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

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

June 4, 2010

Thomas J. Regan, Esq.
Brown Rudnick LLP
CityPlace I, 185 Asylum Street
Hartford, CT 06103

RE: **EM-T-MOBILE-107-100521** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 525 Orange Center Road, Orange, Connecticut.

Dear Attorney Regan:

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.

The proposed modifications are to be implemented as specified here and in your notice dated May 21, 2010, 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/CDM/laf

c: The Honorable James M. Zeoli, First Selectman, Town of Orange
Paul Dinice, Zoning Enforcement Officer, Town of Orange

G:\EM\T-MOBILE\orange\dc060410OrangeCenterRd.DOC

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

May 25, 2010

The Honorable James M. Zeoli
First Selectman
Town of Orange
Town Hall
617 Orange Center Road
Orange, CT 06477-2423

RE: **EM-T-MOBILE-107-100521** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 525 Orange Center Road, Orange, Connecticut.

Dear First Selectman Zeoli:

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 June 8, 2010.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jbw

Enclosure: Notice of Intent

c: Paul Dinice, Zoning Enforcement Officer, Town of Orange

EM-T-MOBILE-107-100521

THOMAS J. REGAN
Direct Dial: (860) 509-6522
tregan@brownrudnick.com

BROWN RUDNICK
CityPlace I
185 Asylum
Street
Hartford
Connecticut
06103
tel 860.509.6500
fax 860.509.6501

Via Hand Delivery

May 21, 2010

ORIGINAL

RECEIVED
MAY 21 2010
CONNECTICUT
SITING COUNCIL

Daniel F. Caruso, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: T-Mobile USA, Inc. – Notice of Exempt Modification

Dear Mr. Caruso:

On behalf of T-Mobile USA, Inc., enclosed for filing you will find an original and five (5) copies of a *"Notice of Exempt Modification"* regarding a site located at 525 Orange Center Road, Orange. The $625.00 filing fee is also enclosed.

I would appreciate it if you could please date stamp the copy of this transmittal letter and return it to the courier delivering this package.

If you have any questions, please feel free to contact me.

Very truly yours,

BROWN RUDNICK LLP

By: _____
Thomas J. Regan

Enclosures

cc/encl: James Zeoli, First Selectman

40273458 v1 - REGANTJ - 025064/0016

CONNECTICUT SITING COUNCIL

In re:		
T-Mobile USA, Inc. Notice to Make an Exempt Modification to an Existing Facility, 525 Orange Center Road, Orange, Connecticut.	:	**EXEMPT MODIFICATION NO.**
	:	May 21, 2010

ORIGINAL

NOTICE OF EXEMPT MODIFICATION

Pursuant to Conn. Agencies Regs. §§ 16-50j-73 and 16-50j-72(b), T-Mobile USA, Inc. ("T-Mobile") hereby gives notice to the Connecticut Siting Council ("Council") and the Town of Orange of T-Mobile's intent to make an exempt modification to the existing monopole tower (the "Tower") located at 525 Orange Center Road in Orange, Connecticut. Specifically, T-Mobile plans to upgrade its wireless system in Connecticut by implementing its Universal Mobile Telecommunications System ("UMTS"). UMTS is a third-generation ("3G") technology that utilizes a code division multiple access ("CDMA") base to allow for fast and large data transfers. To accomplish this upgrade, T-Mobile must modify its antenna and equipment configurations at many of its existing sites.

Once the UMTS upgrade is complete, T-Mobile will operate on a more unified communication system, allowing international wireless telephones to function world-wide. Furthermore, UMTS will enhance GPS navigation capabilities and provide emergency responders with more advanced tracking capabilities. The proposed UMTS technology is compatible with the existing second-generation ("2G") Global System for Mobile Communication ("GSM") currently on the Tower and the proposed upgrade is expected to enhance the existing 2G system. In order to accomplish the upgrade at this site, T-Mobile plans to add UMTS technology and install associated equipment at the base of the Tower.

Under the Council's regulations (Conn. Agencies Regs. § 16-50j-72(b)), T-Mobile's plans do not constitute a modification subject to the Council's review because T-Mobile will not

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185 ASYLUM STREET
HARTFORD, CT 06103
(860) 509-6500

change the height of the Tower, will not extend the boundaries of the compound, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

The Tower is a 160-foot monopole tower located at 525 Orange Center Road in Orange, Connecticut (latitude 41° 16' 25" N, longitude 73° 01' 07" W). The Tower is owned by Town of Orange. Currently, T-Mobile has 6 antennas and 6 Tower Mounted Amplifiers ("TMA") located on the Tower with a centerline of 121 feet. A site plan with Tower specifications is attached.

T-Mobile plans to add 3 UMTS quad pole antennas to the Tower. T-Mobile also plans to remove 6 existing TMAs and locate 3 Twin AWS TMAs and 3 Twin PCS TMAs on the Tower. The proposed antennas and TMA will have the same centerline as the existing antennas – 121 feet. To confirm the Tower can support these changes, T-Mobile commissioned Armor Tower to perform a structural analysis of the Tower (attached). According to the structural assessment, dated May 14, 2010, the Tower is "... adequate ... to support the proposed antenna loading" (Page 1, Structural Analysis).

In addition, T-Mobile plans to locate 6, 1-5/8 inch coax cables inside the pole. T-Mobile proposes to install its UMTS equipment cabinet on the existing 6-foot by 13-foot (approximately) concrete pad. Hence, no increase in the boundaries of the site is necessary.

Therefore, excluding brief, minor, construction-related noise during the addition of the antennas and the installation of the equipment cabinet, T-Mobile's changes to the Tower will not increase noise levels at the site.

The proposed antennas and TMA will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be well below the National Council on Radiation Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis measured at the base of the Tower

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indicates that T-Mobile's antennas will emit 6.79% of the NCRP's standard for maximum permissible exposure. A cumulative power density analysis indicates that together, all of the antennas on the Tower will emit only 31.26% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be well below the FCC mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, T-Mobile's proposed plan to add antennas, remove and replace TMA and add equipment at this site does not constitute a modification subject to the Council's jurisdiction because T-Mobile will not increase the height of the Tower, will not extend the boundaries of the site, will not increase the noise levels at the site, and the total radio frequency electromagnetic radiation power density will stay within all applicable standards. *See* Conn. Agencies Regs. § 16-50j-72.

T-Mobile USA, Inc.

By: Thomas J. Regan

Thomas J. Regan
Brown Rudnick LLP
185 Asylum Street, CityPlace I
Hartford, CT 06103-3402
Email - tregan@brownrudnick.com
Phone - 860.509.6522 /Fax - 860.509.6501

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185 ASYLUM STREET
HARTFORD, CT 06103
(860) 509-6500

Certificate of Service

This is to certify that on this 21st day of May, 2010, the foregoing Notice of Exempt Modification was sent, via first class mail, to the following:

Town of Orange
First Selectman James Zeoli
Town Hall
617 Orange Center Road
Orange, CT 06477

By: Thomas J. Regan
Thomas J. Regan

40273267 v1- 025064/0016

BROWN RUDNICK LLP
CITYPLACE I
185 ASYLUM STREET
HARTFORD, CT 06103
(860) 509-6500

HIGH PLAINS COMMUNITY CENTER

525 ORANGE CENTER ROAD
ORANGE, CT 06477

SITE NUMBER: CT11412A

SITE TYPE: CO-LOCATION ON EXISTING MONOPOLE

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.

2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE PROJECT OWNER'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.

4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.

5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION FROM THE PROJECT OWNER'S REPRESENTATIVE TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS / CONTRACT DOCUMENTS.

7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.

12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.

13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.

15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.

16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.

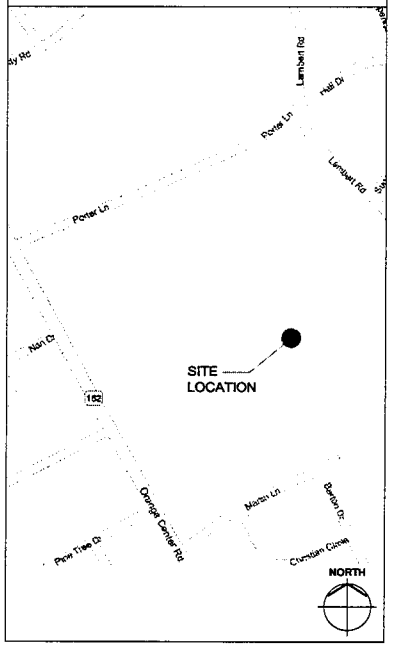
17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY:
CALL BEFORE YOU DIG (CT): 1-800-922-4455

18. COORDINATE NEW ANTENNA, ANTENNA SUPPORT FRAME AND COAXIAL CABLE INSTALLATION WITH STRUCTURAL ANALYSIS REPORT. NO WORK SHALL BE PERFORMED ON THE TOWER UNTIL ANY AND ALL MODIFICATION REQUIREMENTS STIPULATED IN THE STRUCTURAL ANALYSIS REPORT HAVE BEEN MET.

19. NO CONCLUSIONS, EXPRESSED OR IMPLIED, SHALL INDICATE THAT ATLANTIS GROUP, INC. HAS MADE AN EVALUATION OF THE ORIGINAL DESIGN, MATERIALS, FABRICATIONS, OR POTENTIAL ERECTION DEFICIENCIES. ANY INFORMATION CONTRARY TO THAT ASSUMED FOR THE PURPOSE OF PREPARING THIS ANALYSIS COULD ALTER THE FINDINGS AND CONCLUSIONS AS STATED.

VICINITY MAP

SCALE:1"= 800'



SITE DIRECTIONS

FROM BLOOMFIELD OFFICE:

1. DEPART GRIFFIN RD S
2. TURN RIGHT ONTO SR-187 SOUTH / BLUE HILLS AVE EXT
3. KEEP LEFT ONTO DAY HILL RD
4. TAKE RAMP RIGHT FOR I-91 SOUTH / RICHARD P HORAN MEMORIAL HWY TOWARD HARTFORD
5. AT EXIT 87, TAKE RAMP RIGHT FOR SR-15 SOUTH / WILBUR CROSS PKWY TOWARD E. MAIN ST
6. AT EXIT 57, TAKE RAMP RIGHT FOR SR-34 EAST / DERBY AVE TOWARD ORANGE
7. BEAR RIGHT ONTO SR-152 / ORANGE CENTER RD
8. ARRIVE AT 525 ORANGE CENTER RD, ORANGE, CT 06477-

SHEET INDEX

SHT. NO.	DESCRIPTION
01	TITLE SHEET
02	SITE PLAN
03	ELEVATION AND NOTES
04	EQUIPMENT DETAILS
05	ANTENNA DETAILS
06	UTILITY PLAN
07	GROUNDING DETAILS AND RISER DIAGRAMS

PROJECT DESCRIPTION:

T-MOBILE IS PROPOSING TO INSTALL TELECOMMUNICATIONS EQUIPMENT AT THIS EXISTING SITE THAT CONSISTS OF:

EQUIPMENT CABINETS (2): (1) NEW ERICSSON RBS 3106 UMTS CABINET ON (E) 6'x13' CONC PAD
(1) (E) NORTEL ST2000 CABINET TO REMAIN

ALPHA
ANTENNAS (3): (1) NEW QUAD POLE APX16DWV-16DWVS-E-A20 (UMTS) PANEL ANTENNA TO BE ADDED
(2) (E) DUAL POLE RR90-17-02DP (GSM) PANEL ANTENNAS TO REMAIN

COAX (6): (2) NEW 1-5/8" COAX CABLES TO BE ADDED
(4) (E) 1-5/8" COAX CABLES TO REMAIN

TMAs (2): (1) NEW TWIN AWS TMA TO BE ADDED
(1) NEW TWIN PCS TMA TO BE ADDED
(2) (E) SINGLE GSM TMAs TO BE REMOVED

BETA
ANTENNAS (3): (1) NEW QUAD POLE APX16DWV-16DWVS-E-A20 (UMTS) PANEL ANTENNA TO BE ADDED
(2) (E) DUAL POLE RR90-17-02DP (GSM) PANEL ANTENNAS TO REMAIN

