10 Industrial Ave, Suite 3
Mahwah, NJ 07430
Phone: (845) 499-4712
Jennifer Notaro
Real Estate Consultant

June, 27 2014

Hand Delivered

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

CC to Property Owner:
Ridgefield Water Properties, LLC
746 Danbury Road
Ridgefield CT 06877
Attn: Edmund R. Mcgill

RE: T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 746 Danbury Rd, Ridgefield CT 06877. Known to T-Mobile Northeast LLC as site CT11297C

Dear Ms. Bachman:

In order to accommodate technological changes, implement Global System for Mobile Communications Access ("GSM") and/or Long Term Evolution ("LTE") capabilities, and enhance system performance in the state of Connecticut, T-Mobile Northeast LLC plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

GSM employs Spread-Spectrum technology and special coding scheme to allow multiple users to be multiplexed over the same physical channel. LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

As part of the project the new multi-mode 800/1900 antenna will replace existing antennas. These antennas will provide more flexibility for optimization by allowing fast and easy electrical tilt adjustment from remote location and will enable the transmission of multiple technologies from a single antenna. As T-Mobile Northeast LLC network evolves to meet the demands of its customers, it is essential for T-Mobile Northeast LLC

to install modern equipment and antennas in order to provide reliable wireless voice and data services. The proposed equipment will include multi-mode radios that will allow T-Mobile Northeast LLC to transmit at different frequencies using different technologies, including LTE technology. Likewise, the proposed antennas are quad-pole multi-band high gain antennas that will allow T-Mobile Northeast LLC to operate using its multiple frequency bands and technologies, including LTE technology. The proposed equipment and antennas will improve the reliability, coverage and capacity of T-Mobile Northeast LLC voice and data networks across T-Mobile Northeast LLC various FCC licensed frequency bands and significantly increase the data speeds of T-Mobile Northeast LLC 's network by utilizing the latest LTE technology. Without the proposed modifications T-Mobile Northeast LLC will be unable to provide reliable wireless voice and data service using the latest technologies.

T-Mobile Northeast LLC will have an interim (testing) period during the modification/installation prior to the final configuration. This antenna configuration is shown on the attached drawings of the planned modifications. Also included is the power density calculation reflecting the change in T-Mobile Northeast LLC operations at the site and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modification as defined Connecticut General Statues ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for the R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more GSM transmissions. Moreover, LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons T-Mobile Northeast LLC respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (845) 499-4712 or email jnotaro@transcendwireless.com with questions concerning this matter.
Thank you for your consideration.

Sincerely,

Jennifer Notaro
(845) 499-4712

EBI Consulting
environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11297C

Ridgefield / Rt 7
746 Danbury Road
Ridgefield, CT 06877

June 24, 2014

EBI Project Number: 62143689

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

EBI Consulting
environmental | engineering | due diligence

June 24, 2014

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

Re: Emissions Values for Site: **CT11297C - Ridgefield / Rt 7**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 746 Danbury Road, Ridgefield, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (µW/cm2). The number of µW/cm2 calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (µW/cm2). The general population exposure limit for the cellular band is 567 µW/cm2, and the general population exposure limit for the PCS and AWS bands is 1000 µW/cm2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 746 Danbury Road, Ridgefield, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

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

1) 2 GSM channels (1940.000 MHz—to 1950.000 MHz) were considered for each sector of the proposed installation.
2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
6) The antenna used in this modeling is the RFS APXV18-206516S-C-A20 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 16.3 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications.

7) The antenna mounting height centerline of the proposed antennas is **87.5 feet** above ground level (AGL).
8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

Site ID	CT11297C - Ridgefield / Rt 7
Site Address	746 Danbury Road, Ridgefield, CT 06877
Site Type	Monopole

Sector 1

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	RFS	APXV18-206516S-C-A20	Passive	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.25	87.5	81.5	7/8"	1.2	0	21.535316	1.16558	0.11656%
1a	RFS	APXV18-206516S-C-A20	Passive	AWS - 2100 MHz	UMTS/LTE	40	4	160	-3.25	87.5	81.5	7/8"	1.2	0	57.42751	3.108213	0.31082%
															Sector total Power Density Value:		0.427%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
2a	RFS	APXV18-206516S-C-A20	Passive	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.25	87.5	81.5	7/8"	1.2	0	21.535316	1.16558	0.11656%
2a	RFS	APXV18-206516S-C-A20	Passive	AWS - 2100 MHz	UMTS/LTE	40	4	160	-3.25	87.5	81.5	7/8"	1.2	0	57.42751	3.108213	0.31082%
															Sector total Power Density Value:		0.427%

Site Composite MPE %

Carrier	MPE %
T-Mobile	0.855%
Nextel	6.000%
MetroPCS	8.070%
Total Site MPE %	**14.925%**

Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.855% (0.427% from each sector)** of the allowable FCC established general public limit considering both sectors simultaneously.

The anticipated composite MPE value for this site assuming all carriers present is **14.925%** of the allowable FCC established general public limit. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

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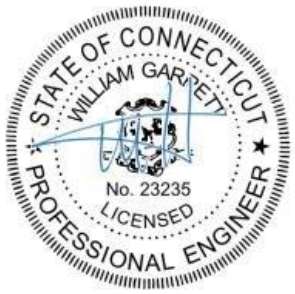
CORPORATION

Structural Analysis Report

Structure	:	**99 ft Stealth Monopole**
ATC Site Name	:	**Ridgefield Danbury Rd., CT**
ATC Site Number	:	**302471**
Engineering Number	:	**59055621**
Proposed Carrier	:	**T-Mobile**
Carrier Site Name	:	**Ridgefield/ RT 7**
Carrier Site Number	:	**CT11297C**
Site Location	:	**746 Danbury Road** **Ridgefield, CT 06877-2712** **41.329978,-73.472322**
County	:	**Fairfield**
Date	:	**June 19, 2014**
Max Usage	:	**78%**
Result	:	**Pass**

Christopher Clark Poe, E.I.
Structural Engineer I



Jun 19 2014 3:17 PM

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Calculations ..... Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 99 ft stealth monopole to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Stealth, Paul J Ford Job #31900-003, dated January 7, 2000
Foundation Drawing	Stealth, Paul J Ford Job #31900-003, dated April 12, 2000
Geotechnical Report	Clarence Welti Report, dated June 29, 1999

Analysis

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

Basic Wind Speed:	85 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	74 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

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

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

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
97.5	97.5	3	48" x 12" Panel	Canister	(9) 7/8" Coax	Sprint Nextel
77.0	77.0	3	Kathrein 800 10504	Canister	(6) 1 5/8" Coax (1) 0.33" Coax	Metro PCS
		3	Kathrein 860 10025			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
87.5	87.5	4	Andrew ETT19V2S12UB	Canister	(4) 1 1/4" Coax	T-Mobile
		2	RFS APXV18-206516S-C-A20			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	55%	Pass
Shaft	52%	Pass
Base Plate	78%	Pass

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	320.3
Shear (Kips)	5.9

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.
Foundation and anchorage were reviewed with a factor of safety of 2.0 considered.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
69.0	0.344	0.474

***Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.**

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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:

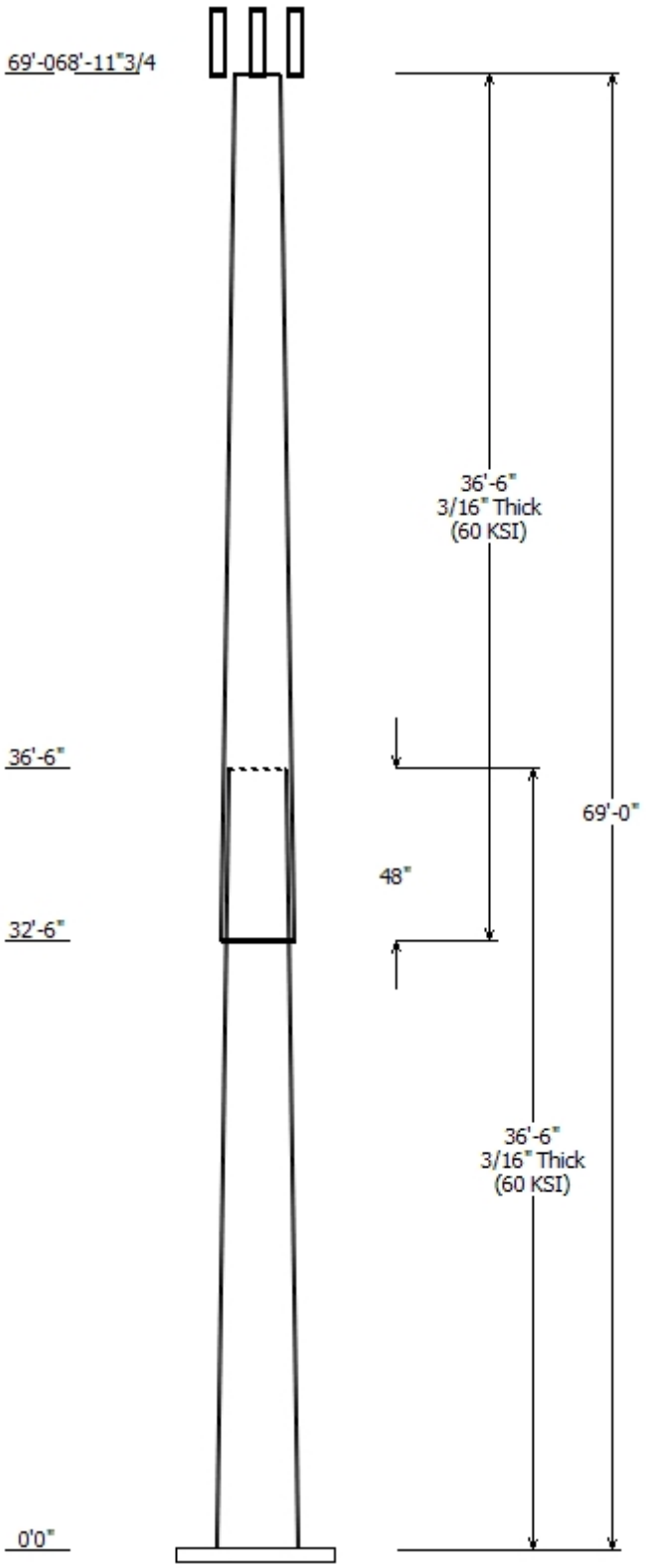
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- 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 Tower Services, Inc. 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 that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. 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.

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



Job Information

Pole :	302471 Code: TIA/EIA-222 Rev F
Description :	69 ft Stealth Monopole w/ 30 ft Concealment Cylinder
Client :	T- Mobile
Location :	Ridgefield Danbury Rd., CT
Shape :	18 Sides
Height :	69.00 (ft)
Base Elev (ft):	0.00
Taper:	0.12000 (in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	36.500	29.52	33.90	0.188		0.000	0.120000	60
2	36.500	26.00	30.38	0.188	Slip Joint	48.000	0.120000	60

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
69.000	94.000	1	Canister 3
69.000	97.500	3	48" x 12" Panel
68.990	87.500	2	RFS APXV18-206516S-C-A20
68.990	87.500	4	Andrew ETT19V2S12UB
68.990	84.000	1	Canister 2
68.980	77.000	3	Kathrein 800 10504
68.980	77.000	3	Kathrein 860 10025
68.980	74.000	1	Canister 1

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	68.980	0.33" Coax	No
0.000	68.980	1 5/8" Coax	No
0.000	68.990	1 1/4" Coax	No
0.000	69.000	7/8" Coax	No

