10 Industrial Avenue, Suite 3
Mahwah NJ, 07430
Phone: (201)-951-3869
Tom Kincaid
Real Estate Consultant

August 13, 2014

Hand Delivered

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

CC Property Owner:
Robert J. Kaufman
100 Old Redding Road
Redding, Connecticut 06875

RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at Old Redding Road, Redding, CT 06896. Known to Sprint Spectrum L.P. as site CT03XC358.

Dear Ms. Bachman:

In order to accommodate technological changes, implement Code Division Multiple Access ("CDMA") and/or Long Term Evolution ("LTE") capabilities, and enhance system performance in the state of Connecticut, Sprint Spectrum L.P. 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.

CDMA 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.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint's operations at the site. Also included is 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 CDMA 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 Sprint Spectrum L.P. 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
Real Estate Consultant

EBI Consulting
environmental | engineering | due diligence

RADIO FREQUENCY FCC REGULATORY COMPLIANCE MAXIMUM PERMISSIBLE EXPOSURE (MPE) ASSESSMENT

Sprint Existing Facility

Site ID: CT03XC358

Redding

Old Redding Road
Redding, CT 06896

August 8, 2014

EBI Project Number: 62144193

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

EBI Consulting
environmental | engineering | due diligence

August 8, 2014

Sprint
Attn: RF Engineering Manager
1 International Boulevard, Suite 800
Mahwah, NJ 07495

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:
CT03XC358 - Redding

Site Total: 32.51% - MPE% in full compliance

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at Old Redding Road, Redding, CT, for the purpose of determining whether the radio frequency (RF) exposure levels from the proposed Sprint equipment upgrades 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 ($\mu W/cm^2$). The general population exposure limit for the cellular band (850 MHz Band) is approximately 567 $\mu W/cm^2$, and the general population exposure limit for the 1900 MHz and 2500 MHz bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at Old Redding Road, Redding, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all emissions were calculated using the following assumptions:

1) 2 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
3) 2 channels in the 2500 MHz Band 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 maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

6) The antennas used in this modeling are the RFS APXVSPP18-C-A20 and the RFS APXVTM14-C-I20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXVTM14-C-I20 has a 15.9 dBd gain value at its main lobe at 2500 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
7) The antenna mounting height centerline for the proposed antennas is **157 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 calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT03XC358 - Redding
Site Addresss	Old Redding Road, Redding, CT, 06896
Site Type	Self Support Tower

Sector 1

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.22%
1a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	157	151	1/2 "	0.5	0	39.00	0.11%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.39%
														Sector total Power Density Value:		0.71%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.22%
2a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	157	151	1/2 "	0.5	0	39.00	0.11%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.39%
														Sector total Power Density Value:		0.71%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.22%
3a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	157	151	1/2 "	0.5	0	39.00	0.11%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	157	151	1/2 "	0.5	0	138.69	0.39%
														Sector total Power Density Value:		0.71%

Site Composite MPE %	
Carrier	MPE %
Sprint	2.14%
AT&T	3.75%
Verizon Wireless	16.06%
MetroPCS	2.44%
Nextel	2.31%
T-Mobile	0.50%
State police	0.01%
DMV	0.02%
CMED	0.01%
FBI	5.27%
Total Site MPE %	**32.51%**

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Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public Maximum Permissible Exposure (MPE) to radio frequency energy.

The anticipated Maximum Composite contributions from the Sprint facility are **2.14% (0.71% from sector 1, 0.71% from sector 2 and 0.71% from sector 3)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **32.51%** of the allowable FCC established general public limit sampled at 6 feet above ground level. This total composite site value is based upon MPE values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

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Structural Analysis Report

Structure	:	**180 ft Self Supported Tower**
ATC Site Name	:	**Redding, CT**
ATC Site Number	:	**302522**
Engineering Number	:	**58995521**
Proposed Carrier	:	**Sprint Nextel**
Carrier Site Name	:	**Redding**
Carrier Site Number	:	**CT03XC358**
Site Location	:	**Old Redding Road** **West Redding, CT 06896-2702** **41.287083,-73.438200**
County	:	**Fairfield**
Date	:	**June 26, 2014**
Max Usage	:	**97%**
Result	:	**Pass**

Morteza Ashouri

M. Ashouri

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

Jun 26 2014 1:46 PM

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft self supported tower to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	Rohn Drawing #C951762, dated December 26, 1995
Foundation Drawing	Rohn Drawing #A953313-1, dated January 12, 1996
Geotechnical Report	SoilTesting Job #591, december 26, 1995

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					
180.0	182.0	3	Powerwave P65-16-XLH-RR	Sector Frames	(12) 1 1/4" Coax (2) 0.74" 8 AWG 7 (1) 0.28" RG6	AT&T Mobility
	180.0	6	Ericsson RRUS 11 (Band 12)			
		1	Raycap DC6-48-60-18-8F			
		3	Powerwave TT19-08BP111-001			
		6	Powerwave LGP21401			
		6	Powerwave 7770.00			
172.0	173.0	3	Rymsa MGD3-800T0	Sector Frames	(12) 1 5/8" Coax (1) 1 5/8" Hybriflex	Verizon
	172.0	3	Andrew LNX-6514DS-VTM			
		1	RFS DB-T1-6Z-8AB-0Z			
		3	Andrew HBX-6517DS-VTM			
		1	Swedcom SWCP 2x7014			
		1	Antel BXA-70063/6CF			
		1	RFS APX75-866512-CT2			
		3	Alcatel-Lucent RRH2x40-AWS			
		6	RFS FD9R6004/1C-3L			
164.0	164.0	12	Decibel DB844H90E-XY	Sector Frames	(12) 1 5/8" Coax	Sprint Nextel
154.0	157.0	3	Alcatel-Lucent 800MHz RRH	Sector Frames	(3) 1 1/4" Hybriflex	
		3	Alcatel-Lucent 1900MHz 4x45 RRH			
		3	RFS APXVSPP18-C-A20			
142.0	148.0	4	Scala OGT9-840	Side Arms	(4) 1 5/8" Coax (2) 3/8" Coax	Ct State Police
	142.0	2	TX RX 422-86A-99575-18R1			
140.0	142.5	1	Morad VHF 156-Deluxe	Sector Frames	(6) 1 5/8" Coax (1) 1/2" Coax (1) 5/16" Coax (1) 1 5/8" Hybriflex	Ct State Police
	140.0	3	Ericsson AIR 21, 1.3M, B2A B4P			Metro PCS
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		6	Kathrein 860-10025			
136.0	136.0	-	-	Empty Side Arm	-	Unknown
135.0	135.0	1	24" x 24" Ice Shield	Leg	-	Ct State Police
134.0	134.0	1	24" x 24" Ice Shield	Leg	-	
131.0	137.0	1	Andrew DB810K-XT	Side Arms	(2) 1 5/8" Coax	
	125.0	1	Andrew DB810K-XT			
129.0	129.0	1	RFS PA6-65AC w/ Radome	Leg	(1) EW63	
128.0	128.0	1	RFS PA6-65AC w/ Radome	Leg	(1) EW63	
127.0	133.0	1	Sinclair SE419-SF3P4LDF	Side Arms	(2) 1 5/8" Coax (1) 3/8" Coax	
	127.0	1	Bird 432-83H-01-T			
	121.0	1	Sinclair SE419-SF3P4LDF			
126.0	126.0	-	-	Empty Side Arm	-	Unknown
119.5	119.5	-	-	Empty Side Arm	-	
118.0	120.5	1	Decibel DB586	Side Arms	(2) 7/8" Coax	Ct Light & Power
	115.5	1	Decibel DB586			
115.5	115.5	-	-	Empty Side Arm	-	Unknown
107.0	115.0	1	Sinclair SD210D	Side Arms	(2) 7/8" Coax	Ct Light & Power
90.0	90.0	1	PCTEL GPS-TMG-HR-26N	Standoff	(1) 1/2" Coax	Sprint Nextel
84.0	94.0	1	Andrew DB264-A	Standoff	(1) 7/8" Coax	Ct State Police
82.0	90.0	1	12' Omni	Standoff	(1) 7/8" Coax	Ct Dmv
30.0	30.0	1	GPS	Leg	(1) 1/2" Coax	Verizon

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
154.0	157.0	6	Decibel DB980H90E-KL	-	(6) 1 5/8" Coax	Sprint Nextel

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
154.0	157.0	3	Alcatel-Lucent TD-RRH8x20-25 w/ S.S.	Sector Frames	(1) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS APXV9TM14-ALU-I20			

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

Install proposed coax alongside existing Sprint Nextel coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	97%	Pass
Diagonals	81%	Pass
Horizontals	33%	Pass
Anchor Bolts	58%	Pass
Leg Bolts	72%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Uplift (Kips)	287.6	280.4	97%
Axial (Kips)	321.3	328.0	102%
Total Shear (Kips)	56.4	54.7	97%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
154.0	0.398	0.131	0.369

***Deflection, Twist 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:

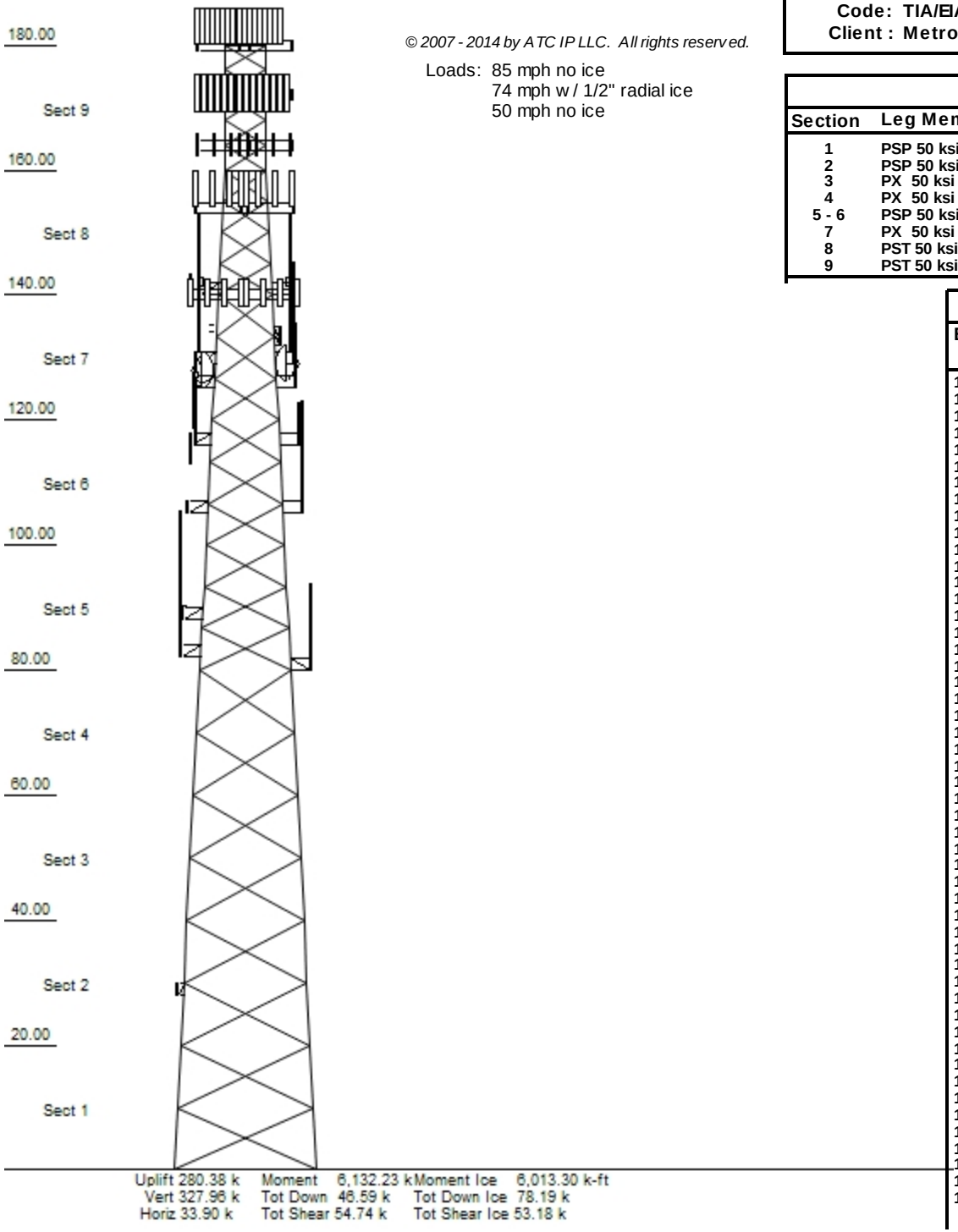
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- 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.



Loads: 85 mph no ice
74 mph w / 1/2" radial ice
50 mph no ice

Job Information

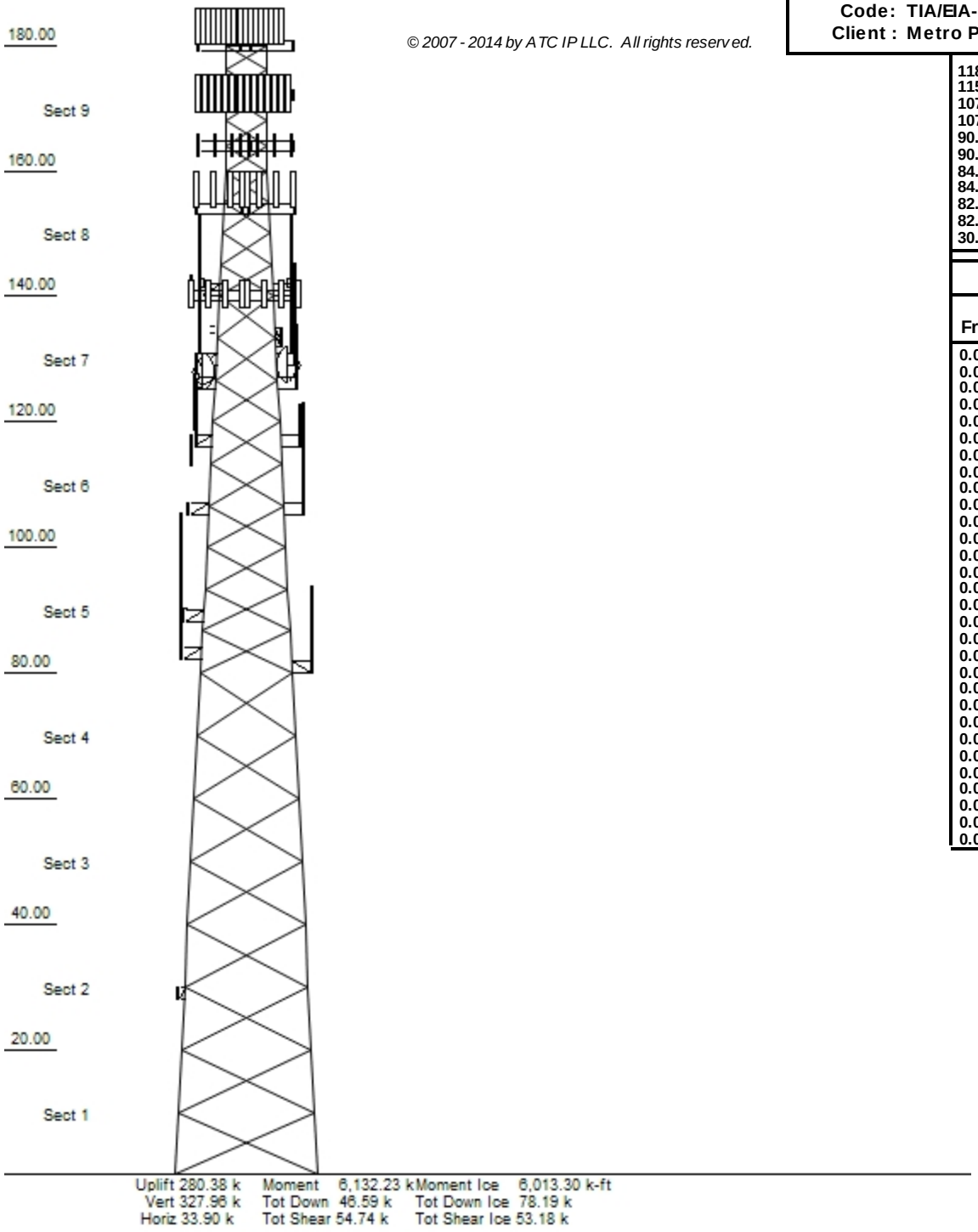
Tower : 302522	Location : Redding, CT	
Code: TIA/EIA-222 Rev F	Shape : Triangle	Base Width : 23.00 ft
Client : Metro PCS Inc		Top Width : 6.65 ft

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1	PSP 50 ksi ROHN 8 EHS	SAE 50 ksi 4X4X0.3125	
2	PSP 50 ksi ROHN 8 EHS	SAE 50 ksi 4X4X0.25	
3	PX 50 ksi 6" DIA PIPE	SAE 50 ksi 4X4X0.25	
4	PX 50 ksi 6" DIA PIPE	SAE 50 ksi 3.5X3.5X0.25	
5 - 6	PSP 50 ksi ROHN 5 EH	SAE 50 ksi 3X3X0.25	
7	PX 50 ksi 4" DIA PIPE	SAE 50 ksi 2.5X2.5X0.25	
8	PST 50 ksi 3" DIA PIPE	SAE 50 ksi 2X2X0.25	SAE 36 ksi 1.75X1.75X0.1875
9	PST 50 ksi 2-1/2" DIA PIPE	SAE 50 ksi 1.75X1.75X0.1875	SAE 36 ksi 1.75X1.75X0.1875