COAX (6): (2) NEW 1-5/8" COAX CABLES TO BE ADDED
(4) (E) 1-5/8" COAX CABLES TO REMAIN

TMAs (2): (1) NEW TWIN AWS TMA TO BE ADDED
(1) NEW TWIN PCS TMA TO BE ADDED
(2) (E) SINGLE GSM TMAs TO BE REMOVED

GAMMA
ANTENNAS (3): (1) NEW QUAD POLE APX16DWV-16DWVS-E-A20 (UMTS) PANEL ANTENNA TO BE ADDED
(2) (E) DUAL POLE RR90-17-02DP (GSM) PANEL ANTENNAS TO REMAIN

COAX (6): (2) NEW 1-5/8" COAX CABLES TO BE ADDED
(4) (E) 1-5/8" COAX CABLES TO REMAIN

TMAs (2): (1) NEW TWIN AWS TMA TO BE ADDED
(1) NEW TWIN PCS TMA TO BE ADDED
(2) (E) SINGLE GSM TMAs TO BE REMOVED

PROJECT SUMMARY

SITE NUMBER:	CT11412A
SITE NAME:	HIGH PLAINS COMMUNITY CENTER
SITE ADDRESS:	525 ORANGE CENTER ROAD ORANGE, CT 06477
ASSESSOR'S PARCEL NO.: TAX ID:	MAP 41 BLOCK 16 06-6002060
SITE TYPE:	CO-LOCATION MONOPOLE
PROPERTY OWNER:	TOWN OF ORANGE C/O TOWN CLERK'S OFFICE 617 ORANGE CENTER ROAD ORANGE, CT 06477
APPLICANT, LESSEE/LICENSEE, PROJECT OWNER:	T-MOBILE NORTHEAST, LLC. 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 (860) 692-7100
A/E:	ATLANTIS GROUP INC. 1340 CENTRE ST, SUITE 230 NEWTON CENTER, MA 02459 (617) 965-0789
PROJECT MANAGER:	LISA LIN NIEDERMEIER TRANSCEND WIRELESS 10 INDUSTRIAL AVE MAHWAH, NJ 07430 (203) 275-6668
ZONING REPRESENTATIVE:	BROWN RUDNICK LLP THOMAS J REGAN CITYPLACE I, 36TH FLOOR 185 ASYLUM STREET HARTFORD, CT 06103-3402 (860) 509-6500
POWER PROVIDER:	UNITED ILLUMINATING CO. (800) 722-5584
TELCO PROVIDER:	AT&T/SBC/SNET (203) 630-5808
CALL BEFORE YOU DIG:	(800) 922-4455

CODE REFERENCES

CONNECTICUT STATE BUILDING CODE
2003 INTERNATIONAL BUILDING CODE
2003 INTERNATIONAL PLUMBING CODE
2003 INTERNATIONAL MECHANICAL CODE
2003 INTERNATIONAL EXISTING BUILDING CODE
2005 CONNECTICUT SUPPLEMENT
2005 NATIONAL ELECTRICAL CODE

CONNECTICUT STATE FIRE SAFETY CODE
2003 INTERNATIONAL FIRE CODE

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

TRANSCEND WIRELESS, LLC
10 INDUSTRIAL AVE.
MAHWAH, NJ 07430
OFFICE: (201) 684-0055
FAX: (201) 684-0066

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

ATLANTIS GROUP
1340 Centre Street Suite 203
Newton Center, MA 02459
Office: 617-965-0789
Fax: 617-663-6032

A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY: SB

CHECKED BY: SM

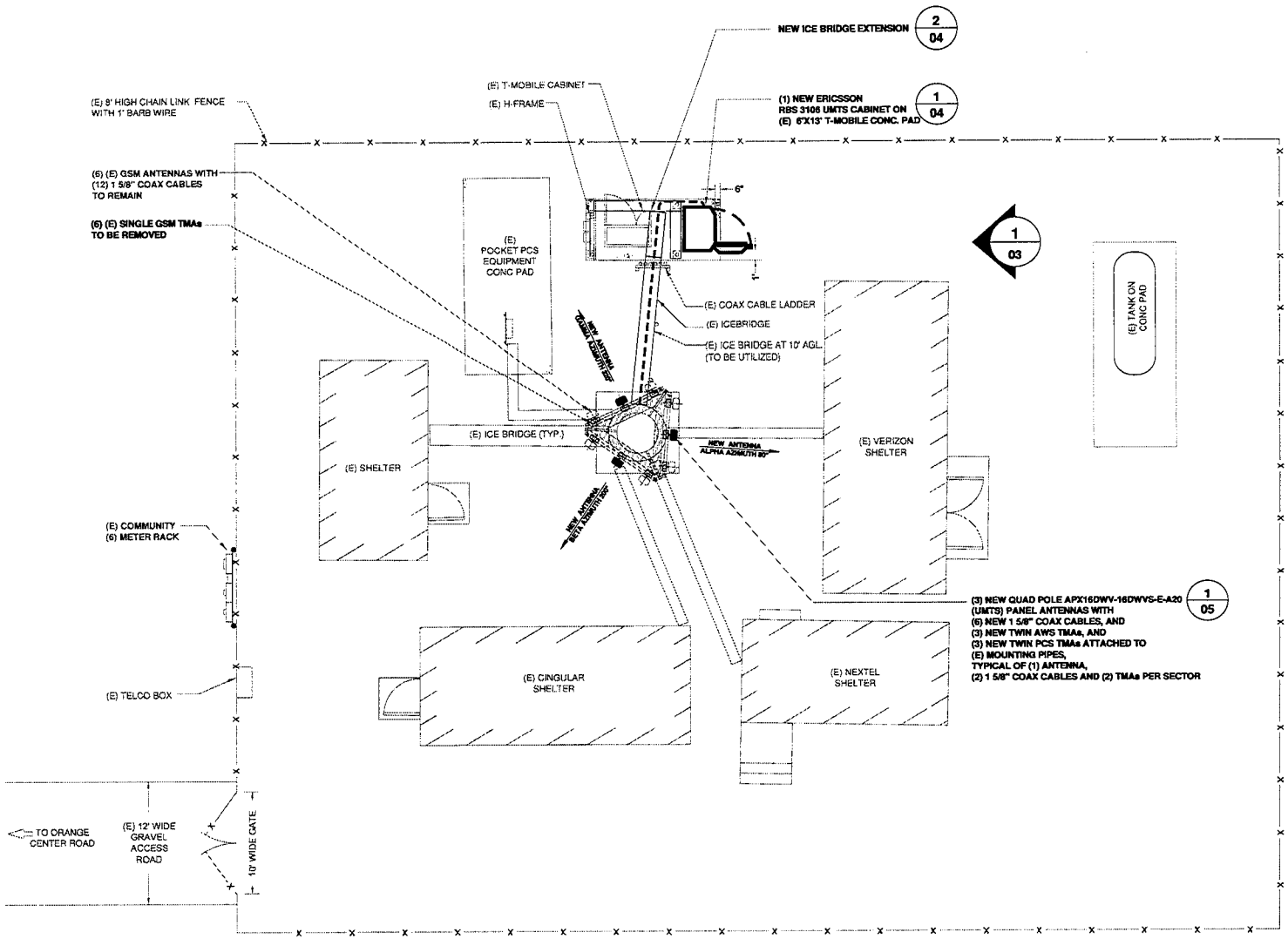
SUBMITTALS

A	04/29/10	ISSUED FOR REVIEW
0	05/05/10	REVISED PER COMMENTS

CT11412A
HIGH PLAINS COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
01



COMPOUND PLAN 2/02

SCALE: 3/32" = 1'-0" (11x17)
SCALE: 3/64" = 1'-0" (24x36)

4 0 4 8 12

(E) GSM AND (NEW) UMTS ANTENNA AZIMUTHS:

SECTOR A= 80°

SECTOR B= 200°

SECTOR C= 320°

TRANSCEND WIRELESS, LLC
10 INDUSTRIAL AVE.
MAHWAH, NJ 07430
OFFICE: (201) 684-0055
FAX:(201) 684-0066

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX:(860) 692-7159

ATLANTIS GROUP
1340 Centre Street Suite 203
Newton Center, MA 02459
Office: 617-965-0789
Fax: 617-663-6032

A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY: SB

CHECKED BY: SM

SUBMITTALS

A	04/29/10	ISSUED FOR REVIEW
0	05/05/10	REVISED PER COMMENTS

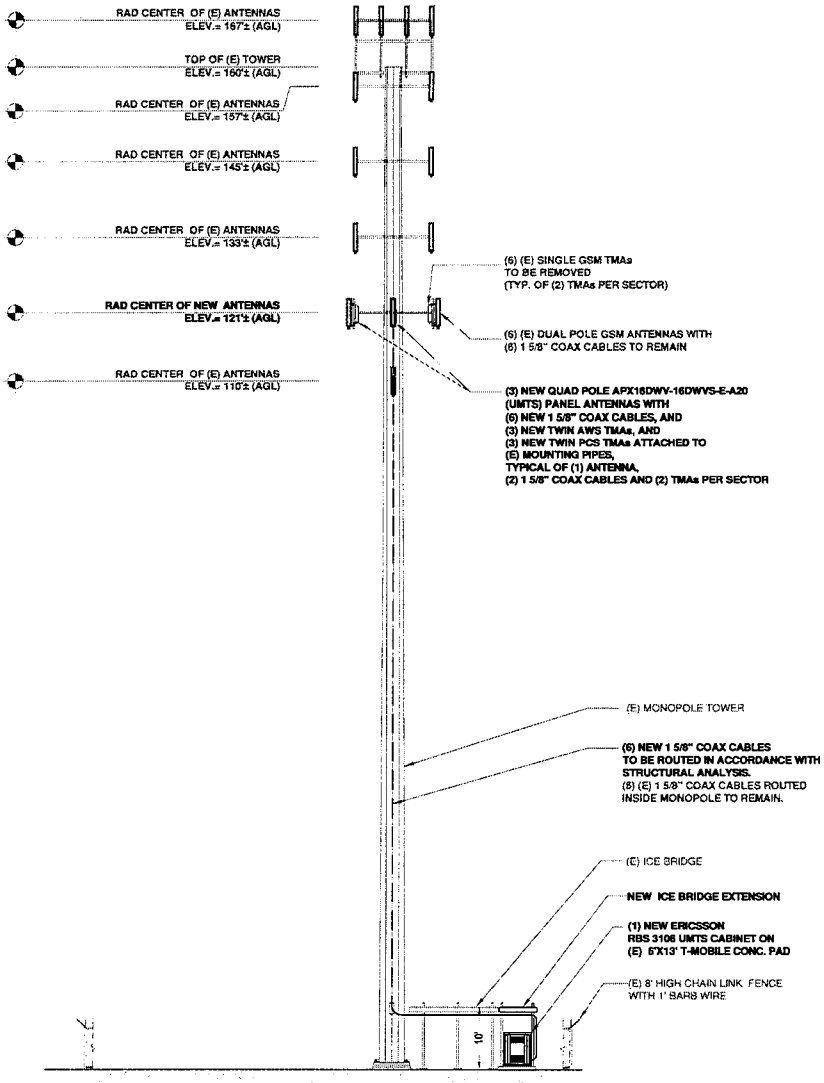
CT11412A
HIGH PLAINS COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

02



WEST ELEVATION VIEW

1
03

SCALE: 1" = 20'-0" (11x17)
SCALE: 1" = 40'-0" (24x36)

10 0 10 20 30

NOTES:

1. ALL DIMENSIONS SHOWN THUS ± ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH EFFECT THE CONTRACTOR'S WORK. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH OWNER PRIOR TO CONSTRUCTION.
2. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY TRUE NORTH AND INFORM CONSTRUCTION MANAGER OF ANY DISCREPANCIES BEFORE STARTING CONSTRUCTION.
3. THE CONTRACTOR AND OR HIS SUB CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTRY OR LOCAL GOVERNMENT AUTHORITY.
4. ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES AND SUPPORT STRUCTURES.
5. COAXIAL CABLES CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE PROVIDED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. A SCHEDULE OF OWNER SUPPLIED MATERIALS IS ATTACHED TO THE BID DOCUMENTS. ALL OTHER HARDWARE TO BE PROVIDED BY THE CONTRACTOR. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
6. COORDINATION, LAYOUT, AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
8. PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. LESSEE/LICENSEE IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNA GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. LESSEE/LICENSEE RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