Load Cases

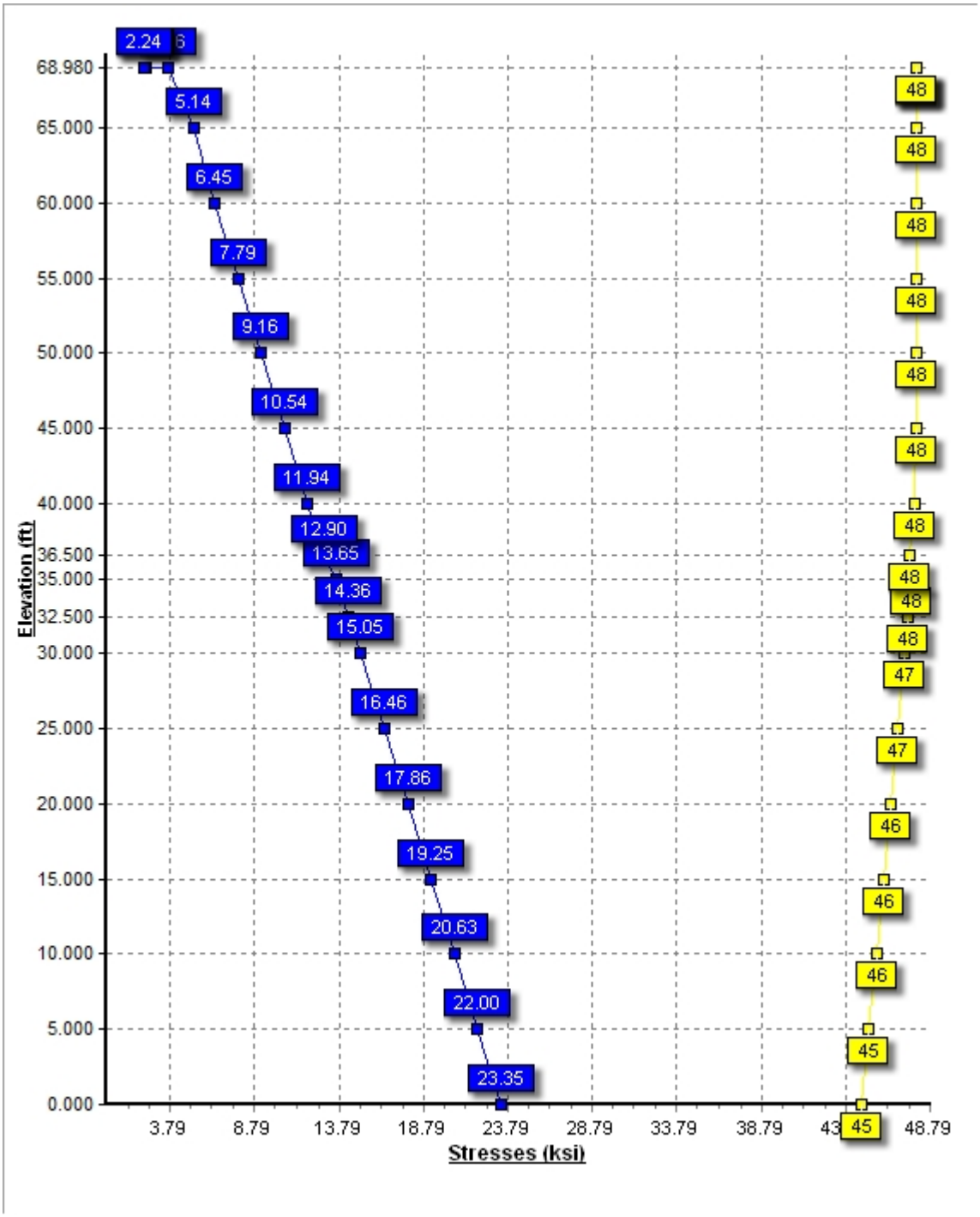
No Ice	85.00 mph Wind with No Ice
Ice	73.61 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	320.25	5.87	7.50
Ice	107.43	2.90	6.85
Twist/Sway	110.79	2.03	7.51

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000


Elevation (ft)
68.980
65.000
60.000
55.000
50.000
45.000
40.000
36.500
35.000
32.500
30.000
25.000
20.000
15.000
10.000
5.000
0.000
3.79
8.79
13.79
18.79
23.79
28.79
33.79
38.79
43
48.79
Stresses (ksi)
2.24
5.14
6.45
7.79
9.16
10.54
11.94
12.90
13.65
14.36
15.05
16.46
17.86
19.25
20.63
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23.35
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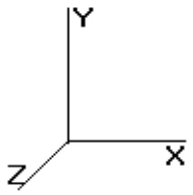
Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	36.500	0.1875	60		0.00	2,330	33.90	0.00	20.07	2882.1	30.12	180.83	29.52	36.50	17.46	1898.5	26.00	157.47	0.120000
2-18	36.500	0.1875	60	Slip	48.00	2,070	30.38	32.50	17.97	2069.4	26.81	162.03	26.00	69.00	15.36	1293.1	22.69	138.67	0.120000
				Shaft Weight		4,400													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
69.00	48" x 12" Panel	3	30.00	0.000	0.01	63.00	0.000	0.01	0.000	28.500
69.00	Canister 3	1	720.00	17.330	1.00	0.00	0.000	1.00	0.000	25.000
68.99	Andrew ETT19V2S12UB	4	11.00	0.000	0.01	15.80	0.000	0.01	0.000	18.510
68.99	Canister 2	1	720.00	17.330	1.00	0.00	0.000	1.00	0.000	15.010
68.99	RFS APXV18-206516S-C-A20	2	18.70	0.000	0.01	38.70	0.000	0.01	0.000	18.510
68.98	Canister 1	1	720.00	17.330	1.00	0.00	0.000	1.00	0.000	5.020
68.98	Kathrein 800 10504	3	17.60	0.000	0.01	35.70	0.000	0.01	0.000	8.020
68.98	Kathrein 860 10025	3	1.20	0.000	0.01	2.60	0.000	0.01	0.000	8.020
	Totals	18	2387.80			444.50			Number of Loadings :	8

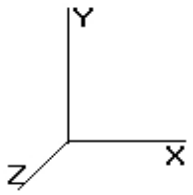
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	69.00	(9) 7/8" Coax	2.97	0.00	0.00	0.00	N
0.00	68.99	(4) 1 1/4" Coax	2.52	0.00	0.00	0.00	N
0.00	68.98	(1) 0.33" Coax	0.05	0.00	0.00	0.00	N
0.00	68.98	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
		Total Weight	721.27 (lb)		0.00 (lb)		

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Segment Properties

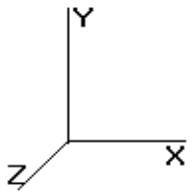
(Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.1875	33.905	20.065	2,882.1	30.12	180.83	60	45	0.0
5.00		0.1875	33.305	19.708	2,730.9	29.56	177.63	60	45	338.4
10.00		0.1875	32.705	19.351	2,585.2	28.99	174.43	60	46	332.3
15.00		0.1875	32.105	18.994	2,444.7	28.43	171.23	60	46	326.2
20.00		0.1875	31.505	18.637	2,309.4	27.86	168.03	60	46	320.1
25.00		0.1875	30.905	18.280	2,179.2	27.30	164.83	60	47	314.1
30.00		0.1875	30.305	17.923	2,054.0	26.74	161.63	60	47	308.0
32.50	Bot - Section 2	0.1875	30.005	17.744	1,993.2	26.45	160.03	60	48	151.7
35.00		0.1875	29.705	17.566	1,933.6	26.17	158.43	60	48	302.3
36.50	Top - Section 1	0.1875	29.900	17.682	1,972.2	26.35	159.47	60	48	179.9
40.00		0.1875	29.480	17.432	1,889.8	25.96	157.23	60	48	209.1
45.00		0.1875	28.880	17.075	1,776.0	25.40	154.03	60	48	293.5
50.00		0.1875	28.280	16.718	1,666.9	24.83	150.83	60	48	287.5
55.00		0.1875	27.680	16.361	1,562.4	24.27	147.63	60	48	281.4
60.00		0.1875	27.080	16.004	1,462.3	23.70	144.43	60	48	275.3
65.00		0.1875	26.480	15.647	1,366.6	23.14	141.23	60	48	269.2
68.98		0.1875	26.002	15.362	1,293.4	22.69	138.68	60	48	210.0
68.99		0.1875	26.001	15.362	1,293.3	22.69	138.67	60	48	0.5
69.00		0.1875	26.000	15.361	1,293.1	22.69	138.67	60	48	0.5
										4,400.0

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



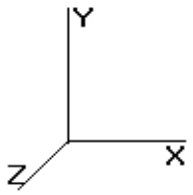
Load Case: No Ice — 85.00 mph Wind with No Ice — 18 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	18.496	31.25	240.15	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	18.496	31.25	235.90	0.650	0.000	5.00	14.002	9.10	284.5	0.0	338.4
10.00		0.00	1.00	18.496	31.25	231.65	0.650	0.000	5.00	13.752	8.94	279.4	0.0	332.3
15.00		0.00	1.00	18.496	31.25	227.40	0.650	0.000	5.00	13.502	8.78	274.3	0.0	326.2
20.00		0.00	1.00	18.496	31.25	223.15	0.650	0.000	5.00	13.252	8.61	269.3	0.0	320.1
25.00		0.00	1.00	18.496	31.25	218.90	0.650	0.000	5.00	13.002	8.45	264.2	0.0	314.1
30.00		0.00	1.00	18.496	31.25	214.65	0.650	0.000	5.00	12.752	8.29	259.1	0.0	308.0
32.50	Bot - Section 2	0.00	1.00	18.496	31.25	212.53	0.650	0.000	2.50	6.282	4.08	127.6	0.0	151.7
35.00		0.00	1.01	18.810	31.78	212.18	0.650	0.000	2.50	6.298	4.09	130.1	0.0	302.3
36.50	Top - Section 1	0.00	1.02	19.036	32.17	212.16	0.650	0.000	1.50	3.749	2.44	78.4	0.0	179.9
40.00		0.00	1.05	19.541	33.02	214.63	0.650	0.000	3.50	8.660	5.63	185.9	0.0	209.1
45.00		0.00	1.09	20.210	34.15	213.83	0.650	0.000	5.00	12.158	7.90	269.9	0.0	293.5
50.00		0.00	1.12	20.827	35.19	212.56	0.650	0.000	5.00	11.908	7.74	272.4	0.0	287.5
55.00		0.00	1.15	21.402	36.17	210.90	0.650	0.000	5.00	11.658	7.58	274.1	0.0	281.4
60.00		0.00	1.18	21.941	37.08	208.91	0.650	0.000	5.00	11.408	7.42	275.0	0.0	275.3
65.00		0.00	1.21	22.449	37.93	206.63	0.650	0.000	5.00	11.158	7.25	275.2	0.0	269.2
68.98	Appertunance(s)	0.00	1.23	22.833	38.58	204.64	0.650	0.000	3.98	8.703	5.66	218.3	0.0	210.0
68.99	Appertunance(s)	0.00	1.23	22.834	38.59	204.63	0.650	0.000	0.01	0.022	0.01	0.5	0.0	0.5
69.00	Appertunance(s)	0.00	1.23	22.835	38.59	204.63	0.650	0.000	0.01	0.022	0.01	0.5	0.0	0.5
							Totals:		69.00			3,738.8	0.0	4,400.0

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 4**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



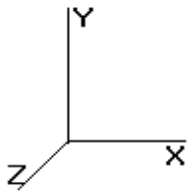
Load Case: **No Ice** **85.00 mph Wind with No Ice** **18 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
68.98	Canister 1	1	23.296	39.370	1.00	17.33	0.000	5.020	682.29	0.00	3,425.09	720.00
68.98	Kathrein 860 10025	3	23.562	39.820	0.01	0.00	0.000	8.020	0.00	0.00	0.00	3.60
68.98	Kathrein 800 10504	3	23.562	39.820	0.01	0.00	0.000	8.020	0.00	0.00	0.00	52.80
68.99	Canister 2	1	24.155	40.822	1.00	17.33	0.000	15.010	707.45	0.00	10,618.8	720.00
68.99	Andrew	4	24.439	41.301	0.01	0.00	0.000	18.510	0.00	0.00	0.00	44.00
68.99	RFS APXV18-206516S-	2	24.439	41.301	0.01	0.00	0.000	18.510	0.00	0.00	0.00	37.40
69.00	Canister 3	1	24.944	42.155	1.00	17.33	0.000	25.000	730.55	0.00	18,263.8	720.00
69.00	48" x 12" Panel	3	25.206	42.598	0.01	0.00	0.000	28.500	0.00	0.00	0.00	90.00
									2,120.29			2,387.80

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 5**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



Load Case: **No Ice** **85.00 mph Wind with No Ice** **18 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

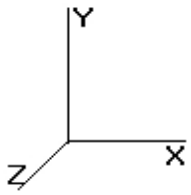
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	284.49	390.63	0.00	0.00
10.00	279.41	384.55	0.00	0.00
15.00	274.33	378.48	0.00	0.00
20.00	269.25	372.40	0.00	0.00
25.00	264.17	366.33	0.00	0.00
30.00	259.09	360.25	0.00	0.00
32.50	127.64	177.85	0.00	0.00
35.00	130.13	328.42	0.00	0.00
36.50	78.39	195.59	0.00	0.00
40.00	185.88	245.69	0.00	0.00
45.00	269.92	345.82	0.00	0.00
50.00	272.45	339.75	0.00	0.00
55.00	274.09	333.67	0.00	0.00
60.00	274.97	327.60	0.00	0.00
65.00	275.16	321.52	0.00	0.00
68.98	900.59	1,027.99	0.00	3,425.09
68.99	707.99	801.98	0.00	10,618.83
69.00	731.10	810.55	0.00	18,263.87
Totals:	5,859.06	7,509.06	0.00	32,307.79

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 85.00 mph Wind with No Ice — 18 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