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
180.00	Panel	3	Powerwave P65-16-XLH-RR
180.00	Panel	6	Ericsson RRUS 11 (Band 12)
180.00	Panel	1	Raycap DC6-48-60-18-8F
180.00	Panel	3	Powerwave TT19-08BP111-001
180.00	Panel	6	Powerwave LGP21401
180.00	Panel	6	Powerwave 7770.00
180.00	Mounting Frame	3	Round Sector Frame
172.00	Panel	3	Andrew LNX-6514DS-VTM
172.00	Panel	1	RFS DB-T1-6Z-8AB-0Z
172.00	Panel	3	Andrew HBX-6517DS-VTM
172.00	Panel	1	Swedcom SWCP 2x7014
172.00	Panel	1	Antel BXA-70063/6CF
172.00	Mounting Frame	3	Round Sector Frame
172.00	Panel	1	RFS APX75-866512-CT2
172.00	Panel	3	Alcatel-Lucent RRH2x40-AWS
172.00	Panel	6	RFS FD9R6004/1C-3L
172.00	Panel	3	Rymsa MGD3-800T0
164.00	Panel	12	Decibel DB844H90E-XY
164.00	Mounting Frame	3	Round Sector Frame
154.00	Panel	3	Alcatel-Lucent TD-RRH8x20-25 w
154.00	Whip	3	RFS APXV9TM14-ALU-I20
154.00	Panel	3	Alcatel-Lucent 800 MHz RRH
154.00	Panel	3	Alcatel-Lucent 1900 MHz 4x45 R
154.00	Panel	3	RFS APXVSPP18-C-A20
154.00	Mounting Frame	3	Round Sector Frame
142.00	Whip	2	Scala OGT9-840
142.00	Straight Arm	2	Side Arm
142.00	Panel	2	TX RX 422-86A-99575-18R1
142.00	Whip	2	Scala OGT9-840
140.00	Panel	3	Ericsson AIR 21, 1.3M, B2A B4P
140.00	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P
140.00	Whip	1	Morad VHF 156-Deluxe
140.00	Panel	6	Kathrein 860-10025
140.00	Mounting Frame	3	Round Sector Frame
136.00	Straight Arm	1	Empty Side Arm
135.00	Panel	1	24" x 24" Ice Shield
134.00	Panel	1	24" x 24" Ice Shield
131.00	Whip	1	Andrew DB810K-XT
131.00	Straight Arm	2	Round Side Arm
131.00	Whip	1	Andrew DB810K-XT
129.00	Dish	1	RFS PA6-65AC w/ Radome
128.00	Dish	1	RFS PA6-65AC w/ Radome
127.00	Whip	1	Sinclair SE419-SF3P4LDF
127.00	Panel	1	Bird 432-83H-01-T
127.00	Whip	1	Sinclair SE419-SF3P4LDF
127.00	Straight Arm	2	Round Side Arm
126.00	Straight Arm	1	Empty Side Arm
119.50	Straight Arm	1	Empty Side Arm
118.00	Whip	1	Decibel DB586
118.00	Straight Arm	2	Round Side Arm



Job Information

Tower : 302522	Location : Redding, CT	
Code: TIA/EIA-222 Rev F	Shape : Triangle	Base Width : 23.00 ft
Client : Metro PCS Inc		Top Width : 6.65 ft

118.00	Whip	1	Decibel DB586
115.50	Straight Arm	1	Empty Side Arm
107.00	Whip	1	Sinclair SD210D
107.00	Straight Arm	2	Side Arm
90.00	Straight Arm	1	Standoff
90.00	Panel	1	PCTEL GPS-TMG-HR-26N
84.00	Whip	1	Andrew DB264-A
84.00	Straight Arm	1	Standoff
82.00	Whip	1	12' Omni
82.00	Straight Arm	1	Standoff
30.00	Whip	1	GPS

Linear Appurtenance

Elev (ft) From	To	Qty	Description
0.000	180.00	1	Wave Guide
0.000	180.00	12	1 1/4" Coax
0.000	180.00	2	0.74" 8 AWG 7
0.000	180.00	1	0.28" RG6
0.000	172.00	1	Wave Guide
0.000	172.00	1	1 5/8" Hybriflex
0.000	172.00	12	1 5/8" Coax
0.000	164.00	1	Wave Guide
0.000	164.00	12	1 5/8" Coax
0.000	154.00	1	1 1/4" Hybriflex
0.000	154.00	3	1 1/4" Hybriflex
0.000	142.00	2	3/8" Coax
0.000	142.00	4	1 5/8" Coax
0.000	140.00	1	Wave Guide
0.000	140.00	1	Wave Guide
0.000	140.00	1	5/16" Coax
0.000	140.00	1	1/2" Coax
0.000	140.00	1	1 5/8" Hybriflex
0.000	140.00	6	1 5/8" Coax
0.000	131.00	2	1 5/8" Coax
0.000	129.00	1	EW63
0.000	128.00	1	EW63
0.000	127.00	1	3/8" Coax
0.000	127.00	2	1 5/8" Coax
0.000	118.00	2	7/8" Coax
0.000	107.00	2	7/8" Coax
0.000	90.000	1	1/2" Coax
0.000	84.000	1	7/8" Coax
0.000	82.000	1	7/8" Coax
0.000	30.000	1	1/2" Coax

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F

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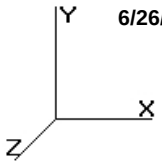


Gh : 1.12

Section Forces

LoadCase Normal No Ice — 85.00 mph Wind Normal To Face with No Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	29.55	14.42	43.51	0.00	0.43	2.00	1.00	1.00	0.67	43.40	0.00	0.00	1,444.5	0.0	2,874.42	0.00	2,874.42	2
8	150.0	28.51	17.81	51.29	0.00	0.45	1.98	1.00	1.00	0.67	52.27	0.00	0.00	2,216.9	0.0	3,303.81	0.00	3,303.81	1
7	130.0	27.37	19.33	54.63	0.00	0.38	2.11	1.00	1.00	0.64	54.44	0.00	0.00	3,282.1	0.0	3,523.90	0.00	3,523.90	1
6	110.0	26.09	24.69	68.44	0.00	0.39	2.08	1.00	1.00	0.65	69.11	0.00	0.00	4,019.2	0.0	4,197.33	0.00	4,197.33	3
5	90.00	24.64	27.34	68.80	0.00	0.35	2.18	1.00	1.00	0.63	70.79	0.00	0.00	4,189.8	0.0	4,257.29	0.00	4,257.29	3
4	70.00	22.93	26.23	74.01	0.00	0.32	2.25	1.00	1.00	0.62	72.19	0.00	0.00	4,620.1	0.0	4,181.67	0.00	4,181.67	3
3	50.00	20.83	31.58	74.02	0.00	0.29	2.31	1.00	1.00	0.61	77.05	0.00	0.00	4,941.7	0.0	4,156.09	0.00	4,156.09	3
2	30.00	18.50	33.86	80.69	0.00	0.29	2.33	1.00	1.00	0.61	83.23	0.00	0.00	5,358.4	0.0	4,025.23	0.00	4,025.23	3
1	10.00	18.50	36.27	80.69	0.00	0.27	2.39	1.00	1.00	0.61	85.17	0.00	0.00	5,966.9	0.0	4,221.51	0.00	4,221.51	3
														36,039.5	0.0			34,741.25	

LoadCase 60 deg No Ice — 85.00 mph Wind at 60 deg From Face with No Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	29.55	14.42	43.51	0.00	0.43	2.00	0.80	1.00	0.67	40.52	0.00	0.00	1,444.5	0.0	2,683.47	0.00	2,683.47	2
8	150.0	28.51	17.81	51.29	0.00	0.45	1.98	0.80	1.00	0.67	48.71	0.00	0.00	2,216.9	0.0	3,078.73	0.00	3,078.73	1
7	130.0	27.37	19.33	54.63	0.00	0.38	2.11	0.80	1.00	0.64	50.57	0.00	0.00	3,282.1	0.0	3,273.61	0.00	3,273.61	1
6	110.0	26.09	24.69	68.44	0.00	0.39	2.08	0.80	1.00	0.65	64.17	0.00	0.00	4,019.2	0.0	3,897.39	0.00	3,897.39	3
5	90.00	24.64	27.34	68.80	0.00	0.35	2.18	0.80	1.00	0.63	65.32	0.00	0.00	4,189.8	0.0	3,928.43	0.00	3,928.43	3
4	70.00	22.93	26.23	74.01	0.00	0.32	2.25	0.80	1.00	0.62	66.94	0.00	0.00	4,620.1	0.0	3,877.79	0.00	3,877.79	3
3	50.00	20.83	31.58	74.02	0.00	0.29	2.31	0.80	1.00	0.61	70.73	0.00	0.00	4,941.7	0.0	3,815.35	0.00	3,815.35	3
2	30.00	18.50	33.86	80.69	0.00	0.29	2.33	0.80	1.00	0.61	76.46	0.00	0.00	5,358.4	0.0	3,697.71	0.00	3,697.71	3
1	10.00	18.50	36.27	80.69	0.00	0.27	2.39	0.80	1.00	0.61	77.91	0.00	0.00	5,966.9	0.0	3,861.98	0.00	3,861.98	3
														36,039.5	0.0			32,114.47	

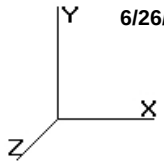
LoadCase 90 deg No Ice — 85.00 mph Wind at 90 deg From Face with No Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	29.55	14.42	43.51	0.00	0.43	2.00	0.85	1.00	0.67	41.24	0.00	0.00	1,444.5	0.0	2,731.21	0.00	2,731.21	2
8	150.0	28.51	17.81	51.29	0.00	0.45	1.98	0.85	1.00	0.67	49.60	0.00	0.00	2,216.9	0.0	3,135.00	0.00	3,135.00	1
7	130.0	27.37	19.33	54.63	0.00	0.38	2.11	0.85	1.00	0.64	51.54	0.00	0.00	3,282.1	0.0	3,336.19	0.00	3,336.19	1

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Gh : 1.12

Section Forces

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
6	110.0	26.09	24.69	68.44	0.00	0.39	2.08	0.85	1.00	0.65	65.40	0.00	0.00	4,019.2	0.0	3,972.38	0.00	3,972.38	3
5	90.00	24.64	27.34	68.80	0.00	0.35	2.18	0.85	1.00	0.63	66.69	0.00	0.00	4,189.8	0.0	4,010.64	0.00	4,010.64	3
4	70.00	22.93	26.23	74.01	0.00	0.32	2.25	0.85	1.00	0.62	68.25	0.00	0.00	4,620.1	0.0	3,953.76	0.00	3,953.76	3
3	50.00	20.83	31.58	74.02	0.00	0.29	2.31	0.85	1.00	0.61	72.31	0.00	0.00	4,941.7	0.0	3,900.54	0.00	3,900.54	3
2	30.00	18.50	33.86	80.69	0.00	0.29	2.33	0.85	1.00	0.61	78.15	0.00	0.00	5,358.4	0.0	3,779.59	0.00	3,779.59	3
1	10.00	18.50	36.27	80.69	0.00	0.27	2.39	0.85	1.00	0.61	79.73	0.00	0.00	5,966.9	0.0	3,951.87	0.00	3,951.87	3
														36,039.5	0.0			32,771.17	

LoadCase Normal Ice — 73.61 mph Wind Normal To Face with Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	22.16	14.42	80.54	37.03	0.71	1.78	1.00	1.00	0.83	81.15	0.00	0.00	2,714.9	1,270.4	3,582.07	0.00	3,582.07	2
8	150.0	21.38	17.81	84.66	33.37	0.66	1.78	1.00	1.00	0.79	85.06	0.00	0.00	4,136.1	1,919.3	3,624.72	0.00	3,624.72	1
7	130.0	20.52	19.33	91.11	37.60	0.56	1.83	1.00	1.00	0.73	86.03	0.00	0.00	5,871.7	2,589.6	3,623.60	0.00	3,623.60	3
6	110.0	19.57	24.69	113.57	45.13	0.58	1.81	1.00	1.00	0.74	109.19	0.00	0.00	6,965.2	2,946.0	4,345.63	0.00	4,345.63	3
5	90.00	18.48	27.34	115.16	46.36	0.51	1.88	1.00	1.00	0.71	108.54	0.00	0.00	7,258.8	3,068.9	4,229.47	0.00	4,229.47	3
4	70.00	17.20	26.23	120.27	46.25	0.46	1.95	1.00	1.00	0.68	107.87	0.00	0.00	7,727.2	3,107.1	4,063.30	0.00	4,063.30	3
3	50.00	15.62	31.58	120.87	46.85	0.43	2.02	1.00	1.00	0.66	111.62	0.00	0.00	8,207.1	3,265.4	3,940.26	0.00	3,940.26	3
2	30.00	13.87	33.86	128.15	47.46	0.41	2.05	1.00	1.00	0.65	117.63	0.00	0.00	8,776.7	3,418.3	3,756.66	0.00	3,756.66	3
1	10.00	13.87	36.27	128.75	48.06	0.38	2.12	1.00	1.00	0.64	118.89	0.00	0.00	9,463.7	3,496.8	3,910.53	0.00	3,910.53	3
														61,121.4	25,081.9			35,076.24	

LoadCase 60 deg Ice — 73.61 mph Wind at 60 deg From Face with Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	22.16	14.42	80.54	37.03	0.71	1.78	0.80	1.00	0.83	78.27	0.00	0.00	2,714.9	1,270.4	3,454.82	0.00	3,454.82	2
8	150.0	21.38	17.81	84.66	33.37	0.66	1.78	0.80	1.00	0.79	81.49	0.00	0.00	4,136.1	1,919.3	3,472.95	0.00	3,472.95	1
7	130.0	20.52	19.33	91.11	37.60	0.56	1.83	0.80	1.00	0.73	82.17	0.00	0.00	5,871.7	2,589.6	3,460.74	0.00	3,460.74	3
6	110.0	19.57	24.69	113.57	45.13	0.58	1.81	0.80	1.00	0.74	104.26	0.00	0.00	6,965.2	2,946.0	4,149.10	0.00	4,149.10	3
5	90.00	18.48	27.34	115.16	46.36	0.51	1.88	0.80	1.00	0.71	103.07	0.00	0.00	7,258.8	3,068.9	4,016.39	0.00	4,016.39	3
4	70.00	17.20	26.23	120.27	46.25	0.46	1.95	0.80	1.00	0.68	102.63	0.00	0.00	7,727.2	3,107.1	3,865.70	0.00	3,865.70	3
3	50.00	15.62	31.58	120.87	46.85	0.43	2.02	0.80	1.00	0.66	105.31	0.00	0.00	8,207.1	3,265.4	3,717.28	0.00	3,717.28	3
2	30.00	13.87	33.86	128.15	47.46	0.41	2.05	0.80	1.00	0.65	110.85	0.00	0.00	8,776.7	3,418.3	3,540.38	0.00	3,540.38	3
1	10.00	13.87	36.27	128.75	48.06	0.38	2.12	0.80	1.00	0.64	111.64	0.00	0.00	9,463.7	3,496.8	3,671.95	0.00	3,671.95	3
														61,121.4	25,081.9			33,349.31	

Site Number: 302522
Location: Redding, CT

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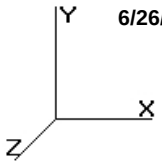
Code: TIA/EIA-222 Rev F



Gh : 1.12

Section Forces

LoadCase 90 deg Ice — 73.61 mph Wind at 90 deg From Face with Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	22.16	14.42	80.54	37.03	0.71	1.78	0.85	1.00	0.83	78.99	0.00	0.00	2,714.9	1,270.4	3,486.63	0.00	3,486.63	2
8	150.0	21.38	17.81	84.66	33.37	0.66	1.78	0.85	1.00	0.79	82.38	0.00	0.00	4,136.1	1,919.3	3,510.89	0.00	3,510.89	1
7	130.0	20.52	19.33	91.11	37.60	0.56	1.83	0.85	1.00	0.73	83.13	0.00	0.00	5,871.7	2,589.6	3,501.46	0.00	3,501.46	3
6	110.0	19.57	24.69	113.57	45.13	0.58	1.81	0.85	1.00	0.74	105.49	0.00	0.00	6,965.2	2,946.0	4,198.23	0.00	4,198.23	3
5	90.00	18.48	27.34	115.16	46.36	0.51	1.88	0.85	1.00	0.71	104.44	0.00	0.00	7,258.8	3,068.9	4,069.66	0.00	4,069.66	3
4	70.00	17.20	26.23	120.27	46.25	0.46	1.95	0.85	1.00	0.68	103.94	0.00	0.00	7,727.2	3,107.1	3,915.10	0.00	3,915.10	3
3	50.00	15.62	31.58	120.87	46.85	0.43	2.02	0.85	1.00	0.66	106.88	0.00	0.00	8,207.1	3,265.4	3,773.02	0.00	3,773.02	3
2	30.00	13.87	33.86	128.15	47.46	0.41	2.05	0.85	1.00	0.65	112.55	0.00	0.00	8,776.7	3,418.3	3,594.45	0.00	3,594.45	3
1	10.00	13.87	36.27	128.75	48.06	0.38	2.12	0.85	1.00	0.64	113.45	0.00	0.00	9,463.7	3,496.8	3,731.60	0.00	3,731.60	3
														61,121.4	25,081.9			33,781.04	

