connecticut

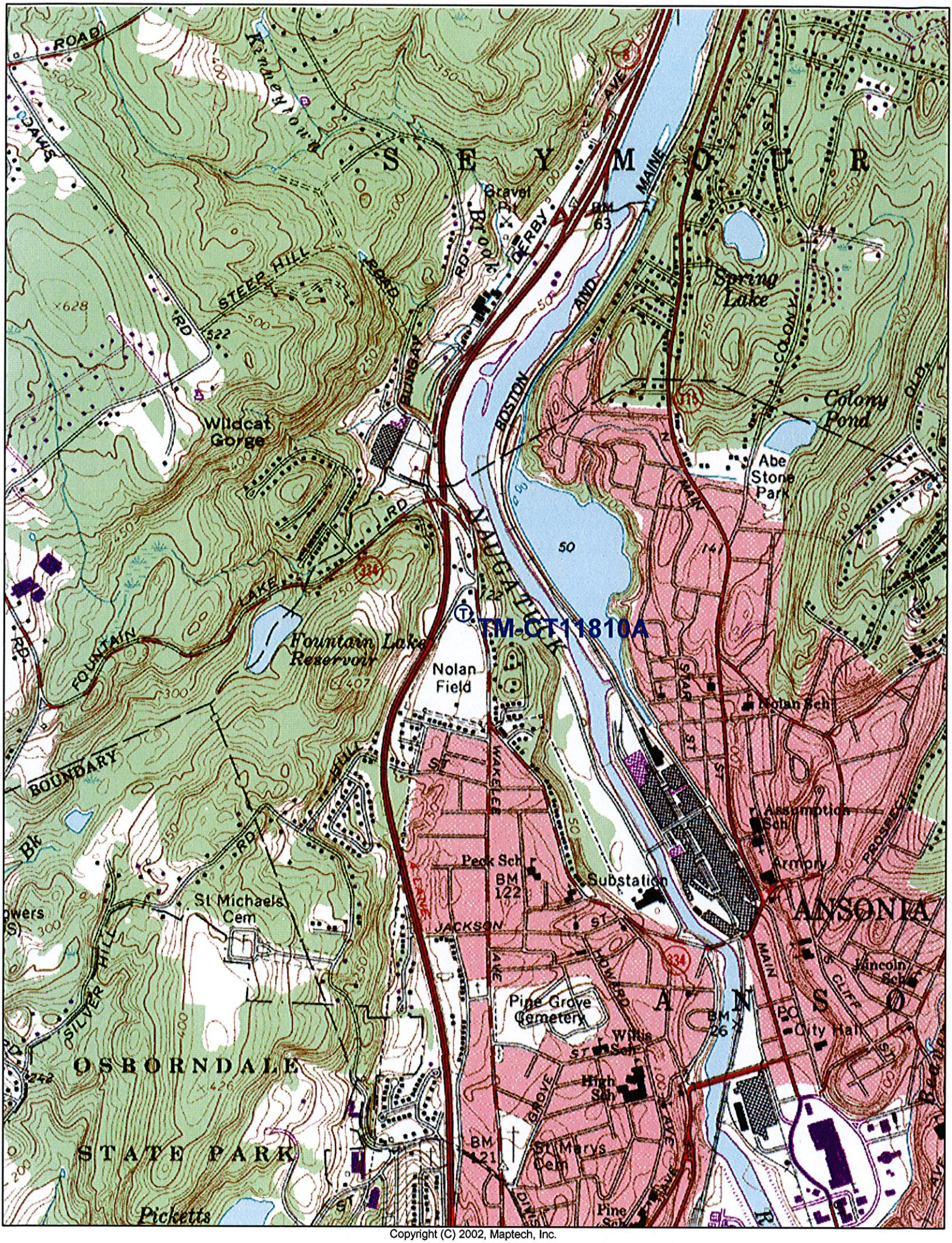


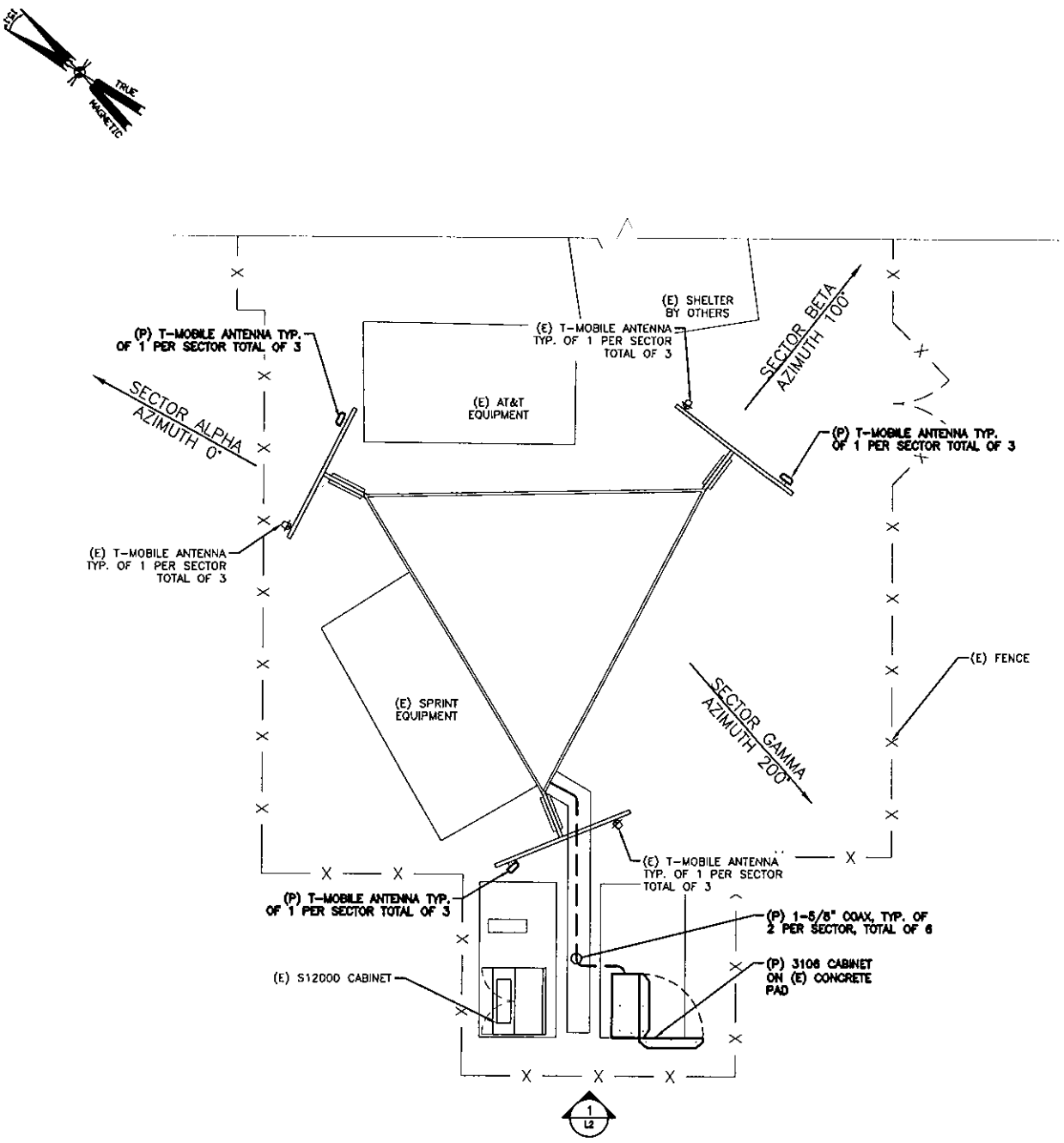
Exhibit B

Design Drawings

T-Mobile Site CT11810A

401 Wakelee Avenue

Ansonia, Connecticut



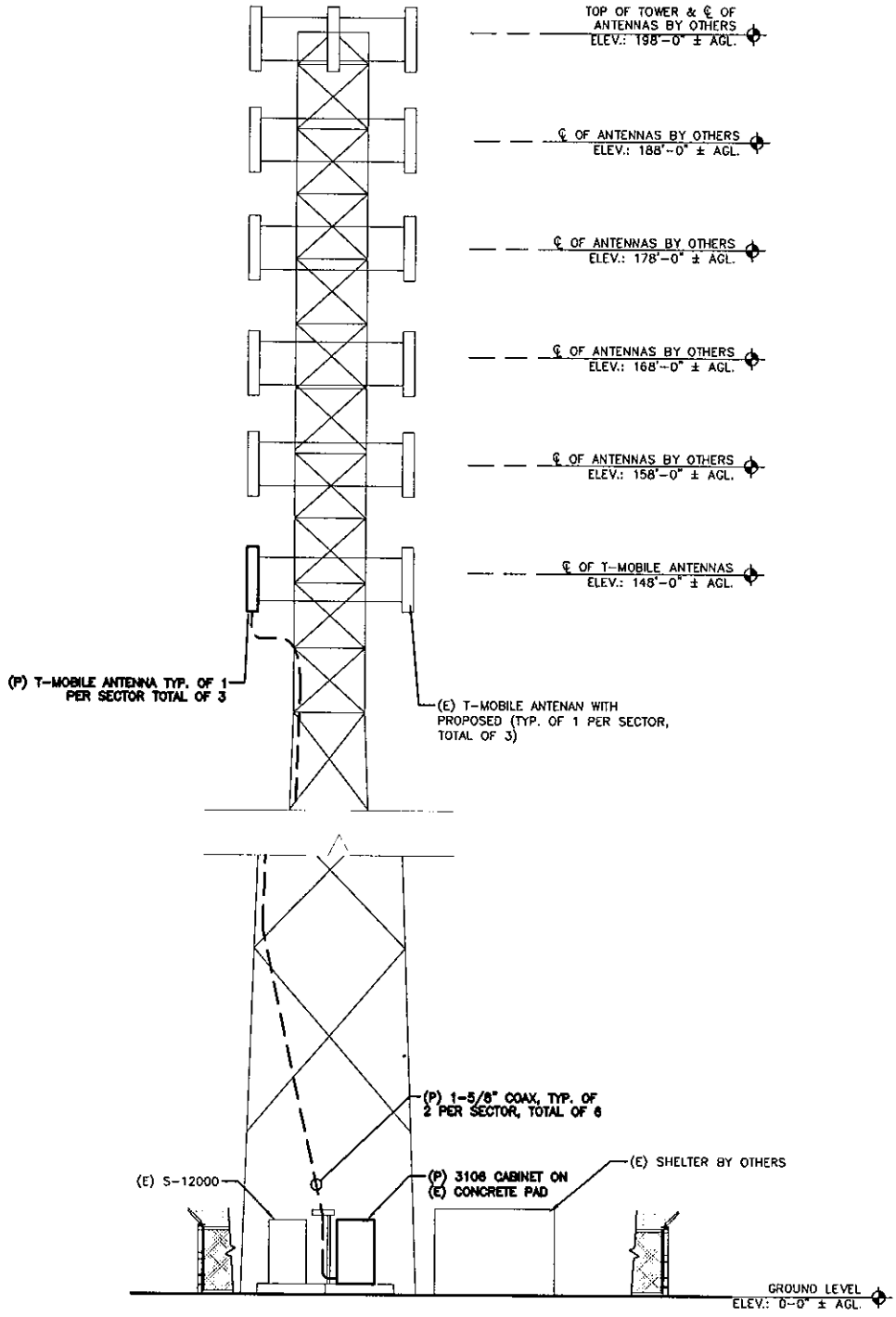
COMPOUND LAYOUT PLAN 1

SCALE: NTS

T··Mobile·
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 936-8393
Fax: (508) 936-8395

PROJECT LOCATION: ANSONIA CT11810 401 WAKELEE AVE. ANSONIA, CT 06401	PROJECT MANAGER: KB	DRAWN BY: AP	BSDA PROJ. #: 2898.284
			SHEET: L1
APPROVED BY:	REV. 2 REV. 1 01/16/09	COMPOUND LAYOUT PLAN	



ELEVATION

SCALE: N.T.S.