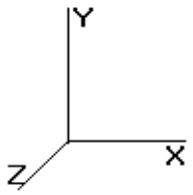
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-5.869	-7.501	0.000	0.000	0.000	-320.245	0.000	0.000	0.000	0.000
5.00	-5.602	-7.096	0.000	0.000	0.000	-290.902	-0.081	0.000	0.081	-0.151
10.00	-5.338	-6.700	0.000	0.000	0.000	-262.892	-0.317	0.000	0.317	-0.295
15.00	-5.076	-6.311	0.000	0.000	0.000	-236.205	-0.701	0.000	0.701	-0.432
20.00	-4.816	-5.931	0.000	0.000	0.000	-210.827	-1.224	0.000	1.224	-0.562
25.00	-4.560	-5.558	0.000	0.000	0.000	-186.747	-1.879	0.000	1.879	-0.685
30.00	-4.303	-5.195	0.000	0.000	0.000	-163.949	-2.659	0.000	2.659	-0.799
32.50	-4.178	-5.015	0.000	0.000	0.000	-153.191	-3.092	0.000	3.092	-0.854
35.00	-4.046	-4.686	0.000	0.000	0.000	-142.746	-3.554	0.000	3.554	-0.907
36.50	-3.969	-4.488	0.000	0.000	0.000	-136.677	-3.844	0.000	3.844	-0.938
40.00	-3.784	-4.240	0.000	0.000	0.000	-122.787	-4.558	0.000	4.558	-1.006
45.00	-3.514	-3.894	0.000	0.000	0.000	-103.866	-5.658	0.000	5.658	-1.091
50.00	-3.239	-3.556	0.000	0.000	0.000	-86.298	-6.842	0.000	6.842	-1.167
55.00	-2.961	-3.225	0.000	0.000	0.000	-70.104	-8.102	0.000	8.102	-1.234
60.00	-2.682	-2.901	0.000	0.000	0.000	-55.297	-9.426	0.000	9.426	-1.291
65.00	-2.401	-2.584	0.000	0.000	0.000	-41.887	-10.804	0.000	10.804	-1.338
68.98	-1.477	-1.578	0.000	0.000	0.000	-28.905	-11.934	0.000	11.934	-1.369
68.99	-0.750	-0.793	0.000	0.000	0.000	-18.271	-11.937	0.000	11.937	-1.369
69.00	-0.731	0.000	0.000	0.000	0.000	-18.264	-11.940	0.000	11.940	-1.369

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



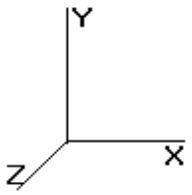
Load Case: No Ice — 85.00 mph Wind with No Ice — 18 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses: Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.37	0.59	0.00	0.00	0.00	22.95	23.35	44.7	0.0	0.522
5.00	0.36	0.57	0.00	0.00	0.00	21.61	22.00	45.2	0.0	0.487
10.00	0.35	0.56	0.00	0.00	0.00	20.26	20.63	45.6	0.0	0.453
15.00	0.33	0.54	0.00	0.00	0.00	18.90	19.25	46.0	0.0	0.418
20.00	0.32	0.52	0.00	0.00	0.00	17.52	17.86	46.4	0.0	0.385
25.00	0.30	0.50	0.00	0.00	0.00	16.14	16.46	46.9	0.0	0.351
30.00	0.29	0.48	0.00	0.00	0.00	14.74	15.05	47.3	0.0	0.318
32.50	0.28	0.47	0.00	0.00	0.00	14.05	14.36	47.5	0.0	0.302
35.00	0.27	0.46	0.00	0.00	0.00	13.36	13.65	47.7	0.0	0.286
36.50	0.25	0.45	0.00	0.00	0.00	12.62	12.90	47.6	0.0	0.271
40.00	0.24	0.44	0.00	0.00	0.00	11.67	11.94	47.9	0.0	0.249
45.00	0.23	0.41	0.00	0.00	0.00	10.29	10.54	48.0	0.0	0.220
50.00	0.21	0.39	0.00	0.00	0.00	8.92	9.16	48.0	0.0	0.191
55.00	0.20	0.36	0.00	0.00	0.00	7.57	7.79	48.0	0.0	0.162
60.00	0.18	0.34	0.00	0.00	0.00	6.24	6.45	48.0	0.0	0.134
65.00	0.17	0.31	0.00	0.00	0.00	4.94	5.14	48.0	0.0	0.107
68.98	0.10	0.19	0.00	0.00	0.00	3.54	3.66	48.0	0.0	0.076
68.99	0.05	0.10	0.00	0.00	0.00	2.24	2.30	48.0	0.0	0.048
69.00	0.00	0.10	0.00	0.00	0.00	2.24	2.24	48.0	0.0	0.047

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 8**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



Load Case: **Ice** **73.61 mph Wind with Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	13.871	23.44	207.97	0.650	0.500	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	13.871	23.44	204.29	0.650	0.500	5.00	14.419	9.37	219.7	104.3	442.7
10.00		0.00	1.00	13.871	23.44	200.61	0.650	0.500	5.00	14.169	9.21	215.9	102.5	434.7
15.00		0.00	1.00	13.871	23.44	196.93	0.650	0.500	5.00	13.919	9.05	212.1	100.6	426.8
20.00		0.00	1.00	13.871	23.44	193.25	0.650	0.500	5.00	13.669	8.88	208.3	98.8	418.9
25.00		0.00	1.00	13.871	23.44	189.57	0.650	0.500	5.00	13.419	8.72	204.5	96.9	411.0
30.00		0.00	1.00	13.871	23.44	185.89	0.650	0.500	5.00	13.169	8.56	200.7	95.1	403.0
32.50	Bot - Section 2	0.00	1.00	13.871	23.44	184.05	0.650	0.500	2.50	6.491	4.22	98.9	47.1	198.8
35.00		0.00	1.01	14.106	23.84	183.75	0.650	0.500	2.50	6.506	4.23	100.8	47.2	349.5
36.50	Top - Section 1	0.00	1.02	14.276	24.12	183.73	0.650	0.500	1.50	3.874	2.52	60.8	28.1	208.1
40.00		0.00	1.05	14.655	24.76	185.87	0.650	0.500	3.50	8.951	5.82	144.1	64.8	273.9
45.00		0.00	1.09	15.156	25.61	185.17	0.650	0.500	5.00	12.575	8.17	209.4	90.7	384.2
50.00		0.00	1.12	15.620	26.39	184.08	0.650	0.500	5.00	12.325	8.01	211.5	88.8	376.3
55.00		0.00	1.15	16.051	27.12	182.64	0.650	0.500	5.00	12.075	7.85	212.9	87.0	368.4
60.00		0.00	1.18	16.455	27.80	180.92	0.650	0.500	5.00	11.825	7.69	213.7	85.1	360.4
65.00		0.00	1.21	16.836	28.45	178.94	0.650	0.500	5.00	11.575	7.52	214.1	83.3	352.5
68.98	Appertunance(s)	0.00	1.23	17.124	28.93	177.21	0.650	0.500	3.98	9.035	5.87	170.0	65.1	275.1
68.99	Appertunance(s)	0.00	1.23	17.125	28.94	177.21	0.650	0.500	0.01	0.022	0.01	0.4	0.2	0.7
69.00	Appertunance(s)	0.00	1.23	17.125	28.94	177.21	0.650	0.500	0.01	0.023	0.01	0.4	0.2	0.7
							Totals:		69.00			2,898.0	1,285.4	5,685.4

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 9**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
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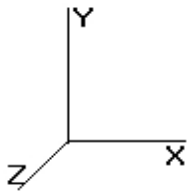


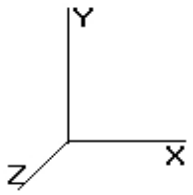
Load Case: **Ice** **73.61 mph Wind with Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
68.98	Canister 1	1	17.471	29.526	1.00	0.00	0.000	5.020	0.00	0.00	0.00	0.00
68.98	Kathrein 860 10025	3	17.670	29.863	0.01	0.00	0.000	8.020	0.00	0.00	0.00	7.80
68.98	Kathrein 800 10504	3	17.670	29.863	0.01	0.00	0.000	8.020	0.00	0.00	0.00	107.10
68.99	Canister 2	1	18.115	30.615	1.00	0.00	0.000	15.010	0.00	0.00	0.00	0.00
68.99	Andrew	4	18.328	30.974	0.01	0.00	0.000	18.510	0.00	0.00	0.00	63.20
68.99	RFS APXV18-206516S-	2	18.328	30.974	0.01	0.00	0.000	18.510	0.00	0.00	0.00	77.40
69.00	Canister 3	1	18.707	31.615	1.00	0.00	0.000	25.000	0.00	0.00	0.00	0.00
69.00	48" x 12" Panel	3	18.903	31.947	0.01	0.00	0.000	28.500	0.00	0.00	0.00	189.00
									0.00			444.50

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 10**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



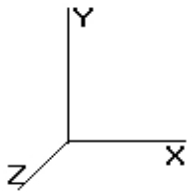
Load Case: **Ice** **73.61 mph Wind with Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	219.70	494.94	0.00	0.00
10.00	215.89	487.01	0.00	0.00
15.00	212.09	479.09	0.00	0.00
20.00	208.28	471.16	0.00	0.00
25.00	204.47	463.23	0.00	0.00
30.00	200.66	455.31	0.00	0.00
32.50	98.90	224.91	0.00	0.00
35.00	100.82	375.60	0.00	0.00
36.50	60.75	223.73	0.00	0.00
40.00	144.10	310.45	0.00	0.00
45.00	209.36	436.48	0.00	0.00
50.00	211.47	428.55	0.00	0.00
55.00	212.90	420.63	0.00	0.00
60.00	213.74	412.70	0.00	0.00
65.00	214.06	404.77	0.00	0.00
68.98	169.95	431.59	0.00	0.00
68.99	0.42	141.34	0.00	0.00
69.00	0.42	189.72	0.00	0.00
Totals:	2,898.00	6,851.21	0.00	0.00

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 11**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



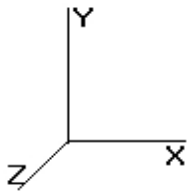
Load Case: **Ice** **73.61 mph Wind with Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-2.900	-6.850	0.000	0.000	0.000	-107.428	0.000	0.000	0.000	0.000
5.00	-2.686	-6.353	0.000	0.000	0.000	-92.925	-0.027	0.000	0.027	-0.049
10.00	-2.474	-5.864	0.000	0.000	0.000	-79.497	-0.104	0.000	0.104	-0.094
15.00	-2.264	-5.384	0.000	0.000	0.000	-67.129	-0.225	0.000	0.225	-0.135
20.00	-2.058	-4.912	0.000	0.000	0.000	-55.808	-0.385	0.000	0.385	-0.170
25.00	-1.854	-4.449	0.000	0.000	0.000	-45.520	-0.581	0.000	0.581	-0.202
30.00	-1.653	-3.994	0.000	0.000	0.000	-36.252	-0.807	0.000	0.807	-0.228
32.50	-1.554	-3.769	0.000	0.000	0.000	-32.120	-0.930	0.000	0.930	-0.240
35.00	-1.452	-3.394	0.000	0.000	0.000	-28.236	-1.059	0.000	1.059	-0.251
36.50	-1.391	-3.170	0.000	0.000	0.000	-26.058	-1.139	0.000	1.139	-0.257
40.00	-1.246	-2.860	0.000	0.000	0.000	-21.191	-1.332	0.000	1.332	-0.269
45.00	-1.035	-2.424	0.000	0.000	0.000	-14.963	-1.622	0.000	1.622	-0.283
50.00	-0.821	-1.997	0.000	0.000	0.000	-9.789	-1.924	0.000	1.924	-0.293
55.00	-0.607	-1.577	0.000	0.000	0.000	-5.682	-2.235	0.000	2.235	-0.299
60.00	-0.391	-1.165	0.000	0.000	0.000	-2.649	-2.551	0.000	2.551	-0.303
65.00	-0.175	-0.762	0.000	0.000	0.000	-0.695	-2.870	0.000	2.870	-0.305
68.98	-0.002	-0.331	0.000	0.000	0.000	0.000	-3.124	0.000	3.124	-0.305
68.99	-0.001	-0.190	0.000	0.000	0.000	0.000	-3.125	0.000	3.125	-0.305
69.00	0.000	0.000	0.000	0.000	0.000	0.000	-3.125	0.000	3.125	-0.305

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 12**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		

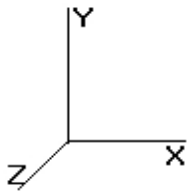


Load Case: **Ice** **73.61 mph Wind with Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)		Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.34	0.29	0.00	0.00	0.00	7.70	8.06	44.7	0.0	0.180
5.00	0.32	0.27	0.00	0.00	0.00	6.90	7.24	45.2	0.0	0.160
10.00	0.30	0.26	0.00	0.00	0.00	6.13	6.45	45.6	0.0	0.141
15.00	0.28	0.24	0.00	0.00	0.00	5.37	5.67	46.0	0.0	0.123
20.00	0.26	0.22	0.00	0.00	0.00	4.64	4.92	46.4	0.0	0.106
25.00	0.24	0.20	0.00	0.00	0.00	3.93	4.19	46.9	0.0	0.089
30.00	0.22	0.19	0.00	0.00	0.00	3.26	3.50	47.3	0.0	0.074
32.50	0.21	0.18	0.00	0.00	0.00	2.95	3.17	47.5	0.0	0.067
35.00	0.19	0.17	0.00	0.00	0.00	2.64	2.85	47.7	0.0	0.060
36.50	0.18	0.16	0.00	0.00	0.00	2.41	2.60	47.6	0.0	0.055
40.00	0.16	0.14	0.00	0.00	0.00	2.01	2.19	47.9	0.0	0.046
45.00	0.14	0.12	0.00	0.00	0.00	1.48	1.64	48.0	0.0	0.034
50.00	0.12	0.10	0.00	0.00	0.00	1.01	1.14	48.0	0.0	0.024
55.00	0.10	0.07	0.00	0.00	0.00	0.61	0.72	48.0	0.0	0.015
60.00	0.07	0.05	0.00	0.00	0.00	0.30	0.38	48.0	0.0	0.008
65.00	0.05	0.02	0.00	0.00	0.00	0.08	0.14	48.0	0.0	0.003
68.98	0.02	0.00	0.00	0.00	0.00	0.00	0.02	48.0	0.0	0.000
68.99	0.01	0.00	0.00	0.00	0.00	0.00	0.01	48.0	0.0	0.000
69.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.0	0.0	0.000