LoadCase Normal — 50.00 mph Wind Normal To Face with No Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	10.22	14.42	43.51	0.00	0.43	2.00	1.00	1.00	0.67	43.40	0.00	0.00	1,444.5	0.0	994.61	0.00	994.61	2
8	150.0	9.86	17.81	51.29	0.00	0.45	1.98	1.00	1.00	0.67	52.27	0.00	0.00	2,216.9	0.0	1,143.19	0.00	1,143.19	1
7	130.0	9.47	19.33	54.63	0.00	0.38	2.11	1.00	1.00	0.64	54.44	0.00	0.00	3,282.1	0.0	1,219.34	0.00	1,219.34	1
6	110.0	9.03	24.69	68.44	0.00	0.39	2.08	1.00	1.00	0.65	69.11	0.00	0.00	4,019.2	0.0	1,452.36	0.00	1,452.36	3
5	90.00	8.52	27.34	68.80	0.00	0.35	2.18	1.00	1.00	0.63	70.79	0.00	0.00	4,189.8	0.0	1,473.11	0.00	1,473.11	3
4	70.00	7.93	26.23	74.01	0.00	0.32	2.25	1.00	1.00	0.62	72.19	0.00	0.00	4,620.1	0.0	1,446.95	0.00	1,446.95	3
3	50.00	7.21	31.58	74.02	0.00	0.29	2.31	1.00	1.00	0.61	77.05	0.00	0.00	4,941.7	0.0	1,438.09	0.00	1,438.09	3
2	30.00	6.40	33.86	80.69	0.00	0.29	2.33	1.00	1.00	0.61	83.23	0.00	0.00	5,358.4	0.0	1,392.81	0.00	1,392.81	3
1	10.00	6.40	36.27	80.69	0.00	0.27	2.39	1.00	1.00	0.61	85.17	0.00	0.00	5,966.9	0.0	1,460.73	0.00	1,460.73	3
														36,039.5	0.0			12,021.19	

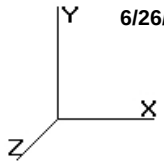
LoadCase 60 deg — 50.00 mph Wind at 60 deg From Face with No Ice

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	10.22	14.42	43.51	0.00	0.43	2.00	0.80	1.00	0.67	40.52	0.00	0.00	1,444.5	0.0	928.54	0.00	928.54	2
8	150.0	9.86	17.81	51.29	0.00	0.45	1.98	0.80	1.00	0.67	48.71	0.00	0.00	2,216.9	0.0	1,065.30	0.00	1,065.30	1
7	130.0	9.47	19.33	54.63	0.00	0.38	2.11	0.80	1.00	0.64	50.57	0.00	0.00	3,282.1	0.0	1,132.74	0.00	1,132.74	1
6	110.0	9.03	24.69	68.44	0.00	0.39	2.08	0.80	1.00	0.65	64.17	0.00	0.00	4,019.2	0.0	1,348.58	0.00	1,348.58	3

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Gh : 1.12

Section Forces

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
5	90.00	8.52	27.34	68.80	0.00	0.35	2.18	0.80	1.00	0.63	65.32	0.00	0.00	4,189.8	0.0	1,359.32	0.00	1,359.32	3
4	70.00	7.93	26.23	74.01	0.00	0.32	2.25	0.80	1.00	0.62	66.94	0.00	0.00	4,620.1	0.0	1,341.80	0.00	1,341.80	3
3	50.00	7.21	31.58	74.02	0.00	0.29	2.31	0.80	1.00	0.61	70.73	0.00	0.00	4,941.7	0.0	1,320.19	0.00	1,320.19	3
2	30.00	6.40	33.86	80.69	0.00	0.29	2.33	0.80	1.00	0.61	76.46	0.00	0.00	5,358.4	0.0	1,279.48	0.00	1,279.48	3
1	10.00	6.40	36.27	80.69	0.00	0.27	2.39	0.80	1.00	0.61	77.91	0.00	0.00	5,966.9	0.0	1,336.33	0.00	1,336.33	3
														36,039.5	0.0			11,112.27	

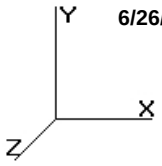
LoadCase 90 deg — **50.00 mph Wind at 90 deg From Face with No Ice**

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

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
9	170.0	10.22	14.42	43.51	0.00	0.43	2.00	0.85	1.00	0.67	41.24	0.00	0.00	1,444.5	0.0	945.06	0.00	945.06	2
8	150.0	9.86	17.81	51.29	0.00	0.45	1.98	0.85	1.00	0.67	49.60	0.00	0.00	2,216.9	0.0	1,084.77	0.00	1,084.77	1
7	130.0	9.47	19.33	54.63	0.00	0.38	2.11	0.85	1.00	0.64	51.54	0.00	0.00	3,282.1	0.0	1,154.39	0.00	1,154.39	1
6	110.0	9.03	24.69	68.44	0.00	0.39	2.08	0.85	1.00	0.65	65.40	0.00	0.00	4,019.2	0.0	1,374.53	0.00	1,374.53	3
5	90.00	8.52	27.34	68.80	0.00	0.35	2.18	0.85	1.00	0.63	66.69	0.00	0.00	4,189.8	0.0	1,387.77	0.00	1,387.77	3
4	70.00	7.93	26.23	74.01	0.00	0.32	2.25	0.85	1.00	0.62	68.25	0.00	0.00	4,620.1	0.0	1,368.08	0.00	1,368.08	3
3	50.00	7.21	31.58	74.02	0.00	0.29	2.31	0.85	1.00	0.61	72.31	0.00	0.00	4,941.7	0.0	1,349.67	0.00	1,349.67	3
2	30.00	6.40	33.86	80.69	0.00	0.29	2.33	0.85	1.00	0.61	78.15	0.00	0.00	5,358.4	0.0	1,307.82	0.00	1,307.82	3
1	10.00	6.40	36.27	80.69	0.00	0.27	2.39	0.85	1.00	0.61	79.73	0.00	0.00	5,966.9	0.0	1,367.43	0.00	1,367.43	3
														36,039.5	0.0			11,339.50	

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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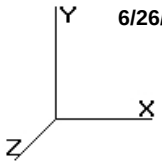
Tower Loading

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
180.0	Powerwave P65-16-XLH-RR	3	53.00	8.400	0.79	100.20	9.220	0.79	0.000	0.00	2.000
180.0	Ericsson RRUS 11 (Band 12)	6	55.00	2.940	0.50	74.30	3.290	0.50	0.000	0.00	0.000
180.0	Raycap DC6-48-60-18-8F	1	31.80	1.470	1.00	49.50	1.670	1.00	0.000	0.00	0.000
180.0	Powerwave TT19-08BP111-	3	16.00	0.640	0.50	21.80	0.820	0.50	0.000	0.00	0.000
180.0	Powerwave LGP21401	6	14.10	1.290	0.50	21.26	1.530	0.50	0.000	0.00	0.000
180.0	Powerwave 7770.00	6	35.00	5.880	0.77	67.63	6.530	0.77	0.000	0.00	0.000
180.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
172.0	Andrew LNX-6514DS-VTM	3	38.80	8.410	0.69	88.90	9.240	0.69	0.000	0.00	0.000
172.0	RFS DB-T1-6Z-8AB-0Z	1	44.00	5.600	1.00	144.50	6.080	1.00	0.000	0.00	0.000
172.0	Andrew HBX-6517DS-VTM	3	13.20	5.240	0.81	45.30	5.849	0.81	0.000	0.00	0.000
172.0	Swedcom SWCP 2x7014	1	30.00	10.440	0.92	101.60	11.370	0.92	0.000	0.00	0.000
172.0	Antel BXA-70063/6CF	1	17.00	7.730	0.75	58.00	8.540	0.75	0.000	0.00	0.000
172.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
172.0	RFS APX75-866512-CT2	1	19.80	6.220	0.73	52.80	6.850	0.73	0.000	0.00	0.000
172.0	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.510	0.80	61.40	2.870	0.50	0.000	0.00	0.000
172.0	RFS FD9R6004/1C-3L	6	3.10	0.370	0.50	5.40	0.500	0.50	0.000	0.00	0.000
172.0	Rymsa MGD3-800T0	3	19.80	3.450	0.82	39.87	3.980	0.82	0.000	0.00	1.000
164.0	Decibel DB844H90E-XY	12	14.00	3.730	0.92	40.30	3.570	0.92	0.000	0.00	0.000
164.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
154.0	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.720	0.67	96.20	4.110	0.67	0.000	0.00	3.000
154.0	RFS APXV9TM14-ALU-I20	3	55.10	6.890	0.78	112.85	9.140	0.78	0.000	0.00	3.000
154.0	Alcatel-Lucent 800 MHz RRH	3	53.00	2.490	0.67	74.10	2.820	0.67	0.000	0.00	3.000
154.0	Alcatel-Lucent 1900 MHz	3	60.00	2.710	0.67	83.10	3.070	0.67	0.000	0.00	3.000
154.0	RFS APXVSPP18-C-A20	3	57.00	8.260	0.83	106.50	9.080	0.83	0.000	0.00	3.000
154.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
142.0	Scala OGT9-840	2	18.50	2.270	1.00	36.10	3.440	1.00	0.000	0.00	-6.000
142.0	Side Arm	2	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
142.0	TX RX 422-86A-99575-18R1	2	40.00	3.110	0.67	58.70	3.470	0.67	0.000	0.00	0.000
142.0	Scala OGT9-840	2	18.50	2.270	1.00	36.10	3.440	1.00	0.000	0.00	6.000
140.0	Ericsson AIR 21, 1.3M, B2A	3	91.50	6.580	0.85	155.40	12.240	0.85	0.000	0.00	0.000
140.0	Ericsson AIR 21, 1.3M, B4A	3	90.40	6.580	0.85	132.60	7.200	0.85	0.000	0.00	0.000
140.0	Morad VHF 156-Deluxe	1	0.90	0.260	1.00	3.56	0.570	1.00	0.000	0.00	2.500
140.0	Kathrein 860-10025	6	1.10	0.160	0.50	2.64	0.260	0.50	0.000	0.00	0.000
140.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
136.0	Empty Side Arm	1	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
135.0	24" x 24" Ice Shield	1	50.00	0.930	1.00	350.00	7.500	1.00	0.000	0.00	0.000
134.0	24" x 24" Ice Shield	1	50.00	0.930	1.00	350.00	7.500	1.00	0.000	0.00	0.000
131.0	Andrew DB810K-XT	1	35.00	4.350	1.00	70.00	5.800	1.00	0.000	0.00	-6.000
131.0	Round Side Arm	2	100.00	5.000	1.00	175.00	5.900	0.80	0.000	0.00	0.000
131.0	Andrew DB810K-XT	1	35.00	4.350	1.00	70.00	5.800	1.00	0.000	0.00	6.000
129.0	RFS PA6-65AC w/ Radome	1	308.00	24.410	1.00	453.50	25.090	1.00	0.000	0.00	0.000
128.0	RFS PA6-65AC w/ Radome	1	308.00	24.410	1.00	453.50	25.090	1.00	0.000	0.00	0.000
127.0	Sinclair SE419-SF3P4LDF	1	24.00	9.550	1.00	66.50	10.510	1.00	0.000	0.00	-6.000
127.0	Bird 432-83H-01-T	1	25.00	1.630	1.00	37.44	1.900	1.00	0.000	0.00	0.000
127.0	Sinclair SE419-SF3P4LDF	1	24.00	9.550	1.00	66.50	10.510	1.00	0.000	0.00	6.000
127.0	Round Side Arm	2	100.00	5.000	1.00	175.00	5.900	0.80	0.000	0.00	0.000
126.0	Empty Side Arm	1	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
119.5	Empty Side Arm	1	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
118.0	Decibel DB586	1	8.30	0.740	1.00	14.50	1.230	1.00	0.000	0.00	-2.500
118.0	Round Side Arm	2	100.00	5.000	1.00	175.00	5.900	0.80	0.000	0.00	0.000

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Tower Loading

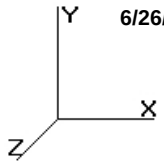
118.0	Decibel DB586	1	8.30	0.740	1.00	14.50	1.230	1.00	0.000	0.00	2.500
115.5	Empty Side Arm	1	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
107.0	Sinclair SD210D	1	40.00	4.450	1.00	77.00	7.610	1.00	0.000	0.00	8.000
107.0	Side Arm	2	150.00	6.300	1.00	230.00	7.000	1.00	0.000	0.00	0.000
90.00	Standoff	1	50.00	3.000	1.00	75.00	3.500	1.00	0.000	0.00	0.000
90.00	PCTEL GPS-TMG-HR-26N	1	0.60	0.090	1.00	1.90	0.140	1.00	0.000	0.00	0.000
84.00	Andrew DB264-A	1	36.00	5.900	1.00	89.10	11.380	1.00	0.000	0.00	10.000
84.00	Standoff	1	50.00	3.000	1.00	75.00	3.500	1.00	0.000	0.00	0.000
82.00	12' Omni	1	40.00	3.600	1.00	66.06	4.830	1.00	0.000	0.00	8.000
82.00	Standoff	1	50.00	3.000	1.00	75.00	3.500	1.00	0.000	0.00	0.000
30.00	GPS	1	5.00	0.040	1.00	5.94	0.090	1.00	0.000	0.00	0.000
	Totals	141	10547.90			17063.84			Number of Appurtenances : 61		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Wind	Spread On Faces	Bundling Arrangement
0.00	180.0	0.28" RG6	1	0.28	0.03	100.00	2	Separate
0.00	180.0	0.74" 8 AWG 7	2	0.74	0.49	100.00	2	Separate
0.00	180.0	1 1/4" Coax	12	1.55	0.63	100.00	2	Separate
0.00	180.0	Wave Guide	1	1.50	6.00	100.00	2	Separate
0.00	172.0	1 5/8" Coax	12	1.98	0.82	100.00	1	Separate
0.00	172.0	1 5/8" Hybriflex	1	1.98	1.30	0.00	1	Separate
0.00	172.0	Wave Guide	1	1.50	6.00	100.00	1	Separate
0.00	164.0	1 5/8" Coax	12	1.98	0.82	0.00	1	Separate
0.00	164.0	Wave Guide	1	1.50	6.00	100.00	1	Separate
0.00	154.0	1 1/4" Hybriflex	3	1.54	1.00	0.00	1	Separate
0.00	154.0	1 1/4" Hybriflex	1	1.54	1.00	0.00	1	Separate
0.00	142.0	1 5/8" Coax	4	1.98	0.82	100.00	3	Separate
0.00	142.0	3/8" Coax	2	0.44	0.08	100.00	3	Separate
0.00	140.0	1 5/8" Coax	6	1.98	0.82	50.00	3	Separate
0.00	140.0	1 5/8" Hybriflex	1	1.98	1.30	100.00	3	Separate
0.00	140.0	1/2" Coax	1	0.63	0.15	100.00	3	Separate
0.00	140.0	5/16" Coax	1	0.32	0.04	100.00	3	Separate
0.00	140.0	Wave Guide	1	1.50	6.00	100.00	3	Separate
0.00	140.0	Wave Guide	1	1.50	6.00	100.00	3	Separate
0.00	131.0	1 5/8" Coax	2	1.98	0.82	100.00	3	Separate
0.00	129.0	EW63	1	2.01	0.51	100.00	3	Separate
0.00	128.0	EW63	1	2.01	0.51	100.00	3	Separate
0.00	127.0	1 5/8" Coax	2	1.98	0.82	100.00	3	Separate
0.00	127.0	3/8" Coax	1	0.44	0.08	100.00	3	Separate
0.00	118.0	7/8" Coax	2	1.09	0.33	100.00	2	Separate
0.00	107.0	7/8" Coax	2	1.09	0.33	100.00	2	Separate
0.00	90.00	1/2" Coax	1	0.63	0.15	100.00	1	Separate
0.00	84.00	7/8" Coax	1	1.09	0.33	100.00	3	Separate
0.00	82.00	7/8" Coax	1	1.09	0.33	100.00	2	Separate
0.00	30.00	1/2" Coax	1	0.63	0.15	100.00	1	Separate

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Force/Stress Summary

Section: 1 SSV — Bot Elev (ft): 0.00 — Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-321.37	Normal Ice	10.02	100	100	100	41.2	34.2	332.64	0	0	0.00	0.00	96	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.3125	-10.61	90 deg Ice	23.71	50	75	50	179.9	6.2	14.77	1	1	14.13	24.37	75	Bolt Shear

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	274.56	60 deg No Ice	50	388.79	0	0	0.00	0.00	70	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.3125	10.67	90 deg Ice	50	69.75	1	1	14.13	15.23	75	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	254.53	60 deg No Ice	0.00	0		
Top Compression	298.21	Normal Ice	0.00	0		
Bot Tension	282.31	60 deg No Ice	490.92	58	10	1" A354-BC
Bot Compression	328.09	Normal Ice	0.00	0		

Section: 2 SSV — Bot Elev (ft): 20.00 — Height (ft): 20.000

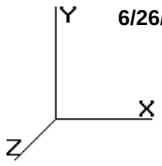
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-290.52	Normal Ice	10.02	100	100	100	41.2	34.2	332.64	0	0	0.00	0.00	87	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-9.82	90 deg No Ice	22.81	50	75	50	172.2	6.7	13.03	1	1	14.13	19.50	75	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	248.54	60 deg No Ice	50	388.79	0	0	0.00	0.00	63	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	9.98	90 deg Ice	50	56.45	1	1	14.13	12.19	81	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	226.89	60 deg No Ice	0.00	0		
Top Compression	265.63	Normal Ice	0.00	0		
Bot Tension	254.53	60 deg No Ice	368.63	69	8	1 A325
Bot Compression	298.21	Normal Ice	0.00	0		

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Force/Stress Summary

Section: 3 SSV — Bot Elev (ft): 40.00 — Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	-257.58	Normal Ice	10.02	100	100	100	54.8	31.5	264.19	0	0	0.00	0.00	97	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-9.05	90 deg Ice	20.06	50	75	50	151.4	8.7	16.85	1	1	14.13	19.50	64	Bolt Shear