1

T··Mobile·
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 936-6363
Fax: (508) 936-6365

PROJECT LOCATION: ANSONIA CT11810 401 WAKELEE AVE. ANSONIA, CT 06401	PROJECT MANAGER: KB	DRAWN BY: AP	BSOA PROJ. #: 2898.284
			SHEET: L2
	REV. 2	ELEVATION	
APPROVED BY:	REV. 1 01/16/09		

Exhibit C

Equipment Specifications

T-Mobile Site CT11810A

401 Wakelee Avenue

Ansonia, Connecticut

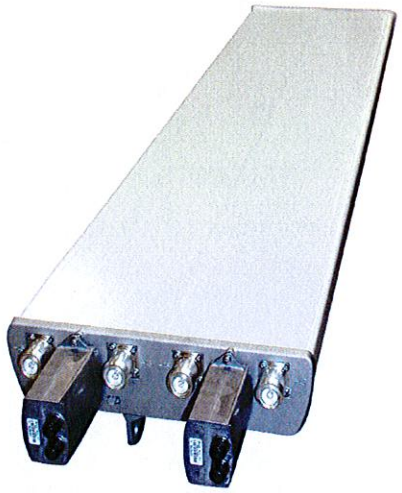
Technical Data Sheet APX16DWV-16DWV-S-E-ACU

Optimizer® Panel Dual Polarized Antenna equipped with (2) ACU motors

Product Description

Gathering two X-Polarized antennas in a single radome this pair of variable tilt antenna provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features a wide downtilt range with optional remote tilt.

This antenna is optimized for performance across the entire AWS frequency band (1710-2170 MHz). The antenna comes pre-connected with the antenna control unit (ACU).



Features/Benefits

- **Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is infield adjustable 0-10 deg.**
- **High Suppression of all Upper Sidelobes (Typically <-20dB).**
- **Gain difference between UL and DL <1dB.**
- **Two X-Polarised panels in a single radome.**
- **Azimuth horizontal beamwidth difference <7deg between UL and DL (1710-1755 & 2110-2155).**
- **Low profile for low visual impact.**
- **Dual polarization; Broadband design.**

Technical Features

Frequency Band	3G/UMTS
Horizontal Pattern	Directional
Antenna Type	Panel Dual Polarized
Electrical Down Tilt Option	Variable
Gain, dBi (dBd)	18.0 (16.0) Avg. across band
Frequency Range, MHz	1710-2170

Optimizer® Panel Dual Polarized Antenna equipped with (2) ACU motors

Connector Type	(4) 7-16 DIN Female
Connector Location	Bottom
Mount Type	Downtilt Kit w/Scissor Kit
Electrical Downtilt, deg	0-10 , 0-10
Horizontal Beamwidth, deg	65 ±5 (65.9 average across band)
Mounting Hardware	APM40-2 + APM40-E2
Rated Wind Speed, km/h (mph)	160 (100)
VSWR	< 1.4:1
Vertical Beamwidth, deg	5.8 to 7.8 across band
1st Upper Sidelobe Suppression, dB	> 18 (typically > 20)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)
Polarization	Dual pol +/-45°
Front-To-Back Ratio, dB	>28
Maximum Power Input, W	300
Isolation between Ports, dB	> 30
Lightning protection	Direct Ground
3rd Order IMP @ 2 x 43 dBm, dBc	> 150 (155 Typical)
Overall Length, m (ft)	1.35 (4.42)
Dimensions - HxWxD, mm (in)	1349 x 330 x 80 (53 x 13 x 3.15)
Radiating Element Material	Brass
Radome Material	Fiberglass
Reflector Material	Aluminum
Max Wind Loading Area, m² (ft²)	0.64 (6.6)
Survival Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	787 (177)
Front Thrust @ Rated Wind, N (lbf)	787 (177)
Shipping Weight, kg (lb)	24.1 (52.7)
Packing Dimensions, HxWxD, mm (in)	1550 x 420 x 210 (61 x 16.5 x 8.3)
Weight w/o Mtg Hardware, kg (lb)	18.0 (39.6)

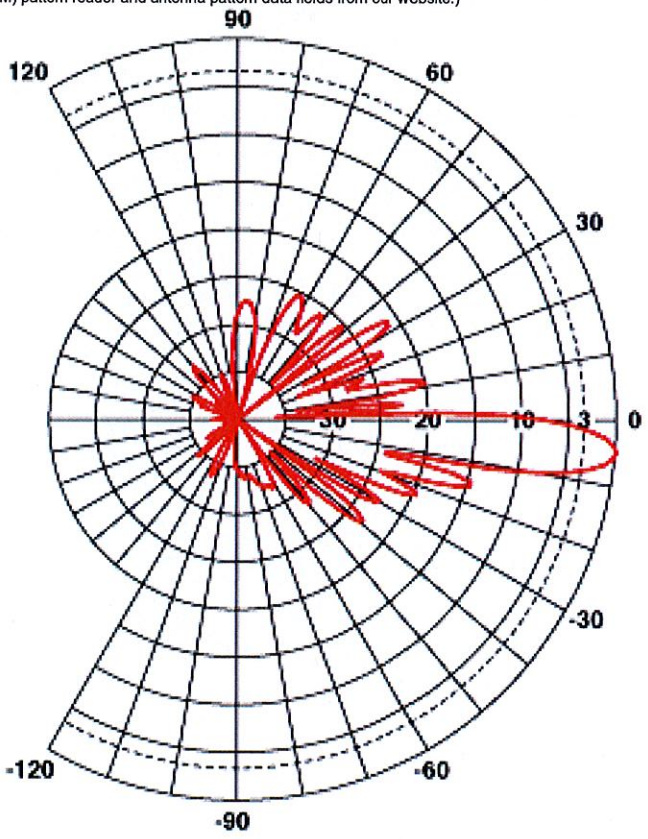
Note

This data is provisional and subject to change.

Optimizer® Panel Dual Polarized Antenna equipped with (2) ACU motors

Vertical Pattern

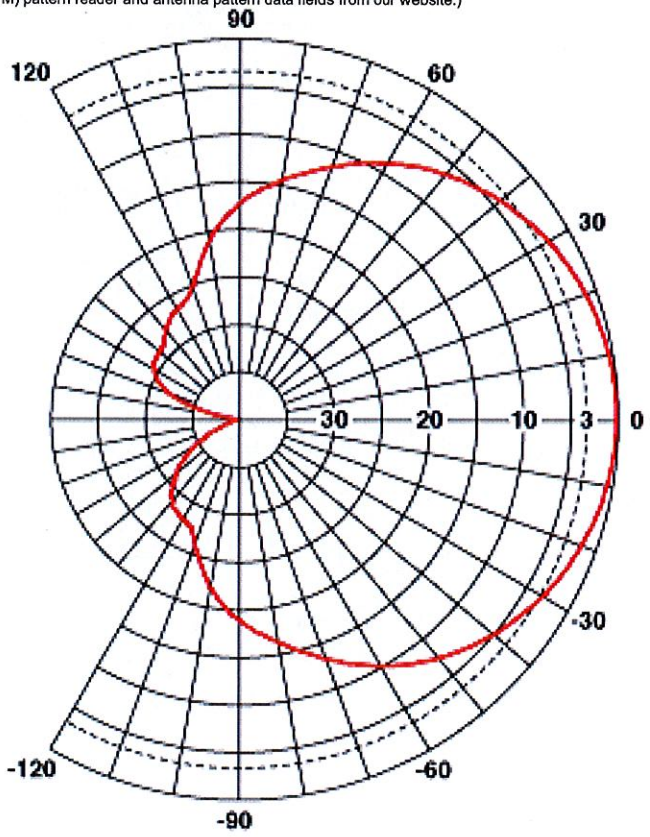
(This is a general representation of the antenna family pattern. For the latest detailed pattern contact Applications Engineering. You may also download the CELplot(TM) pattern reader and antenna pattern data fields from our website.)



Optimizer® Panel Dual Polarized Antenna equipped with (2) ACU motors

Horizontal Pattern

(This is a general representation of the antenna family pattern. For the latest detailed pattern contact Applications Engineering. You may also download the CELplot(TM) pattern reader and antenna pattern data fields from our website.)



3 Dimensions

This section describes the physical characteristics of the RBS, that is, dimensions, weight, and color.

Table 1 RBS 3106 Dimensions

Unit	Dimensions (mm)
Height (including installation frame)	1626
Width	1300
Depth	710
Depth including door	926

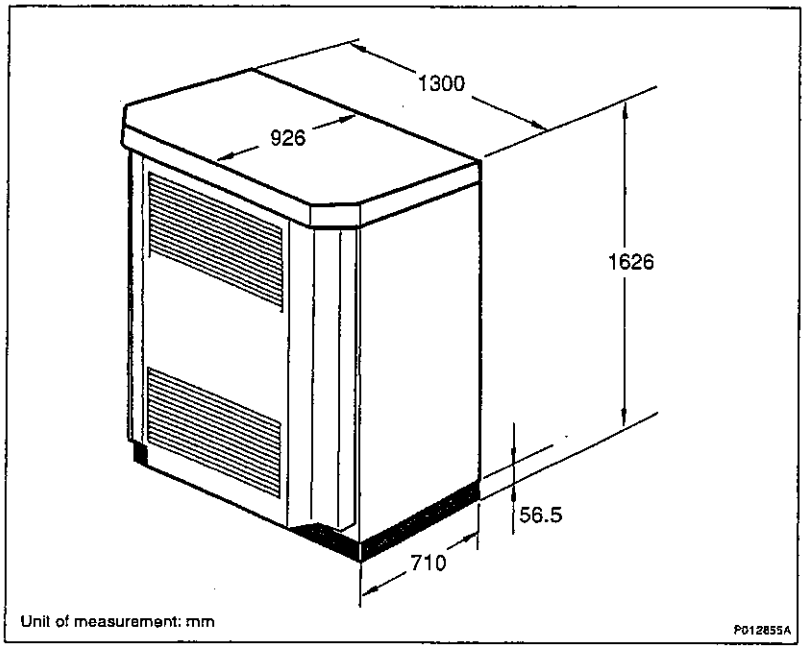


Figure 2 RBS 3106 Dimensions

The various weights of the RBS 3106 are shown in the table below.