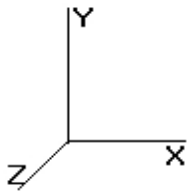


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 17 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	141.27	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	138.77	0.650	0.000	5.00	14.002	9.10	98.4	0.0	338.4
10.00		0.00	1.00	6.400	10.81	136.27	0.650	0.000	5.00	13.752	8.94	96.7	0.0	332.3
15.00		0.00	1.00	6.400	10.81	133.77	0.650	0.000	5.00	13.502	8.78	94.9	0.0	326.2
20.00		0.00	1.00	6.400	10.81	131.27	0.650	0.000	5.00	13.252	8.61	93.2	0.0	320.1
25.00		0.00	1.00	6.400	10.81	128.77	0.650	0.000	5.00	13.002	8.45	91.4	0.0	314.1
30.00		0.00	1.00	6.400	10.81	126.27	0.650	0.000	5.00	12.752	8.29	89.7	0.0	308.0
32.50	Bot - Section 2	0.00	1.00	6.400	10.81	125.02	0.650	0.000	2.50	6.282	4.08	44.2	0.0	151.7
35.00		0.00	1.01	6.509	10.99	124.81	0.650	0.000	2.50	6.298	4.09	45.0	0.0	302.3
36.50	Top - Section 1	0.00	1.02	6.587	11.13	124.80	0.650	0.000	1.50	3.749	2.44	27.1	0.0	179.9
40.00		0.00	1.05	6.762	11.42	126.25	0.650	0.000	3.50	8.660	5.63	64.3	0.0	209.1
45.00		0.00	1.09	6.993	11.81	125.78	0.650	0.000	5.00	12.158	7.90	93.4	0.0	293.5
50.00		0.00	1.12	7.207	12.17	125.03	0.650	0.000	5.00	11.908	7.74	94.3	0.0	287.5
55.00		0.00	1.15	7.406	12.51	124.06	0.650	0.000	5.00	11.658	7.58	94.8	0.0	281.4
60.00		0.00	1.18	7.592	12.83	122.89	0.650	0.000	5.00	11.408	7.42	95.1	0.0	275.3
65.00		0.00	1.21	7.768	13.12	121.55	0.650	0.000	5.00	11.158	7.25	95.2	0.0	269.2
68.98	Appertunance(s)	0.00	1.23	7.901	13.35	120.37	0.650	0.000	3.98	8.703	5.66	75.5	0.0	210.0
68.99	Appertunance(s)	0.00	1.23	7.901	13.35	120.37	0.650	0.000	0.01	0.022	0.01	0.2	0.0	0.5
69.00	Appertunance(s)	0.00	1.23	7.901	13.35	120.37	0.650	0.000	0.01	0.022	0.01	0.2	0.0	0.5
							Totals:		69.00			1,293.7	0.0	4,400.0



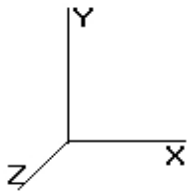
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 17 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
68.98	Canister 1	1	8.061	13.623	1.00	17.33	0.000	5.020	236.09	0.00	1,185.15	720.00
68.98	Kathrein 860 10025	3	8.153	13.779	0.01	0.00	0.000	8.020	0.00	0.00	0.00	3.60
68.98	Kathrein 800 10504	3	8.153	13.779	0.01	0.00	0.000	8.020	0.00	0.00	0.00	52.80
68.99	Canister 2	1	8.358	14.125	1.00	17.33	0.000	15.010	244.79	0.00	3,674.34	720.00
68.99	Andrew	4	8.456	14.291	0.01	0.00	0.000	18.510	0.00	0.00	0.00	44.00
68.99	RFS APXV18-206516S-	2	8.456	14.291	0.01	0.00	0.000	18.510	0.00	0.00	0.00	37.40
69.00	Canister 3	1	8.631	14.587	1.00	17.33	0.000	25.000	252.79	0.00	6,319.68	720.00
69.00	48" x 12" Panel	3	8.722	14.740	0.01	0.00	0.000	28.500	0.00	0.00	0.00	90.00
									733.67			2,387.80

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 15**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



Load Case: **Twist/Sway** **50.00 mph Wind with No Ice** **17 Iterations**

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

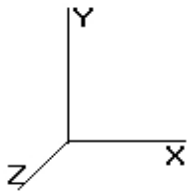
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	98.44	390.63	0.00	0.00
10.00	96.68	384.55	0.00	0.00
15.00	94.92	378.48	0.00	0.00
20.00	93.17	372.40	0.00	0.00
25.00	91.41	366.33	0.00	0.00
30.00	89.65	360.25	0.00	0.00
32.50	44.17	177.85	0.00	0.00
35.00	45.03	328.42	0.00	0.00
36.50	27.13	195.59	0.00	0.00
40.00	64.32	245.69	0.00	0.00
45.00	93.40	345.82	0.00	0.00
50.00	94.27	339.75	0.00	0.00
55.00	94.84	333.67	0.00	0.00
60.00	95.14	327.60	0.00	0.00
65.00	95.21	321.52	0.00	0.00
68.98	311.62	1,027.99	0.00	1,185.15
68.99	244.98	801.98	0.00	3,674.34
69.00	252.98	810.55	0.00	6,319.68
Totals:	2,027.36	7,509.06	0.00	11,179.17

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 17 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

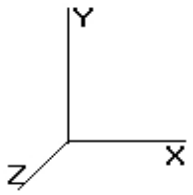
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-2.030	-7.508	0.000	0.000	0.000	-110.787	0.000	0.000	0.000	0.000
5.00	-1.938	-7.116	0.000	0.000	0.000	-100.637	-0.028	0.000	0.028	-0.052
10.00	-1.846	-6.730	0.000	0.000	0.000	-90.948	-0.110	0.000	0.110	-0.102
15.00	-1.756	-6.350	0.000	0.000	0.000	-81.716	-0.242	0.000	0.242	-0.150
20.00	-1.666	-5.977	0.000	0.000	0.000	-72.938	-0.423	0.000	0.423	-0.195
25.00	-1.577	-5.610	0.000	0.000	0.000	-64.608	-0.650	0.000	0.650	-0.237
30.00	-1.489	-5.249	0.000	0.000	0.000	-56.722	-0.920	0.000	0.920	-0.277
32.50	-1.445	-5.071	0.000	0.000	0.000	-53.000	-1.070	0.000	1.070	-0.296
35.00	-1.400	-4.742	0.000	0.000	0.000	-49.387	-1.230	0.000	1.230	-0.314
36.50	-1.373	-4.547	0.000	0.000	0.000	-47.287	-1.330	0.000	1.330	-0.324
40.00	-1.309	-4.301	0.000	0.000	0.000	-42.482	-1.577	0.000	1.577	-0.348
45.00	-1.216	-3.955	0.000	0.000	0.000	-35.937	-1.957	0.000	1.957	-0.378
50.00	-1.121	-3.615	0.000	0.000	0.000	-29.859	-2.367	0.000	2.367	-0.404
55.00	-1.025	-3.282	0.000	0.000	0.000	-24.256	-2.803	0.000	2.803	-0.427
60.00	-0.928	-2.955	0.000	0.000	0.000	-19.133	-3.261	0.000	3.261	-0.447
65.00	-0.831	-2.634	0.000	0.000	0.000	-14.494	-3.738	0.000	3.738	-0.463
68.98	-0.511	-1.608	0.000	0.000	0.000	-10.002	-4.129	0.000	4.129	-0.474
68.99	-0.260	-0.808	0.000	0.000	0.000	-6.322	-4.130	0.000	4.130	-0.474
69.00	-0.253	0.000	0.000	0.000	0.000	-6.320	-4.131	0.000	4.131	-0.474

Pole : 302471
Location : Ridgefield Danbury Rd., CT
Height : 69.00 (ft)
Base Dia : 33.90 (in)
Top Dia : 26.00 (in)
Shape : 18 Sides
Taper : 0.120000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



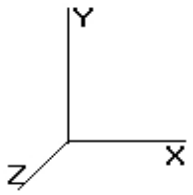
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 17 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.37	0.20	0.00	0.00	0.00	7.94	8.32	44.7	0.0	0.186
5.00	0.36	0.20	0.00	0.00	0.00	7.48	7.85	45.2	0.0	0.174
10.00	0.35	0.19	0.00	0.00	0.00	7.01	7.37	45.6	0.0	0.162
15.00	0.33	0.19	0.00	0.00	0.00	6.54	6.88	46.0	0.0	0.150
20.00	0.32	0.18	0.00	0.00	0.00	6.06	6.39	46.4	0.0	0.138
25.00	0.31	0.17	0.00	0.00	0.00	5.58	5.90	46.9	0.0	0.126
30.00	0.29	0.17	0.00	0.00	0.00	5.10	5.40	47.3	0.0	0.114
32.50	0.29	0.16	0.00	0.00	0.00	4.86	5.15	47.5	0.0	0.109
35.00	0.27	0.16	0.00	0.00	0.00	4.62	4.90	47.7	0.0	0.103
36.50	0.26	0.16	0.00	0.00	0.00	4.37	4.63	47.6	0.0	0.097
40.00	0.25	0.15	0.00	0.00	0.00	4.04	4.29	47.9	0.0	0.090
45.00	0.23	0.14	0.00	0.00	0.00	3.56	3.80	48.0	0.0	0.079
50.00	0.22	0.14	0.00	0.00	0.00	3.09	3.31	48.0	0.0	0.069
55.00	0.20	0.13	0.00	0.00	0.00	2.62	2.83	48.0	0.0	0.059
60.00	0.18	0.12	0.00	0.00	0.00	2.16	2.35	48.0	0.0	0.049
65.00	0.17	0.11	0.00	0.00	0.00	1.71	1.89	48.0	0.0	0.039
68.98	0.10	0.07	0.00	0.00	0.00	1.22	1.33	48.0	0.0	0.028
68.99	0.05	0.03	0.00	0.00	0.00	0.77	0.83	48.0	0.0	0.017
69.00	0.00	0.03	0.00	0.00	0.00	0.77	0.78	48.0	0.0	0.016

Pole :	**302471**	**Code: TIA/EIA-222 Rev F**	**6/19/2014 8:56:50 AM**
Location :	**Ridgefield Danbury Rd., CT**		**Page: 18**
Height :	**69.00 (ft)**		
Base Dia :	**33.90 (in)**		
Top Dia :	**26.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**18 Sides**		
Taper :	**0.120000 (in/ft)**		



Analysis Summary

	Reactions						Max Stresses			
Load Case	**Shear FX (kips)**	**Shear FZ (kips)**	**Axial FY (kips)**	**Moment MX (ft-kips)**	**Moment MY (ft-kips)**	**Moment MZ (ft-kips)**	**Combined Stress (ksi)**	**Allowable Stress (ksi)**	**Elev (ft)**	**Stress Ratio**
No Ice	**5.9**	**0.00**	**7.50**	**0.00**	**0.00**	**320.25**	**23.35**	**44.7**	**0.00**	**0.522**
Ice	**2.9**	**0.00**	**6.85**	**0.00**	**0.00**	**107.43**	**8.06**	**44.7**	**0.00**	**0.180**
Twist/Sway	**2.0**	**0.00**	**7.51**	**0.00**	**0.00**	**110.79**	**8.32**	**44.7**	**0.00**	**0.186**

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	33.905	in
	Pole Thickness	0.1875	in
	Plate Length	37	in
	Plate Thickness	2.25	in
	Plate Fy	50	ksi
	Weld Length	0.3125	in
	Allowable	236.38	k-in
	Applied	183.53	k-in
Stiffeners	#	***0***	

Bolts	#	***4***	
	Bolt Circle	41	in
	(R)adial / (S)quare	S	
	Bolt Gap	0	in
●	Diameter	2.25	in
	Hole Diameter	2.625	in
	Type	A615-75	
	Fy	75	ksi
	Fu	100	ksi
	Allowable	174.95	k
	Applied	95.47	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***0***	

Code Rev.	***F***	**Date**	6/19/2014
A.S.I.	1.00	**Engineer**	CCP
		Site #	302471
Moment	320.3 k-ft	**Carrier**	T-Mobile
Axial	7.5 k		