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	221.37	60 deg No Ice	50	335.99	0	0	0.00	0.00	65	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	8.89	90 deg Ice	50	56.45	1	1	14.13	12.19	72	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	199.27	60 deg No Ice	0.00	0		
Top Compression	232.63	Normal Ice	0.00	0		
Bot Tension	226.89	60 deg No Ice	368.63	62	8	1 A325
Bot Compression	265.63	Normal Ice	0.00	0		

Section: 4 SSV — Bot Elev (ft): 60.00 — Height (ft): 20.000

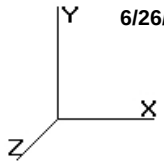
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	-223.25	Normal Ice	10.02	100	100	100	54.8	31.5	264.22	0	0	0.00	0.00	84	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	-9.37	90 deg No Ice	19.17	50	75	50	165.7	7.2	12.25	1	1	14.13	19.50	76	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	192.45	60 deg No Ice	50	335.99	0	0	0.00	0.00	57	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	9.17	90 deg No Ice	50	48.32	1	1	14.13	12.19	75	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	167.06	60 deg No Ice	0.00	0		
Top Compression	195.20	Normal Ice	0.00	0		
Bot Tension	199.27	60 deg No Ice	276.47	72	6	1 A325
Bot Compression	232.63	Normal Ice	0.00	0		

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Force/Stress Summary

Section: 5 SSV — Bot Elev (ft): 80.00 — Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 5 EH	-188.46	Normal Ice	6.68	100	100	100	43.6	33.8	206.30	0	0	0.00	0.00	91	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	-8.07	90 deg No Ice	15.97	50	75	50	161.9	7.6	10.94	1	1	14.13	19.50	73	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 5 EH	162.76	60 deg No Ice	50	244.39	0	0	0.00	0.00	66	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	7.94	90 deg No Ice	50	40.20	1	1	14.13	12.19	65	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	133.20	60 deg No Ice	0.00	0		
Top Compression	155.46	Normal Ice	0.00	0		
Bot Tension	167.06	60 deg No Ice	276.47	60	6	1 A325
Bot Compression	195.20	Normal Ice	0.00	0		

Section: 6 SSV — Bot Elev (ft): 100.0 — Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 5 EH	-148.51	Normal Ice	6.68	100	100	100	43.6	33.8	206.30	0	0	0.00	0.00	71	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	-8.02	90 deg No Ice	14.16	50	75	50	143.6	9.7	13.91	1	1	14.13	19.50	57	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PSP - ROHN 5 EH	127.76	60 deg No Ice	50	244.39	0	0	0.00	0.00	52	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	7.92	90 deg No Ice	50	40.20	1	1	14.13	12.19	64	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	94.87	60 deg No Ice	0.00	0		
Top Compression	112.45	Normal Ice	0.00	0		
Bot Tension	133.20	60 deg No Ice	276.47	48	6	1 A325
Bot Compression	155.46	Normal Ice	0.00	0		

Site Number: 302522
Location: Redding, CT

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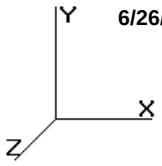


Force/Stress Summary

Section: 7 SSV — Bot Elev (ft): 120.0 — Height (ft): 20.000

Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	-104.71	Normal Ice	6.68	100	100	100	54.2	31.6	139.30	0	0	0.00	0.00	75	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	-7.60	90 deg No Ice	12.42	50	75	50	151.9	8.6	10.27	1	1	14.13	19.50	73	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	88.79	60 deg No Ice	50	176.40	0	0	0.00	0.00	50	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	7.47	90 deg No Ice	50	32.07	1	1	14.13	12.19	61	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	56.57	60 deg No Ice	0.00	0		
Top Compression	68.45	Normal Ice	0.00	0		
Bot Tension	94.87	60 deg No Ice	184.32	51	4	1 A325
Bot Compression	112.45	Normal Ice	0.00	0		

Section: 8 SSV — Bot Elev (ft): 140.0 — Height (ft): 20.000

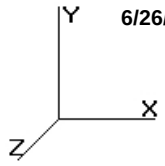
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 3" DIA PIPE	-62.69	Normal Ice	5.01	100	100	100	51.8	32.1	71.55	0	0	0.00	0.00	87	Member X
HORIZ SAE - 1.75X1.75X0.18	-0.54	Normal No Ice	6.688	100	100	100	234.0	3.6	2.26	1	1	9.81	10.87	23	Member Z
DIAG SAE - 2X2X0.25	-4.99	90 deg No Ice	9.863	50	75	50	151.4	8.7	8.17	1	1	9.81	16.25	61	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 3" DIA PIPE	53.51	60 deg No Ice	50	89.20	0	0	0.00	0.00	59	Member
HORIZ SAE - 1.75X1.75X0.18	0.55	60 deg No Ice	36	14.27	1	1	9.81	6.80	8	Bolt Bear
DIAG SAE - 2X2X0.25	5.09	90 deg No Ice	50	24.96	1	1	9.81	10.16	51	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	23.18	60 deg No Ice	0.00	0		
Top Compression	28.49	Normal Ice	0.00	0		
Bot Tension	56.57	60 deg No Ice	141.12	40	4	7/8 A325
Bot Compression	68.45	Normal Ice	0.00	0		

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Force/Stress Summary

Section: 9 SSV **Bot Elev (ft): 160.0** **Height (ft): 20.000**

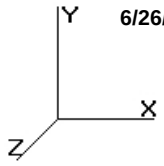
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-24.04	Normal Ice	4.00	100	100	100	50.7	32.3	55.08	0	0	0.00	0.00	43	Member X
HORIZ SAE - 1.75X1.75X0.18	-0.77	60 deg No Ice	6.646	100	100	100	232.5	3.7	2.29	1	1	9.81	10.87	33	Member Z
DIAG SAE - 1.75X1.75X0.18	-4.64	90 deg No Ice	7.789	50	75	50	136.2	10.7	6.66	1	1	9.81	12.19	69	Member Z

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	19.20	60 deg No Ice	50	68.16	0	0	0.00	0.00	28	Member
HORIZ SAE - 1.75X1.75X0.18	1.01	Normal No Ice	36	14.27	1	1	9.81	6.80	14	Bolt Bear
DIAG SAE - 1.75X1.75X0.18	4.58	90 deg No Ice	50	15.99	1	1	9.81	7.62	60	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0		
Top Compression	1.04	60 deg Ice	0.00	0		
Bot Tension	23.18	60 deg No Ice	106.02	22	4	3/4 A325
Bot Compression	28.49	Normal Ice	0.00	0		

Site Number: 302522
Location: Redding, CT

Code: TIA/EIA-222 Rev F



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Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)
90 deg	1b	-7.63	-73.75	-3.73
	1a	-9.45	104.81	4.78
	1	-1.17	15.53	-1.06
60 deg	1b	-8.50	-86.70	-4.90
	1a	-6.11	66.50	2.39
	1	-0.99	66.78	-6.49
Normal	1b	-3.49	-37.65	-3.24
	1a	3.49	-37.65	-3.24
	1	0.00	121.89	-12.44
90 deg Ice	1b	-25.77	-229.68	-13.00
	1a	-22.89	281.79	11.38
	1	-3.22	26.07	1.62
60 deg Ice	1b	-28.40	-267.67	-16.39
	1a	-13.42	172.52	4.61
	1	-2.73	173.34	-13.94
Normal Ice	1b	-13.88	-124.89	-11.35
	1a	13.88	-124.89	-11.35
	1	0.00	327.96	-30.47
90 deg No Ice	1b	-23.88	-242.91	-11.81
	1a	-25.52	273.96	12.81
	1	-3.38	15.53	-0.99
60 deg No Ice	1b	-26.41	-280.38	-15.23
	1a	-15.88	163.07	5.89
	1	-2.85	163.89	-16.71
Normal No Ice	1b	-11.88	-138.40	-10.42
	1a	11.88	-138.40	-10.42
	1	0.00	323.39	-33.90

(-) = Uplift (+) = Down

Max Uplift:	280.38 (kip)	Moment:	6,132.23 (ft-kip)	Normal No Ice
Max Down:	327.96 (kip)	Total Down:	46.59 (kip)	
Max Shear:	33.90 (kip)	Total Shear:	54.74 (kip)	

Site Number: 302522
Location: Redding, CT

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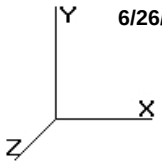
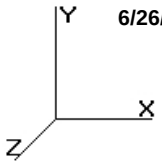


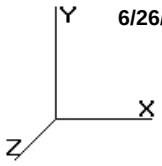
Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
50.00 mph Wind at 60 deg From Face with No Ice	30.00	0.0160	0.0066	0.0541
	80.00	0.0986	0.0270	0.1376
	86.67	0.1156	0.0323	0.1523
	106.67	0.1765	0.0451	0.1933
	113.33	0.1999	0.0487	0.2069
	120.00	0.2247	0.0522	0.2179
	126.67	0.2512	0.0599	0.2347
	133.33	0.2793	0.0677	0.2476
	140.00	0.3089	0.0754	0.2599
	155.00	0.3836	0.1307	0.2876
	164.00	0.4333	0.1283	0.3281
	172.00	0.4798	0.1228	0.3317
	180.00	0.5262	0.1210	0.3234
50.00 mph Wind at 90 deg From Face with No Ice	30.00	0.0162	0.0050	0.0545
	80.00	0.0994	0.0181	0.1381
	86.67	0.1165	0.0213	0.1515
	106.67	0.1777	0.0289	0.1928
	113.33	0.2012	0.0311	0.2074
	120.00	0.2262	0.0332	0.2183
	126.67	0.2528	0.0375	0.2348
	133.33	0.2810	0.0417	0.2478
	140.00	0.3107	0.0459	0.2597
	155.00	0.3857	0.0743	0.2589
	164.00	0.4356	0.0722	0.3268
	172.00	0.4822	0.0684	0.3293
	180.00	0.5287	0.0667	0.3054
50.00 mph Wind Normal To Face with No Ice	30.00	0.0170	0.0036	0.0566
	80.00	0.1026	0.0188	0.1455
	86.67	0.1202	0.0232	0.1630
	106.67	0.1833	0.0334	0.2050
	113.33	0.2074	0.0364	0.2154
	120.00	0.2331	0.0392	0.2274
	126.67	0.2605	0.0458	0.2457
	133.33	0.2896	0.0527	0.2599
	140.00	0.3201	0.0596	0.2726
	155.00	0.3976	0.1110	0.3689
	164.00	0.4491	0.1087	0.3471
	172.00	0.4974	0.1026	0.3527
	180.00	0.5455	0.1000	0.3868
73.61 mph Wind at 60 deg From Face with Ice	30.00	0.0488	0.0266	0.1616
	80.00	0.2854	0.1081	0.3965
	86.67	0.3344	0.1294	0.4368
	106.67	0.5093	0.1792	0.5542
	113.33	0.5764	0.1931	0.5946
	120.00	0.6476	0.2063	0.6263
	126.67	0.7237	0.2348	0.6749
	133.33	0.8045	0.2635	0.7115
	140.00	0.8892	0.2916	0.7449



	155.00	1.1033	0.4881	0.8324
	164.00	1.2457	0.5108	0.9401
	172.00	1.3782	0.5227	0.9497
	180.00	1.5113	0.5320	0.9300
73.61 mph Wind at 90 deg From Face with Ice	30.00	0.0482	0.0168	0.1607
	80.00	0.2860	0.0616	0.3958
	86.67	0.3353	0.0726	0.4314
	106.67	0.5108	0.0978	0.5506
	113.33	0.5781	0.1047	0.5943
	120.00	0.6494	0.1113	0.6248
	126.67	0.7257	0.1249	0.6727
	133.33	0.8066	0.1381	0.7098
	140.00	0.8919	0.1511	0.7429
	155.00	1.1061	0.2371	0.7573
	164.00	1.2487	0.2428	0.9348
	172.00	1.3815	0.2428	0.9425
	180.00	1.5145	0.2428	0.8863
73.61 mph Wind Normal To Face with Ice	30.00	0.0471	0.0140	0.1622
	80.00	0.2906	0.0686	0.4135
	86.67	0.3413	0.0841	0.4689
	106.67	0.5205	0.1181	0.5856
	113.33	0.5895	0.1274	0.6137
	120.00	0.6621	0.1363	0.6481
	126.67	0.7402	0.1564	0.7004
	133.33	0.8227	0.1771	0.7416
	140.00	0.9103	0.1979	0.7763
	155.00	1.1298	0.3480	1.0309
	164.00	1.2768	0.3589	0.9815
	172.00	1.4135	0.3580	0.9972
	180.00	1.5500	0.3577	1.0778
85.00 mph Wind at 60 deg From Face with No Ice	30.00	0.0466	0.0267	0.1569
	80.00	0.2859	0.1083	0.3985
	86.67	0.3351	0.1299	0.4406
	106.67	0.5116	0.1848	0.5588
	113.33	0.5792	0.2009	0.5990
	120.00	0.6511	0.2166	0.6316
	126.67	0.7278	0.2503	0.6798
	133.33	0.8093	0.2841	0.7168
	140.00	0.8948	0.3174	0.7512
	155.00	1.1113	0.5504	0.8367
	164.00	1.2554	0.5777	0.9512
	172.00	1.3895	0.5924	0.9604
	180.00	1.5242	0.6038	0.9373
85.00 mph Wind at 90 deg From Face with No Ice	30.00	0.0466	0.0166	0.1574
	80.00	0.2875	0.0608	0.3987
	86.67	0.3372	0.0717	0.4383
	106.67	0.5146	0.0989	0.5574
	113.33	0.5827	0.1068	0.5997
	120.00	0.6548	0.1144	0.6311
	126.67	0.7320	0.1302	0.6790
	133.33	0.8137	0.1455	0.7162
	140.00	0.8999	0.1607	0.7508
	155.00	1.1169	0.2620	0.7478
	164.00	1.2615	0.2687	0.9457
	172.00	1.3962	0.2688	0.9536

Site Number: 302522
Location: Redding, CT
Code: TIA/EIA-222 Rev F



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	180.00	1.5309	0.2689	0.8844
85.00 mph Wind Normal To Face with No Ice	30.00	0.0488	0.0136	0.1635
	80.00	0.2966	0.0673	0.4210
	86.67	0.3475	0.0827	0.4726
	106.67	0.5300	0.1202	0.5943
	113.33	0.5998	0.1312	0.6247
	120.00	0.6742	0.1420	0.6598
	126.67	0.7534	0.1661	0.7127
	133.33	0.8377	0.1907	0.7543
	140.00	0.9261	0.2153	0.7911
	155.00	1.1502	0.3933	1.0716
	164.00	1.3001	0.4066	1.0040
	172.00	1.4398	0.4055	1.0214
	180.00	1.5793	0.4052	1.1196
		0.0000	0.0000	0.0000

Sprint

AMERICAN TOWER CORPORATION

PROJECT:	2.5 EQUIPMENT DEPLOYMENT
SITE NAME:	REDDING
SITE CASCADE:	CT03XC358
SITE NUMBER:	302522
SITE ADDRESS:	OLD REDDING ROAD REDDING, CT 06896
SITE TYPE:	SELF SUPPORT TOWER
MARKET:	SOUTHERN CONNECTICUT

SITE INFORMATION

TOWER OWNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

LATITUDE (NAD83):
41° 17' 13.54" N
41.287094°

LONGITUDE (NAD83):
73° 26' 17.38" W
-73.438161°

COUNTY:
FAIRFIELD

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

ZONING DISTRICT:
R-2

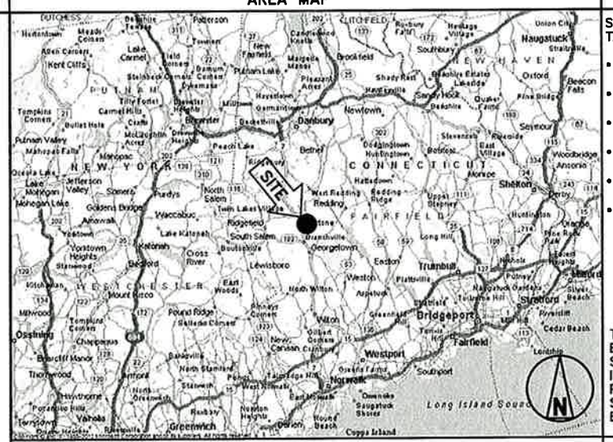
POWER COMPANY:
CL&P
(800) 286-2000

AAV PROVIDER:
AT&T
(800) 288-2020

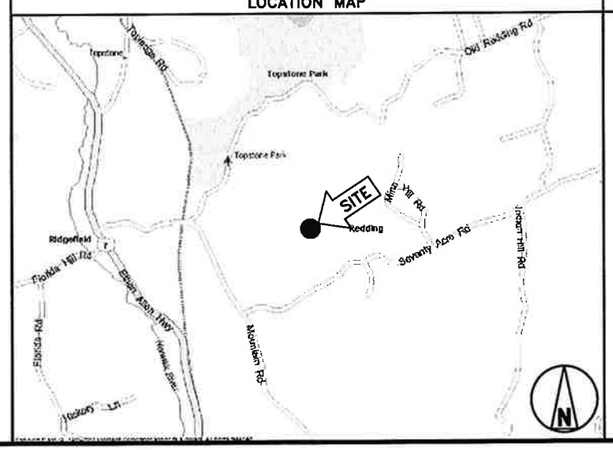
SPRINT CM:
GARY WOOD
(860) 940-9168
GARY.WOOD@SPRINT.COM

AMERICAN TOWER PM:
JOE SHANAHAN
(781) 926-4521
JOSEPH.SHANAHAN@AMERICANTOWER.COM

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL 2.5 EQUIPMENT IN EXISTING NV MMBS CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRU'S TO TOWER
- INSTALL (27) JUMPER CABLES
- INSTALL (1) FIBER CABLE
- INSTALL (4) BATTERIES IN EXISTING BATTERY CABINET

THESE PLANS HAVE BEEN DEVELOPED FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY SPRINT IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY SPRINT. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE (2012 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 – LIGHTNING PROTECTION CODE
4. 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. CT BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO.	SHEET TITLE	REV.
T-1	TITLE SHEET & PROJECT DATA	0
SP-1	SPRINT SPECIFICATIONS	0
SP-2	SPRINT SPECIFICATIONS	0
SP-3	SPRINT SPECIFICATIONS	0
A-1	SITE PLAN	0
A-1A	EXISTING EQUIPMENT DETAILS	0
A-2	TOWER ELEVATION & CABLE PLAN	0
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0
A-4	COLOR CODING & NOTES	0
A-5	EQUIPMENT & MOUNTING DETAILS	0
A-6	CIVIL DETAILS	0
A-7	PLUMBING DIAGRAM	0
E-1	ELECTRICAL & GROUNDING PLAN	0
E-2	ELECTRICAL & GROUNDING DETAILS	0

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

SITE NAME: REDDING

SITE CASCADE: CT03XC358

SITE ADDRESS: OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION: TITLE SHEET & PROJECT DATA

SHEET NUMBER: T-1

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT CONSTRUCTION STANDARDS FOR WIRELESS SITES, CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 PRECEDENCE: SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE. NOTIFY SPRINT CONSTRUCTION MANAGER IF THIS OCCURS.