Table 2 RBS 3106 Weights

Unit	Type	Weight (kg)
RBS fully equipped excluding batteries	AC-powered	560
RBS fully equipped including batteries	AC-powered	850

Unit	Type	Weight (kg)
RBS fully equipped including batteries and future expansion of hardware (not yet available)	AC-powered	875
RBS fully equipped	DC-powered	510
Installation frame	AC- and DC-powered	12

The color of RBS 3106 is shown in the table below.

Table 3 RBS 3106 Color

Color	Color Standard
Gray	RAL 7035
Green	NCS 8010–G 10 Y

Product/Service Bulletin

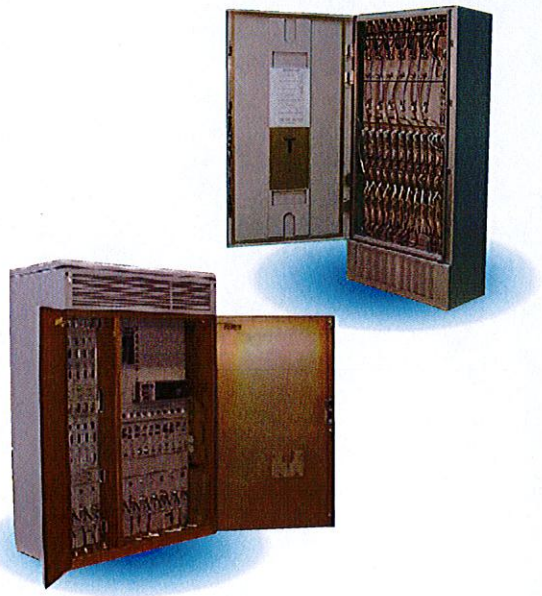
Nortel Networks
Univity GSM S12000 BTS

Indoor & Outdoor versions

As the GSM industry moves into the world of data, pressure has increased on capacity and so network enhancement and development costs are rising. The Univity GSM S12000 BTS – Indoor and Outdoor versions – is a product that meets the needs of a mature GSM market by increasing site capacity and at the same time lowering the risks and the costs of introduction.

The Univity GSM S12000 BTS – Indoor and Outdoor versions – is built on an existing field proven platform, the Univity GSM S8000 BTS, which is known for its quality and robustness. The reuse of a considerable amount of technology lowers the risk and cost for the operators when introducing this new product into their network.

The Univity GSM S12000 BTS – Indoor version is designed for protected sites while the Outdoor version is a fully integrated BTS site with AC power supply and extended temperature range.



In this document the term "the S12000 BTS" stands for "the Univity GSM S12000 BTS - Indoor and Outdoor version" except where mentioned.

The high capacity cell site

Nortel Networks addresses the growing needs of GSM capacity by introducing the S12000 BTS, which is an innovative development of the S8000 BTS. This innovative approach to network expansion and development is aimed at providing high capacity sites installed with low risk, reduced network impact and a lower cost of ownership.

The S12000 BTS is a key component to the delivery of more capacity within a GSM/GPRS network while driving down network costs. The S12000 BTS offers nearly double the capacity of the S8000 BTS, thereby offering a more compact site and improved operational efficiency.

Finally the S12000 BTS supports more users and offers higher speed data access and quality then increasing opportunities of revenues.

Lowering the cost of ownership and network introduction

It is not just the introduction of the evolution of a field proven and reliable technology that reduces the cost of ownership but also the reduced spares holding and training requirements. By the design of the S12000 BTS, Nortel Networks has aimed to reduce the cost of introducing the S12000 BTS into a GSM network. The S12000 BTS brings considerable savings in CAPEX and OPEX to the operator since main modules and skills are usable within both the S8000 BTS and S12000 BTS. The operator does not have to change the network Engineering and Operational procedures on the existing S8000 BTS. Moreover, via the high capacity and the high RF performance of the S12000 BTS, fewer sites are required. Low introduction costs are invaluable when facing the financial pressures of network enhancements such as GPRS or new services such as UMTS. The use of the S12000 BTS puts the operator in a position to make efficient use of all resources and reduce network complexity relieving pressure on investment.

NORTEL NETWORKS™

Modular and flexible

The S12000 BTS supports twelve TRX per cabinet and offers cost effective configurations from 1 to 16 TRX per cell in a tri-sector configuration. A dual band configuration of 6 + 6 TRX can be supported in a single cabinet for all coupling configurations.

The modular design of the S12000 BTS and the possibility to choose between multiple RF-combining options allows the operator to deploy the S12000 BTS solution in a number of different scenarios such as high-capacity solution in cities or alternatively enabling to provide wide coverage with a minimum number of sites in rural area.

High Performance

The Nortel Networks family of BTS holds a high market position for reliability, operability and service quality. The S12000 BTS provides high data services and voice quality, high coverage and building penetration and smooth call handovers. It possesses many advanced RF features to improve spectral usage and optimisation and so increase available capacity. The AMR and EDGE solutions will further enhance spectrum efficiency. These high performance qualities are extremely important with the introduction of GPRS services.

In addition, as for the S8000 BTS, the S12000 BTS supports UMTS co-sitting thanks to specific combiners, allowing a smooth UMTS introduction.

The high radio performance and advanced digital processing of the S12000 BTS provide one of the highest receive sensitivity in the market today, offering –115 dBm guaranteed and without the need for masthead amplifiers (-117dBm typical). The high radio performance enhances the resistance to interference, improving voice quality, data throughput, cell coverage and service availability.

Nortel Networks experience in frequency hopping, fractional re-use, cell tiering and multi-layer management algorithms provide high spectrum efficiency which releases more capacity for a fixed allocation of spectrum.

Growing the business and ensuring success

The Univity GSM S12000 BTS is future ready. The high capacity and flexibility of the S12000 BTS, the introduction of AMR and EDGE, put the operator in a best position to meet the challenges and opportunities of GSM/GPRS. These advantages enable the operator to capture new revenues, improve profitability and gain a better return on investment as the network develops and moves forward.

Technical Specifications:		Indoor	Outdoor
Frequency range		900 MHz GSM / 900 MHZ Extended GSM 1800 MHz GSM and Dual Band GSM 900 / 1800 850 MHZ GSM 1900 MHz GSM and Dual Band GSM 850 / 1900	
Receive sensitivity	w/o diversity with diversity	-110 dBm garanteed (w/o TMA) -115 dBm garanteed (w/o TMA)	
Dimensions	Height Width Depth	1950 mm 910 mm 450 mm	1910 mm 1350 mm 650 mm
Weight	Empty cabinet Fully equipped	170 kg 415 kg	200 kg 570 kg
Capacity	Standard Future option	12 TRX per radio cabinet Up to 3 radio cabinets Up to 4 radio cabinets	
Configuration	Monoband Trisectorial Dual Band Trisectorial Cell Splitting	Up to S16-16-16 (4 radio cabinets) S222_222 (1 radio cabinet) Mono-BCCH dual band cells Cell splitting across radio cabinets	
Amplifier output power	Standard Optional	30W (+/- 0.5 dB) GMSK 30W (+/- 0.5 dB) 8-PSK EDGE 60W (+/- 0.5 dB) GMSK* 45W (+/- 0.5 dB) 8-PSK	
Transmission coupling		All coupling configurations From Duplexers to 4 Ways Hybrid Coupling (H4D)	
Power control	Static Dynamic	6 steps of 2 dB 15 steps of 2 dB	
Space for customer Equipment		NA	6U
Frequency Hopping		RF Synthetised	
Supported vocoders		Full Rate (FR) Enhanced Full Rate (EFR) Adaptive Multi-Rate - Full Rate (AMR FR) Adaptive Multi-Rate - Half Rate (AMR HR)	
Encryption algorithms		A5/1 & A5/2	
Power supply	Nominal	DC -48 V	Single, single-split or tri-phase 230V (50/60Hz) AC Integrated battery backup Optional ancillary battery cabinet
Operational temperature range		-5°C to +45°C	-40°C to +50°C
Max acoustic noise		65 dB(A)	
Backhaul	Standard Future option	6 E1 / T1 links 8 E1 / T1 links	

** Frequency dependant*

In North america, the Caribbean, and Latin America :
Tel : 1-800-4-Nortel
or 1-506-674-5470

In Europe, Middle East, and Africa :
Tel : 00-800-8008-9009*
or +44 (0)20 8920 4618

In Asia :
Tel : 65-287-2877

for more information contact your Nortel Networks account representative, or visit :
www.nortelnetworks.com/contact

* call are not from all European Countries.

www.nortelnetworks.com

NN101082-0702

NORTEL NETWORKS™

Exhibit D

Power Density Calculations

T-Mobile Site CT11810A

401 Wakelee Avenue

Ansonia, Connecticut

T-Mobile

T-Mobile USA Inc.
35 Griffin Rd South, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Maxton
From: Farid Marbouh - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11810A
Date: March 11, 2009

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a Self Support Tower at 401 Wakelee Avenue, Ansonia, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (1980.2-1984.8), (2140-2145), (2110-2120)MHz frequency Band.
2) The antenna array consists of three sectors, with 2 antennas per sector.
3) The model number for GSM antenna is DR65-18-02DPL2Q.
3) The model number for UMTS antenna is APX16DWV-16DWV.
4) GSM antenna center line height is 148 ft.
4) UMTS antenna center line height is 148 ft.
5) The maximum transmit power from any GSM sector is 1895.13 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
5) The maximum transmit power from any UMTS sector is 2221.31 Watts Effective Radiated Power (EiRP) assuming 2 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas 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.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile antenna installation on a Self Support Tower at 401 Wakelee Avenue, Ansonia, CT, is 0.04479 mW/cm^2. This value represents 4.479% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.
The combined Power Density from other carriers is 19.59%. The combined Power Density for the site is 24.069% of the M.P.E. standard.