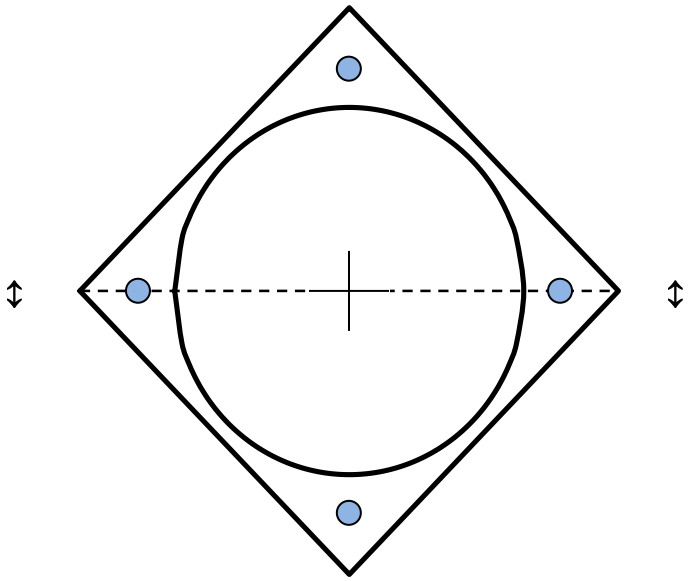
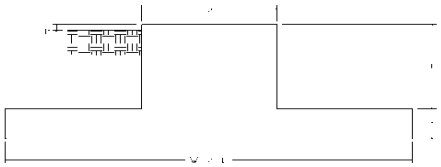


Plate Stress Ratio:
0.78 (Pass)

Bolt Stress Ratio:
0.55 (Pass)

Site Name:	Ridgefield-Danbury Rd., CT	*Program Last Updated:*	*5/13/2014*
Site Number:	302471		
Engineering Number:	59055621		
Engineer:	C. Poe		
Date:	06/19/14		
Tower Type:	MP		



Design Loads (Unfactored)

Design / Analysis / Mapping:	Analysis		Concrete Strength (f'_c):	3000	psi
Compression/Leg:	7.5	k	Pad Tension Steel Depth:	44.00	in
Uplift/Leg:	0.0	k	Wind Load Factor:	1.3	
Total Shear:	5.9	k	ϕ_{Shear}:	0.75	
Moment:	320.3	k-ft	$\phi_{Flexure\ /\ Tension}$:	0.90	
Tower + Appurtenance Weight:	7.5	k	$\phi_{Compression:}$	0.65	
Depth to Base of Foundation:	9.00	ft	β:	0.85	
Diameter of Pier (d):	5.50	ft	Bottom Pad Rebar Size #:	9	
Height of Pier above Ground (h):	0.50		# of Bottom Pad Rebar:	14	
Width of Pad (W):	13.50	ft	Pad Bottom Steel Area:	14.00	in^2
Length of Pad (L):	13.50	ft	Pad Steel F_y:	60000	psi
Thickness of Pad (t):	4.00	ft	Top Pad Rebar Size #:	9	
Tower Leg Center to Center:	0.00	ft	# of Top Pad Rebar:	14	
Number of Tower Legs:	1.0	(1 if MP or GT)	Pad Top Steel Area:	14.00	in^2
Tower Center from Mat Center:	0.00	ft	Pier Rebar Size #:	9	
Depth Below Ground Surface to Water Table:	7.00	ft	Pier Steel Area (Single Bar):	1.00	in^2
Unit Weight of Concrete:	150.0	pcf	# of Pier Rebar:	24	
Unit Weight of Soil Above Water Table:	125.0	pcf	Pier Steel F_y:	60000	psi
Unit Weight of Water:	62.4	pcf	Pier Cage Diameter:	58.0	in
Unit Weight of Soil Below Water Table:	67.0	pcf	Rebar Strain Limit:	0.008	
Friction Angle of Uplift:	34.00	Degrees	Steel Elastic Modulus:	29000	ksi
Ultimate Coefficient of Shear Friction:	0.35		Tie Rebar Size #:	4	
Allowable Compressive Bearing Pressure:	4000.0	psf	Tie Steel Area (Single Bar):	0.20	in^2
Ultimate Passive Pressure on Pad Face:	0.0	psf	Tie Spacing:	12	in
Allowable Capacity Increase:	1.00		Tie Steel F_y:	60000	psi

Overturning Factor of Safety

Design OTM:	376.3	k-ft
OTM Resistance:	1691.7	k-ft
OTM Resistance / Design OTM Factor of Safety:	4.50	Result: OK

Soil Bearing Pressure Usage:

Net Bearing Pressure:	1427	psf
Allowable Bearing Pressure:	4000	psf
Net Bearing Pressure/Allowable Bearing Pressure:	0.36	Result: OK
Load Direction Controling Design Bearing Pressure:	Diagonal to Pad Edge	

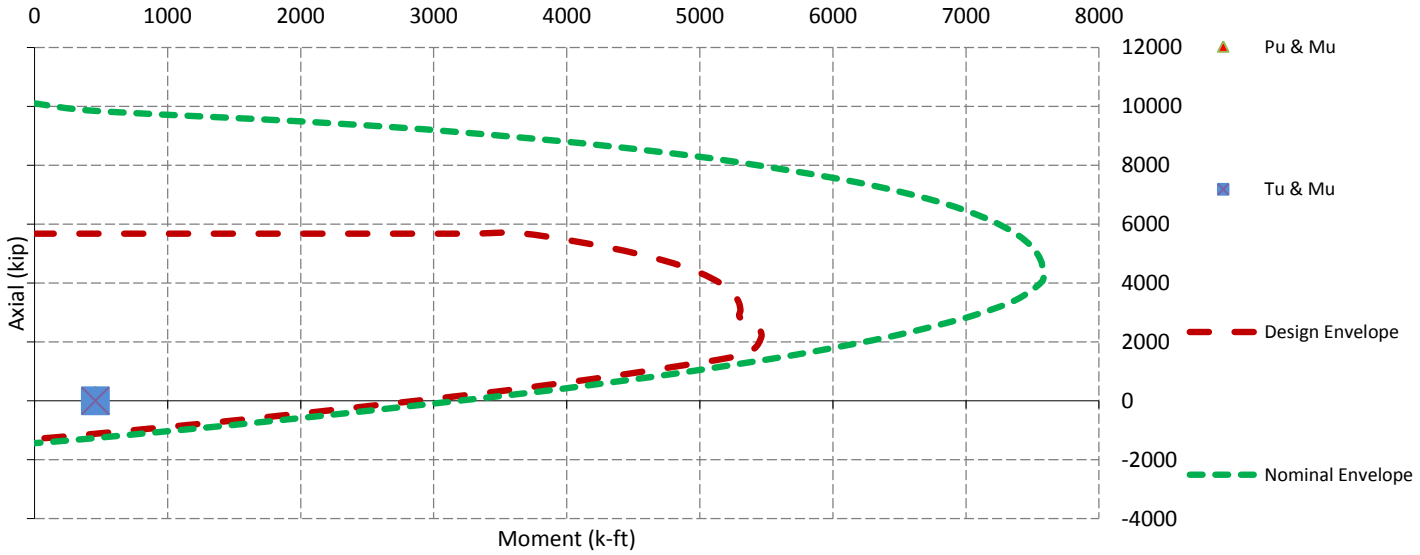
Sliding Factor of Safety

Total Ultimate Sliding Resistance:	74.5	k
Sliding Resistance/Sliding Design Factor of Safety:	12.62	Result: OK

One Way Shear, Flexual Capacity, and Punching Shear

Factored One Way Shear (V_u):	14.7	k
One Way Shear Capacity (ϕV_c):	271.5	k - ACI11.3.1.1
V_u / ϕV_c:	0.05	Result: OK
Load Direction Controling Shear Capacity:	Diagonal to Pad Edge	
Lower Pad Steel Factored Moment (M_u):	133.0	k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	2735.2	k-ft - ACI10.3
M_u / ϕM_n:	0.05	Result: OK
Load Direction Controling Flexural Capacity:	Diagonal to Pad Edge	
Upper Steel Pad Factored Moment (M_u):	244.5	k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	2717.6	k-ft
M_u / ϕM_n:	0.09	Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0020	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0020	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	12	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	12	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0	k
Nominal Punching Shear Capacity ($\phi_c V_n$):	2498.5	k - ACI11.12.2.1
V_u / ϕV_c:	0.00	Result: OK
Factored Moment in Pier (M_u):	458.5	k-ft
Pier Moment Capacity (ϕM_n):	3067.2	k-ft
M_u / ϕM_n:	0.15	Result: OK
Factored Shear in Pier (V_u):	7.7	k
Pier Shear Capacity (ϕV_n):	281.4	k
V_u / ϕV_c:	0.03	Result: OK
Pier Shear Reinforcement Ratio:	0.0006	No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k
Pier Tension Capacity (ϕT_n):	1296.0	k
T_u / ϕT_n:	0.00	Result: OK
Factored Compression in Pier (P_u):	9.8	k
Pier Compression Capacity (ϕP_n):	4504.7	k - ACI10.3.6.2
P_u / ϕP_n:	0.00	Result: OK
Pier Compression Reinforcement Ratio:	0.007	OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.15	Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



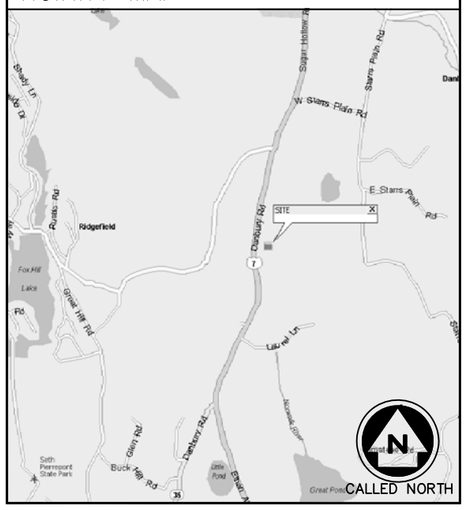
T-MOBILE NORTHEAST LLC

CT11297C
RIDGEFIELD/ RT 7

746 DANBURY RD.
RIDGEFIELD, CT 06877

(4B CONFIGURATION)

VICINITY MAP



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL:

"CALL BEFORE YOU DIG"
WWW.CBYD.COM
CALL 811, OR 1-800-922-4455

CALL THREE WORKING DAYS PRIOR TO DIGGING

SAFETY PRECAUTIONS SHALL BE IMPLEMENTED BY CONTRACTOR(S) AT ALL TRENCHING IN ACCORDANCE WITH CURRENT OSHA STANDARDS.

COLOR CODE FOR UTILITY LOCATIONS

ELECTRIC	– RED	SEWER	– GREEN
GAS/OIL	– YELLOW	SURVEY	– PINK
TEL/CATV	– ORANGE	PROPOSED EXCAVATION	– WHITE
WATER	– BLUE	RECLAIMED WATER	– PURPLE

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 CONSTRUCT 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 T–MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF 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 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 ADDENDUM 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 CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND INSPECTIONS WHICH ARE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
11. 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.
12. 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 PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS, AS WELL AS THE LATEST EDITIONS OF ANY PERTINENT STATE SAFETY REGULATIONS.
14. THE CONTRACTOR SHALL NOTIFY THE T–MOBILE 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 T–MOBILE REPRESENTATIVE.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC., ON THE JOB.
16. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF WORK.