ABREVIATIONS

ADJ	ADJUSTABLE	UB	UTILITY BOX
AGL	ABOVE GROUND LEVEL	UON	UNLESS OTHERWISE NOTED
AMSL	ABOVE MEAN SEA LEVEL	WWF	WELDED WIRE FABRIC
APPROX	APPROXIMATE	W	WITH
ASPH.	ASPHALT	NIC	NOT IN CONTRACT
BLDG.	BUILDING	EQUIP	EQUIPMENT
CAB	CABINET	(E)	EXISTING
CLG	CEILING	EXT	EXTERIOR
CONC	CONCRETE	FF	FINISHED FLOOR
CONT.	CONTINUOUS	GA	GAUGE
CJ	CONCRETE JOINT	GALV	GALVANIZED
DIA	DIAMETER	GC	GENERAL CONTRACTOR
DWG	DRAWING	GRND	GROUND
EQB	EQUIPMENT GROUND BAR	LG	LONG
EA	EACH	MAX	MAXIMUM
ELEC	ELECTRIC	MECH	MECHANICAL
EL	ELEVATION	MFR	MANUFACTURER
EQ	EQUAL	MGB	MASTER GROUND BAR
NTS	NOT TO SCALE	MH	MANHOLE
OC	ON CENTER	MIN	MINIMUM
OHW	OVERHEAD WIRE	MTL	METAL
OPP	OPPOSITE	NIC	NOT IN CONTRACT
SF	SQUARE FOOT	BTS	BASE TRANSMISSION STATION
SHT	SHEET	PCS	PERSONAL COMMUNICATIONS SERVICE
SIM	SIMILAR	A-1	ANTENNA MARK 1
SS	STAINLESS STEEL	℄	CENTERLINE
STL	STEEL	℄	PLATE
TOC	TOP OF CONCRETE	&	AND
TOM	TOP OF MASONRY	@	AT
TYP	TYPICAL	GPS	GLOBAL POSITIONING SYSTEM
VIF	VERIFY IN FIELD		

SYMBOLS AND MATERIALS

NEW ANTENNA
EXISTING ANTENNA
ASPHALT
NEW ACCESS EASEMENT
CONCRETE
ELECTRIC BOX
LIGHT POLE
FND. MONUMENT
SPOT ELEVATION
SET POINT
REVISION
GRID REFERENCE
DET. # / SHT. # — REVISION REFERENCE
D / SH — ELEVATION
D / SH — SECTIONS & DETAILS

GROUT OR PLASTER
(E) BRICK
(E) MASONRY
CONCRETE
EARTH
GRAVEL
PLYWOOD
SAND
WOOD CONT.
WOOD BLOCKING
STEEL
CENTER LINE
PROPERTY LINE
STEPPED FOOTING
MATCH LINE
WORK POINT
UGP — UNDERGROUND POWER LINE
UGT — UNDERGROUND TELCO LINE
OHU — OVERHEAD UTILITY LINE
G — GROUND WIRE
COAXIAL CABLE
X — X — CHAIN LINK FENCE

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A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY: SB

CHECKED BY: SM

SUBMITTALS

A	04/29/10	ISSUED FOR REVIEW
0	05/05/10	REVISED PER COMMENTS

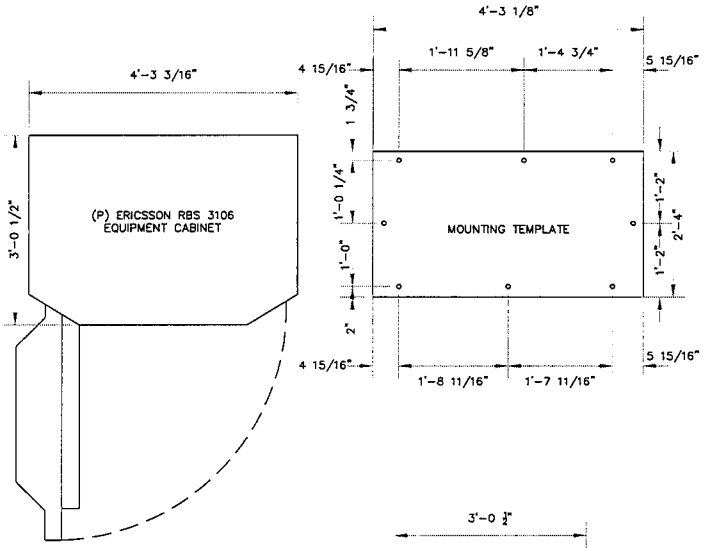
CT11412A
HIGH PLAINS
COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

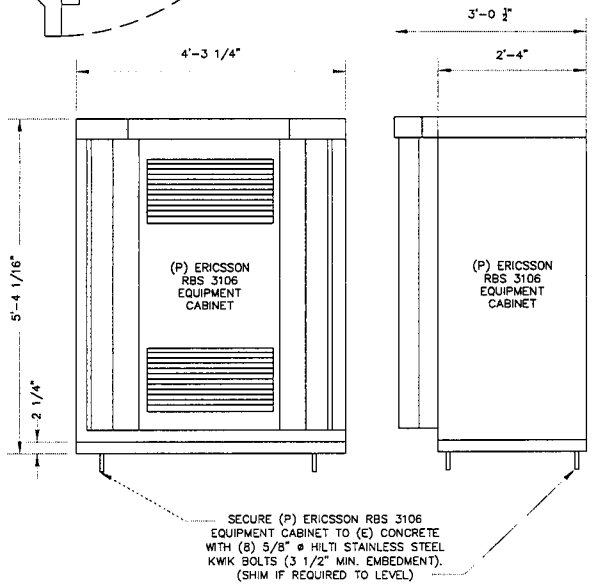
SHEET TITLE:

ELEVATION AND NOTES

SHEET NUMBER:

03

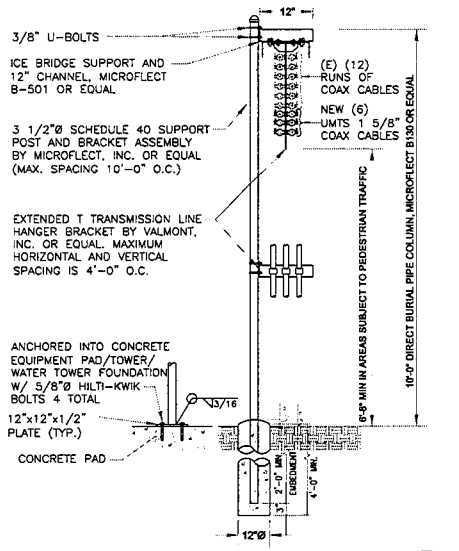




ERICSSON RBS 3106 EQUIPMENT CABINET

1/04

SCALE: 1/2" = 1'-0" (11x17)
SCALE: 1" = 1'-0" (24x36)



SECTION AT ICE BRIDGE/CABLE TRAY

2/04

N.T.S.

STRUCTURAL NOTES

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, ANSI/ASCE7, EIA/TIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A572 GRADE 50 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE A, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL 5/8" DIA UNLESS OTHERWISE NOTED.
7. ALL STEEL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC-(HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS". UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE". UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH THE REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOWED TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS AND METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DLL WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION" 9TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NOCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUTS SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP, WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-HIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF 1/2" DIAMETER STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-20 AND OR HY-150 SYSTEMS (AS SPECIFIED ON DWG.) OR ENGINEERS APPROVED EQUAL WITH 4-1/4" MIN. EMBEDMENT DEPTH.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLTS II OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE THREE AND ONE HALF (3 1/2) INCHES.

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A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY: SB

CHECKED BY: SM

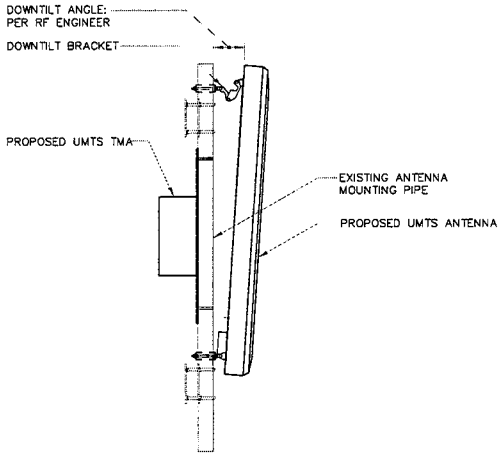
SUBMITTALS

A	04/29/10	ISSUED FOR REVIEW
0	05/05/10	REVISED PER COMMENTS

CT11412A
HIGH PLAINS
COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

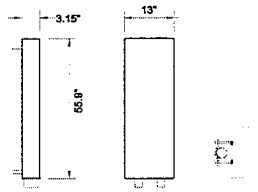
SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER:
04



MOUNTING ASSEMBLY (ALL ANTENNAS) 1/05

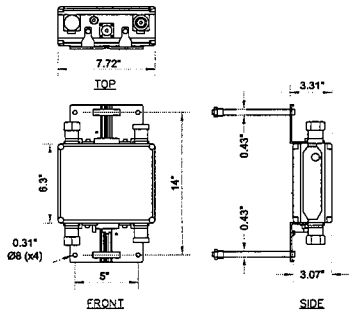
N.T.S.



MANUFACTURE: RFS:
MODEL NO. APX16DWV-16DWVS-E-A20
DIMENSIONS - HxWxD, (IN) 55.9x13x3.15

QUAD POLE ANTENNA DETAIL 2/05

N.T.S.



TWIN TMA DETAIL 3/05

N.T.S.

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A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY:	SB
CHECKED BY:	SM

SUBMITTALS

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0	05/05/10	REVISED PER COMMENTS

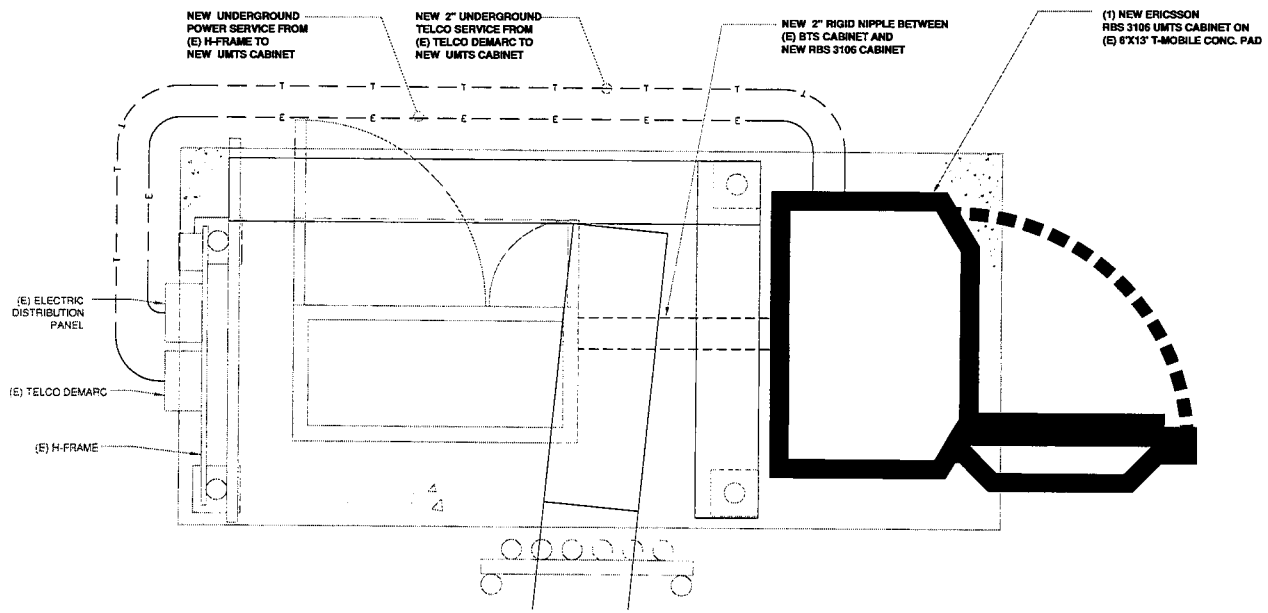
CT11412A
HIGH PLAINS
COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

SHEET TITLE:

ANTENNA DETAILS

SHEET NUMBER:

05



ELECTRICAL AND TELCO PLAN

1
06

SCALE: 1/2" = 1'-0" (11x17)
SCALE: 1/4" = 1'-0" (24x36)