Connecticut Market

T-Mobile

Worst Case Power Density

Site:	**CT11810A**
Site Address:	**401 Wakelee Avenue**
Town:	**Ansonia**
Tower Height:	**196 ft.**
Tower Style:	**Self Support Tower**

GSM Data		**UMTS Data**	
Base Station TX output	20 W	**Base Station TX output**	40 W
Number of channels	8	**Number of channels**	2
Antenna Model	DR65-18-02DPL2Q	**Antenna Model**	APX16DWV-16DWV
Cable Size	1 5/8 in.	**Cable Size**	1 5/8 in.
Cable Length	178 ft.	**Cable Length**	178 ft.
Antenna Height	148.0 ft.	**Antenna Height**	148.0 ft.
Ground Reflection	1.6	**Ground Reflection**	1.6
Frequency	1945.0 MHz	**Frequency**	2.1 GHz
Jumper & Connector loss	4.50 dB	**Jumper & Connector loss**	1.50 dB
Antenna Gain	17.3 dBi	**Antenna Gain**	18.0 dBi
Cable Loss per foot	0.0116 dB	**Cable Loss per foot**	0.0116 dB
Total Cable Loss	2.0648 dB	**Total Cable Loss**	2.0648 dB
Total Attenuation	6.5648 dB	**Total Attenuation**	3.5648 dB
Total EIRP per Channel	53.75 dBm	**Total EIRP per Channel**	60.46 dBm
(In Watts)	236.89 W	**(In Watts)**	1110.66 W
Total EIRP per Sector	62.78 dBm	**Total EIRP per Sector**	63.47 dBm
(In Watts)	1895.13 W	**(In Watts)**	2221.31 W
nsg	10.7352	**nsg**	14.4352
Power Density (S) =	**0.020620 mW/cm^2**	**Power Density (S) =**	**0.024169 mW/cm^2**

T-Mobile Worst Case % MPE = 4.4788%

Equation Used :

$$S = \frac{(1000)(grf)^2(Power)*10^{(nsg/10)}}{4\pi(R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	**% of Standard**
Verizon	4.4500 %
Cingular	7.4000 %
Sprint	7.7400 %
AT&T Wireless	
Nextel	
MetroPCS	
Other Antenna Systems	
Total Excluding T-Mobile	**19.5900 %**
T-Mobile	4.4788
Total % MPE for Site	**24.0688%**

Exhibit E

Structural Analysis

T-Mobile Site CT11810A

401 Wakelee Avenue

Ansonia, Connecticut

AMERICAN TOWER

Structural Analysis Report

Structure	:	**196 ft Rohn Self Supported Tower**
ATC Site Name	:	**Ansonia Wakelee, CT**
ATC Site Number	:	**302470**
Proposed Carrier	:	**T-Mobile**
Carrier Site Name	:	**Ansonia**
Carrier Site Number	:	**CT11810A**
County	:	**New Haven**
Eng. Number	:	**42976021**
Date	:	**February 23, 2009**
Usage	:	**98% Legs, 99% Diagonals, 15% Horizontals**

Submitted by:
Worth L. Godwin III, PE
Project Engineer

STATE OF CONNECTICUT
RAPHAEL I. MOHAMED
No. 25112
LICENSED
PROFESSIONAL ENGINEER

2/24/09

American Tower Engineering Services
400 Regency Forest Drive
Cary, NC 27518
Phone: 919-468-0112

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 196 ft Rohn Self Supported Tower located at 401 Wakelee Ave., Ansonia, CT 06401, New Haven County (ATC site #302470). The tower was originally designed and manufactured by Rohn (Drawing #A991899, dated July 7, 1999).

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed:	90 mph (Fastest Mile) – 110 mph (3-Second Gust)
Radial Ice:	78 mph (Fastest Mile) w/ ½" ice
Code:	ANSI/TIA/EIA-222-F / 2003 IBC Criteria per Section 1609.1.1, Exception (5) and Section 3108.4 / 2005 CT Supplements & 2008 CT Amendments

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
194.0	9	48" x 12" Panels	Sector Frames	(10) 1 1/4 (6) 1 5/8	Sprint Nextel
	3	72" x 12" Panels			
	3	KMW HB-X-WM-17-65-00T			
184.0	6	Andrew DB950F65E-M	Sector Frames	(6) 1 5/8	
178.0	6	Decibel DB844H90E-XY	Sector Frames	(12) 1 5/8	Verizon
	6	Decibel 948F85T2E-M			
167.0	6	CSS DUO1417-8686	Sector Frames	(12) 1 1/4	AT&T Mobility
	3	Powerwave 7770.00			
	6	14" x 9" TTA			
	3	Powerwave LGP21902			
157.0	3	RFS APXV18-206517-C	Leg	(6) 1 5/8	Youghiogheny
148.0	3	CCI DTMA-1819-DD-12	Sector Frames	-	T-Mobile
125.0	2	Motorola PTP54600	Leg	(2) 1/4	City Of Ansonia
124.0	1	2" x 8" GPS	Side Arm	(1) 1/2	Verizon
104.0	2	2" x 8" GPS	Side Arms	(2) 1/2	Sprint Nextel
82.0	1	10' Omni	Side Arm	(1) 1/2	Ansonia Fire Dept.
76.0	1	2" x 8" GPS	Side Arm	(1) 1/2	Sprint Nextel

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
148.0	3	EMS DR65-18-02DPL2Q	Sector Frames	(18) 1 5/8	T-Mobile
	3	RFS ATMAA1412D-1A20			
	3	RFS APX16DWV-16DWVS-E-A20			

Double stack proposed coax, 9 on 9, on the same tower face as the previously existing T-Mobile coax that is to be removed.

Results

The maximum structure usage is: 99%

Leg Forces	Original Design Reactions	Current Analysis Reactions	% Of Design
Uplift (Kips)	301.1	316.0	105
Axial (Kips)	343.0	375.4	109
Shear (Kips)	36.3	37.4	103

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.

Conclusion

Based on these analysis results, the structure meets requirements per the ANSI/TIA/EIA-222-F standard and the 2003 IBC / 2005 CT Supplements & 2008 CT Amendments. The tower and foundation can support the existing and proposed antenna and transmission line loading as described in this report.

If you have any questions or require additional information, please call 919-466-5527.

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

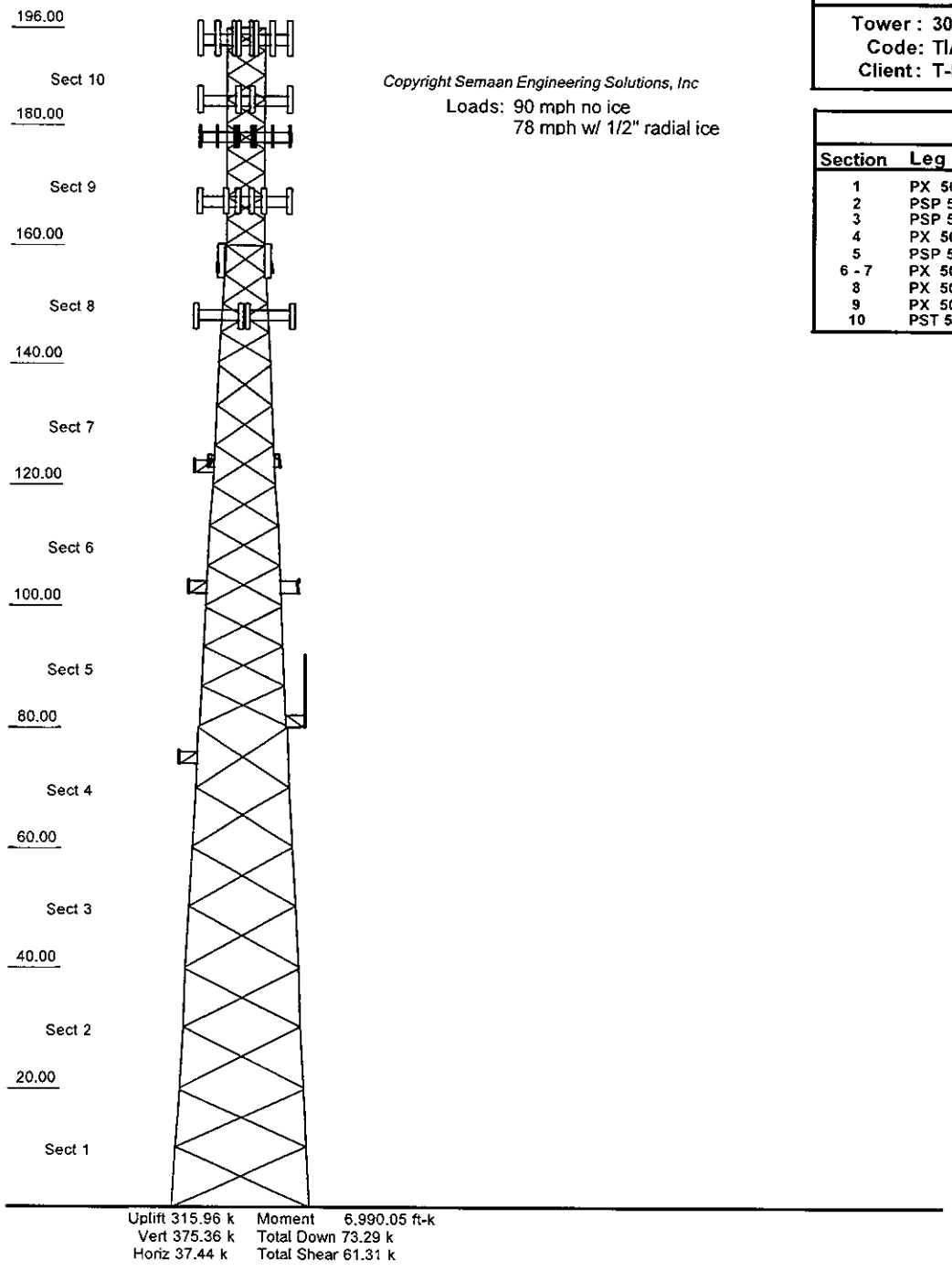
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated; and we, therefore, assume that their capacity has not significantly changed from the "as new" condition.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Engineering Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Loads: 90 mph no ice
78 mph w/ 1/2" radial ice

Job Information

Tower : 302470	Location : Ansonia Wakelee, CT	
Code: TIA/EIA-222 Rev F	Shape : Triangle	Base Width : 23.00 ft
Client: T-Mobile		Top Width : 6.65 ft