PROJECT SUMMARY

SITE NUMBER:	CT11297C	APPLICANT:	T–MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 (860)–692–7100
SITE NAME:	RIDGEFIELD/RT 7		
SITE ADDRESS:	746 DANBURY RD. RIDGEFIELD, CT 06877		
PROPERTY OWNER:	TBD	PROJECT MANAGER:	AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN, MA 01801
PARCEL:	TBD	CONTACT:	BRAIN MUCK (717) 496–3169
CURRENT ZONING:	TBD		
JURISDICTION:	TBD	ARCHITECT/ENGINEER:	INFINIGY ENGINEERING 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205
ATC SITE NUMBER:	302471		
LAT./LONG.:	N 41.32996° W 73.47227	CONTACT:	AJ DESANTIS 518–690–0790
CONSTRUCTION TYPE:	–		
USE GROUP:	–		

PROJECT DESCRIPTION

- ☐ EXISTING MONOPOLE
- ☐ EXISTING LATTICE TOWER
- ☐ EXISTING TRANSMISSION TOWER
- ☐ EXISTING WATER TANK
- ☐ EXISTING BUILDING
- ▨ EXISTING UNIPOLE
- ☐ EXISTING FORT WORTH
- ▨ EXISTING CABINET(S)
- ☐ EXISTING RBS 2106
- ☐ EXISTING RBS 3106
- ▨ PROPOSED RBS 6102
- ☐ SITE SUPPORT KIT
- ☐ SITE SUPPORT CABINET
- ▨ GPS
- ▨ OUTDOOR
- ☐ INDOOR
- ▨ EXISTING CONCRETE PAD
- ☐ EXISTING STEEL PLATFORM
- ▨ EXISTING PPC
- ☐ PANELBOARD

T–MOBILE NORTHEAST LLC PROPOSES THE MODIFICATION OF AN UNMANNED WIRELESS BROADBAND FACILITY. REPLACEMENT OF EXISTING PANEL ANTENNAS & TMA'S WITH PROPOSED PANEL ANTENNAS. REUSE EXISTING GPS ANTENNA, EXISTING CABLING, AND ADD EQUIPMENT CABINET

SHEET INDEX

SHEET	DESCRIPTION	REVISION
T–1	TITLE SHEET	A
C–1	SITE PLAN	A
C–2	COMPOUND PLAN & ELEVATION	A
C–3	ANTENNA DETAIL & RF SCHEDULE	A
S–1	EQUIPMENT SPECIFICATIONS	A
E–1	GROUNDING AND POWER DIAGRAMS	A
E–2	COAX/FIBER PLUMBING DIAGRAM	A
N–1	GENERAL AND ELECTRICAL NOTES	A

T-Mobile

T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

INFINIGY Design. Build. Deliver.
1033 WATERVLIET SHAKER ROAD
ALBANY, NY 12205
OFFICE: (518) 690–0790
FAX: (518) 690–0793

SUBMITTALS

DATE	DESCRIPTION	REVISION
6/28/14	FOR REVIEW	A

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO:	317-000
DRAWN BY:	DJG
CHECKED BY:	AJD

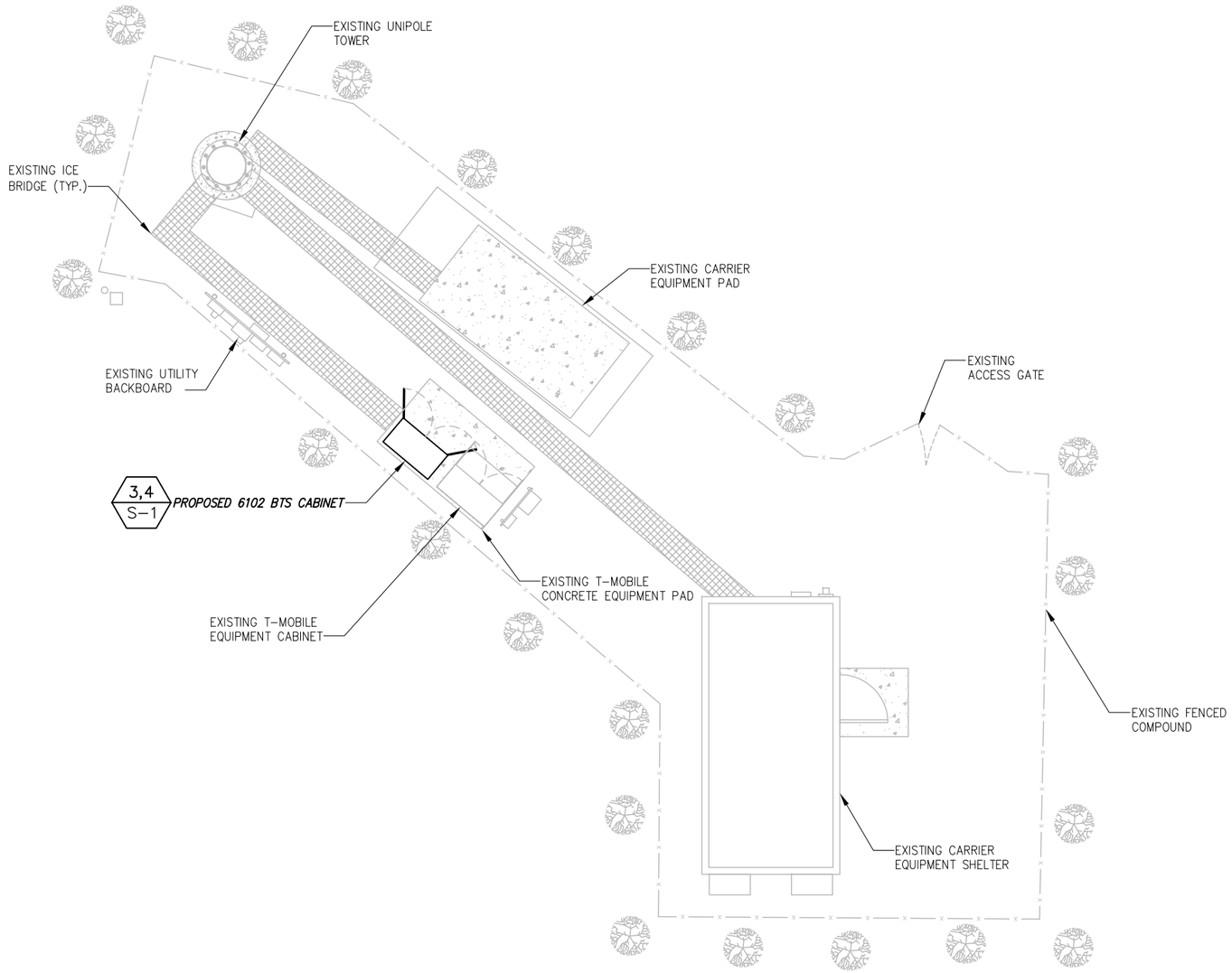
PROFESSIONAL SEAL

NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.

SITE NAME
CT11297C
RIDGEFIELD/RT 7
746 DANBURY ROAD
RIDGEFIELD, CT 06877

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1
SHEET 1 OF **8** SHEETS



N

CALLED NORTH

1 / -- SITE PLAN
SCALE: AS NOTED

GENERAL SITE NOTES:

1. A COMPLETE BOUNDARY SURVEY OF THE HOST PARCEL HAS NOT BEEN PERFORMED BY INFINIGY ENGINEERING. BOUNDARY INFORMATION WAS OBTAINED FROM INFORMATION PROVIDED BY OTHERS. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
2. BASEMAPPING INFORMATION BASED ON PROVIDED INFORMATION.
3. CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE CONSTRUCTION.
4. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF ADVERTISING.
5. THE PROPOSED DEVELOPMENT IS UNMANNED AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL.
6. NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.
7. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.
8. UTILITIES SHOWN ON PLAN ARE TAKEN FROM OWNERS RECORDS AND FIELD LOCATION OF VISIBLE SURFACE FEATURES. THE EXISTENCE, EXTENT AND EXACT HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERIFIED. ANY CONTRACTOR PERFORMING WORK ON THIS SITE MUST CONTACT MISS UTILITY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK.
9. ALL OBSOLETE OR UNUSED FACILITIES SHALL BE REMOVED WITHIN 12 MONTHS OF CESSATION OF OPERATIONS.

SITE LEGEND

————	SITE PROPERTY LINE
————	STREET OR ROAD
-·-·-·-·-	CHAIN LINK FENCE
————	OPAQUE WOODEN FENCE
————	BOARD ON BOARD FENCE
	DECIDUOUS TREES/SHRUBS
	EVERGREEN TREES/SHRUBS
	TREE LINE
⊠	UTILITY POLE
(E)	EXISTING
(N)	NEW
(P)	PROPOSED
(F)	FUTURE
	PROP. GSM ANTENNA
	PROP. UMTS ANTENNA
	EX. GSM ANTENNA
	EX. UMTS ANTENNA

GRAPHIC SCALE

10' 5' 0 5' 10'

SCALE (11x17): 1" = 10'-0"
SCALE (22x34): 1" = 5'-0"

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

INFINIGY Design. Build. Deliver.
1033 WATERVLIET SHAKER ROAD
ALBANY, NY 12205
OFFICE: (518) 690-0790
FAX: (518) 690-0793

SUBMITTALS

DATE	DESCRIPTION	REVISION
6/28/14	FOR REVIEW	A

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO:	317-000
DRAWN BY:	DJG
CHECKED BY:	AJD

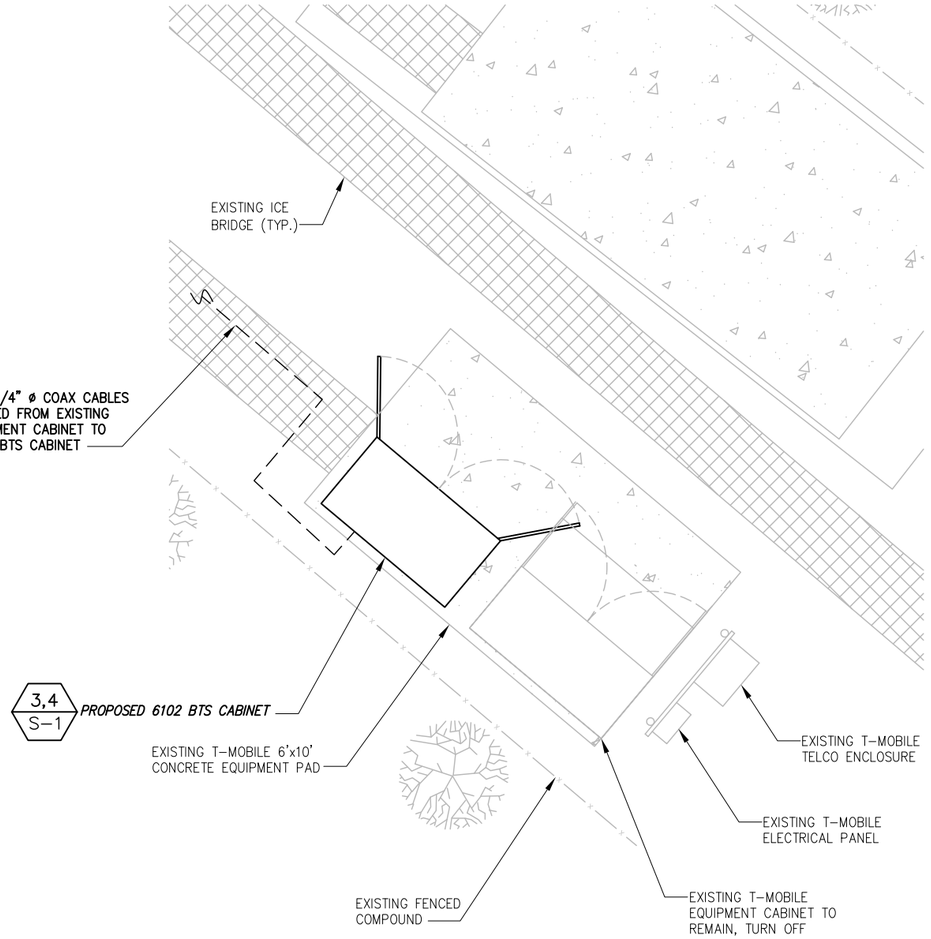
PROFESSIONAL SEAL

NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.

SITE NAME
CT11297C
RIDGEFIELD/RT 7
746 DANBURY ROAD
RIDGEFIELD, CT 06877

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1
SHEET 2 OF **8** SHEETS



CALLED NORTH

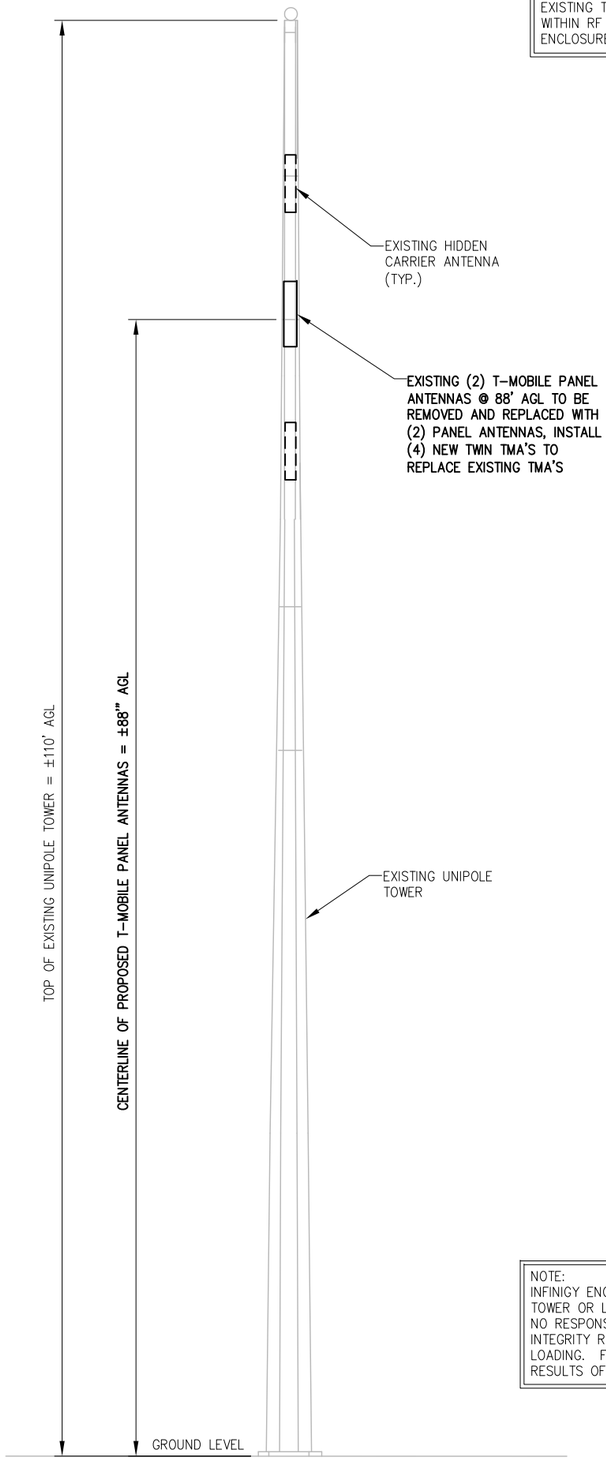
1 / -- COMPOUND PLAN
SCALE: AS NOTED

GRAPHIC SCALE

4' 2' 0 2' 4'

SCALE (11x17): 1" = 4'-0"
SCALE (22x34): 1" = 2'-0"

NOTE:
EXISTING T-MOBILE PANEL ANTENNAS CONTAINED WITHIN RF FRIENDLY ENCLOSURE VERIFY EXISTING ENCLOSURE DIMENSIONS PRIOR TO INSTALLATION



2 / -- TOWER ELEVATION
NOT TO SCALE

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR LOADING FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY WITH RESULTS OF PASSING STRUCTURAL ANALYSIS.