1 0 1 2 3

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A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY:	SB
CHECKED BY:	SM

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0	05/05/10	REVISED PER COMMENTS

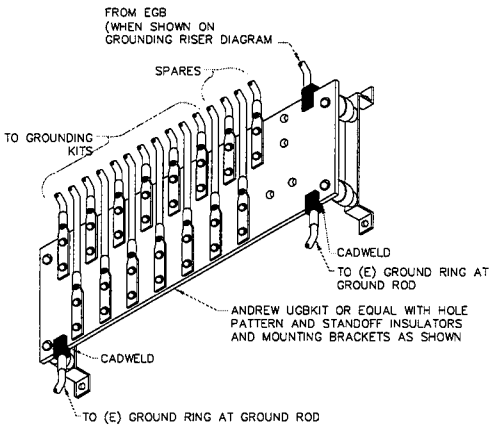
CT11412A
HIGH PLAINS COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

SHEET TITLE:

UTILITY PLAN

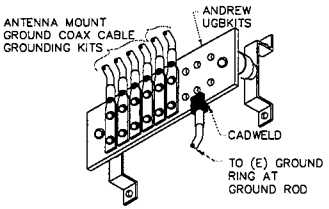
SHEET NUMBER:

06



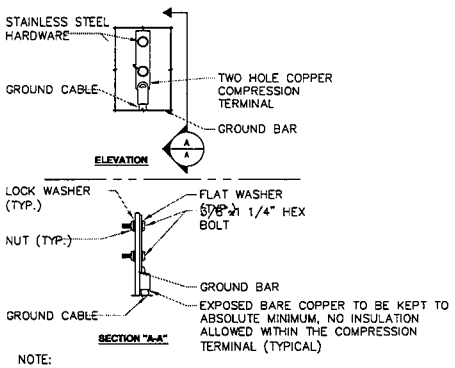
MASTER GROUND BAR (EGB) — 1/07

SCALE: N.T.S.



EQUIPMENT GROUND BAR (EGB) — 2/07

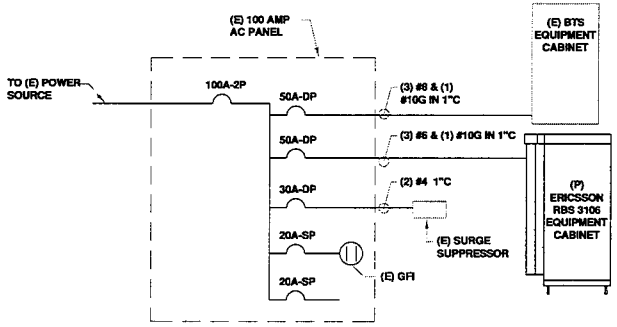
SCALE: N.T.S.



NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

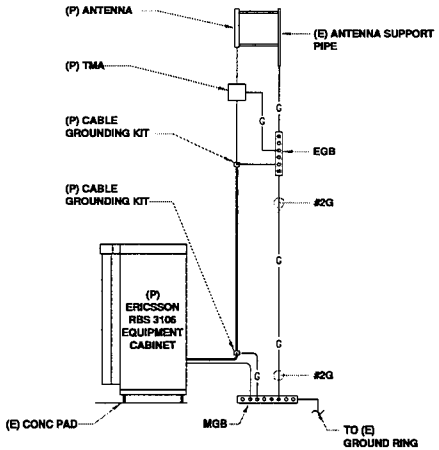
TYPICAL GROUND BAR CONNECTIONS DETAIL — 3/07

SCALE: N.T.S.



ONE LINE DIAGRAM — 4/07

SCALE: N.T.S.



GROUNDING RISER DIAGRAM — 5/07

SCALE: N.T.S.

ELECTRICAL LEGEND

- NEW PANEL BOARD, SURFACE MOUNTED
- EXISTING PANEL BOARD, SURFACE MOUNTED
- DRY TYPE TRANSFORMER
- METER
- CIRCUIT BREAKER
- NON-FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
- FUSIBLE DISCONNECT SWITCH, MOUNTED 54"A.F.F.
- TRANSIENT VOLTAGE SURGE SUPPRESSOR WITH BUILT-IN FUSES, SURFACE MOUNTED
- DUPLEX OUTLET, SURFACE MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
- JUNCTION BOX, SURFACE MOUNTED 18" A.F.F.
- EXPOSED WIRING
- HOME RUNS, MINIMUM 3#10 + 1#10G IN 3/4" CONDUIT U.O.N.
- A.F.F. — ABOVE FINISHED FLOOR
- U.O.N. — UNLESS OTHERWISE NOTED
- WP — WEATHERPROOF
- GFI — GROUND FAULT INTERRUPTER
- A — AMPERE
- V — VOLT
- KWH — KILOWATT - HOUR
- C — CONDUIT
- C — GROUND
- GROUND
- MGB — MASTER GROUND • MECHANICAL CONNECTION • CADWELD CONNECTION
- EGB — EQUIPMENT GROUND BAR • MECHANICAL CONNECTION • CADWELD CONNECTION
- C — GROUND COPPER WIRE, SIZE AS NOTED
- EXPOSED WIRING
- COAXIAL CABLE
- 5/8"x8' COPPER CLAD STEEL GROUND ROD
- * EXOTHERMIC (CADWELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION
- PPC — POWER PROTECTION CABINET

ELECTRICAL AND GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
12. PPC SUPPLIED BY PROJECT OWNER.
13. GROUNDING SHALL COMPLY WITH NEC ART. 250.
14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 8" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
20. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND TMA TO EGB PLACED NEAR THE ANTENNA LOCATION.
21. BOND ANTENNA EGB'S AND MGB TO GROUND RING.
22. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULT FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
23. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND TMA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

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FOR

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A&E SEAL

APPROVALS

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R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

DRAWN BY: SB

CHECKED BY: SM

SUBMITTALS

A	04/29/10	ISSUED FOR REVIEW
0	05/05/10	REVISED PER COMMENTS

CT11412A
HIGH PLAINS
COMMUNITY CENTER
525 ORANGE CENTER ROAD
ORANGE, CT 06477

SHEET TITLE:

GROUNDING DETAILS AND RISER DIAGRAMS

SHEET NUMBER:

07

Structural Analysis of 160ft Monopole

Site Number: CT11412A

Site Name: High Plains Community Center
County: New Haven
Location: 525 Orange Center Road, Orange, CT

Checked By:

Patrick Botimer
Armor Tower, Inc.

Atlantis Group

1340 Centre Street

Suite 203

Newton Center, MA 20459

May 14, 2010

ARMOR TOWER

Hans Fiedler
T-Mobile USA
35 Griffin Road South
Bloomfield, CT 06002

RE: T-Mobile – CT11412A – High Plains Community Center
525 Orange Center Road, Orange, CT 06477

Mr. Fiedler:

We have completed the structural analysis of the subject tower and **have found it to be adequate within the scope of this analysis to support the proposed antenna loading**. The tower was analyzed according to the requirements of EIA 222-F standard for New Haven County, CT for 95 mph (fastest mile) wind speed with no ice and 82 mph wind with ½" ice.

The tower we analyzed is a 160' Valmont monopole consisting of slip-jointed 12-sided bent plate tubes. Flat-to-flat dimensions range from 1'-9" at the top to 5'-4" at the base. Foundation capacities were predicated on information found in a previous analysis.

The loading used in the analysis consisted of the existing antennas/lines as well as the following:

- Add (3) RFS APX16DWV-16DWVS-E-A20 (1 ea. AWS TMA, 2 ea. 1-5/8" coax) @ 121' for T-Mobile on existing antenna mount pipes. Typical of (1) antenna, (1) TMA and (2) 1 5/8" coax per sector.
- Add (3) twin PCS TMA's @ 121' for T-Mobile on existing antenna mount pipes. Typical of (1) TMA per sector.
- Remove (6) Remec GSM-PCS 1900 Mhz TMA's. Typical of (2) TMA's per sector.

Proposed feed lines are to be routed inside the pole if possible but may be banded to the pole in a single row if needed.

The results of the analysis showed all elements were loaded within their allowable limits. We recommend a post-construction inspection be completed to document that tower-mounted equipment will be placed in compliance with the requirements of this analysis.

We appreciate the opportunity to provide our services to T-Mobile. If you have any questions concerning this analysis, please contact us.

Sincerely,

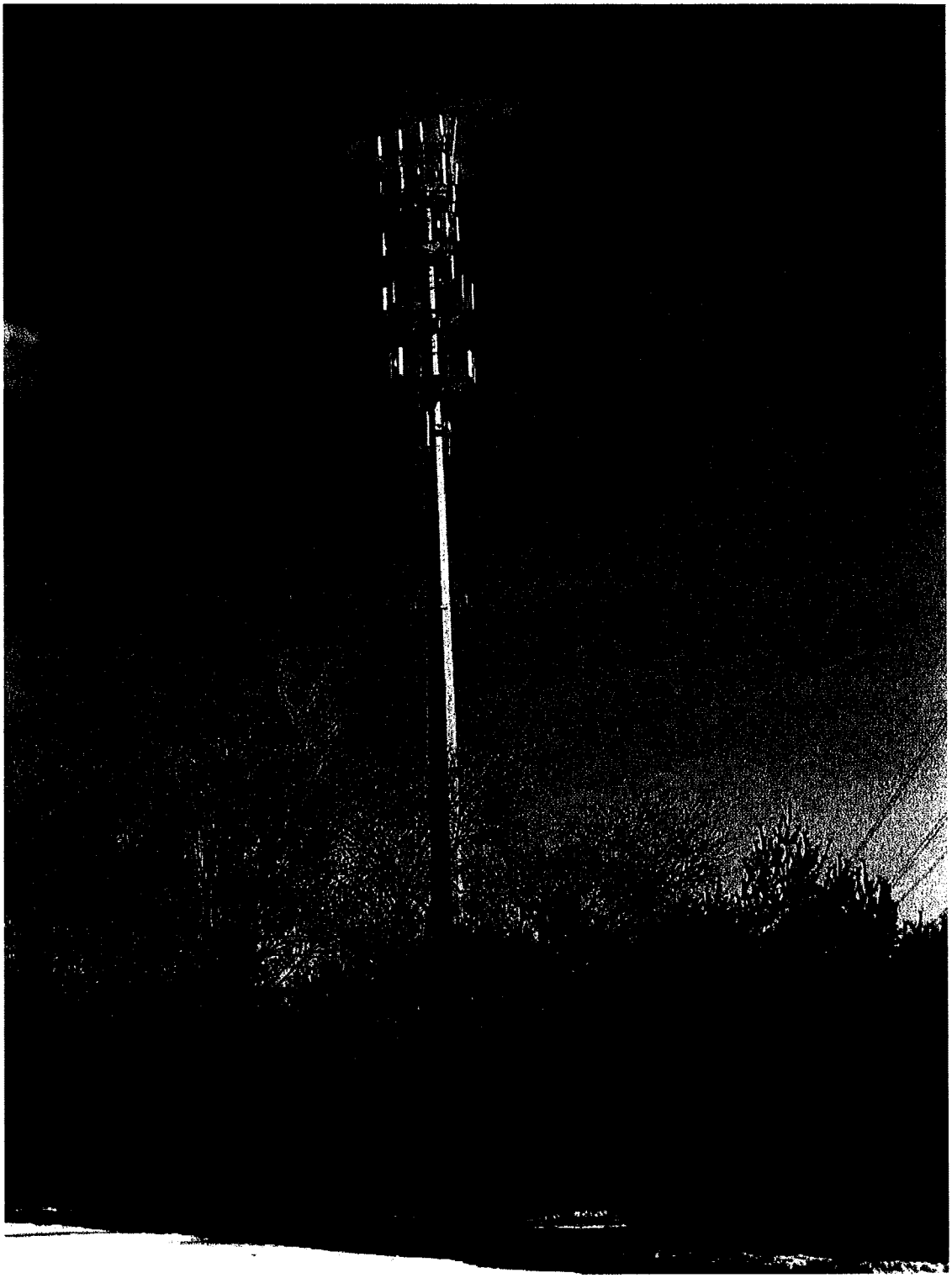
Jeff Triezenberg, P.E.
ARMOR TOWER, INC.