1.4 NATIONALLY RECOGNIZED CODES AND STANDARDS:

A. THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:

1. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
5. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
3. GR-1089 CORE, ELECTROMAGNETIC COMPATIBILITY AND ELECTRICAL SAFETY –GENERIC CRITERIA FOR NETWORK TELECOMMUNICATIONS EQUIPMENT.
4. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC") AND NFPA 101 (LIFE SAFETY CODE).
5. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
6. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE)
7. AMERICAN CONCRETE INSTITUTE (ACI)
8. AMERICAN WIRE PRODUCERS ASSOCIATION (AWPA)
9. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
10. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
11. PORTLAND CEMENT ASSOCIATION (PCA)
12. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
13. BRICK INDUSTRY ASSOCIATION (BIA)
14. AMERICAN WELDING SOCIETY (AWS)
15. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
16. SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
17. DOOR AND HARDWARE INSTITUTE (DHI)
18. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
19. APPLICABLE BUILDING CODES INCLUDING UNIFORM BUILDING CODE, SOUTHERN BUILDING CODE, BOCA, AND THE INTERNATIONAL BUILDING CODE.

1.5 DEFINITIONS:

A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.

B. COMPANY: SPRINT CORPORATION

C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.

D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.

E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

F. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.

G. CONSTRUCTION MANAGER – ALL PROJECTS RELATED COMMUNICATION TO FLOW THROUGH SPRINT REPRESENTATIVE IN CHARGE OF PROJECT...

1.6 SITE FAMILIARITY: CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SPRINT CONSTRUCTION MANAGER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OR FIELD CONDITIONS.

1.7 POINT OF CONTACT: COMMUNICATION BETWEEN SPRINT AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE SPRINT CONSTRUCTION MANAGER APPOINTED TO MANAGE THE PROJECT FOR SPRINT.

1.8 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.9 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN RED PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

B. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.

C. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. SPACING BETWEEN EQUIPMENT IS THE REQUIRED CLEARANCE. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE SPRINT CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.

1.10 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.11 UTILITIES SERVICES: WHERE NECESSARY TO CUT EXISTING PIPES, ELECTRICAL WIRES, CONDUITS, CABLES, ETC., OF UTILITY SERVICES, OR OF FIRE PROTECTION OR COMMUNICATIONS SYSTEMS, THEY SHALL BE CUT AND CAPPED AT SUITABLE PLACES OR WHERE SHOWN. ALL SUCH ACTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY INVOLVED:

1.12 PERMITS / FEES: WHERE REQUIRED THAT A PERMIT OR CONNECTION FEE BE PAID TO A PUBLIC UTILITY PROVIDER FOR NEW SERVICE TO THE CONSTRUCTION PROJECT, PAYMENT OF SUCH FEE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.13 CONTRACTOR SHALL TAKE ALL MEASURES AND PROVIDE ALL MATERIAL NECESSARY FOR PROTECTING EXISTING EQUIPMENT AND PROPERTY.

1.14 METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION: CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

NOTE: IN SHORT-FORM SPECIFICATIONS ON THE DRAWINGS, A/E TO INSERT LIST OF APPLICABLE MOPS INCLUDING EN-2012-001, EN-2013-002, EL-0568, AND TS-0193

1.15 USE OF ELECTRONIC PROJECT MANAGEMENT SYSTEMS:

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

3.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

3.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

3.4 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

3.5 EXISTING CONDITIONS: NOTIFY THE SPRINT CONSTRUCTION MANAGER OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 RECEIPT OF MATERIAL AND EQUIPMENT:

A. A COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DOCUMENTS.

B. THE CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:

1 ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.

2. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
3. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
4. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO SPRINT OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
5. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
6. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

3.2 DELIVERABLES:

A. COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

B. IF APPLICABLE, COMPLETE LOST/STOLEN/DAMAGED DOCUMENTATION REPORT AS NECESSARY IN ACCORDANCE WITH COMPANY PRACTICE, AND AS DIRECTED BY COMPANY.

C. UPLOAD DOCUMENTATION INTO SPRINT SITE MANAGEMENT SYSTEM (SMS) AND/OR PROVIDE HARD COPY DOCUMENTATION AS REQUESTED.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 NOTICE TO PROCEED

A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF THE WORK ORDER.

B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 FUNCTIONAL REQUIREMENTS:

A. THE ACTIVITIES DESCRIBED IN THIS PARAGRAPH REPRESENT MINIMUM ACTIONS AND PROCESSES REQUIRED TO SUCCESSFULLY COMPLETE THE WORK. THE ACTIVITIES DESCRIBED ARE NOT EXHAUSTIVE, AND CONTRACTOR SHALL TAKE ANY AND ALL ACTIONS AS NECESSARY TO SUCCESSFULLY COMPLETE THE CONSTRUCTION OF A FULLY FUNCTIONING WIRELESS FACILITY AT THE SITE IN ACCORDANCE WITH COMPANY PROCESSES.

B. SUBMIT SPECIFIC DOCUMENTATION AS INDICATED HEREIN, AND OBTAIN REQUIRED APPROVALS WHILE THE WORK IS BEING PERFORMED.

C. MANAGE AND CONDUCT ALL FIELD CONSTRUCTION SERVICE RELATED ACTIVITIES

D. PROVIDE CONSTRUCTION ACTIVITIES TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

SITE NAME:

REDDING

SITE CASCADE:

CT03XC358

SITE ADDRESS:

OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-1

CONTINUE FROM SP-1

1. PERFORM ANY REQUIRED SITE ENVIRONMENTAL MITIGATION.
2. PREPARE GROUND SITES; PROVIDE DE-GRUBBING; AND ROUGH AND FINAL GRADING, AND COMPOUND SURFACE TREATMENTS.
3. MANAGE AND CONDUCT ALL ACTIVITIES FOR INSTALLATION OF UTILITIES INCLUDING ELECTRICAL AND TELCO BACKHAUL.
4. INSTALL UNDERGROUND FACILITIES INCLUDING UNDERGROUND POWER AND COMMUNICATIONS CONDUITS, AND UNDERGROUND GROUNDING SYSTEM.
5. INSTALL ABOVE GROUND GROUNDING SYSTEMS.
6. PROVIDE NEW HVAC INSTALLATIONS AND MODIFICATIONS.
7. INSTALL "H-FRAMES", CABINETS AND SHELTERS AS INDICATED.
8. INSTALL ROADS, ACCESS WAYS, CURBS AND DRAINS AS INDICATED.
9. ACCOMPLISH REQUIRED MODIFICATION OF EXISTING FACILITIES.
10. PROVIDE ANTENNA SUPPORT STRUCTURE FOUNDATIONS.
11. PROVIDE SLABS AND EQUIPMENT PLATFORMS.
12. INSTALL COMPOUND FENCING, SIGHT SHIELDING, LANDSCAPING AND ACCESS BARRIERS.
13. PERFORM INSPECTION AND MATERIAL TESTING AS REQUIRED HEREINAFTER.
14. CONDUCT SITE RESISTANCE TO EARTH TESTING AS REQUIRED HEREINAFTER
15. INSTALL FIXED GENERATOR SETS AND OTHER STANDBY POWER SOLUTIONS.
16. INSTALL TOWERS, ANTENNA SUPPORT STRUCTURES AND PLATFORMS ON EXISTING TOWERS AS REQUIRED.
17. INSTALL CELL SITE RADIOS, MICROWAVE, GPS, COAXIAL MAINLINE, ANTENNAS, CROSS BAND COUPLERS, TOWER TOP AMPLIFIERS, LOW NOISE AMPLIFIERS AND RELATED EQUIPMENT.
18. PERFORM, DOCUMENT, AND CLOSE OUT ANY CONSTRUCTION CONTROL DOCUMENTS THAT MAY BE REQUIRED BY GOVERNMENT AGENCIES AND LANDLORDS.
19. PERFORM ANTENNAL AND COAX SWEEP TESTING AND MAKE ANY AND ALL NECESSARY CORRECTIONS.
20. REMAIN ON SITE MOBILIZED THROUGHOUT HAND-OFF AND INTEGRATION TO ASSIST AS NEEDED UNTIL SITE IS DEEMED SUBSTANTIALLY COMPLETE AND PLACED "ON AIR."

3.2 GENERAL REQUIREMENTS FOR CIVIL CONSTRUCTION:

A. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

B. EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.

C. CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.

1. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
2. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.

D. CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION

E. CONDUCT TESTING AS REQUIRED HEREIN.

3.3 DELIVERABLES:

A. CONTRACTOR SHALL REVIEW, APPROVE, AND SUBMIT TO SPRINT SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SIMILAR SUBMITTALS AS REQUIRED HEREINAFTER

B. PROVIDE DOCUMENTATION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING. DOCUMENTATION SHALL BE FORWARDED IN ORIGINAL FORMAT AND/OR UPLOADED INTO SMS.

1. ALL CORRESPONDENCE AND PRELIMINARY CONSTRUCTION REPORTS.
2. PROJECT PROGRESS REPORTS.
3. CIVIL CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
4. ELECTRICAL SERVICE COMPLETION DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
5. LINES AND ANTENNA INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
6. POWER INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
7. TELCO READY DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
8. PPC (OR SHELTER) INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
9. TOWER CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
10. TOWER CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
11. BTS AND RADIO EQUIPMENT DELIVERED AT SITE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
12. NETWORK OPERATIONS HANDOFF CHECKLIST (HOC WALK) COMPLETE (UPLOAD FORM IN SMS)
13. CIVIL CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
14. SITE CONSTRUCTION PROGRESS PHOTOS UNLOADED INTO SMS.

SECTION 01 400 - SUBMITTALS & TESTS

PART 1 - GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 SUBMITTALS:

A. THE WORK IN ALL ASPECTS SHALL COMPLY WITH THE CONSTRUCTION DRAWINGS AND THESE SPECIFICATIONS.

B. SUBMIT THE FOLLOWING TO COMPANY REPRESENTATIVE FOR APPROVAL.

1. CONCRETE MIX-DESIGNS FOR TOWER FOUNDATIONS, ANCHORS PIERS, AND CONCRETE PAVING.
2. CONCRETE BREAK TESTS AS SPECIFIED HEREIN.
3. SPECIAL FINISHES FOR INTERIOR SPACES, IF ANY.
4. ALL EQUIPMENT AND MATERIALS SO IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
5. CHEMICAL GROUNDING DESIGN

D. ALTERNATES: AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINT'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO BEING SHIPPED TO SITE. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED. SUBMITTAL FOR APPROVAL SHALL INCLUDE A STATEMENT OF COST REDUCTION PROPOSED FOR USE OF ALTERNATE PRODUCT.

1.4 TESTS AND INSPECTIONS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
2. AGL, AZIMUTH AND DOWNTILT USING ELECTRONIC COMMERCIAL MADE-FOR-THE-PURPOSE ANTENNA ALIGNMENT TOOL.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.

C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;

1. AZIMUTH, DOWNTILT, AGL - UPLOAD REPORT FROM ANTENNA ALIGNMENT TOOL TO SITERRA TASK 465. INSTALLED AZIMUTH, DOWNTILT, AND AGL MUST CONFORM TO THE RF DATA SHEETS. SWEEP AND FIBER TESTS
2. SCANABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
3. ALL AVAILABLE JURISDICTIONAL INFORMATION
4. PDF SCAN OF REDLINES PRODUCED IN FIELD
5. ELECTRONIC AS-BUILT DRAWINGS IN AUTOCAD AND PDF FORMATS. ANY FIELD CHANGE MUST BE REFLECTED BY MODIFYING THE PLANS, ELEVATIONS, AND DETAILS IN THE DRAWING SETS. GENERAL NOTES INDICATING MODIFICATIONS WILL NOT BE ACCEPTED. CHANGES SHALL BE HIGHLIGHTED AS "CLOUDS" IDENTIFIED AS THE "AS-BUILT" CONDITION.
6. LIEN WAIVERS
7. FINAL PAYMENT APPLICATION
8. REQUIRED FINAL CONSTRUCTION PHOTOS
9. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
10. ALL POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).

1.5 COMMISSIONING: PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPs

1.6 INTEGRATION: PERFORM ALL INTEGRATION ACTIVITIES AS REQUIRED BY APPLICABLE MOPs

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 REQUIREMENTS FOR TESTING:

A. THIRD PARTY TESTING AGENCY:

1. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
2. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
3. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASJTO, AND OTHER METHODS IS NEEDED.
4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASJTO, AND OTHER METHODS IS NEEDED.

3.2 REQUIRED TESTS:

A. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. CONCRETE CYLINDER BREAK TESTS FOR THE TOWER AND ANCHOR FOUNDATIONS AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
2. ASPHALT ROADWAY COMPACTED THICKNESS, SURFACE SMOOTHNESS, AND COMPACTED DENSITY TESTING AS SPECIFIED IN SECTION: HOT MIX ASPHALT PAVING.
3. FIELD QUALITY CONTROL TESTING AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
4. TESTING REQUIRED UNDER SECTION: AGGREGATE BASE FOR ACCESS ROADS, PADS AND ANCHOR LOCATIONS
5. STRUCTURAL BACKFILL COMPACTION TESTS FOR THE TOWER FOUNDATION.
6. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
7. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
8. GROUNDING AT ANTENNA MASTS FOR GPS AND ANTENNAS
9. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

3.3 REQUIRED INSPECTIONS

A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.

B. CONDUCT INSPECTIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. GROUNDING SYSTEM INSTALLATION PRIOR TO EARTH CONCEALMENT DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
2. FORMING FOR CONCRETE AND REBAR PLACEMENT PRIOR TO POUR DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
3. COMPACTION OF BACKFILL MATERIALS; AGGREGATE BASE FOR ROADS, PADS, AND ANCHORS; ASPHALT PAVING; AND SHAFT BACKFILL FOR CONCRETE AND WOOD POLES, BY INDEPENDENT THIRD PARTY AGENCY.
4. PRE- AND POST-CONSTRUCTION ROOFTOP AND STRUCTURAL INSPECTIONS ON EXISTING FACILITIES.
5. TOWER ERECTION SECTION STACKING AND PLATFORM ATTACHMENT DOCUMENTED BY DIGITAL PHOTOGRAPHS BY THIRD PARTY AGENCY.
6. ANTENNA AZIMUTH , DOWN TILT AND PER SUNLIGHT TOOL SUNSIGHT INSTRUMENTS - ANTENNALIGN ALIGNMENT TOOL (AAT)

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

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Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
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SITE NAME:

REDDING

SITE CASCADE:

CT03XC358

SITE ADDRESS:

OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-2

CONTINUE FROM SP-2

7. VERIFICATION DOCUMENTED WITH THE ANTENNA CHECKLIST REPORT, BY A&E, SITE DEVELOPMENT REP, OR RF REP.

8. FINAL INSPECTION CHECKLIST AND HANDOFF WALK (HOC.). SIGNED FORM SHOWING ACCEPTANCE BY FIELD OPS IS TO BE UPLOADED INTO SMS.

9. COAX SWEEP AND FIBER TESTING DOCUMENTS SUBMITTED VIA SMS FOR RF APPROVAL.

10. SCAN-ABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT

11. ALL AVAILABLE JURISDICTIONAL INFORMATION

12. PDF SCAN OF REDLINES PRODUCED IN FIELD

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.

D. CONSTRUCTION INSPECTIONS AND CORRECTIVE MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR WITH WRITTEN REPORTS AND PHOTOGRAPHS. PHOTOGRAPHS MUST BE DIGITAL AND OF SUFFICIENT QUALITY TO CLEARLY SHOW THE SITE CONSTRUCTION. PHOTOGRAPHS MUST CLEARLY IDENTIFY THE PHOTOGRAPHED ITEM AND BE LABELED WITH THE SITE CASCADE NUMBER, SITE NAME, DESCRIPTION, AND DATE.

3.4 DELIVERABLES: TEST AND INSPECTION REPORTS AND CLOSEOUT DOCUMENTATION SHALL BE UPLOADED TO THE SMS AND/OR FORWARDED TO SPRINT FOR INCLUSION INTO THE PERMANENT SITE FILES.