Sections Properties

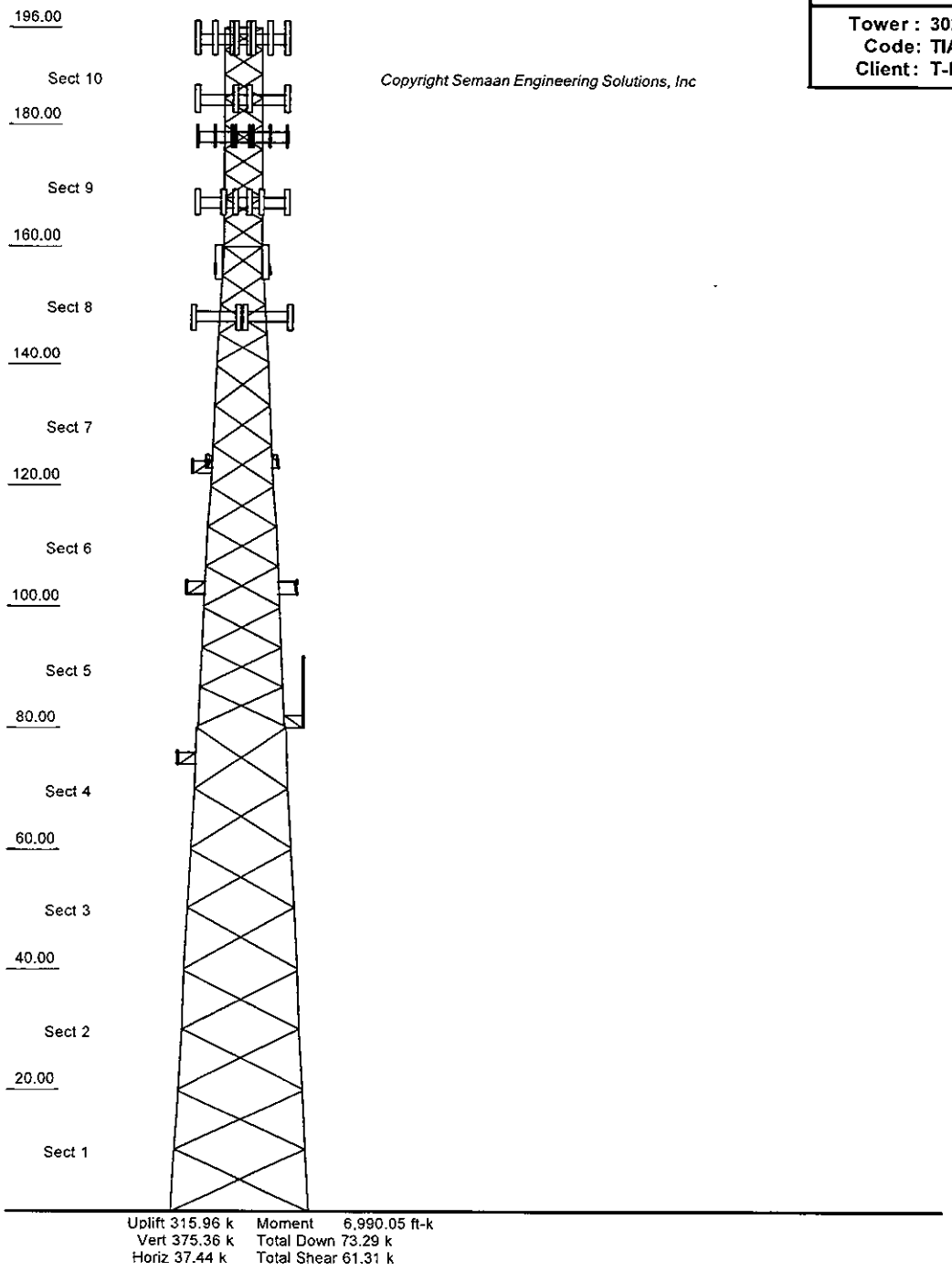
Section	Leg Members	Diagonal Members	Horizontal Members
1	PX 50ksi 8" DIA PIPE	SAE 50ksi 4X4X0.25	
2	PSP 50ksi ROHN 8 EHS	SAE 50ksi 4X4X0.25	
3	PSP 50ksi ROHN 8 EHS	SAE 50ksi 3.5X3.5X0.25	
4	PX 50ksi 6" DIA PIPE	SAE 50ksi 3.5X3.5X0.25	
5	PSP 50ksi ROHN 6 EHS	SAE 50ksi 3X3X0.25	
6 - 7	PX 50ksi 5" DIA PIPE	SAE 36ksi 2.5X2.5X0.25	
8	PX 50ksi 4" DIA PIPE	SAE 36ksi 2X2X0.25	SAE 36ksi 2X2X0.25
9	PX 50ksi 3" DIA PIPE	SAE 36ksi 2X2X0.1875	
10	PST 50ksi 2-1/2" DIA PIPE	SAE 36ksi 1.75X1.75X0.1875	SAE 36ksi 1.75X1.75X0.1875

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
194.00		3	KMW HB-X-WM-17-65-00T
194.00	Mounting Frame	3	Round Sector Frames
194.00	Panel	3	72" x 12" Panels
194.00	Panel	9	48" x 12" Panels
184.00	Mounting Frame	3	Round Sector Frames
184.00	Panel	6	Andrew DB950F65E-M
178.00	Mounting Frame	3	Flat Light Sector Frames
178.00	Panel	6	Decibel 948F85T2E-M
178.00	Panel	6	Decibel DB844H90E-XY
167.00	Mounting Frame	3	Round Sector Frames
167.00		3	Powerwave LGP21902
167.00		6	14" x 9" TTA
167.00	Panel	3	Powerwave 7770.00
167.00	Panel	6	CSS DUO1417-8686
157.00	Panel	3	RFS APXV18-206517-C
148.00	Panel	3	RFS APX16DWV-16DWVS-E-A20
148.00		3	RFS ATMAA1412D-1A20
148.00	Panel	3	EMS DR65-18-02DPL2Q
148.00		3	CCI DTMA-1819-DD-12
148.00	Mounting Frame	3	Round Sector Frames
125.00	Panel	2	Motorola PTP54600
124.00	Straight Arm	1	Side Arm
124.00	Whip	1	2" x 8" GPS
104.00	Straight Arm	2	Side Arms
104.00	Whip	2	2" x 8" GPS
82.00	Straight Arm	1	Side Arm
82.00	Whip	1	10' Omni
76.00	Straight Arm	1	Side Arm
76.00	Whip	1	2" x 8" GPS

Linear Appurtenance

Elev (ft) From	To	Qty	Description
8.000	194.00	6	1 5/8" Coax
8.000	194.00	10	1 1/4" Coax
8.000	193.99	1	Wave Guide
8.000	184.00	6	1 5/8" Coax
8.000	183.99	1	Wave Guide
8.000	178.00	12	1 5/8" Coax
8.000	167.00	12	1 1/4" Coax
8.000	166.99	1	Wave Guide
0.000	157.00	6	1 5/8" Coax
8.000	148.00	18	1 5/8" Coax
8.000	147.99	1	Wave Guide
8.000	125.00	2	1/4" Coax
8.000	124.00	1	1/2" Coax
8.000	104.00	2	1/2" Coax
8.000	82.000	1	1/2" Coax



Job Information

Tower : 302470	**Location : Ansonia Wakelee, CT**		
Code: TIA/EIA-222 Rev F	**Shape : Triangle**	**Base Width : 23.00 ft**	
Client : T-Mobile		**Top Width : 6.65 ft**	

8.000	76.000	1	1/2" Coax

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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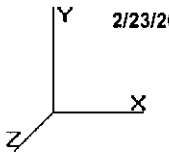

Gh : 1.12

Section Forces

LoadCase Normal No Ice — 90.00 mph Wind Normal To Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	34.09	9.69	27.78	0.00	0.35	2.17	1.00	1.00	0.63	27.28	0.00	0.00	998.7	0.0	2,246.89	0.00	2,246.89	3
9	170.0	33.12	21.30	40.40	0.00	0.46	1.95	1.00	1.00	0.68	48.76	0.00	0.00	2,015.4	0.0	3,515.25	0.00	3,515.25	3
8	150.0	31.96	22.61	56.97	0.00	0.52	1.88	1.00	1.00	0.71	62.89	0.00	0.00	2,942.6	0.0	4,207.53	0.00	4,207.53	3
7	130.0	30.68	23.98	80.63	0.00	0.54	1.86	1.00	1.00	0.72	81.85	0.00	0.00	3,659.9	0.0	5,195.41	0.00	5,195.41	3
6	110.0	29.25	26.16	81.91	0.00	0.46	1.96	1.00	1.00	0.68	81.66	0.00	0.00	3,793.8	0.0	5,216.44	0.00	5,216.44	3
5	90.00	27.62	32.00	87.14	0.00	0.43	2.00	1.00	1.00	0.66	89.94	0.00	0.00	4,276.9	0.0	5,554.35	0.00	5,554.35	3
4	70.00	25.71	31.02	87.14	0.00	0.37	2.12	1.00	1.00	0.64	86.86	0.00	0.00	4,576.6	0.0	5,279.97	0.00	5,279.97	3
3	50.00	23.35	32.87	94.23	0.00	0.36	2.16	1.00	1.00	0.63	92.65	0.00	0.00	5,026.3	0.0	5,209.68	0.00	5,209.68	3
2	30.00	20.74	38.57	94.23	0.00	0.33	2.21	1.00	1.00	0.63	97.61	0.00	0.00	5,365.9	0.0	4,992.30	0.00	4,992.30	3
1	10.00	20.74	37.09	67.81	0.00	0.24	2.47	1.00	1.00	0.60	77.71	0.00	0.00	5,491.4	0.0	4,442.12	0.00	4,442.12	3
														38,147.6	0.0			45,859.96	

LoadCase 60 deg No Ice — 90.00 mph Wind at 60 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	34.09	9.69	27.78	0.00	0.35	2.17	0.80	1.00	0.63	25.34	0.00	0.00	998.7	0.0	2,087.29	0.00	2,087.29	3
9	170.0	33.12	21.30	40.40	0.00	0.46	1.95	0.80	1.00	0.68	44.50	0.00	0.00	2,015.4	0.0	3,208.09	0.00	3,208.09	3
8	150.0	31.96	22.61	56.97	0.00	0.52	1.88	0.80	1.00	0.71	58.37	0.00	0.00	2,942.6	0.0	3,905.04	0.00	3,905.04	3
7	130.0	30.68	23.98	80.63	0.00	0.54	1.86	0.80	1.00	0.72	77.06	0.00	0.00	3,659.9	0.0	4,890.99	0.00	4,890.99	3
6	110.0	29.25	26.16	81.91	0.00	0.46	1.96	0.80	1.00	0.68	76.43	0.00	0.00	3,793.8	0.0	4,882.28	0.00	4,882.28	3
5	90.00	27.62	32.00	87.14	0.00	0.43	2.00	0.80	1.00	0.66	83.54	0.00	0.00	4,276.9	0.0	5,159.13	0.00	5,159.13	3
4	70.00	25.71	31.02	87.14	0.00	0.37	2.12	0.80	1.00	0.64	80.66	0.00	0.00	4,576.6	0.0	4,902.86	0.00	4,902.86	3
3	50.00	23.35	32.87	94.23	0.00	0.36	2.16	0.80	1.00	0.63	86.07	0.00	0.00	5,026.3	0.0	4,840.01	0.00	4,840.01	3
2	30.00	20.74	38.57	94.23	0.00	0.33	2.21	0.80	1.00	0.63	89.90	0.00	0.00	5,365.9	0.0	4,597.79	0.00	4,597.79	3
1	10.00	20.74	37.09	67.81	0.00	0.24	2.47	0.80	1.00	0.60	70.29	0.00	0.00	5,491.4	0.0	4,018.10	0.00	4,018.10	3
														38,147.6	0.0			42,491.60	