(enclosures)

1 North Main Street, Ste 312, Cortland, NY 13045
www.armortower.com
607.591.5381 Fax: 866.870.0840

PRIMARY ASSUMPTIONS USED IN THE ANALYSIS

1. Allowable steel stresses are defined by AISC-ASD 9th Edition and all welds conform to AWS D1-1 specifications.
2. Armor tower has been commissioned to analyze the tower according to the requirements of TIA/EIA 222-F for New Haven County, CT. Per this code, a basic wind speed of 85 mph (fastest mile) without ice and 74 mph with ½" ice is recommended. Appendix K of the State Building Code 2005 Connecticut Supplement requires a basic wind speed of 110 mph (3-sec-gust) for the Municipality of Orange. This speed translates to 95 mph (fastest-mile). It is the client's responsibility to check with local authorities or the tower owner if a greater wind or ice loading is required to be considered in the analysis. Note that Section 3108.4 of the International Building Code states that "Towers shall be designed to resist wind loads according to TIA/EIA-222".
3. The acceptability of the analyzed antenna loading is the responsibility of T-Mobile and its affiliates to confirm with the respective carriers or the tower owner.
4. Any deviation from the analyzed antenna loading will require a re-analysis of the tower for verification of structural integrity. Proposed feed lines must be routed inside the pole if possible but may be banded to the tower in a single row if needed.
5. This analysis assumes all tower members are galvanized adequately to prevent corrosion of the steel and that all tower members are in "like new" condition with no physical deterioration. This analysis also assumes the tower has been maintained properly per TIA/EIA-222-F Annex E recommended inspection and maintenance procedures for tower owners and is in a plumb condition.
6. No accounting for residual stresses due to incorrect tower erection can be made. This analysis assumes all bolts are appropriately tightened providing necessary connection continuity and that the installation of the tower was performed by a qualified tower erector.
7. Foundation capacities are based on information found in a previous structural analysis. If more accurate data for soil properties is required, it is the client's responsibility to obtain the appropriate boring logs
8. No conclusions, expressed or implied, shall indicate that Armor Tower has made an evaluation of the original design, materials, fabrication, or potential erection deficiencies. Any information contrary to that assumed for the purpose of preparing this analysis could alter the findings and conclusions stated.
9. Tower member sizes and geometry are based on a design calculations by Valmont dated 11/12/03. Existing antenna loading is based on an analysis by Natcomm dated 10/16/2009. Armor Tower has not verified the antenna loading.
10. The investigation of the load carrying capacities of the antenna supporting frames/mounts is outside the scope of this analysis. We recommend that material of adequate size and strength be utilized for this purpose.



1 North Main Street, Ste 312, Cortland, NY 13045 607.591.5381 Fax: 866.870.0840
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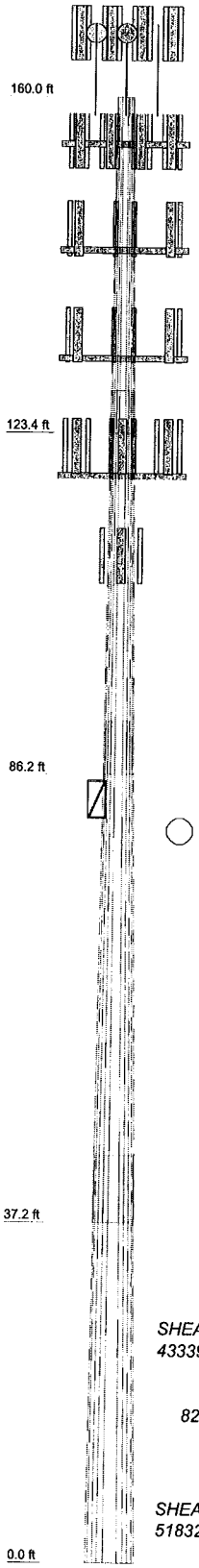
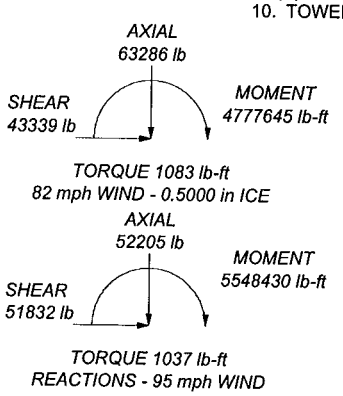




DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(3) DB844H90-XY (Nextel)	167	PiROD 13' Platform w/handrails (Monopole)	143.7
(3) DB844H90-XY (Nextel)	167	(2) DB980H90E-M w/Mount Pipe (Sprint)	134.1
(3) DB844H90-XY (Nextel)	167	(2) DB980H90E-M w/Mount Pipe (Sprint)	134.1
LLPX310R w. Pipe (Nextel)	167	(2) DB980H90E-M w/Mount Pipe (Sprint)	134.1
LLPX310R w. Pipe (Nextel)	167	PiROD 13' Platform w/handrails (Monopole)	131.8
LLPX310R w. Pipe (Nextel)	167	(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	121.9
RRH FD R6 (Nextel)	167	(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	121.9
RRH FD R6 (Nextel)	167	RFS APX16DWV-16DWVS-E-A20 w. Hardware ((P) T-Mobile)	121.9
RRH FD R6 (Nextel)	167	RFS APX16DWV-16DWVS-E-A20 w. Hardware ((P) T-Mobile)	121.9
DragonWave 2' dish (Nextel)	167	RFS APX16DWV-16DWVS-E-A20 w. Hardware ((P) T-Mobile)	121.9
DragonWave 2' dish (Nextel)	167	(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	121.9
(5) 2.5" Sch 40 x 8ft (Nextel)	163	TMA KRY112 89 5 ((P) T-Mobile)	121
(5) 2.5" Sch 40 x 8ft (Nextel)	163	TMA KRY112 89 5 ((P) T-Mobile)	121
(5) 2.5" Sch 40 x 8ft (Nextel)	163	TMA KRY112 144 1 ((P) T-Mobile)	121
(2) DB948F85T2E-M w/Mount Pipe (VZW)	155.2	TMA KRY112 144 1 ((P) T-Mobile)	121
(2) DB948F85T2E-M w/Mount Pipe (VZW)	155.2	TMA KRY112 144 1 ((P) T-Mobile)	121
(2) LPA-80063/6CF w. MtgPipe (VZW)	155.2	TMA KRY112 89 5 ((P) T-Mobile)	121
(2) LPA-80063/6CF w. MtgPipe (VZW)	155.2	PiROD 13' Platform w/handrails (Monopole)	119
(2) LPA-80063/6CF w. MtgPipe (VZW)	155.2	APXV18-206517LC w. Pipe (Pocket)	110
PiROD 13' Platform w/handrails (Monopole)	155.2	APXV18-206517LC w. Pipe (Pocket)	110
(2) DB948F85T2E-M w/Mount Pipe (VZW)	155.2	APXV18-206517LC w. Pipe (Pocket)	110
(2) Powerwave 7770.00 w. MtgPipe (att)	145.7	GPS (Sprint)	83.4
(2) Powerwave 7770.00 w. MtgPipe (att)	145.7	2.5" Tube x 2' Standoff	83.4
(2) TMA (att)	145.7	2.5" Tube x 2' Standoff	83.4
(2) TMA (att)	145.7		
(2) TMA (att)	145.7		
(2) Diplexer - Crossband Coupler (att)	145.7		
(2) Diplexer - Crossband Coupler (att)	145.7		
(2) Diplexer - Crossband Coupler (att)	145.7		
(2) Powerwave 7770.00 w. MtgPipe (att)	145.7		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for a 95 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 82 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. Weld together tower sections have flange connections.
6. Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications.
7. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
8. Welds are fabricated with ER-70S-6 electrodes.
9. (P) = Proposed
10. TOWER RATING: 95.5%

ARMOR TOWER
Armor Tower
1 North Main St
Cortland, NY
Phone: 607-591-5381
FAX: 866-870-0840

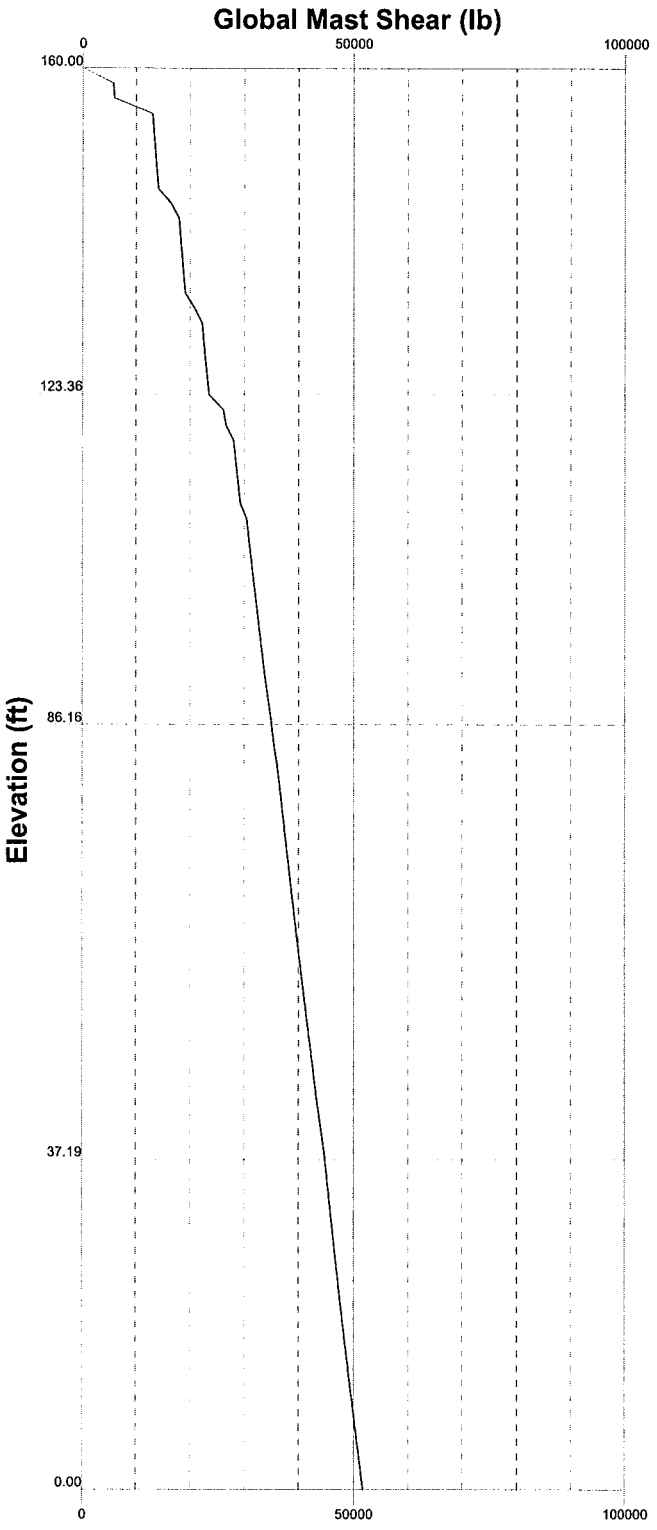
Job: *160' Monopole Analysis*			
Project: *CT11412A High Plains Community Center*			
Client: Atlantis Group	Drawn by: JT	App'd:	
Code: TIA/EIA-222-F	Date: 05/14/10	Scale: NTS	
Path: Y:\Atlantis Group\T-Mobile\CT11412A\RISA\160' MP.eri		Dwg No. E-1	