A. THE FOLLOWING TEST AND INSPECTION REPORTS SHALL BE PROVIDED AS APPLICABLE.

1. CONCRETE MIX AND CYLINDER BREAK REPORTS.

2. STRUCTURAL BACKFILL COMPACTION REPORTS.

3. SITE RESISTANCE TO EARTH TEST.

4. ANTENNA AZIMUTH AND DOWN TILT VERIFICATION

5. TOWER ERECTION INSPECTIONS AND MEASUREMENTS DOCUMENTING TOWER INSTALLED PER SUPPLIER'S REQUIREMENTS AND THE APPLICABLE SECTIONS HEREIN.

6. COAX CABLE SWEEP TESTS PER COMPANY'S "ANTENNA LINE ACCEPTANCE STANDARDS".

B. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES THE FOLLOWING;

1. TEST WELLS AND TRENCHES: PHOTOGRAPHS OF ALL TEST WELLS; PHOTOGRAPHS SHOWING ALL OPEN EXCAVATIONS AND TRENCHING PRIOR TO BACKFILLING SHOWING A TAPE MEASURE VISIBLE IN THE EXCAVATIONS INDICATING DEPTH.

2. CONDUITS, CONDUCTORS AND GROUNDING: PHOTOGRAPHS SHOWING TYPICAL INSTALLATION OF CONDUCTORS AND CONNECTORS; PHOTOGRAPHS SHOWING TYPICAL BEND RADIUS OF INSTALLED GROUND WIRES AND GROUND ROD SPACING;

3. CONCRETE FORMS AND REINFORCING: CONCRETE FORMING AT TOWER AND EQUIPMENT/SHELTER PAD/FOUNDATIONS – PHOTOGRAPHS SHOWING ALL REINFORCING STEEL, UTILITY AND CONDUIT STUB OUTS; PHOTOGRAPHS SHOWING CONCRETE POUR OF SHELTER SLAB/FOUNDATION, TOWER FOUNDATION AND GUY ANCHORS WITH VIBRATOR IN USE; PHOTOGRAPHS SHOWING EACH ANCHOR ON GUYED TOWERS, BEFORE CONCRETE POUR.

4. TOWER, ANTENNAS AND MAINLINE: INSPECTION AND PHOTOGRAPHS OF SECTION STACKING; INSPECTION AND PHOTOGRAPHS OF PLATFORM COMPONENT ATTACHMENT POINTS; PHOTOGRAPHS OF TOWER TOP GROUNDING; PHOTOS OF TOWER COAX LINE COLOR CODING AT THE TOP AND AT GROUND LEVEL; INSPECTION AND PHOTOGRAPHS OF OPERATIONAL OF TOWER LIGHTING, AND PLACEMENT OF FAA REGISTRATION SIGN; PHOTOGRAPHS SHOWING ADDITIONAL GROUNDING POINTS FOR TOWERS GREATER THAN 200 FEET.; PHOTOS OF ANTENNA GROUND BAR, EQUIPMENT GROUND BAR, AND MASTER GROUND BAR; PHOTOS OF GPS ANTENNA(S); PHOTOS OF EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA; PHOTOS OF COAX WEATHERPROOFING – TOP AND BOTTOM; PHOTOS OF COAX GROUNDING--TOP AND BOTTOM; PHOTOS OF ANTENNA AND MAST GROUNDING; PHOTOS OF COAX CABLE ENTRY INTO SHELTER; PHOTOS OF PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.

5. ROOF TOPS: PRE-CONSTRUCTION AND POST-CONSTRUCTION VISUAL INSPECTION AND PHOTOGRAPHS OF THE ROOF AND INTERIOR TO DETERMINE AND DOCUMENT CONDITIONS; ROOF TOP CONSTRUCTION INSPECTIONS AS REQUIRED BY THE JURISDICTION; PHOTOGRAPHS OF CABLE TRAY AND/OR ICE BRIDGE; PHOTOGRAPHS OF DOGHOUSE/CABLE EXIT FROM ROOF;

6. SITE LAYOUT – PHOTOGRAPHS OF THE OVERALL COMPOUND, INCLUDING EQUIPMENT PLATFORM FROM ALL FOUR CORNERS.

7. FINISHED UTILITIES: CLOSE-UP PHOTOGRAPHS OF THE PPC BREAKER PANEL; CLOSE-UP PHOTOGRAPH OF THE INSIDE OF THE TELCO PANEL AND NIU; CLOSE-UP PHOTOGRAPH OF THE POWER METER AND DISCONNECT; PHOTOS OF POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE; PHOTOGRAPHS AT METER BOX AND/OR FACILITY DISTRIBUTION PANEL.

8. REQUIRED MATERIALS CERTIFICATIONS: CONCRETE MIX DESIGNS; MILL CERTIFICATION FOR ALL REINFORCING AND STRUCTURAL STEEL; AND ASPHALT PAVING MIX DESIGN.

9. ANY AND ALL SUBMITTALS BY THE JURISDICTION OR COMPANY.

SECTION 01 400 – SUBMITTALS & TESTS

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 WEEKLY REPORTS:

A. CONTRACTOR SHALL PROVIDE SPRINT WITH WEEKLY REPORTS SHOWING PROJECT STATUS. THIS STATUS REPORT FORMAT WILL BE PROVIDED TO THE CONTRACTOR BY SPRINT. THE REPORT WILL CONTAIN SITE ID NUMBER, THE MILESTONES FOR EACH SITE, INCLUDING THE BASELINE DATE, ESTIMATED COMPLETION DATE AND ACTUAL COMPLETION DATE.

B. REPORT INFORMATION WILL BE TRANSMITTED TO SPRINT VIA ELECTRONIC MEANS AS REQUIRED. THIS INFORMATION WILL PROVIDE A BASIS FOR PROGRESS MONITORING AND PAYMENT.

3.2 PROJECT CONFERENCE CALLS:

A. SPRINT MAY HOLD WEEKLY PROJECT CONFERENCE CALLS. CONTRACTOR WILL BE REQUIRED TO COMMUNICATE SITE STATUS, MILESTONE COMPLETIONS AND UPCOMING MILESTONE PROJECTIONS, AND ANSWER ANY OTHER SITE STATUS QUESTIONS AS NECESSARY.

3.3 PROJECT TRACKING IN SMS:

A. CONTRACTOR SHALL PROVIDE SCHEDULE UPDATES AND PROJECTIONS IN THE SMS SYSTEM ON A WEEKLY BASIS.

3.4 ADDITIONAL REPORTING:

A. ADDITIONAL OR ALTERNATE REPORTING REQUIREMENTS MAY BE ADDED TO THE REPORT AS DETERMINED TO BE REASONABLY NECESSARY BY COMPANY.

3.5 PROJECT PHOTOGRAPHS:

A. FILE DIGITAL PHOTOGRAPHS OF COMPLETED SITE IN JPEG FORMAT IN THE SMS PHOTO LIBRARY FOR THE RESPECTIVE SITE. PHOTOGRAPHS SHALL BE CLEARLY LABELED WITH SITE NUMBER, NAME AND DESCRIPTION, AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING AS APPLICABLE:

1. 1SHELTER AND TOWER OVERVIEW.

2. TOWER FOUNDATION(S) – FORMS AND STEEL BEFORE POUR (EACH ANCHOR ON GUYED TOWERS).

3. TOWER FOUNDATION(S) POUR WITH VIBRATOR IN USE (EACH ANCHOR ON GUYED TOWERS).

4. TOWER STEEL AS BEING INSTALLED INTO HOLE (SHOW ANCHOR STEEL ON GUYED TOWERS).

5. PHOTOS OF TOWER SECTION STACKING.

6. CONCRETE TESTING / SAMPLES.

7. PLACING OF ANCHOR BOLTS IN TOWER FOUNDATION.

8. BUILDING/WATER TANK FROM ROAD FOR TENANT IMPROVEMENTS OR COMMENTS.

9. SHELTER FOUNDATION--FORMS AND STEEL BEFORE POURING.

10. SHELTER FOUNDATION POUR WITH VIBRATOR IN USE.

11. COAX CABLE ENTRY INTO SHELTER.

12. PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.

13. ROOFTOP PRE AND POST CONSTRUCTION PHOTOS TO INCLUDE PENETRATIONS AND INTERIOR CEILING.

14. PHOTOS OF TOWER TOP COAX LINE COLOR CODING AND COLOR CODING AT GROUND LEVEL.

15. PHOTOS OF ALL APPROPRIATE COMPANY OR REGULATORY SIGNAGE.

16. PHOTOS OF EQUIPMENT BOLT DOWN INSIDE SHELTER.

17. POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE AND POWER AND TELCO SUPPLY LOCATIONS INCLUDING METER/DISCONNECT.

18. ELECTRICAL TRENCH(S) WITH ELECTRICAL / CONDUIT BEFORE BACKFILL.

19. ELECTRICAL TRENCH(S) WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.

20. TELCO TRENCH WITH TELEPHONE / CONDUIT BEFORE BACKFILL.

21. TELCO TRENCH WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.

22. SHELTER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

23. TOWER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

24. FENCE GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

25. ALL BTS GROUND CONNECTIONS.

26. ALL GROUND TEST WELLS.

27. ANTENNA GROUND BAR AND EQUIPMENT GROUND BAR.

28. ADDITIONAL GROUNDING POINTS ON TOWERS ABOVE 200'.

29. HVAC UNITS INCLUDING CONDENSERS ON SPLIT SYSTEMS.

30. GPS ANTENNAS.

31. CABLE TRAY AND/OR WAVEGUIDE BRIDGE.

32. DOGHOUSE/CABLE EXIT FROM ROOF.

33. EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA.

34. MASTER BUS BAR.

35. TELCO BOARD AND NIU.

36. ELECTRICAL DISTRIBUTION WALL.

37. CABLE ENTRY WITH SURGE SUPPRESSION.

38. ENTRANCE TO EQUIPMENT ROOM.

39. COAX WEATHERPROOFING-TOP AND BOTTOM OF TOWER.

40. COAX GROUNDING -TOP AND BOTTOM OF TOWER.

41. ANTENNA AND MAST GROUNDING.

42. LANDSCAPING – WHERE APPLICABLE.

3.6 FINAL PROJECT ACCEPTANCE: COMPLETE ALL REQUIRED REPORTING TASKS PER CONTRACT, CONTRACT DOCUMENTS OR THE SPRINT INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES AND UPLOAD INTO SITERRA.

PLANS PREPARED FOR:

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PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

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Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

SITE NAME:

REDDING

SITE CASCADE:

CT03XC358

SITE ADDRESS:

OLD REDDING ROAD
REDDING, CT 06896

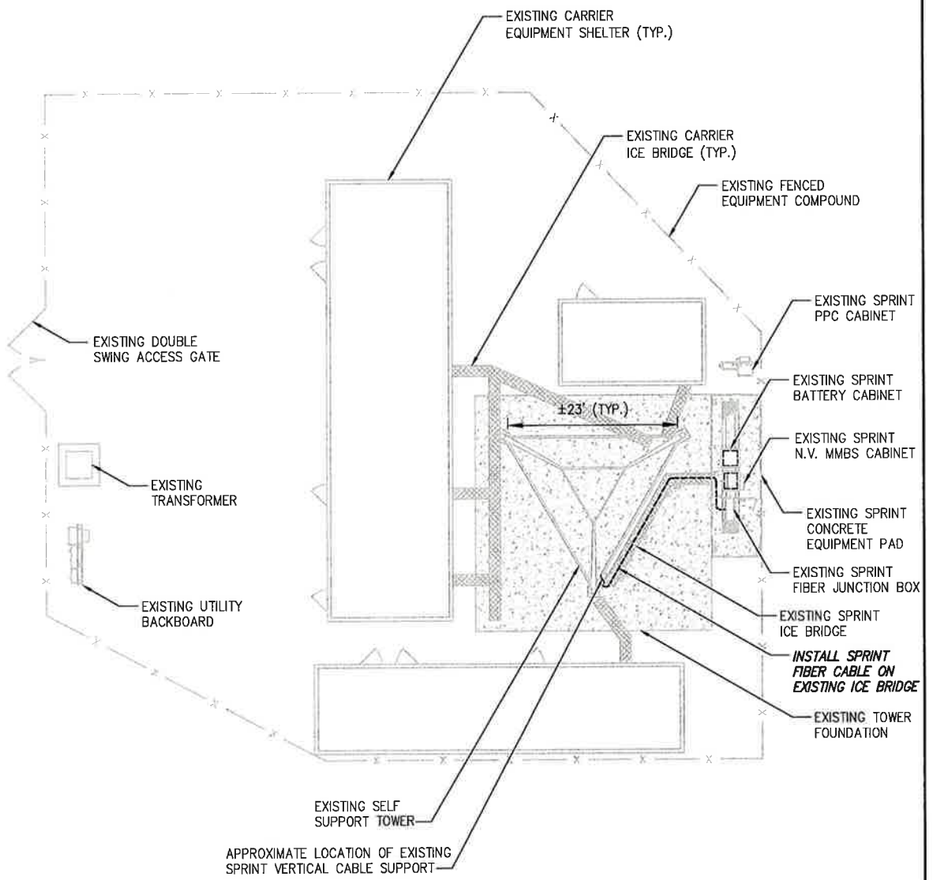
SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

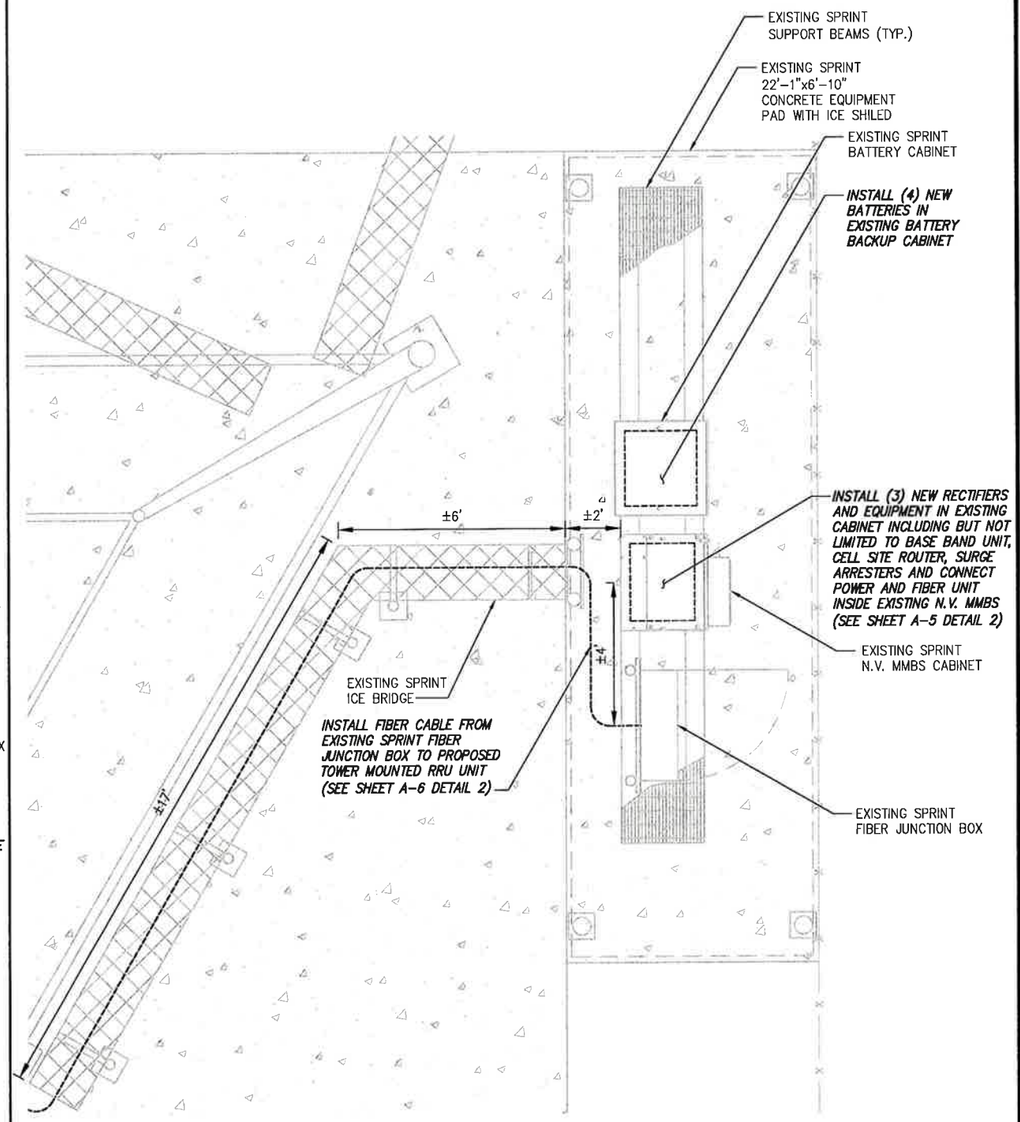
SHEET NUMBER:

SP-3

INFORMATION CONTAINED WITHIN DRAWINGS ARE BASED ON PROVIDED INFORMATION AND ARE NOT THE RESULT OF A FIELD SURVEY.