LoadCase 90 deg No Ice — 90.00 mph Wind at 90 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	34.09	9.69	27.78	0.00	0.35	2.17	0.85	1.00	0.63	25.82	0.00	0.00	998.7	0.0	2,127.19	0.00	2,127.19	3

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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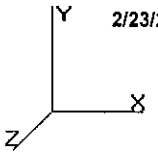

Gh : 1.12

Section Forces

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	33.12	21.30	40.40	0.00	0.46	1.95	0.85	1.00	0.68	45.57	0.00	0.00	2,015.4	0.0	3,284.88	0.00	3,284.88	3
8	150.0	31.96	22.61	56.97	0.00	0.52	1.88	0.85	1.00	0.71	59.50	0.00	0.00	2,942.6	0.0	3,980.66	0.00	3,980.66	3
7	130.0	30.68	23.98	80.63	0.00	0.54	1.86	0.85	1.00	0.72	78.25	0.00	0.00	3,659.9	0.0	4,967.10	0.00	4,967.10	3
6	110.0	29.25	26.16	81.91	0.00	0.46	1.96	0.85	1.00	0.68	77.74	0.00	0.00	3,793.8	0.0	4,965.82	0.00	4,965.82	3
5	90.00	27.62	32.00	87.14	0.00	0.43	2.00	0.85	1.00	0.66	85.14	0.00	0.00	4,276.9	0.0	5,257.94	0.00	5,257.94	3
4	70.00	25.71	31.02	87.14	0.00	0.37	2.12	0.85	1.00	0.64	82.21	0.00	0.00	4,576.6	0.0	4,997.14	0.00	4,997.14	3
3	50.00	23.35	32.87	94.23	0.00	0.36	2.16	0.85	1.00	0.63	87.72	0.00	0.00	5,026.3	0.0	4,932.43	0.00	4,932.43	3
2	30.00	20.74	38.57	94.23	0.00	0.33	2.21	0.85	1.00	0.63	91.83	0.00	0.00	5,365.9	0.0	4,696.42	0.00	4,696.42	3
1	10.00	20.74	37.09	67.81	0.00	0.24	2.47	0.85	1.00	0.60	72.15	0.00	0.00	5,491.4	0.0	4,124.10	0.00	4,124.10	3
														38,147.6	0.0			43,333.69	

LoadCase Normal Ice — 77.94 mph Wind Normal To Face with Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	25.57	9.69	47.83	20.05	0.54	1.85	1.00	1.00	0.72	44.07	0.00	0.00	1,784.1	785.4	2,328.24	0.00	2,328.24	3
9	170.0	24.84	21.30	68.34	27.94	0.67	1.78	1.00	1.00	0.80	76.08	0.00	0.00	3,515.5	1,500.1	3,744.62	0.00	3,744.62	3
8	150.0	23.97	22.61	91.94	34.97	0.75	1.79	1.00	1.00	0.85	101.13	0.00	0.00	5,033.1	2,090.5	4,828.03	0.00	4,828.03	3
7	130.0	23.01	23.98	125.66	45.04	0.77	1.80	1.00	1.00	0.87	133.60	0.00	0.00	6,203.7	2,543.8	6,159.64	0.00	6,159.64	3
6	110.0	21.94	26.16	130.98	49.07	0.67	1.78	1.00	1.00	0.80	130.63	0.00	0.00	6,436.7	2,642.9	5,680.24	0.00	5,680.24	3
5	90.00	20.71	32.00	139.78	52.65	0.62	1.79	1.00	1.00	0.77	139.28	0.00	0.00	7,159.1	2,882.3	5,764.87	0.00	5,764.87	3
4	70.00	19.28	31.02	138.36	51.22	0.53	1.86	1.00	1.00	0.72	130.04	0.00	0.00	7,439.8	2,863.2	5,197.92	0.00	5,197.92	3
3	50.00	17.51	32.87	146.04	51.81	0.50	1.90	1.00	1.00	0.70	134.74	0.00	0.00	8,032.0	3,005.7	4,999.21	0.00	4,999.21	3
2	30.00	15.55	38.57	146.65	52.42	0.46	1.95	1.00	1.00	0.68	138.30	0.00	0.00	8,538.7	3,172.9	4,677.70	0.00	4,677.70	3
1	10.00	15.55	37.09	104.17	36.37	0.32	2.24	1.00	1.00	0.62	101.96	0.00	0.00	8,025.2	2,533.8	3,961.83	0.00	3,961.83	3
														62,168.0	24,020.5			47,342.29	

LoadCase 60 deg Ice — 77.94 mph Wind at 60 deg From Face with Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	25.57	9.69	47.83	20.05	0.54	1.85	0.80	1.00	0.72	42.13	0.00	0.00	1,784.1	785.4	2,225.88	0.00	2,225.88	3
9	170.0	24.84	21.30	68.34	27.94	0.67	1.78	0.80	1.00	0.80	71.82	0.00	0.00	3,515.5	1,500.1	3,534.90	0.00	3,534.90	3
8	150.0	23.97	22.61	91.94	34.97	0.75	1.79	0.80	1.00	0.85	96.61	0.00	0.00	5,033.1	2,090.5	4,612.18	0.00	4,612.18	3
7	130.0	23.01	23.98	125.66	45.04	0.77	1.80	0.80	1.00	0.87	128.81	0.00	0.00	6,203.7	2,543.8	5,938.52	0.00	5,938.52	3
6	110.0	21.94	26.16	130.98	49.07	0.67	1.78	0.80	1.00	0.80	125.40	0.00	0.00	6,436.7	2,642.9	5,452.77	0.00	5,452.77	3
5	90.00	20.71	32.00	139.78	52.65	0.62	1.79	0.80	1.00	0.77	132.88	0.00	0.00	7,159.1	2,882.3	5,499.97	0.00	5,499.97	3
4	70.00	19.28	31.02	138.36	51.22	0.53	1.86	0.80	1.00	0.72	123.83	0.00	0.00	7,439.8	2,863.2	4,949.94	0.00	4,949.94	3
3	50.00	17.51	32.87	146.04	51.81	0.50	1.90	0.80	1.00	0.70	128.16	0.00	0.00	8,032.0	3,005.7	4,755.28	0.00	4,755.28	3
2	30.00	15.55	38.57	146.65	52.42	0.46	1.95	0.80	1.00	0.68	130.59	0.00	0.00	8,538.7	3,172.9	4,416.80	0.00	4,416.80	3
1	10.00	15.55	37.09	104.17	36.37	0.32	2.24	0.80	1.00	0.62	94.54	0.00	0.00	8,025.2	2,533.8	3,673.59	0.00	3,673.59	3
														62,168.0	24,020.5			45,059.83	

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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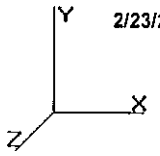

Gh : 1.12

Section Forces

LoadCase 90 deg Ice — **77.94 mph Wind at 90 deg From Face with Ice**

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
10	188.0	25.57	9.69	47.83	20.05	0.54	1.85	0.85	1.00	0.72	42.62	0.00	0.00	1,784.1	785.4	2,251.47	0.00	2,251.47	3
9	170.0	24.84	21.30	68.34	27.94	0.67	1.78	0.85	1.00	0.80	72.88	0.00	0.00	3,515.5	1,500.1	3,587.33	0.00	3,587.33	3
8	150.0	23.97	22.61	91.94	34.97	0.75	1.79	0.85	1.00	0.85	97.74	0.00	0.00	5,033.1	2,090.5	4,666.14	0.00	4,666.14	3
7	130.0	23.01	23.98	125.66	45.04	0.77	1.80	0.85	1.00	0.87	130.01	0.00	0.00	6,203.7	2,543.8	5,993.80	0.00	5,993.80	3
6	110.0	21.94	26.16	130.98	49.07	0.67	1.78	0.85	1.00	0.80	126.71	0.00	0.00	6,436.7	2,642.9	5,509.63	0.00	5,509.63	3
5	90.00	20.71	32.00	139.78	52.65	0.62	1.79	0.85	1.00	0.77	134.48	0.00	0.00	7,159.1	2,882.3	5,566.19	0.00	5,566.19	3
4	70.00	19.28	31.02	138.36	51.22	0.53	1.86	0.85	1.00	0.72	125.38	0.00	0.00	7,439.8	2,863.2	5,011.93	0.00	5,011.93	3
3	50.00	17.51	32.87	146.04	51.81	0.50	1.90	0.85	1.00	0.70	129.81	0.00	0.00	8,032.0	3,005.7	4,816.26	0.00	4,816.26	3
2	30.00	15.55	38.57	146.65	52.42	0.46	1.95	0.85	1.00	0.68	132.51	0.00	0.00	8,538.7	3,172.9	4,482.02	0.00	4,482.02	3
1	10.00	15.55	37.09	104.17	36.37	0.32	2.24	0.85	1.00	0.62	96.39	0.00	0.00	8,025.2	2,533.8	3,745.65	0.00	3,745.65	3
														62,168.0	24,020.5			45,630.45	

Site Number: 302470
Location: Ansonia Wakelee, CT

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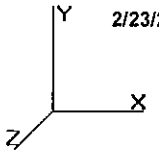