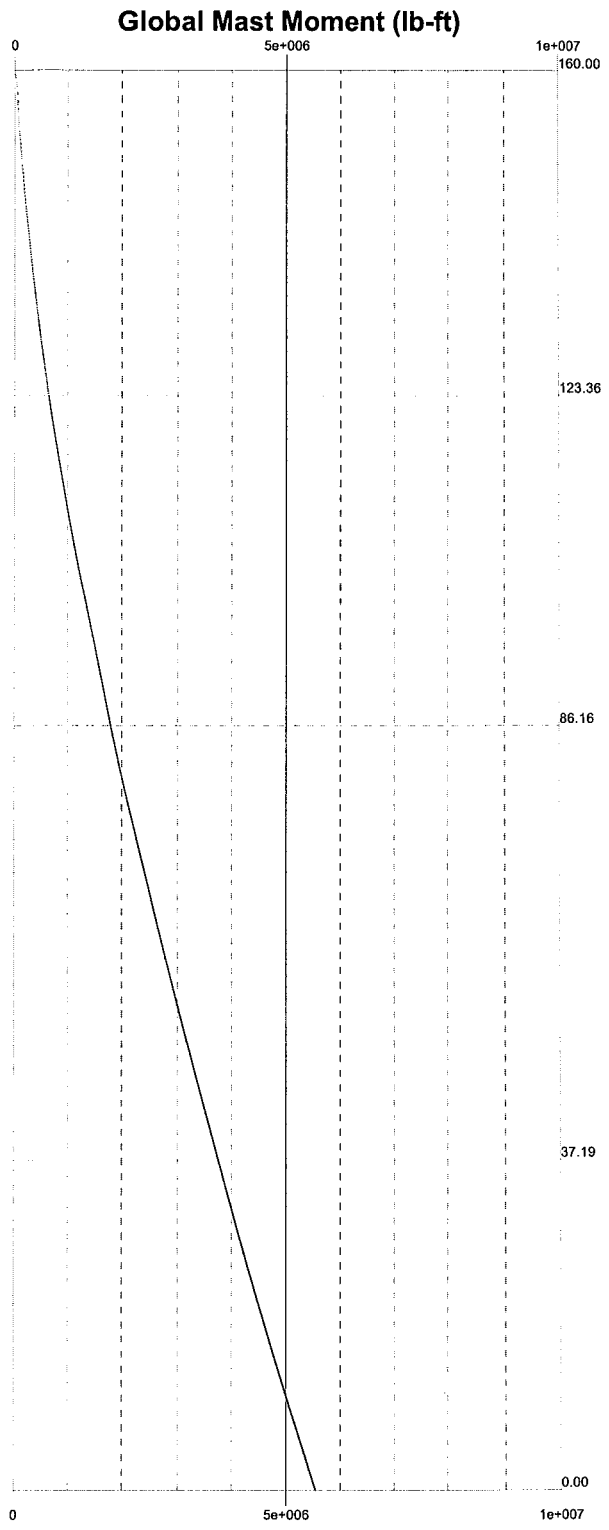
TIA/EIA-222-F - 95 mph/82 mph 0.5000 in Ice

Vx Vz

Maximum Values

Mx Mz





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Job: *160' Monopole Analysis*			
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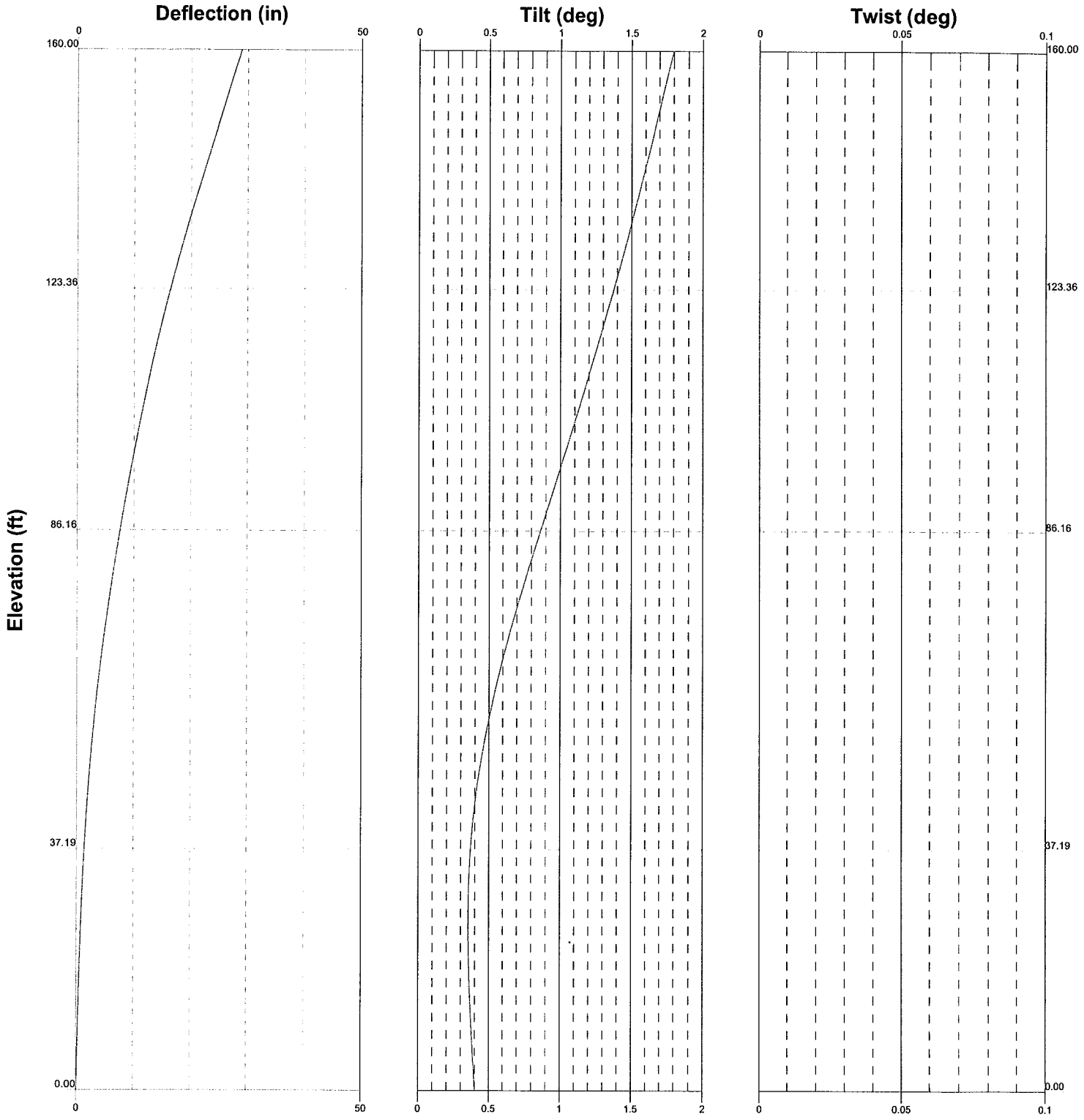
Client: Atlantis Group	Drawn by: JT	App'd:	
Code: TIA/EIA-222-F	Date: 05/14/10	Scale: NTS	
Path: Y:\Atlantis Group\T-Mobile\CT11412A\RISA\160' MP.eri		Dwg No. E-4	

TIA/EIA-222-F - Service - 50 mph

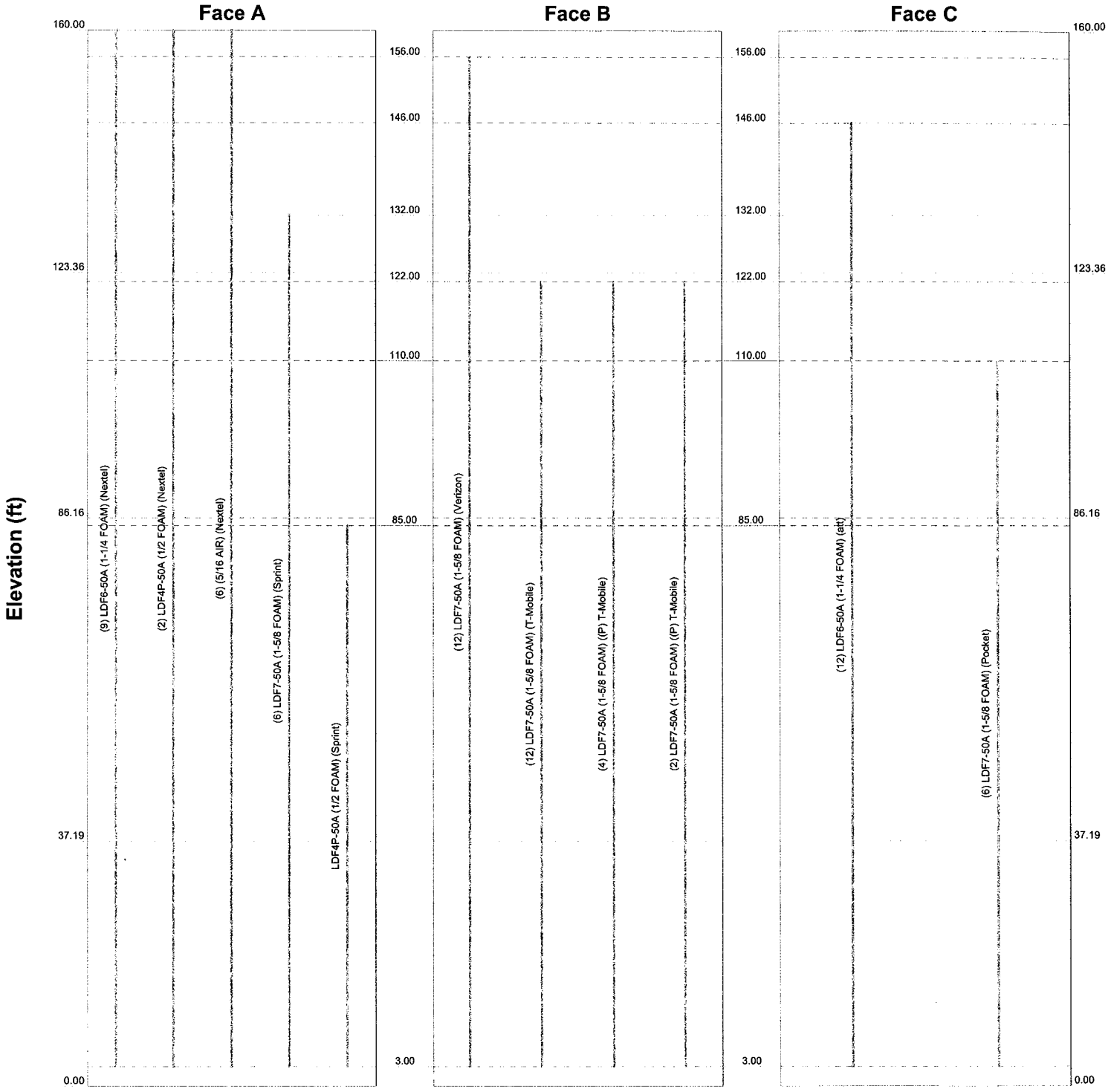
Maximum Values



ARMOR TOWER	*Armor Tower* 1 North Main St Cortland, NY Phone: 607-591-5381 FAX: 866-870-0840	Job: ***160' Monopole Analysis***	
		Project: ***CT11412A High Plains Community Center***	
		Client: Atlantis Group	Drawn by: JT / App'd:
		Code: TIA/EIA-222-F	Date: 05/14/10 / Scale: NTS
		Path: Y:\Atlantis Group\T-Mobile\CT11412A\RISA\160' MP.eri	Dwg No. E-5

Feedline Distribution Chart
0' - 160'

Round | Flat | App In Face | App Out Face | Truss Leg



ARMOR TOWER

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Job: ***160' Monopole Analysis***			
Project: ***CT11412A High Plains Community Center***			
Client: Atlantis Group	Drawn by: JT	App'd:	
Code: TIA/EIA-222-F	Date: 05/14/10	Scale: NTS	
Path: Y:\Atlantis Group\T-Mobile\CT11412A\RISA\160' MP.eri		Dwg No. E-7	

ARMOR TOWER *Armor Tower* *1 North Main St* *Cortland, NY* *Phone: 607-591-5381* *FAX: 866-870-0840*	**Job** 160' Monopole Analysis	**Page** 1 of 9
	Project CT11412A High Plains Community Center	**Date** 08:57:48 05/14/10
	Client Atlantis Group	**Designed by** JT

Tower Forces - No Ice - Wind Normal To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E ft^2	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	4848.56	132.33	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	6935.87	186.45	C
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	9998.25	204.17	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	7812.57	210.07	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	2156881.25 lb-ft	29595.24		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E ft^2	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	4848.56	132.33	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	6935.87	186.45	C
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	9998.25	204.17	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	7812.57	210.07	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	2156881.25 lb-ft	29595.24		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E ft^2	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	4848.56	132.33	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	6935.87	186.45	C