OVERALL SITE PLAN | SCALE: AS NOTED | 1



SPRINT EQUIPMENT PLAN | SCALE: AS NOTED | 2

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Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

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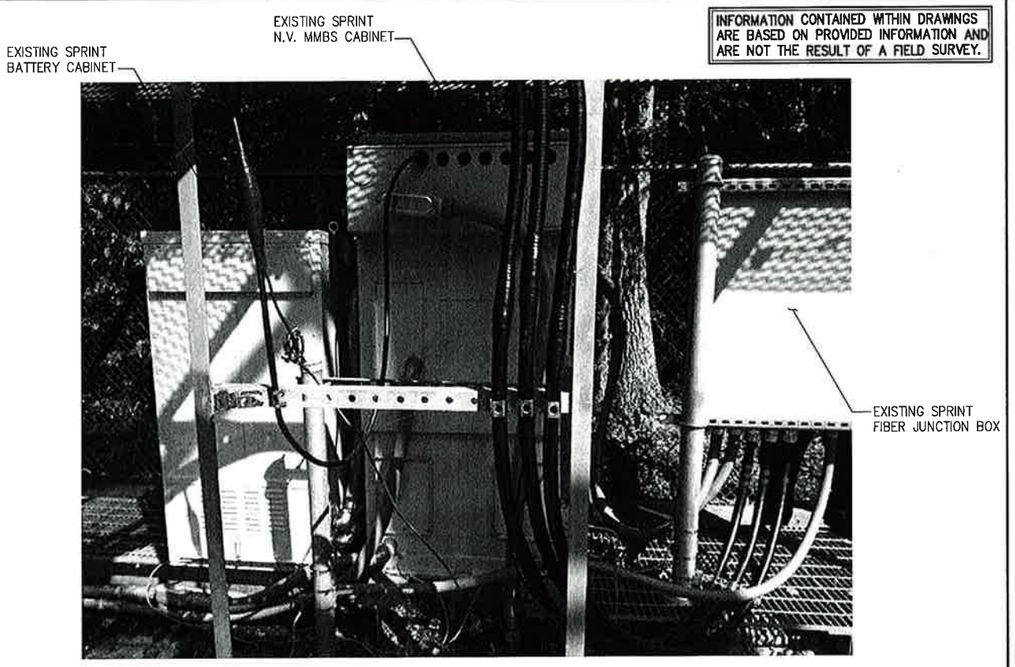
SHEET DESCRIPTION:

SITE PLAN

SHEET NUMBER:

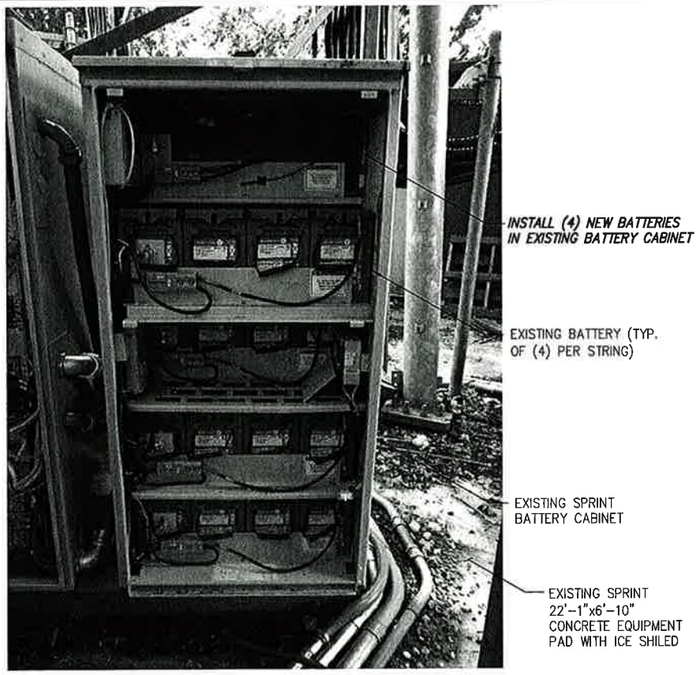
A-1

INFORMATION CONTAINED WITHIN DRAWINGS ARE BASED ON PROVIDED INFORMATION AND ARE NOT THE RESULT OF A FIELD SURVEY.



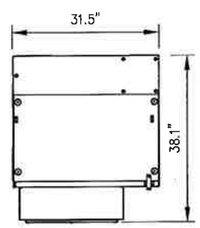
EXISTING CABINET LINE-UP

SCALE: AS NOTED | 1

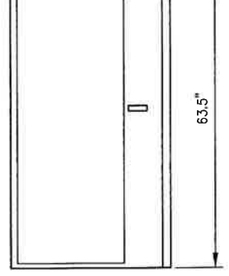


EXISTING BATTERY CABINET

SCALE: AS NOTED | 2



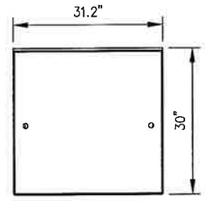
TOP VIEW



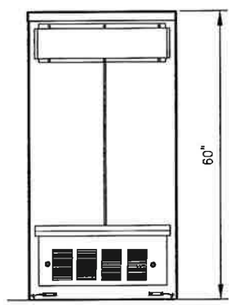
FRONT VIEW

MANUFACTURER: ALU
MODEL: 9927

N.V. MMBS CABINET



TOP VIEW



REAR VIEW

MANUFACTURER: TBD
MODEL: 60ECv2

BATTERY CABINET

EXISTING CABINET DETAILS

SCALE: AS NOTED | 3

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SHEET DESCRIPTION:

EXISTING
EQUIPMENT DETAILS

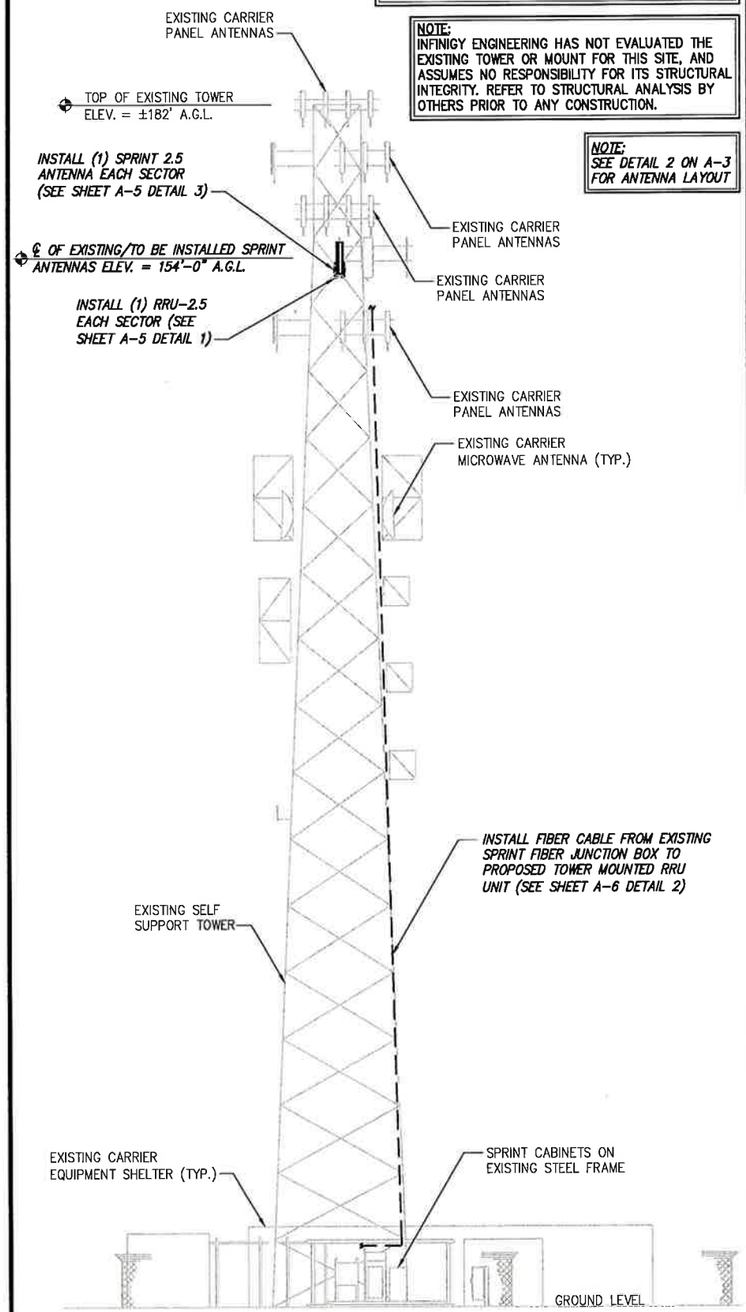
SHEET NUMBER:

A-1A

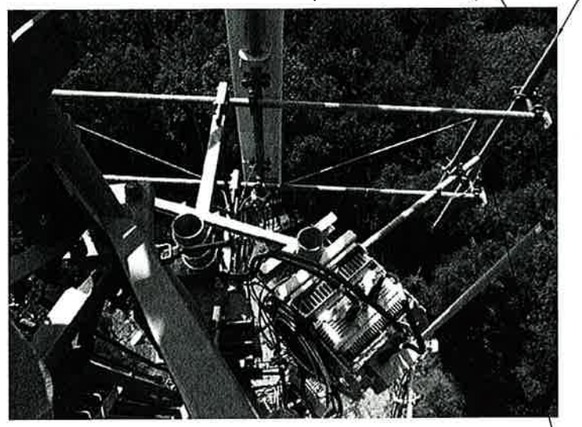
NOTE:
SPRINT TOWER TOP WORK CONTINGENT ON FOLLOWING: COMPLETION OF STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER CORP., COMPLETION OF ANTENNA/RRU MOUNTING ASSESSMENT (PROVIDED BY AE)

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING TOWER OR MOUNT FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

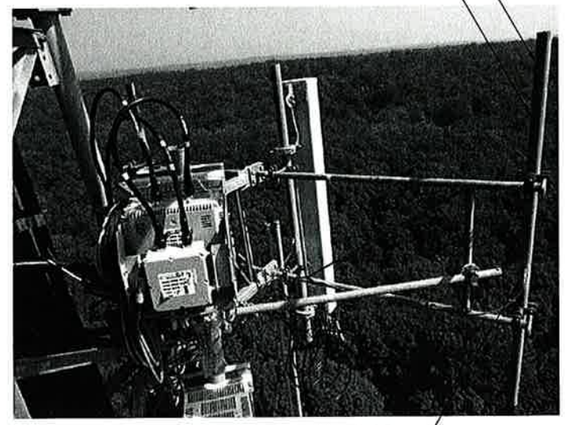
NOTE:
SEE DETAIL 2 ON A-3 FOR ANTENNA LAYOUT



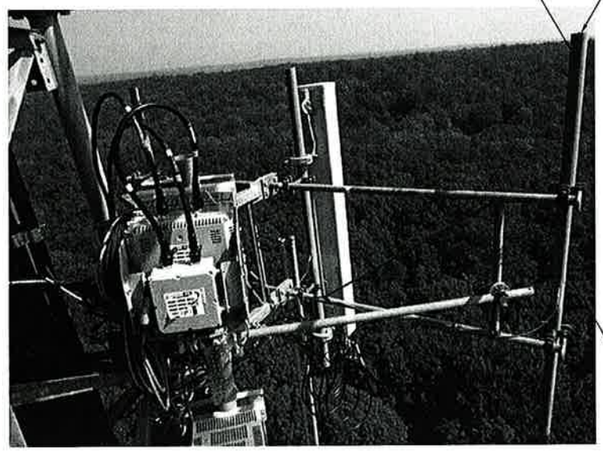
TOWER ELEVATION | NO SCALE | 1



ALPHA



BETA



GAMMA

PHOTOS | NO SCALE | 2

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

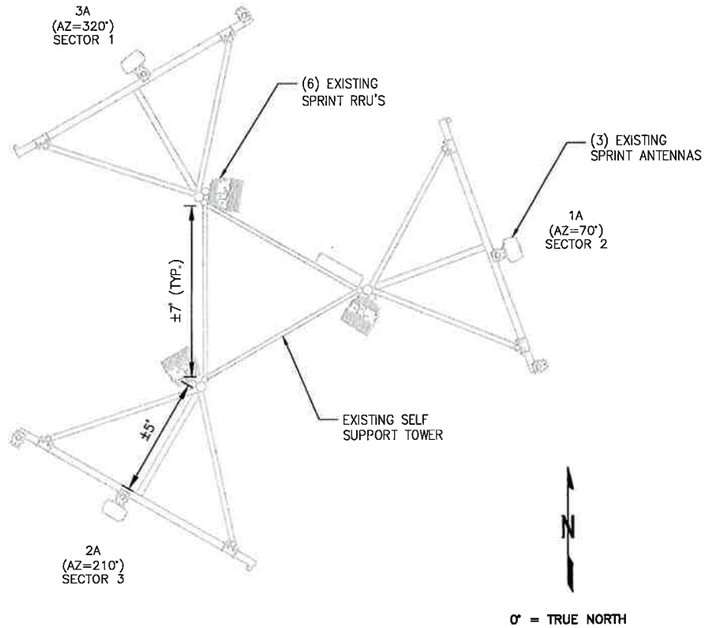
SITE NAME:
REDDING

SITE CASCADE:
CT03XC358

SITE ADDRESS:
OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION:
TOWER ELEVATION & CABLE PLAN

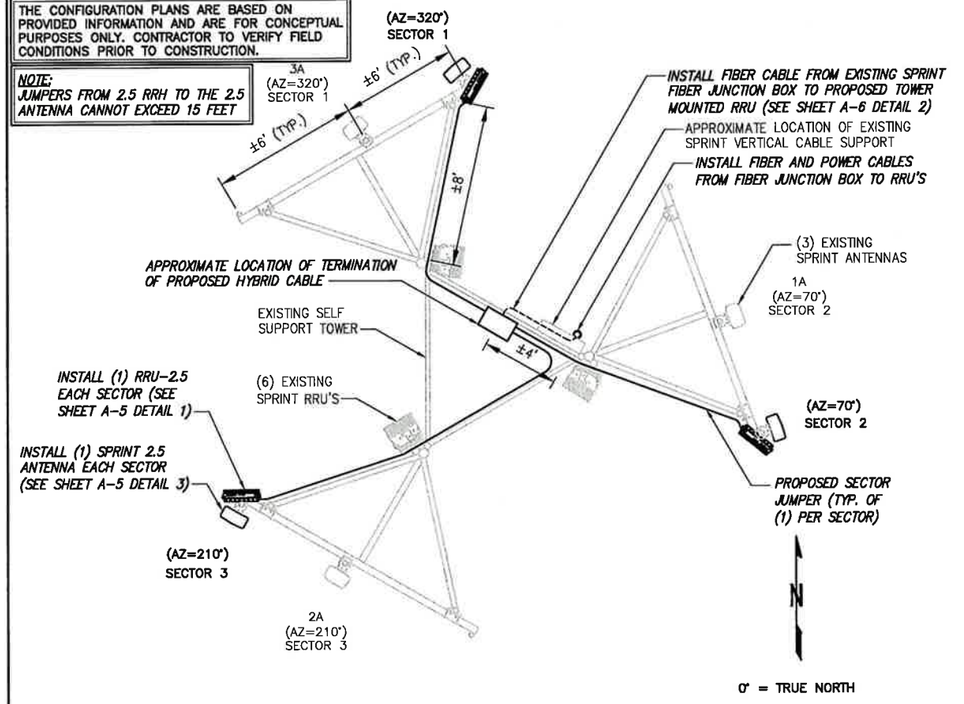
SHEET NUMBER:
A-2



EXISTING ANTENNA & RRU LAYOUT | NO SCALE | 1

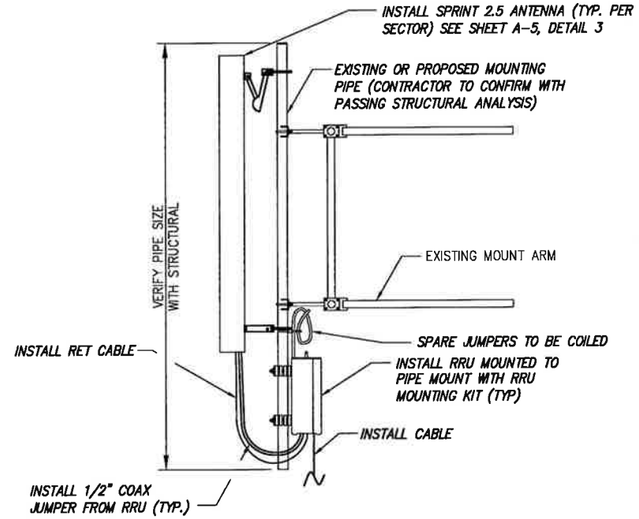
THE CONFIGURATION PLANS ARE BASED ON PROVIDED INFORMATION AND ARE FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION.

NOTE:
JUMPERS FROM 2.5 RRH TO THE 2.5 ANTENNA CANNOT EXCEED 15 FEET



FINAL ANTENNA LAYOUT | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3



NOTES:

1. CUT DC CONDUCTORS TO LENGTH.
2. COIL FIBER CABLE AND SECURE AT SIDE OF RRU.
3. DO NO EXCEED BEND RADIUS.

NOTE:
CONTRACTOR TO POSITION RRU ON MOUNT BEHIND ANTENNA SUCH THAT THE RRU DOES NOT INTERFERE WITH THE EXISTING PLATFORM/T-ARM MOUNTING HARDWARE.

NOTE:
SPARE DC CABLES ARE COILED UP ON NV RRHS AT SPRINT ARRAY. THESE ARE TO BE USED TO POWER UP THE 2.5 RRHS AND TIED INTO EXISTING DC BREAKERS INSIDE THE FIBER JUNCTION BOX LOCATED AT EQUIPMENT.

NOTE:
THE DIAGRAM IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR IS TO REFER TO PASSING STRUCTURAL ANALYSIS FOR ANTENNA AND RRU MOUNTING DETAILS.