T-MOBILE NORTHEAST LLC
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SUBMITTALS

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6/28/14	FOR REVIEW	A

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RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO:	317-000
DRAWN BY:	DJG
CHECKED BY:	AJD

PROFESSIONAL SEAL

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CT11297C
RIDGEFIELD/RT 7
746 DANBURY ROAD
RIDGEFIELD, CT 06877

SHEET TITLE
COMPOUND PLAN & ELEVATION

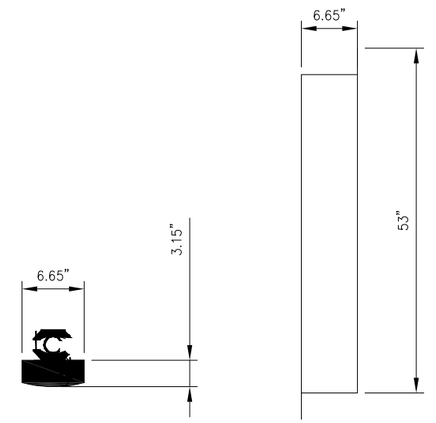
SHEET NUMBER
C-2
SHEET 3 OF **8** SHEETS

RF SYSTEM SCHEDULE (1B CONFIGURATION)

SECTOR	TECHNOLOGY	ANTENNA PORT	BAND	ANTENNA MODEL #	VENDOR	AZIMUTH	M-TILT	E-TILT	ANTENNA CENTERLINE	TMA MODEL #	VENDOR	CABLE LENGTH	CABLE DIAMETER	CABLE TYPE	CABLE MODEL #	VENDOR	CABLE TAGGING	COLOR CODING	JUMPER TYPE	JUMPER TAGGING	COLOR CODING
A	GSM/UMTS/LTE			APXV18-2065165-A20	RFS	10°	0°	2°	88'-0"	–	–										
										(2) dB2/B4	–	EXISTING	1-1/4"	COAX	EXISTING	N/A	TBD	–	COAX	TBD	B
												EXISTING	1-1/4"	COAX	EXISTING	N/A	TBD	–	COAX	TBD	B
										–	–										
B	GSM/UMTS/LTE			APXV18-2065165-A20	RFS	200°	0°	2°	88'-0"	–	–										
										(2) dB2/B4	–	EXISTING	1-1/4"	COAX	EXISTING	N/A	TBD	–	COAX	TBD	BB
												EXISTING	1-1/4"	COAX	EXISTING	N/A	TBD	–	COAX	TBD	BB
										–	–										

1 RF SCHEDULE
NOT TO SCALE

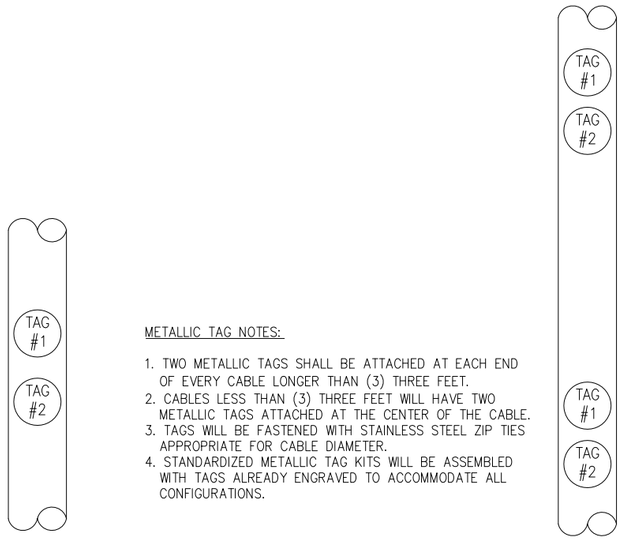
KEY	
EXISTING	R – RED – GSM
PROPOSED	G – GREEN – UMTS 1900
FIBER CONNECTION	B – BLUE – UMTS AWS
	Y – YELLOW – LTE
	O – ORANGE – FIBER CABLE



TOP VIEW FRONT VIEW

MANUFACTURER: RFS
MODEL: APXV18-2065165-420

1 ANTENNA DETAILS
NOT TO SCALE



METALLIC TAG NOTES:

1. TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
2. CABLES LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE.
3. TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
4. STANDARDIZED METALLIC TAG KITS WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.

3 METALLIC TAG DETAIL
NOT TO SCALE

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PROJECT NO:	317-000
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CHECKED BY:	AJD

PROFESSIONAL SEAL

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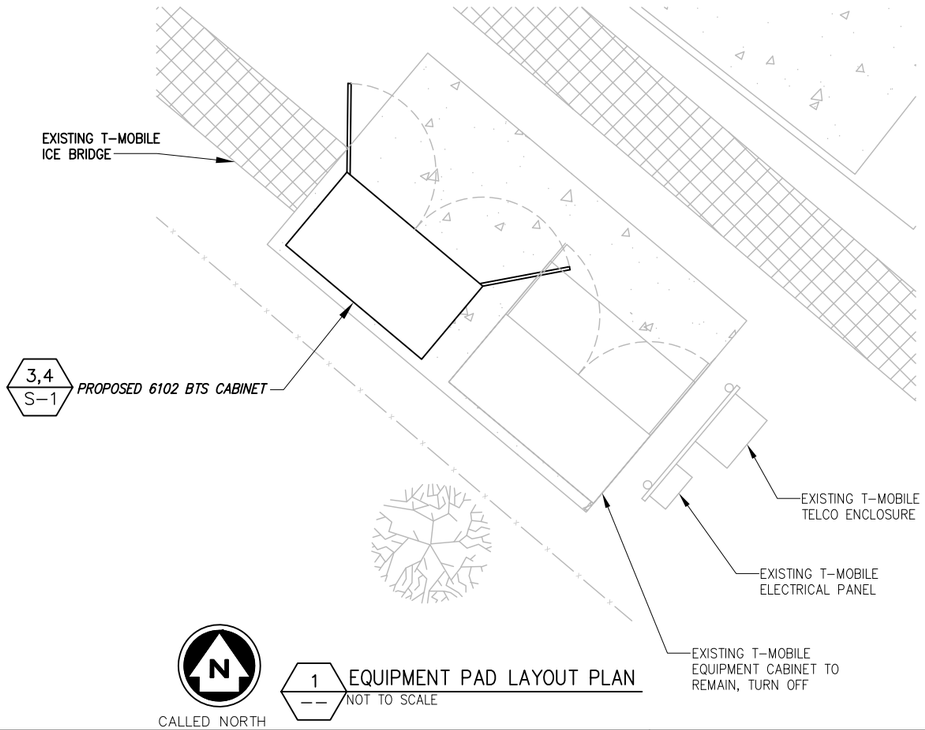
RIDGEFIELD/RT 7
746 DANBURY ROAD
RIDGEFIELD, CT 06877

SHEET TITLE
ANTENNA DETAIL & RF SCHEDULE

SHEET NUMBER
C-3



1 EQUIPMENT PAD LAYOUT PLAN
NOT TO SCALE

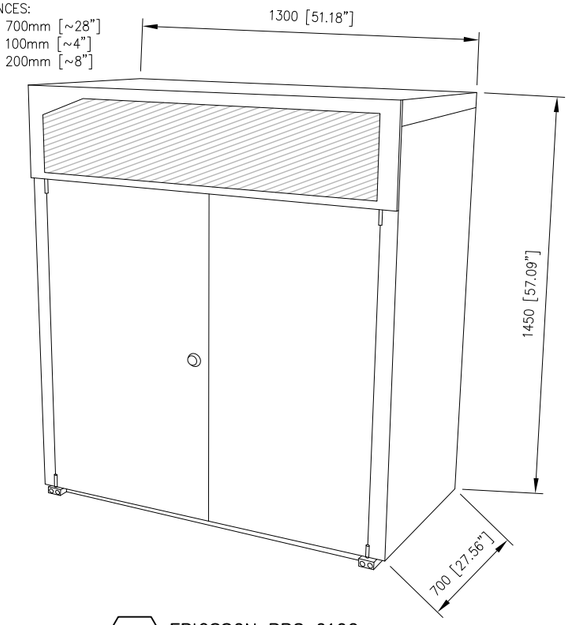
2 DETAIL NOT USED
NOT TO SCALE

1. SPECIFICATIONS / CODES:
   - CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
   - STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, 9tH EDITION.
   - WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING" CODE-STEEL.
   - REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), "MANUAL OF STANDARD PRACTICE."
2. MATERIALS:
   - CONCRETE: fc' - 3000psi. (MIN. U.N.O.)
   - REINFORCING STEEL: ASTM A615, GRADE 60.
   - WIRE MESH: ASTM A185.
   - STRUCTURAL STEEL: ASTM A36.
   - ELECTRODES FOR WELDING: E 70xx.
   - GALVANIZING: ASTM A153 (BOLTS) OR ASTM A123 (SHAPES, PLATES).
   - EXPANSION BOLTS: HILTI KWIK BOLT II, STAINLESS STEEL, 3/4"ø x 43/4" EMBEDMENT OR AN APPROVED EQUAL.

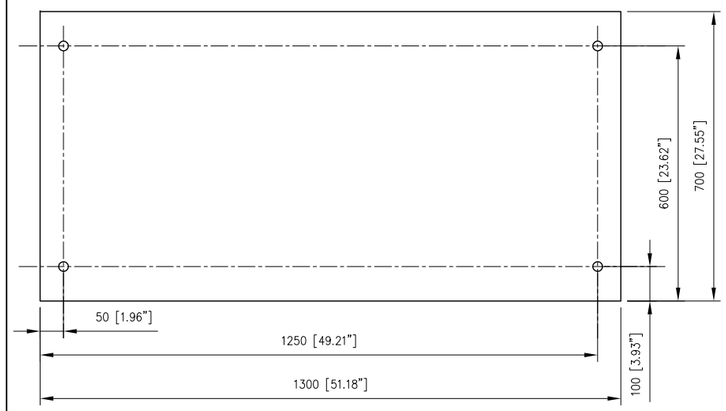
CABINET WEIGHT (WITHOUT BATTERIES): 330 KG [728 LBS]

CABINET COLOR AS MANUFACTURED: GREY, RAL7035 GLOSSY

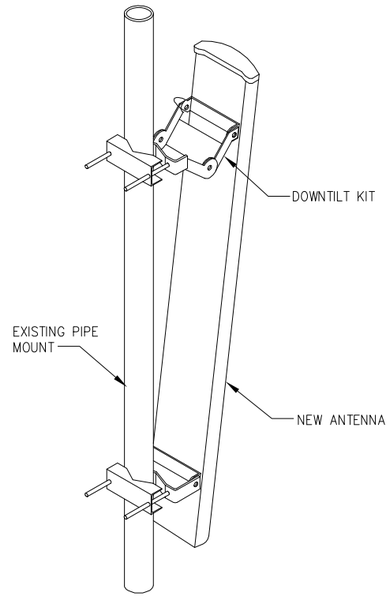
CABINET CLEARANCES:
FRONT: 700mm [~28"]
SIDES: 100mm [~4"]
REAR: 200mm [~8"]



3 ERICSSON RBS 6102
NOT TO SCALE



4 BOLT HOLE DIAGRAM
NOT TO SCALE



5 PANEL ANTENNA MOUNT DETAIL
NOT TO SCALE

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OPS			
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SITE AC.			