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	9998.25	204.17	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	7812.57	210.07	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	2156881.2 5 lb-ft	29595.24		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	3000.74	A	1	1.03	1	1	1	82.779	3775.69	103.05	C
160.00-123.36			B	1	1.03	1	1	1	82.779			
			C	1	1.03	1	1	1	82.779			
L2	1837.40	6588.74	A	1	1.03	1	1	1	113.701	5622.59	151.14	C
123.36-86.16			B	1	1.03	1	1	1	113.701			
			C	1	1.03	1	1	1	113.701			
L3	2544.30	14042.87	A	1	1.03	1	1	1	195.199	7984.05	163.04	C
86.16-37.19			B	1	1.03	1	1	1	195.199			
			C	1	1.03	1	1	1	195.199			
L4 37.19-0.00	1776.51	15029.48	A	1	1.03	1	1	1	184.214	6153.14	165.45	C
			B	1	1.03	1	1	1	184.214			
			C	1	1.03	1	1	1	184.214			
Sum Weight:	6936.44	38661.83						OTM	1716048.7 1 lb-ft	23535.47		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	3000.74	A	1	1.03	1	1	1	82.779	3775.69	103.05	C
160.00-123.36			B	1	1.03	1	1	1	82.779			
			C	1	1.03	1	1	1	82.779			
L2	1837.40	6588.74	A	1	1.03	1	1	1	113.701	5622.59	151.14	C
123.36-86.16			B	1	1.03	1	1	1	113.701			
			C	1	1.03	1	1	1	113.701			
L3	2544.30	14042.87	A	1	1.03	1	1	1	195.199	7984.05	163.04	C
86.16-37.19			B	1	1.03	1	1	1	195.199			
			C	1	1.03	1	1	1	195.199			
L4 37.19-0.00	1776.51	15029.48	A	1	1.03	1	1	1	184.214	6153.14	165.45	C
			B	1	1.03	1	1	1	184.214			
			C	1	1.03	1	1	1	184.214			
Sum Weight:	6936.44	38661.83						OTM	1716048.7	23535.47		

ARMOR TOWER
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Project	**Date**
CT11412A High Plains Community Center	08:57:48 05/14/10
Client	**Designed by**
Atlantis Group	JT

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
									1 lb-ft			

Tower Forces - With Ice - Wind 90 To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	3000.74	A	1	1.03	1	1	1	82.779	3775.69	103.05	C
160.00-123.36			B	1	1.03	1	1	1	82.779			
			C	1	1.03	1	1	1	82.779			
L2	1837.40	6588.74	A	1	1.03	1	1	1	113.701	5622.59	151.14	C
123.36-86.16			B	1	1.03	1	1	1	113.701			
			C	1	1.03	1	1	1	113.701			
L3	2544.30	14042.87	A	1	1.03	1	1	1	195.199	7984.05	163.04	C
86.16-37.19			B	1	1.03	1	1	1	195.199			
			C	1	1.03	1	1	1	195.199			
L4 37.19-0.00	1776.51	15029.48	A	1	1.03	1	1	1	184.214	6153.14	165.45	C
			B	1	1.03	1	1	1	184.214			
			C	1	1.03	1	1	1	184.214			
Sum Weight:	6936.44	38661.83						OTM	1716048.7 1 lb-ft	23535.47		

Tower Forces - Service - Wind Normal To Face

Section Elevation *ft*	*Add Weight* *lb*	*Self Weight* *lb*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *lb*	*w* *plf*	*Ctrl. Face*
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	1343.09	36.66	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	1921.29	51.65	C
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	2769.60	56.56	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	2164.15	58.19	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	597474.03 lb-ft	8198.13		

Tower Forces - Service - Wind 60 To Face

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Job	Page
160' Monopole Analysis	4 of 9
Project	**Date**
CT11412A High Plains Community Center	08:57:48 05/14/10
Client	**Designed by**
Atlantis Group	JT

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	1343.09	36.66	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	1921.29	51.65	C
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	2769.60	56.56	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	2164.15	58.19	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	597474.03 lb-ft	8198.13		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	778.22	2390.26	A	1	1.03	1	1	1	79.726	1343.09	36.66	C
160.00-123.36			B	1	1.03	1	1	1	79.726			
			C	1	1.03	1	1	1	79.726			
L2	1728.81	5746.11	A	1	1.03	1	1	1	110.601	1921.29	51.65	C
123.36-86.16			B	1	1.03	1	1	1	110.601			
			C	1	1.03	1	1	1	110.601			
L3	2395.93	12591.61	A	1	1.03	1	1	1	191.118	2769.60	56.56	C
86.16-37.19			B	1	1.03	1	1	1	191.118			
			C	1	1.03	1	1	1	191.118			
L4 37.19-0.00	1672.92	13657.07	A	1	1.03	1	1	1	181.115	2164.15	58.19	C
			B	1	1.03	1	1	1	181.115			
			C	1	1.03	1	1	1	181.115			
Sum Weight:	6575.88	34385.05						OTM	597474.03 lb-ft	8198.13		

Force Totals

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M_x lb-ft	Sum of Overturning Moments, M_z lb-ft	Sum of Torques lb-ft
Leg Weight	34385.05					
Bracing Weight	0.00					
Total Member Self-Weight	34385.05			380.40	47.43	
Total Weight	52205.48			380.40	47.43	
Wind 0 deg - No Ice		-55.01	-51819.48	-5411654.84	8349.34	266.98
Wind 30 deg - No Ice		25640.28	-44864.94	-4685009.88	-2662246.77	508.72
Wind 60 deg - No Ice		44836.47	-25886.35	-2702496.37	-4681472.46	820.25
Wind 90 deg - No Ice		51674.32	227.34	37461.13	-5388766.68	912.00
Wind 120 deg - No Ice		44849.49	25957.38	2713587.68	-4682761.62	553.27

ARMOR TOWER
Armor Tower
1 North Main St
Cortland, NY
Phone: 607-591-5381
FAX: 866-870-0840

Job	Page
160' Monopole Analysis	5 of 9
Project	**Date**
CT11412A High Plains Community Center	08:57:48 05/14/10
Client	**Designed by**
Atlantis Group	JT

Load Case	*Vertical Forces* lb	*Sum of Forces X* lb	*Sum of Forces Z* lb	*Sum of Overturning Moments, M_x* lb-ft	*Sum of Overturning Moments, M_z* lb-ft	*Sum of Torques* lb-ft
Wind 150 deg - No Ice		26089.44	44786.67	4671815.19	-2735724.83	-13.11
Wind 180 deg - No Ice		357.57	51796.52	5408581.18	-58783.24	-499.65
Wind 210 deg - No Ice		-25757.72	44654.33	4650599.18	2681953.84	-951.10
Wind 240 deg - No Ice		-44648.03	25777.55	2685087.77	4650097.00	-820.25
Wind 270 deg - No Ice		-51550.65	-20.33	-2129.91	5368208.23	-469.63
Wind 300 deg - No Ice		-44678.32	-26207.93	-2754668.84	4654271.36	-320.61
Wind 330 deg - No Ice		-25741.67	-44987.45	-4704585.27	2677742.51	13.11
Member Ice	4276.78					
Total Weight Ice	63286.00			741.47	-526.89	
Wind 0 deg - Ice		-45.65	-43328.51	-4610380.12	6268.00	487.34
Wind 30 deg - Ice		21445.49	-37513.19	-3991285.67	-2270750.41	732.42
Wind 60 deg - Ice		37488.88	-21644.22	-2302191.33	-3989323.51	947.03
Wind 90 deg - Ice		43210.12	184.26	30683.80	-4592835.56	907.88
Wind 120 deg - Ice		37500.76	21703.79	2312186.82	-3990477.89	459.69
Wind 150 deg - Ice		21809.20	37451.65	3981661.39	-2330053.91	-159.45
Wind 180 deg - Ice		289.01	43310.04	4608778.93	-47963.18	-674.47
Wind 210 deg - Ice		-21539.95	37343.80	3964479.39	2285471.16	-1088.23
Wind 240 deg - Ice		-37337.31	21556.71	2289060.23	3962957.46	-947.03
Wind 270 deg - Ice		-43110.65	-17.76	-1395.10	4575169.87	-552.06
Wind 300 deg - Ice		-37363.09	-21905.31	-2344358.29	3966432.47	-272.55
Wind 330 deg - Ice		-21529.48	-37613.14	-4007148.06	2282287.37	159.45
Total Weight	52205.48			380.40	47.43	
Wind 0 deg - Service		-15.24	-14354.43	-1498988.35	2676.24	73.96
Wind 30 deg - Service		7102.57	-12427.96	-1297701.66	-737101.07	140.92
Wind 60 deg - Service		12420.08	-7170.73	-748528.94	-1296443.37	227.22
Wind 90 deg - Service		14314.22	62.97	10462.05	-1492369.74	252.63
Wind 120 deg - Service		12423.68	7190.41	751771.35	-1296800.47	153.26
Wind 150 deg - Service		7226.99	12406.28	1294216.64	-757455.10	-3.63
Wind 180 deg - Service		99.05	14348.07	1498306.94	-15920.04	-138.41
Wind 210 deg - Service		-7135.10	12369.62	1288339.63	743286.91	-263.46
Wind 240 deg - Service		-12367.87	7140.60	743876.64	1288478.92	-227.22
Wind 270 deg - Service		-14279.96	-5.63	-504.99	1487401.70	-130.09
Wind 300 deg - Service		-12376.27	-7259.81	-762981.15	1289635.25	-88.81
Wind 330 deg - Service		-7130.66	-12461.90	-1303124.21	742120.34	3.63

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

Comb. No.	*Description*
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
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 lb*	*Major Axis Moment lb-ft*	*Minor Axis Moment lb-ft*
L1	160 - 123.36	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-16371.13	79.20	-45.73
			Max. Mx	5	-8939.71	-530433.41	-8659.79
			Max. My	2	-8915.30	1821.54	535725.26
			Max. Vy	5	22711.62	-530433.41	-8659.79
			Max. Vx	2	-22848.96	1821.54	535725.26
			Max. Torque	3			526.26
L2	123.36 - 86.16	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-28271.47	-103.39	-151.14
			Max. Mx	5	-18478.50	-1582845.8 8	-16890.24
			Max. My	2	-18460.13	3461.01	1593020.16
			Max. Vy	5	33715.36	-1582845.8 8	-16890.24
			Max. Vx	2	-33853.82	3461.01	1593020.16
			Max. Torque	5			-644.14
L3	86.16 - 37.19	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-43936.65	-135.09	-515.27
			Max. Mx	5	-33486.94	-3411957.7 9	-28246.59
			Max. My	2	-33478.02	6247.95	3429115.54
			Max. Vy	5	43180.01	-3411957.7 9	-28246.59
			Max. Vx	2	-43329.14	6247.95	3429115.54
			Max. Torque	5			-837.92
L4	37.19 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-63286.00	-526.89	-741.47
			Max. Mx	5	-52177.20	-5522648.4 7	-38615.43
			Max. My	2	-52177.00	8601.29	5546153.73
			Max. Vy	5	51702.88	-5522648.4 7	-38615.43

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	2	-51848.17	8601.29	5546153.73
			Max. Torque	22			1083.15

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Pole	Max. Vert	15	63286.00	45.65	43328.52
	Max. H_x	11	52205.48	51550.65	20.33
	Max. H_z	2	52205.48	55.01	51819.49
	Max. M_x	2	5546153.73	55.01	51819.49
	Max. M_z	5	5522648.47	-51674.33	-227.34
	Max. Torsion	22	1083.15	21539.95	-37343.81
	Min. Vert	1	52205.48	0.00	0.00
	Min. H_x	5	52205.48	-51674.33	-227.34
	Min. H_z	8	52205.48	-357.57	-51796.53
	Min. M_x	8	-5542994.71	-357.57	-51796.53
	Min. M_z	11	-5501539.05	51550.65	20.33
	Min. Torsion	5	-1036.61	-51674.33	-227.34