Tower Loading

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
194.0	KMW HB-X-WM-17-65-00T	3	15.90	0.650	0.30	20.84	1.040	0.30	0.000	0.00	0.000
194.0	Round Sector Frames	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
194.0	72" x 12" Panels	3	40.00	8.400	0.67	87.00	9.230	0.67	0.000	0.00	0.000
194.0	48" x 12" Panels	9	30.00	5.600	0.67	63.00	6.190	0.67	0.000	0.00	0.000
184.0	Round Sector Frames	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
184.0	Andrew DB950F65E-M	6	30.00	5.360	0.78	65.00	7.000	0.78	0.000	0.00	0.000
178.0	Flat Light Sector Frames	3	400.00	17.900	0.75	510.00	22.200	0.75	0.000	0.00	0.000
178.0	Decibel 948F85T2E-M	6	8.50	3.270	0.70	27.00	3.810	0.70	0.000	0.00	0.000
178.0	Decibel DB844H90E-XY	6	10.00	3.060	0.84	36.27	3.410	0.84	0.000	0.00	0.000
167.0	Round Sector Frames	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
167.0	Powerwave LGP21902	3	5.50	0.270	0.30	14.00	0.400	0.30	0.000	0.00	0.000
167.0	14" x 9" TTA	6	10.00	1.230	0.30	18.00	1.460	0.30	0.000	0.00	0.000
167.0	Powerwave 7770.00	3	35.00	5.941	0.75	67.75	6.597	0.75	0.000	0.00	0.000
167.0	CSS DUO1417-8686	6	42.50	6.588	0.82	85.01	7.204	0.82	0.000	0.00	0.000
157.0	RFS APXV18-206517-C	3	26.40	5.170	0.78	53.13	5.850	0.82	0.000	0.00	0.000
148.0	RFS APX16DWV-16DWVS-E-	3	40.70	7.220	0.68	75.00	7.910	0.68	0.000	0.00	0.000
148.0	RFS ATMAA1412D-1A20	3	13.00	1.170	0.30	20.60	1.390	0.30	0.000	0.00	0.000
148.0	EMS DR65-18-02DPL2Q	3	24.00	6.300	0.72	55.86	6.951	0.72	0.000	0.00	0.000
148.0	CCI DTMA-1819-DD-12	3	14.30	0.710	0.30	19.30	0.900	0.30	0.000	0.00	0.000
148.0	Round Sector Frames	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
125.0	Motorola PTP54600	2	12.10	2.040	1.00	23.50	2.330	1.00	0.000	0.00	0.000
124.0	Side Arm	1	200.00	2.000	1.00	260.00	3.000	1.00	0.000	0.00	0.000
124.0	2" x 8" GPS	1	0.26	0.160	1.00	11.59	10.000	1.00	0.000	0.00	0.000
104.0	Side Arms	2	200.00	2.000	1.00	260.00	3.000	1.00	0.000	0.00	0.000
104.0	2" x 8" GPS	2	0.26	0.160	1.00	11.59	10.000	1.00	0.000	0.00	0.000
82.00	Side Arm	1	200.00	2.000	1.00	260.00	3.000	1.00	0.000	0.00	0.000
82.00	10' Omni	1	10.00	3.000	1.00	25.00	4.000	1.00	0.000	0.00	5.000
76.00	Side Arm	1	200.00	2.000	1.00	260.00	3.000	1.00	0.000	0.00	0.000
76.00	2" x 8" GPS	1	0.26	0.160	1.00	11.59	10.000	1.00	0.000	0.00	0.000
	Totals	93	7355.64			11123.41			Number of Appurtenances : 29		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Wind	Spread On Faces	Bundling Arrangement
8.00	194.0	1 1/4" Coax	10	1.55	0.63	60.00	3	Separate
8.00	194.0	1 5/8" Coax	6	1.98	0.82	50.00	3	Separate
8.00	193.9	Wave Guide	1	2.00	6.00	100.00	3	Separate
8.00	184.0	1 5/8" Coax	6	1.98	0.82	100.00	1	Separate
8.00	183.9	Wave Guide	1	2.00	6.00	100.00	1	Separate
8.00	178.0	1 5/8" Coax	12	1.98	0.82	25.00	3	Flat
8.00	167.0	1 1/4" Coax	12	1.55	0.63	75.00	2	Flat
8.00	166.9	Wave Guide	1	2.00	6.00	100.00	2	Separate
0.00	157.0	1 5/8" Coax	6	1.98	0.82	100.00	1	Separate
8.00	148.0	1 5/8" Coax	18	1.98	0.82	50.00	3	Separate
8.00	147.9	Wave Guide	1	2.00	6.00	100.00	3	Separate
8.00	125.0	1/4" Coax	2	0.34	0.06	100.00	3	Separate

Site Number: 302470
Location: Ansonia Wakelee, CT

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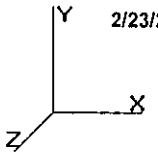

Tower Loading

8.00	124.0	1/2" Coax	1	0.63	0.15	0.00	3	Separate
8.00	104.0	1/2" Coax	2	0.63	0.15	100.00	3	Separate
8.00	82.00	1/2" Coax	1	0.63	0.15	100.00	2	Separate
8.00	76.00	1/2" Coax	1	0.63	0.15	100.00	1	Separate

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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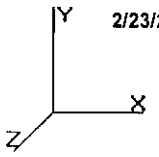

Force/Stress Summary

Section: 1 15N25 Bot Elev (ft): 0.00 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 8" DIA PIPE	-368.62	Normal Ice	9.85	100	100	100	41.0	34.2	438.31	0	0	0.00	0.00	84	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-12.05	90 deg Ice	23.62	50	75	50	178.3	6.3	12.15	1	1	12.37	19.50	99	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 8" DIA PIPE	318.13	60 deg Ice	50	511.95	0	0	0.00	0.00	62	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	11.52	90 deg Ice	50	56.44	1	1	12.37	19.50	93	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	290.40	60 deg Ice	0.00	0		
Top Compression	344.08	Normal Ice	0.00	0		
Bot Tension	318.13	60 deg Ice	431.96	74	10	1" A354-BC
Bot Compression	376.20	Normal Ice	0.00	0		

Section: 2 14N46 Bot Elev (ft): 20.00 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-334.04	Normal Ice	9.85	100	100	100	40.3	34.4	339.28	0	0	0.00	0.00	98	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-11.14	90 deg Ice	21.78	50	75	50	164.4	7.4	14.29	1	1	12.37	19.50	90	Bolt Shear

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	290.93	60 deg Ice	50	394.76	0	0	0.00	0.00	73	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	10.92	90 deg Ice	50	56.44	1	1	12.37	19.50	88	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	260.86	60 deg Ice	0.00	0		
Top Compression	307.89	Normal Ice	0.00	0		
Bot Tension	290.40	60 deg Ice	368.60	79	8	1 A325
Bot Compression	344.08	Normal Ice	0.00	0		

Site Number: 302470
Location: Ansonia Wakelee, CT

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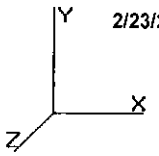

Force/Stress Summary

Section: 3 13N88 Bot Elev (ft): 40.00 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-297.12	Normal Ice	9.85	100	100	100	40.3	34.4	339.28	0	0	0.00	0.00	87	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	-10.10	90 deg Ice	20.85	50	75	50	180.3	6.1	10.35	1	1	12.37	19.50	97	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	261.53	60 deg Ice	50	394.76	0	0	0.00	0.00	66	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	10.17	90 deg Ice	50	48.32	1	1	12.37	19.50	82	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	229.67	60 deg Ice	0.00	0		
Top Compression	269.95	Normal Ice	0.00	0		
Bot Tension	260.86	60 deg Ice	368.60	71	8	1 A325
Bot Compression	307.89	Normal Ice	0.00	0		

Section: 4 12N50 Bot Elev (ft): 60.00 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	-258.99	Normal Ice	9.85	100	100	100	54.0	31.6	265.63	0	0	0.00	0.00	97	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	-10.16	90 deg Ice	18.22	50	75	50	157.6	8.0	13.55	1	1	12.37	19.50	82	Bolt Shear

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	230.33	60 deg Ice	50	335.97	0	0	0.00	0.00	68	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	9.73	90 deg Ice	50	48.32	1	1	12.37	19.50	78	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	196.68	60 deg Ice	0.00	0		
Top Compression	230.38	Normal Ice	0.00	0		
Bot Tension	229.67	60 deg Ice	368.60	62	8	1 A325
Bot Compression	269.95	Normal Ice	0.00	0		

Site Number: 302470
Location: Ansonia Wakelee, CT

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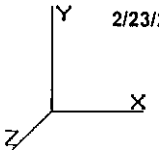

Force/Stress Summary

Section: 5 11N223 Bot Elev (ft): 80.00 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 6 EHS	-222.16	Normal Ice	6.57	100	100	100	35.4	35.3	236.69	0	0	0.00	0.00	93	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	-8.47	90 deg Ice	15.89	50	75	50	161.1	7.7	11.05	1	1	12.37	19.50	76	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 6 EHS	197.27	60 deg Ice	50	268.37	0	0	0.00	0.00	73	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	8.42	90 deg Ice	50	40.19	1	1	12.37	19.50	68	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	162.78	60 deg No Ice	0.00	0		
Top Compression	189.55	Normal Ice	0.00	0		
Bot Tension	196.68	60 deg Ice	276.45	71	6	1 A325
Bot Compression	230.38	Normal Ice	0.00	0		

Section: 6 10N152 Bot Elev (ft): 100.0 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	-181.39	Normal Ice	6.57	100	100	100	42.8	33.9	207.14	0	0	0.00	0.00	87	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	-7.77	90 deg Ice	14.05	50	75	50	171.7	6.7	8.03	1	1	8.53	14.50	96	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	163.03	60 deg No Ice	50	244.38	0	0	0.00	0.00	66	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	7.61	90 deg Ice	36	29.52	1	1	8.53	14.50	89	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	129.54	60 deg No Ice	0.00	0		
Top Compression	147.93	Normal Ice	0.00	0		
Bot Tension	162.78	60 deg No Ice	276.45	59	6	1 A325
Bot Compression	189.55	Normal Ice	0.00	0		

Site Number: 302470
Location: Ansonia Wakelee, CT

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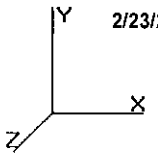

Force/Stress Summary

Section: 7 9N216 Bot Elev (ft): 120.0 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	-139.66	Normal Ice	6.57	100	100	100	42.8	33.9	207.14	0	0	0.00	0.00	67	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	-7.12	90 deg Ice	11.17	50	75	50	136.6	10.7	12.71	1	1	8.53	14.50	83	Bolt Shear

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	129.77	60 deg No Ice	50	244.38	0	0	0.00	0.00	53	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	6.94	90 deg Ice	36	29.52	1	1	8.53	14.50	81	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	93.22	60 deg No Ice	0.00	0		
Top Compression	104.92	Normal Ice	0.00	0		
Bot Tension	129.54	60 deg No Ice	184.30	70	4	1 A325
Bot Compression	147.93	Normal Ice	0.00	0		

Section: 8 A780252 Bot Elev (ft): 140.0 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	-98.48	Normal No Ice	4.93	100	100	100	39.9	34.5	151.93	0	0	0.00	0.00	64	Member X
HORIZ SAE - 2X2X0.25	-0.36	60 deg Ice	6.653	100	100	100	204.2	4.8	4.49	1	1	8.53	14.50	8	Member Z
DIAG SAE - 2X2X0.25	-5.77	90 deg Ice	9.758	50	75	50	149.7	8.9	8.35	1	1	8.53	14.50	69	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	93.44	60 deg No Ice	50	176.38	0	0	0.00	0.00	52	Member
HORIZ SAE - 2X2X0.25	0.24	Normal No Ice	36	22.27	1	1	8.53	14.50	2	Bolt Shear
DIAG SAE - 2X2X0.25	5.74	90 deg Ice	36	22.27	1	1	8.53	14.50	67	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	54.43	60 deg No Ice	0.00	0		
Top Compression	61.35	Normal No Ice	0.00	0		
Bot Tension	93.22	60 deg No Ice	184.30	51	4	1 A325
Bot Compression	104.92	Normal Ice	0.00	0		

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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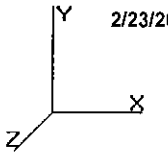