PROJECT NO: 317-000
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CHECKED BY: AJD

PROFESSIONAL SEAL

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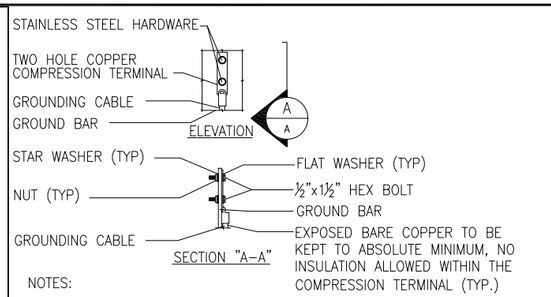
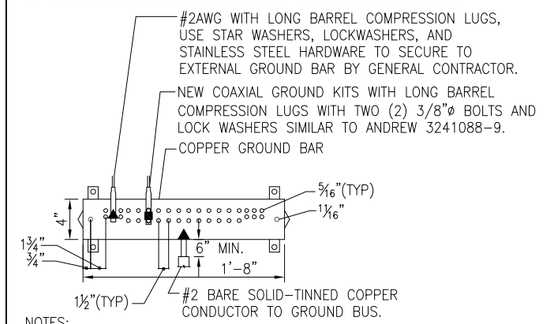
SHEET TITLE
EQUIPMENT SPECIFICATIONS

SHEET NUMBER
S-1
SHEET 5 OF **8** SHEETS

1 DETAIL NOT USED
SCALE: NOT TO SCALE



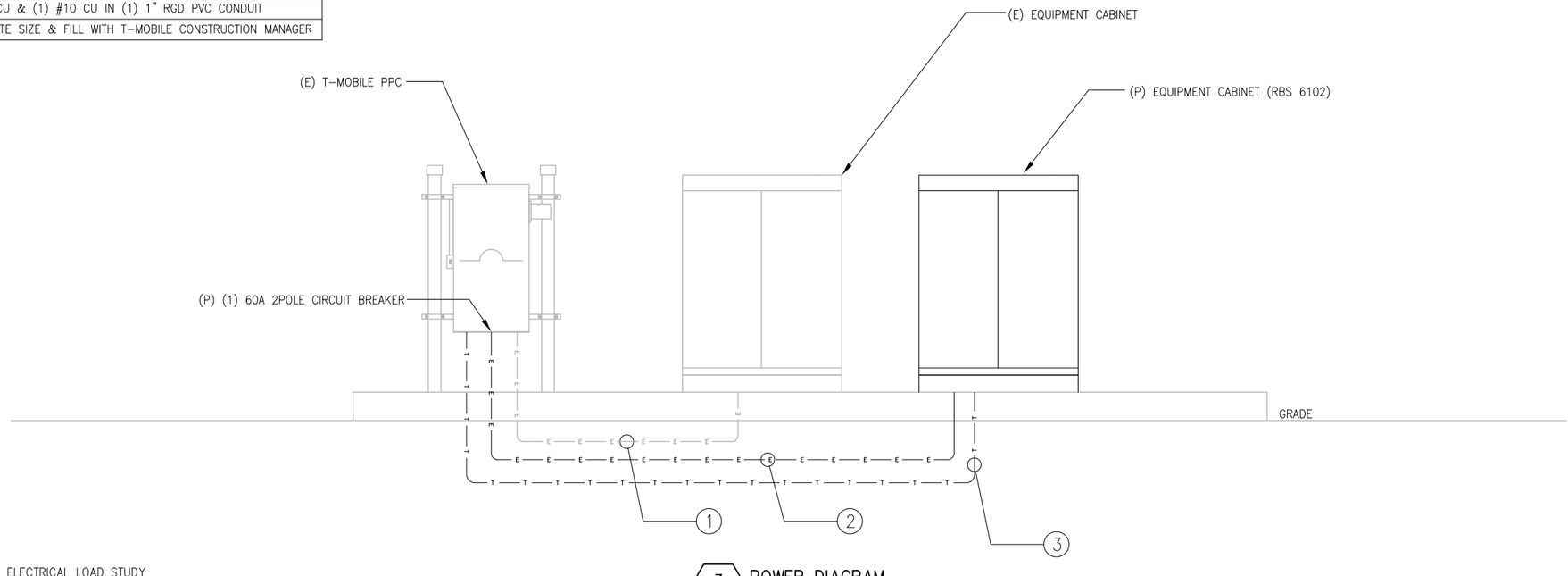
NOTES:
1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.



NOTES:
1. ALL HARDWARE STAINLESS STEEL COAT ALL SURFACES WITH KOPR–SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A TOOTH WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH KOPR–SHIELD.
3. ALL HOLES ARE COUNTERSUNK 1/16".

2 GROUND BAR CONNECTION DETAILS
SCALE: NOT TO SCALE

CONDUIT SCHEDULE
(1) (E) POWER CONDUIT
(2) (P) POWER CONDUIT, (3) #6 CU & (1) #10 CU IN (1) 1" RGD PVC CONDUIT
(3) (P) TELCO CONDUIT, COORDINATE SIZE & FILL WITH T–MOBILE CONSTRUCTION MANAGER



3 POWER DIAGRAM
SCALE: NOT TO SCALE

NOTE:
INFINIGY HAS NOT CONDUCTED AN ELECTRICAL LOAD STUDY FOR THIS SITE. CONTRACTOR IS TO VERIFY EXISTING ELECTRICAL LOADING PRIOR TO CONSTRUCTION TO ENSURE EXISTING INCOMING SERVICE CAPACITY. ALL ELECTRICAL INSTALLATION IS TO COMPLY WITH NEC, ADOPTED VERSION.

T-Mobile
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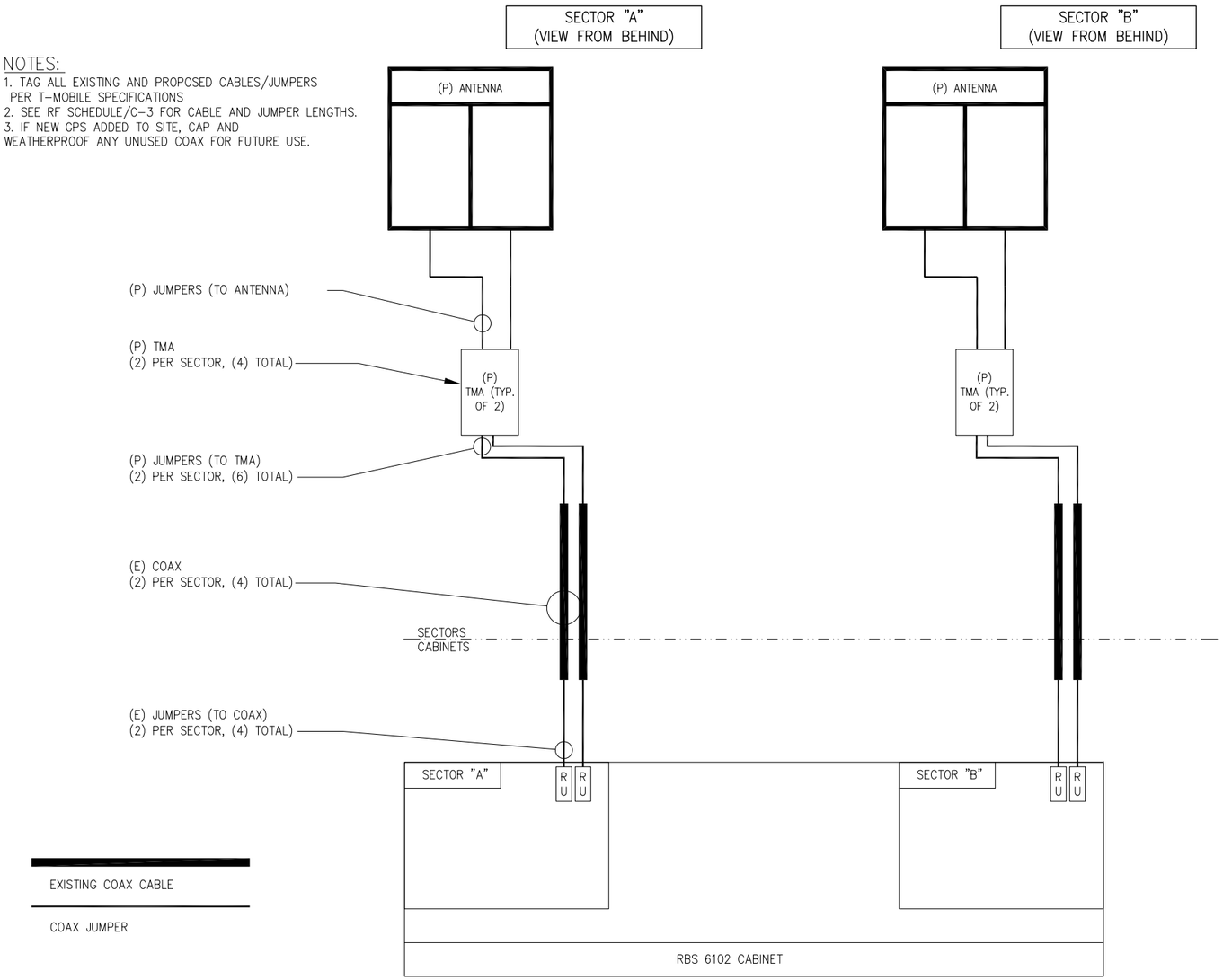
SHEET TITLE
GROUNDING & POWER DIAGRAMS

SHEET NUMBER
E-1
SHEET 6 OF **8** SHEETS

NOTES:

1. TAG ALL EXISTING AND PROPOSED CABLES/JUMPERS PER T-MOBILE SPECIFICATIONS
2. SEE RF SCHEDULE/C-3 FOR CABLE AND JUMPER LENGTHS.
3. IF NEW GPS ADDED TO SITE, CAP AND WEATHERPROOF ANY UNUSED COAX FOR FUTURE USE.



1 — 4B CONFIGURATION COAX/FIBER PLUMBING DIAGRAM
NOT TO SCALE

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SHEET TITLE
COAX/FIBER PLUMBING DIAGRAM

SHEET NUMBER
E-2

ELECTRICAL NOTES:

WORK INCLUDED

1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
   B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
   C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
   D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
   E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
   F. MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
3. LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
4. EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
5. GENERAL
   A. AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
   B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
6. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
   A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
   B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
   C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
   D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
   E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.

GUARANTEE

1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

1. AS-BUILT DRAWINGS:
   A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
2. SERVICE MANUALS:
   A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
   B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
2. ROUTE 500 KCMIL CU. THHN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

RACEWAYS

1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
   A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
   B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
   C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.
   D. INSTALL PULL ROPES IN ALL NEW EMPTY CONDUITS INSTALLED ON THIS PROJECT.
   E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "T-MOBILE". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
   F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
   G. MINIMUM SIZE CONDUIT TO BE ¾" TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
   H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
   I. CONDUIT TO BE RUN CONCEALED IN CEILINGS, FINISHED AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
   J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
   K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

   L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
   M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
   N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
   O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
   P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/THHN INSULATION, EXCEPT AS NOTED.
4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

LENGTH (FT.)	HOME RUN WIRE SIZE
0 TO 50	NO. 12
51 TO 100	NO. 10
101 TO 150	NO. 8

8. VOLTAGE DROP IS NOT TO EXCEED 3%.
9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DEVICES

1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.

DISCONNECT SWITCHES AND FUSES

1. DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
   A. GENERAL ELECTRIC COMPANY
   B. SQUARE-D
5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

INSTALLATION

1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
   A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
   B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

GENERAL NOTES:

INTENT

1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH
3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

CLEANUP

1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
2. EXTERIOR
   A. VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
3. INTERIOR
   A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

PRODUCTS AND SUBSTITUTIONS

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

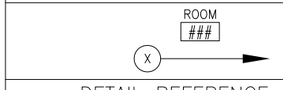
INSURANCE AND BONDS

1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

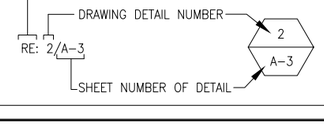
ABBREVIATIONS

ADJ	ADJUSTABLE
AGL	ABOVE GROUND LINE
&	AND
APPROX	APPROXIMATE
@	AT
BTS	BASE TRANSMISSION STATION
CAB	CABINET
CLG	CEILING
CONC	CONCRETE
CONT	CONTINUOUS
DIA OR ø	DIAMETER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EGB	EQUIPMENT GROUND BAR
(E)	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GRND	GROUND
LG	LONG
MAX	MAXIMUM
MECH	MECHANICAL
MW	MICROWAVE DISH
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
(P)	PROPOSED
PCS	PERSONAL COMMUNICATION SYSTEM
PPC	POWER PROTECTION CABINET
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SS	STAINLESS STEEL
STL	STEEL
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TYP	TYPICAL
VIF	VERIFY IN FIELD
UON	UNLESS OTHERWISE NOTED
WWF	WELDED WIRE FABRIC
W/	WITH

ARCHITECTURAL SYMBOLS



DETAIL REFERENCE KEY



T-Mobile
T-MOBILE NORTHEAST LLC
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SUBMITTALS

DATE	DESCRIPTION	REVISION
6/28/14	FOR REVIEW	A

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO:	317-000
DRAWN BY:	DJG
CHECKED BY:	AJD

PROFESSIONAL SEAL

NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.

SITE NAME
CT11297C
RIDGEFIELD/RT 7
746 DANBURY ROAD
RIDGEFIELD, CT 06877

SHEET TITLE
GENERAL AND ELECTRICAL NOTES

SHEET NUMBER
N-1
SHEET 8 OF 8 SHEETS