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Dead Only	52205.48	0.00	0.00	380.40	47.43	0.00
Dead+Wind 0 deg - No Ice	52205.48	-55.01	-51819.49	-5546153.73	8601.32	235.30
Dead+Wind 30 deg - No Ice	52205.48	25640.28	-44864.94	-4801525.85	-2728193.98	378.25
Dead+Wind 60 deg - No Ice	52205.48	44836.47	-25886.35	-2769667.04	-4797824.81	816.78
Dead+Wind 90 deg - No Ice	52205.48	51674.33	227.34	38615.28	-5522648.47	1036.61
Dead+Wind 120 deg - No Ice	52205.48	44849.49	25957.38	2781066.22	-4799124.54	581.51
Dead+Wind 150 deg - No Ice	52205.48	26089.44	44786.67	4787821.17	-2803898.42	-123.31
Dead+Wind 180 deg - No Ice	52205.48	357.57	51796.53	5542994.71	-60601.16	-693.24
Dead+Wind 210 deg - No Ice	52205.48	-25757.72	44654.33	4766106.64	2748569.41	-946.45
Dead+Wind 240 deg - No Ice	52205.48	-44648.03	25777.55	2751781.41	4765604.34	-816.89
Dead+Wind 270 deg - No Ice	52205.48	-51550.65	-20.33	-2184.73	5501539.05	-468.39
Dead+Wind 300 deg - No Ice	52205.48	-44678.32	-26207.93	-2823442.64	4769764.46	-123.58
Dead+Wind 330 deg - No Ice	52205.48	-25741.67	-44987.45	-4821618.18	2744113.99	123.25
Dead+Ice+Temp	63286.00	0.00	0.00	741.47	-526.89	0.00
Dead+Wind 0 deg+Ice+Temp	63286.00	-45.65	-43328.52	-4774601.18	6547.68	462.17
Dead+Wind 30 deg+Ice+Temp	63286.00	21445.49	-37513.21	-4133500.54	-2351343.50	637.96
Dead+Wind 60 deg+Ice+Temp	63286.00	37488.90	-21644.22	-2384194.14	-4131406.35	943.64
Dead+Wind 90 deg+Ice+Temp	63286.00	43210.14	184.26	32038.84	-4756319.83	996.66
Dead+Wind 120 deg+Ice+Temp	63286.00	37500.77	21703.79	2394583.79	-4132584.32	481.56
Dead+Wind 150 deg+Ice+Temp	63286.00	21809.20	37451.66	4123357.15	-2413258.56	-234.90
Dead+Wind 180 deg+Ice+Temp	63286.00	289.01	43310.05	4772921.99	-50089.64	-808.78
Dead+Wind 210 deg+Ice+Temp	63286.00	-21539.95	37343.81	4105515.61	2366789.03	-1083.15
Dead+Wind 240 deg+Ice+Temp	63286.00	-37337.33	21556.71	2370500.37	4103965.88	-943.79
Dead+Wind 270 deg+Ice+Temp	63286.00	-43110.66	-17.76	-1446.65	4737943.58	-551.42
Dead+Wind 300 deg+Ice+Temp	63286.00	-37363.10	-21905.32	-2428227.31	4107494.69	-134.89
Dead+Wind 330 deg+Ice+Temp	63286.00	-21529.49	-37613.15	-4150008.13	2363371.18	234.79
Dead+Wind 0 deg - Service	52205.48	-15.24	-14354.43	-1538033.62	2426.74	69.23

Load Combination	*Vertical*	*Shear$_x$*	*Shear$_z$*	*Overturning Moment, M$_x$*	*Overturning Moment, M$_z$*	*Torque*
	lb	*lb*	*lb*	*lb-ft*	*lb-ft*	*lb-ft*
Dead+Wind 30 deg - Service	52205.48	7102.57	-12427.96	-1331477.98	-756651.42	129.54
Dead+Wind 60 deg - Service	52205.48	12420.08	-7170.73	-767925.42	-1330710.57	227.08
Dead+Wind 90 deg - Service	52205.48	14314.22	62.97	11000.70	-1531731.92	263.79
Dead+Wind 120 deg - Service	52205.48	12423.68	7190.41	771659.58	-1331075.34	157.87
Dead+Wind 150 deg - Service	52205.48	7226.99	12406.28	1328263.11	-777672.82	-9.52
Dead+Wind 180 deg - Service	52205.48	99.05	14348.07	1537721.33	-16778.45	-151.17
Dead+Wind 210 deg - Service	52205.48	-7135.10	12369.62	1322198.27	762374.86	-262.13
Dead+Wind 240 deg - Service	52205.48	-12367.88	7140.60	763511.60	1321816.10	-227.09
Dead+Wind 270 deg - Service	52205.48	-14279.96	-5.63	-322.09	1525932.24	-131.20
Dead+Wind 300 deg - Service	52205.48	-12376.27	-7259.82	-782850.11	1323004.00	-75.92
Dead+Wind 330 deg - Service	52205.48	-7130.66	-12461.90	-1337074.76	761160.73	9.51

Maximum Tower Deflections - Service Wind

Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		°	°
L1	160 - 123.36	28.957	32	1.7965	0.0017
L2	128 - 86.16	17.841	32	1.4346	0.0005
L3	92 - 37.19	8.731	32	0.9436	0.0003
L4	44.5 - 0	1.951	32	0.4020	0.0001

Critical Deflections and Radius of Curvature - Service Wind

Elevation	*Appurtenance*	*Gov. Load Comb.*	*Deflection*	*Tilt*	*Twist*	*Radius of Curvature*
ft			*in*	°	°	*ft*
167.00	DragonWave 2' dish	32	28.957	1.7965	0.0017	21915
163.00	(5) 2.5" Sch 40 x 8ft	32	28.957	1.7965	0.0017	21915
155.20	PiROD 13' Platform w/handrails (Monopole)	32	27.202	1.7448	0.0015	21915
145.70	(2) Powerwave 7770.00 w. MtgPipe	32	23.775	1.6410	0.0011	7662
143.70	PiROD 13' Platform w/handrails (Monopole)	32	23.069	1.6187	0.0010	6722
134.10	(2) DB980H90E-M w/Mount Pipe	32	19.793	1.5084	0.0007	4230
131.80	PiROD 13' Platform w/handrails (Monopole)	32	19.043	1.4810	0.0006	3886
121.90	(2) RR90-17-02DP w/Mount Pipe	32	16.014	1.3572	0.0004	3603
121.00	TMA KRY112 89 5	32	15.755	1.3455	0.0004	3632
119.00	PiROD 13' Platform w/handrails (Monopole)	32	15.189	1.3193	0.0004	3696
110.00	APXV18-206517LC w. Pipe	32	12.802	1.1976	0.0003	4017
83.40	2.5" Tube x 2' Standoff	32	7.083	0.8214	0.0002	4819

Maximum Tower Deflections - Design Wind

Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		°	°
L1	160 - 123.36	104.117	2	6.4649	0.0059
L2	128 - 86.16	64.192	2	5.1641	0.0019

Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		°	°
L3	92 - 37.19	31.443	7	3.3986	0.0010
L4	44.5 - 0	7.029	7	1.4485	0.0004

Critical Deflections and Radius of Curvature - Design Wind

Elevation	*Appurtenance*	*Gov. Load Comb.*	*Deflection*	*Tilt*	*Twist*	*Radius of Curvature*
ft			*in*	°	°	*ft*
167.00	DragonWave 2' dish	2	104.117	6.4649	0.0059	6228
163.00	(5) 2.5" Sch 40 x 8ft	2	104.117	6.4649	0.0059	6228
155.20	PiROD 13' Platform w/handrails (Monopole)	2	97.814	6.2806	0.0051	6228
145.70	(2) Powerwave 7770.00 w. MtgPipe	2	85.509	5.9100	0.0038	2175
143.70	PiROD 13' Platform w/handrails (Monopole)	2	82.972	5.8301	0.0036	1908
134.10	(2) DB980H90E-M w/Mount Pipe	2	71.205	5.4327	0.0024	1198
131.80	PiROD 13' Platform w/handrails (Monopole)	2	68.512	5.3331	0.0022	1101
121.90	(2) RR90-17-02DP w/Mount Pipe	2	57.628	4.8807	0.0016	1017
121.00	TMA KRY112 89 5	7	56.698	4.8377	0.0015	1025
119.00	PiROD 13' Platform w/handrails (Monopole)	7	54.666	4.7415	0.0015	1042
110.00	APXV18-206517LC w. Pipe	7	46.083	4.2973	0.0012	1130
83.40	2.5" Tube x 2' Standoff	7	25.510	2.9880	0.0009	1346

Section Capacity Table

Section *No.*	*Elevation* *ft*	*Component Type*	*Critical Element*	*P* *lb*	*SF*P$_{allow}$* *lb*	*% Capacity*	*Pass Fail*
L1	160 - 123.36	Pole	1	-8913.73	1019570.33	88.3	Pass
L2	123.36 - 86.16	Pole	2	-18458.80	2235067.67	91.2	Pass
L3	86.16 - 37.19	Pole	3	-33477.20	3749009.02	88.8	Pass
L4	37.19 - 0	Pole	4	-52177.00	4683055.42	92.6	Pass
						Summary	
					Pole (L4)	92.6	Pass
					Base Plate	95.5	Pass
					RATING =	**95.5**	**Pass**

Monopole Pad & Pier Calculations

Client: Atlantis Group
Project: TMO CT11412A
05/14/10 9:20

Applied Loads:

OTM:	5548.43	kip-ft
Shear:	51.83	kip
Deadload:	52.205	kip

Allowable Soil Bearing	10000	psf
Specific Gravity:	2.65	
Soil Unit Weight:	125	lb/ft^3
Submerged Unit Wt:	77.83	lb/ft^3
Soil Ang:	36	°
Concrete Unit Wt:	150	lb/ft^3
Concrete f`c:	4000	psi
Rebar Fy:	60000	psi

Pad Dimensions:

Width:	22	ft
Thickness:	4	ft
OADepth:	14	ft
Abolt Circle	76	in
ABolt QTY/ϕ:	24	2.25 in
Pier Diam:	8	ft 7.67 ft min
Pier Height:	0.5	ft above Grade
Pier Depth:	10	ft
Total Moment:	6093	kip-ft

Concrete Volume:	91.3	cuyd
Depth to Water:	14	ft

Soil Resistance:

Soil1:	6655.0	kip-ft
Soil2:	4637.5	kip-ft
Soil3:	967.8	kip-ft

Concrete Resistance: 3194 kip-ft
OTM Capacity: NYS BC: 7727 kip-ft
78.8% Loaded

Bearing Pressures:

fb(max):	6251	psf
fb(mid):	3117	psf OK

62.5% Loaded

Pad Reinforcement:

Pad Moment:	3648	kip-ft	Pad Cover:	4 in	ρ ACI: 0.00316
ρ strength:	0.00161				
ρ min:	0.00215	ACI 10.5.3			
Req'd Steel:	24.9	inch²			
Pad Bar QTY:	35				
Pad Bar #:	10	44.4 inch²	56.2% Loaded		**(35) #10 Bars @ 7.53 inch spacing**

Pier Reinforcement: LoadFactr 1.3 ϕ=.9

Pier Cover:	3	in	C-C Spacing:	8.88	inch
Bar QTY:	31		Clear Spacing:	7.51	inch
Pier Bar #:	11	46.0 inch²	Hoop #:	4	22 inch V.Spacing
Bending Mome	7920	ft-kip	Pier Bar Circle:	87.6 inch	
Capacity:	9112	ft-kip	86.9% Loaded	Hoop Lap Length:	3.0 in Welded
				Hoop Cut Length:	284.0 in

Development Length: ACI 12.2.3

Ktr:	0.71	inch
c:	4.19	inch
ldb:	39.13	inch

Cage Wt:	2189	lbf
Pad Bars:	12862	lbf
	15050	lbf Total Steel Wt

Global Check: OK

A.Bolt Projection:	9	inch
Min. Anchor Bolt Length:	55.13	inch
Act. Anchor Bolt Length:	84	inch

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: Transcend
From: Amir Uzzaman - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11412A
Date: May 17, 2010

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a Monopole at 525 Orange Center Rd., Orange, 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 3 antennas per sector.
3) The model number for GSM antenna is RR90-17-02DP.
3) The model number for UMTS antenna is APX16DWV-16DWV.
4) GSM antenna center line height is 121 ft.
4) UMTS antenna center line height is 121 ft.
5) The maximum transmit power from any GSM sector is 1698.71 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
5) The maximum transmit power from any UMTS sector is 2393.81 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 Monopole at 525 Orange Center Rd., Orange, CT, is 0.06789 mW/cm^2. This value represents 6.789% 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 24.47%. The combined Power Density for the site is 31.259% of the M.P.E. standard.