Force/Stress Summary

Section: 9 A780178 Bot Elev (ft): 160.0 Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 3" DIA PIPE	-54.71	Normal No Ice	3.93	100	100	100	41.4	34.2	103.21	0	0	0.00	0.00	53	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2X2X0.1875	-6.44	90 deg No Ice	7.728	50	75	50	118.3	14.0	10.04	2	1	17.06	21.75	64	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 3" DIA PIPE	54.16	60 deg No Ice	50	120.79	0	0	0.00	0.00	44	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2X2X0.1875	6.36	90 deg No Ice	36	17.00	2	1	17.06	21.75	37	Member

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	10.01	60 deg No Ice	0.00	0		
Top Compression	12.85	Normal Ice	0.00	0		
Bot Tension	54.43	60 deg No Ice	141.11	39	4	7/8 A325
Bot Compression	61.35	Normal No Ice	0.00	0		

Section: 10 A780178 Bot Elev (ft): 180.0 Height (ft): 16.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-12.50	Normal No Ice	0.17	100	100	100	2.1	39.8	67.84	0	0	0.00	0.00	18	Member X
HORIZ SAE - 1.75X1.75X0.18	-0.35	Normal No Ice	6.653	100	100	100	232.7	3.7	2.28	1	1	8.53	10.87	15	Member Z
DIAG SAE - 1.75X1.75X0.18	-2.86	90 deg No Ice	7.741	50	75	50	135.4	10.9	6.74	1	1	8.53	10.87	42	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	10.10	60 deg No Ice	50	68.15	0	0	0.00	0.00	14	Member
HORIZ SAE - 1.75X1.75X0.18	0.35	60 deg No Ice	36	14.27	1	1	8.53	10.87	4	Bolt Shear
DIAG SAE - 1.75X1.75X0.18	2.85	90 deg No Ice	36	14.27	1	1	8.53	10.87	33	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0		
Top Compression	0.12	60 deg Ice	0.00	0		
Bot Tension	10.01	60 deg No Ice	103.67	10	4	3/4 A325
Bot Compression	12.85	Normal Ice	0.00	0		

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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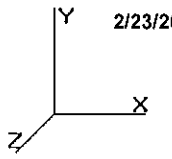

Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
90 deg Ice	1b	-29.58	-272.62	-14.68	
	1a	-25.95	321.47	12.70	
	1	-4.06	24.44	1.97	
60 deg Ice	1b	-32.42	-315.96	-18.72	
	1a	-15.28	194.61	4.88	
	1	-3.42	194.64	-15.67	
Normal Ice	1b	-15.76	-151.03	-13.38	
	1a	15.76	-151.03	-13.38	
	1	0.00	375.36	-34.55	
90 deg No Ice	1b	-26.01	-268.64	-12.61	
	1a	-27.42	298.97	13.54	
	1	-4.06	15.17	-0.93	
60 deg No Ice	1b	-28.55	-308.71	-16.48	
	1a	-17.11	177.09	5.95	
	1	-3.40	177.13	-17.80	
Normal No Ice	1b	-12.80	-154.47	-11.75	
	1a	12.80	-154.47	-11.75	
	1	0.00	354.45	-36.51	

Max Uplift:	315.96 (kip)	Moment:	6,990.05 (ft-kip)	Normal Ice
Max Down:	375.36 (kip)	Total Down:	73.29 (kip)	
Max Shear:	37.44 (kip)	Total Shear:	61.31 (kip)	

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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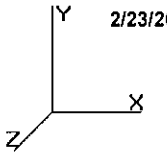

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
77.94 mph Wind Normal To Face with Ice	79.83	0.2987	0.0177	0.4615
	80.17	0.3014	0.0177	0.4635
	106.72	0.5460	0.0244	0.6165
	126.72	0.7881	0.0294	0.7504
	150.00	1.1293	0.0348	0.9300
	154.92	1.2094	0.0355	0.9475
	168.03	1.4427	0.0382	1.0687
	179.83	1.6661	0.0378	1.1805
	184.13	1.7491	0.0382	1.0867
	192.04	1.9015	0.0383	1.1034
77.94 mph Wind at 60 deg From Face with Ice	79.83	0.2922	0.0206	0.4482
	80.17	0.2949	0.0206	0.4499
	106.72	0.5331	0.0268	0.6007
	126.72	0.7689	0.0315	0.7320
	150.00	1.1013	0.0367	0.9080
	154.92	1.1801	0.0370	0.9250
	168.03	1.4071	0.0399	1.0444
	179.83	1.6254	0.0404	1.1536
	184.13	1.7066	0.0399	1.0624
	192.04	1.8554	0.0398	1.0791
77.94 mph Wind at 90 deg From Face with Ice	79.83	0.2936	0.0133	0.4482
	80.17	0.2963	0.0134	0.4497
	106.72	0.5360	0.0168	0.6048
	126.72	0.7734	0.0193	0.7364
	150.00	1.1079	0.0223	0.9113
	154.92	1.1870	0.0223	0.9338
	168.03	1.4156	0.0240	1.0524
	179.83	1.6352	0.0245	1.1489
	184.13	1.7168	0.0240	1.0706
	192.04	1.8665	0.0239	1.0876
90.00 mph Wind Normal To Face with No Ice	79.83	0.2885	0.0167	0.4439
	80.17	0.2912	0.0167	0.4460
	106.72	0.5277	0.0232	0.5987
	126.72	0.7634	0.0282	0.7345
	150.00	1.0985	0.0336	0.9187
	154.92	1.1782	0.0343	0.9370
	168.03	1.4094	0.0371	1.0630
	179.83	1.6318	0.0366	1.1785
	184.13	1.7145	0.0371	1.0822
	192.04	1.8664	0.0371	1.0999
90.00 mph Wind at 60 deg From Face with No Ice	79.83	0.2762	0.0193	0.4241
	80.17	0.2787	0.0193	0.4257
	106.72	0.5062	0.0253	0.5756
	126.72	0.7334	0.0299	0.7076
	150.00	1.0564	0.0351	0.8867
	154.92	1.1336	0.0355	0.9044
	168.03	1.3563	0.0384	1.0276
	179.83	1.5714	0.0388	1.1399

Site Number: 302470
Location: Ansonia Wakelee, CT

Code: TIA/EIA-222 Rev F

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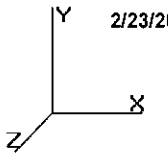
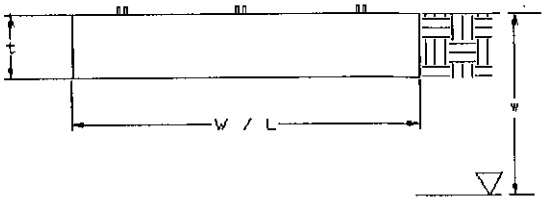


	184.13	1.6514	0.0383	1.0467
	192.04	1.7981	0.0383	1.0642
90.00 mph Wind at 90 deg From Face with No Ice	79.83	0.2788	0.0126	0.4261
	80.17	0.2814	0.0127	0.4274
	106.72	0.5111	0.0160	0.5815
	126.72	0.7404	0.0185	0.7142
	150.00	1.0666	0.0214	0.8923
	154.92	1.1442	0.0215	0.9157
	168.03	1.3692	0.0232	1.0383
	179.83	1.5861	0.0237	1.1375
	184.13	1.6668	0.0232	1.0576
	192.04	1.8148	0.0231	1.0757
		0.0000	0.0000	0.0000

FOUNDATION TYPE: MAT

Site Name:	Ansonia Wakelee, CT
Site Number:	302470
Engineer:	WLG
Date:	2/23/2009



Design Loads

O.T. Moment:	6990.03	k-ft
Total Compression:	73.29	k
Total Shear:	61.31	k
Tower Type:	SST	
Code Revision:	F	
Allowable Capacity Increase (Transient Loads):	1.33	
Height of Pad above Ground (h):	0.5	ft
Length of Pad (L):	32.5	ft
Width of Pad (W):	32.5	ft
Thickness of Pad (t):	4	ft
Depth Below Ground Surface to Water Table (w):	9	ft
Unit Weight of Soil Above Water Table:	120	pcf
Friction Angle of Uplift (A):	30	°
Ultimate Coefficient of Shear Friction:	0.3	
Ultimate Cohesion of Soil:	0	psf
Allowable Concrete Compressive Strength:	3000	psi
Unit Weight of Water:	62.4	pcf
Unit Weight of Concrete:	150	pcf
Allowable Compressive Bearing Pressure:	7000	psf

Volume of Concrete:	4225.0	ft^3
Volume of Soil:	0.0	ft^3
Weight of Concrete (Buoyancy Effect Considered):	633.8	k
Weight of Soil (Buoyancy Effect Considered):	0.0	k
Weight of Soil (Buoyancy Effect, w/o Friction Angle Cone):	0.0	k

Axial Check

Allowable Axial:	9858.33	k
Compression Design Load / Capacity:	0.01	Acceptable

Lateral Check

Coefficient of Passive Earth Pressure (Kp):	3.00	
Passive Pressure on Pad Face:	720.00	psf
Passive Pressure Resistance:	124.80	k
Normal Friction Resistance:	21.99	k
Allowable Shear (FS=2):	73.39	k
Shear Design Load / Shear Capacity:	0.84	Acceptable

Overturning Check

Overturning Moment at Foundation Base:	7235.27	k-ft
Increment:	360.00	psf/ft
Lateral Bearing Resistance on Pad:	95.55	k
Overturning Moment Capacity:	11616.80	k-ft
Total Vertical Load:	707.04	k
O.T. Factor of Safety:	1.61	Acceptable

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

March 23, 2009

The Honorable James T. DellaVolpe
Mayor
City of Ansonia
City Hall
253 Main Street
Ansonia, CT 06401-1866

RE: **EM-T-MOBILE-002-090316** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 401 Wakelee Avenue, Ansonia, Connecticut.

Dear Mayor DellaVolpe:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by April 6, 2009.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Peter Crabtree, Zoning Enforcement Officer, City of Ansonia

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

April 14, 2009

Mark R. Richard
UMTS Project Manager
T-Mobile USA, Inc.
35 Griffin Road South
Bloomfield, CT 06002

RE: **EM-T-MOBILE-002-090316** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 401 Wakelee Avenue, Ansonia, Connecticut.

Dear Mr. Richard:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The applicant shall take steps to reduce the post-construction foundation rating to not more than 100 percent;
- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that a post-construction foundation rating of not more than 100 percent has been achieved;
- The coax shall be configured per page 2 of the structural analysis report dated February 23, 2009 and sealed by Raphael Mohamed, P.E.; and
- The Council shall be notified in writing that the coax was configured as specified.

The proposed modifications are to be implemented as specified here and in your notice dated March 17, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case

modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable James T. DellaVolpe, Mayor, City of Ansonia
Peter Crabtree, Zoning Enforcement Officer, City of Ansonia
American Tower Corporation
Carrie L. Larson, Esq., Pullman & Comley, LLC