TYPICAL ANTENNA & RRU MOUNTING DETAILS | NO SCALE | 4

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

SITE NAME:

REDDING

SITE CASCADE:

CT03XC358

SITE ADDRESS:

OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION:

ANTENNA LAYOUT
& MOUNTING DETAILS

SHEET NUMBER:

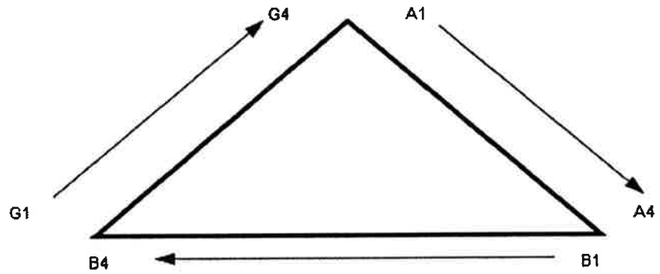
A-3

NV CABLES					
BAND	INDICATOR		PORT	COLOR	
800-1	YEL	GRN	NV-1	GRN	
1900-1	YEL	RED	NV-2	BLU	
1900-2	YEL	BRN	NV-3	BRN	
1900-3	YEL	BLU	NV-4	WHT	
1900-4	YEL	SLT	NV-5	RED	
800-2	YEL	ORG	NV-6	SLT	
SPARE	YEL	WHT	NV-7	PPL	
2500	YEL	PPL	NV-8	ORG	

HYBRID	
HYBRID	COLOR
1	GRN
2	BLU
3	BRN
4	WHT
5	RED
6	SLT
7	PPL
8	ORG

2.5 Band		
2500 Radio 1		COLOR
YEL	WHT	GRN
YEL	WHT	BLU
YEL	WHT	BRN
YEL	WHT	WHT
YEL	WHT	RED
YEL	WHT	SLT
YEL	WHT	PPL
YEL	WHT	ORG

Figure 1: Antenna Orientation



NOTES:

1. ALL CABLES SHALL BE MARKED WITH 2" WIDE, UV STABILIZED, UL APPROVED TAPE.
2. THE FIRST RING SHALL BE CLOSEST TO THE END OF THE CABLE AND SPACED APPROXIMATELY 2" FROM THE END CONNECTOR, WEATHERPROOFING, OR BREAK-OUT CYLINDER. THERE SHALL BE A 1" SPACE BETWEEN EACH RING FOR THE CABLE IDENTIFIER, AND NO SPACES BETWEEN THE FREQUENCY BANDS.
3. A 2" GAP SHALL SEPARATE THE CABLE COLOR CODE FROM THE FREQUENCY COLOR CODE. THE 2" COLOR RINGS FOR THE FREQUENCY CODE SHALL BE PLACED NEXT TO EACH OTHER WITH NO SPACES.
4. THE 2" COLORED TAPE(S) SHALL EACH BE WRAPPED A MINIMUM OF 3 TIMES AROUND THE INDIVIDUAL CABLES, AND THE TAPE SHALL BE KEPT IN THE SAME LOCATION AS MUCH AS POSSIBLE.
5. SITES WITH MORE THAN FOUR (4) SECTORS WILL REQUIRE ADDITIONAL RINGS FOR EACH SECTOR, FOLLOWING THE PATTERN. HIGH CAPACITY SITES WILL USE THE NEXT COLOR IN THE SEQUENCE FOR ADDITIONAL CABLES IN EACH SECTOR.
6. HYBRID FIBER CABLE SHALL BE SECTOR IDENTIFIED INSIDE THE CABINET ON FREQUENCY BUNDLES, ON THE SEALTITE, ON THE MAIN LINE UPON EXIT OF SEALTITE, AND BEFORE AND AFTER THE BREAKOUT UNIT (MEDUSA), AS WELL AS BEFORE AND AFTER ANY ENTRANCE OR EXIT.
7. HFC "MAIN TRUNK" WILL NOT BE MARKED WITH THE FREQUENCY CODES, AS IT CONTAINS ALL FREQUENCIES.
8. INDIVIDUAL POWER PAIRS AND FIBER BUNDLES SHALL BE LABELED WITH BOTH THE CABLE AND FREQUENCY.

Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1	Green	No Tape	No Tape
1	2	Blue	No Tape	No Tape
1	3	Brown	No Tape	No Tape
1	4	White	No Tape	No Tape
1	5	Red	No Tape	No Tape
1	6	Grey	No Tape	No Tape
1	7	Purple	No Tape	No Tape
1	8	Orange	No Tape	No Tape
2 Beta	1	Green	Green	No Tape
2	2	Blue	Blue	No Tape
2	3	Brown	Brown	No Tape
2	4	White	White	No Tape
2	5	Red	Red	No Tape
2	6	Grey	Grey	No Tape
2	7	Purple	Purple	No Tape
2	8	Orange	Orange	No Tape
3 Gamma	1	Green	Green	Green
3	2	Blue	Blue	Blue
3	3	Brown	Brown	Brown
3	4	White	White	White
3	5	Red	Red	Red
3	6	Grey	Grey	Grey
3	7	Purple	Purple	Purple
3	8	Orange	Orange	Orange

NV FREQUENCY	INDICATOR	ID
800-1	YEL	GRN
1900-1	YEL	RED
1900-2	YEL	BRN
1900-3	YEL	BLU
1900-4	YEL	SLT
800-1	YEL	ORG
RESERVED	YEL	WHT
RESERVED	YEL	PPL

2.5 FREQUENCY	INDICATOR		ID
2500 -1	YEL	WHT	GRN
2500 -2	YEL	WHT	RED
2500 -3	YEL	WHT	BRN
2500 -4	YEL	WHT	BLU
2500 -5	YEL	WHT	SLT
2500 -6	YEL	WHT	ORG
2500 -7	YEL	WHT	WHT
2500 -8	YEL	WHT	PPL

Example – Sector 2, Cable 2, 800mhz Radio #1

Example – Sector 3, Cable 1, 1900mhz Radio #1

Example – Sector 1, Cable 4, 800 mhz Radio #1 and 1900mhz Radio #1

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JOHN S. STEVENS
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LICENSED PROFESSIONAL ENGINEER

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	MPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

SITE NAME: REDDING

SITE CASCADE: CT03XC358

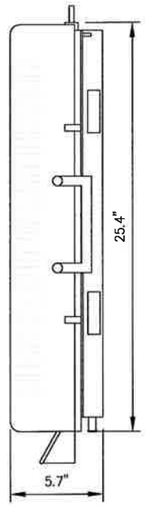
SITE ADDRESS: OLD REDDING ROAD REDDING, CT 06896

SHEET DESCRIPTION: COLOR CODING AND NOTES

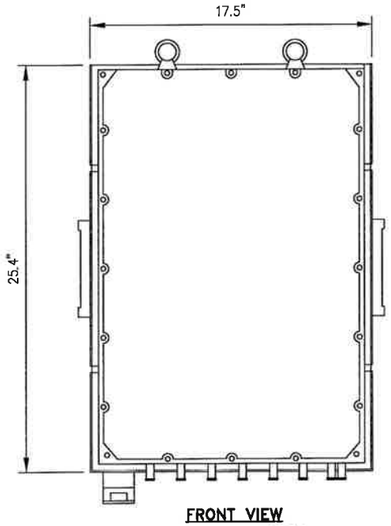
SHEET NUMBER: A-4

RRU: ALCATEL LUCENT TD-RRH8X20

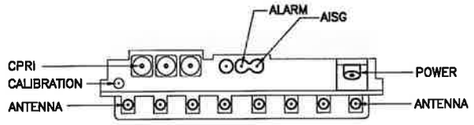
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW

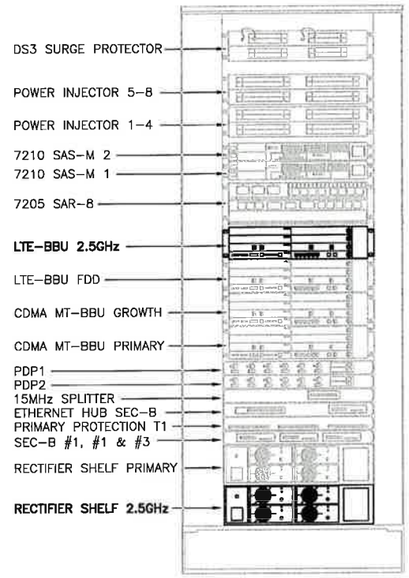


PLAN VIEW

NOTES

COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN.

2.5 RRU	NO SCALE	1

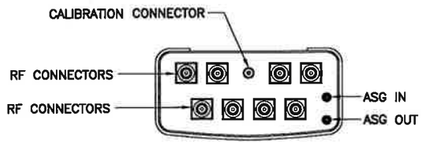


FRONT VIEW

NEW EQUIPMENT IN EXISTING CABINET	NO SCALE	2

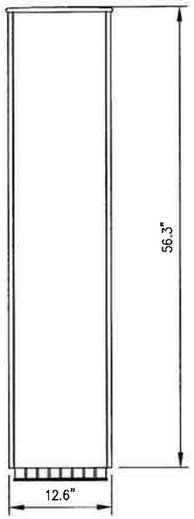
ANTENNA: RFS APXVTM14-C-I20

RADOME MATERIAL:	ASA
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.in(mim):	56.3"x12.6"x6.3" (1430x320x160mm)
WEIGHT:	52.9 lbs
CONNECTORS:	(8) 4.1/9.5 DIN FEMALE (1) NF – CALIBRATION CONNECTOR



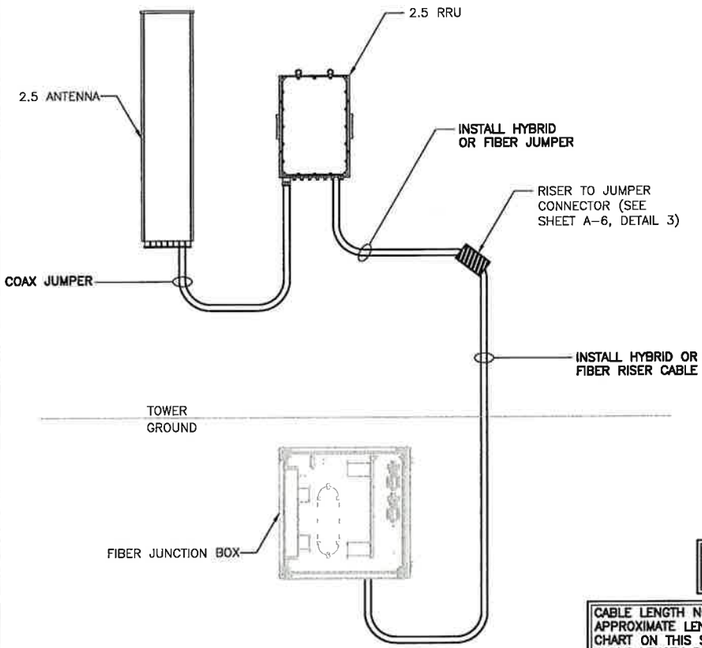
PLAN VIEW

SIDE VIEW



FRONT VIEW

2.5 ANTENNA	NO SCALE	3



INFINIGY ESTIMATES

*	*Riser Cable Length Estimate		
			Units
	At Grade	30	Feet
	Vertical Rise	154	Feet
	At Sprint Centerline	4	Feet
	Sub-Total	188	Feet
	15% Buffer	29	Feet
	Total	217	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

**	Hybrid/Fiber Jumper Length Estimate		
			Units
	From Connector To RRU	19	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

Coax Jumper Length Estimate		
		Units
From RRU to Antenna	5	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

NOTE:
* & **: REFERENCE SHEET A-6, DETAIL 1 FOR CORRESPONDING PART NUMBERS.

CABLE LENGTH NOTE:
APPROXIMATE LENGTH OF NEW CABLE IS SHOWN IN CHART ON THIS SHEET. CONTRACTOR TO CONFIRM EXACT CABLE LENGTH REQUIRED PRIOR TO ORDERING MATERIALS.

CABLING SCHEMATIC	NO SCALE	4

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Overland Park, Kansas 66251

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ENGINEERING LICENSE:

DRAWING NOTICE:

REVISIONS:

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SITE NAME:

REDDING

SITE CASCADE:

CT03XC358

SITE ADDRESS:

OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION:

EQUIPMENT & MOUNTING DETAILS

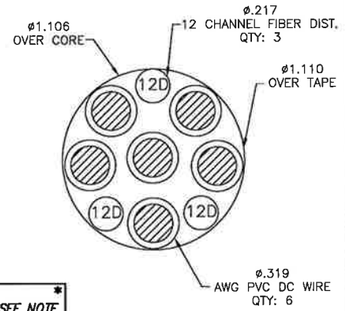
SHEET NUMBER:

A-5

RFS HYBRIFLEX RISER CABLE SCHEDULE

Fiber Only (Existing DC Power)	Hybrid cable MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	175 ft
	MN: HB058-M12-200F	200 ft
8 AWG Power	Hybrid cable MN: HB114-08U3M12-050F 3x 8 AWG power pairs, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 50 ft	50 ft
	MN: HB114-08U3M12-075F	75 ft
	MN: HB114-08U3M12-100F	100 ft
	MN: HB114-08U3M12-125F	125 ft
	MN: HB114-08U3M12-150F	150 ft
	MN: HB114-08U3M12-175F	175 ft
	MN: HB114-08U3M12-200F	200 ft
6 AWG Power	Hybrid cable MN: HB114-13U3M12-225F 3x 6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 225 ft	225 ft *
	MN: HB114-13U3M12-250F	250 ft
	MN: HB114-13U3M12-275F	275 ft
	MN: HB114-13U3M12-300F	300 ft
4 AWG Power	Hybrid cable MN: HB114-21U3M12-325F 3x 4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 325 ft	325 ft
	MN: HB114-21U3M12-350F	350 ft
	MN: HB114-21U3M12-375F	375 ft

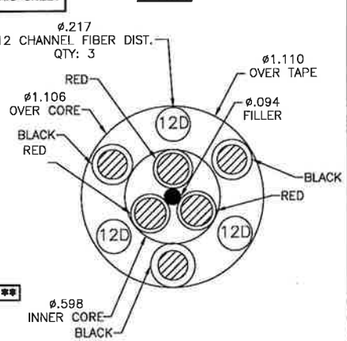
SEE NOTE THIS SHEET



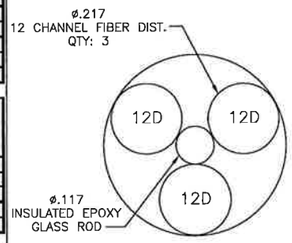
4 AWG

RFS HYBRIFLEX JUMPER CABLE SCHEDULE

Fiber Only	Hybrid Jumper cable MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft **
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	Hybrid Jumper cable MN: HBF058-08U1M3-5F1 5 ft, 1x 8 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-08U1M3-10F1	10 ft
	MN: HBF058-08U1M3-15F1	15 ft
	MN: HBF058-08U1M3-20F1	20 ft
	MN: HBF058-08U1M3-25F1	25 ft
	MN: HBF058-08U1M3-30F1	30 ft
6 AWG Power	Hybrid Jumper cable MN: HBF058-13U1M3-5F1 5 ft, 1x 6 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-13U1M3-10F1	10 ft
	MN: HBF058-13U1M3-15F1	15 ft
	MN: HBF058-13U1M3-20F1	20 ft
	MN: HBF058-13U1M3-25F1	25 ft
	MN: HBF058-13U1M3-30F1	30 ft
4 AWG Power	Hybrid Jumper cable MN: HBF078-21U1M3-5F1 5 ft, 1x 4 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 7/8 cable	5 ft
	MN: HBF078-21U1M3-10F1	10 ft
	MN: HBF078-21U1M3-15F1	15 ft
	MN: HBF078-21U1M3-20F1	20 ft
	MN: HBF078-21U1M3-25F1	25 ft
	MN: HBF078-21U1M3-30F1	30 ft



8 & 6 AWG

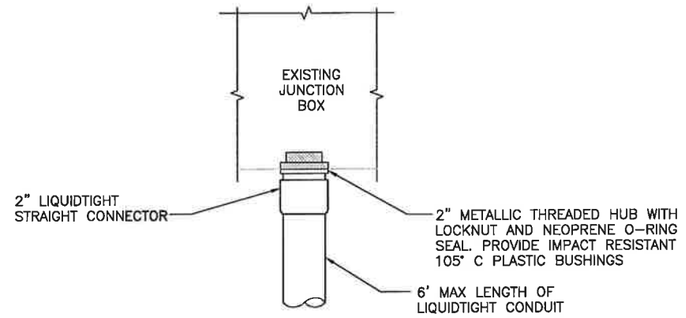


FIBER ONLY

NOTE:
SPRINT CM TO CONFIRM HYBRID OR FIBER RISER CABLE AND HYBRID OR FIBER JUMPER CABLE MODEL NUMBERS IF HYBRID CABLES ARE REQUIRED BEFORE PREPARING BOM.

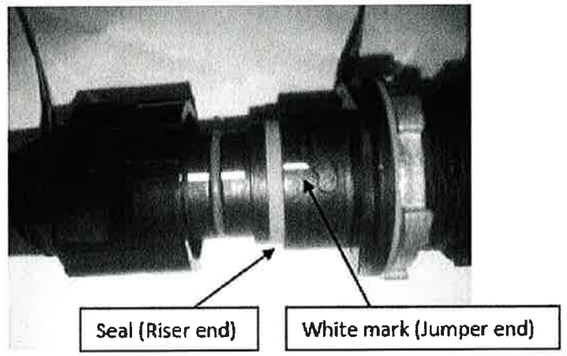
NOTE:
PER THE RF DESIGN CONFIGURATION FILE, THE SITE IS TO BE A FIBER ONLY SITE. BASED ON THE ESTIMATED LENGTHS, THE DISTANCES EXCEED THE LENGTH ALLOWED FOR A FIBER ONLY SITE. INFINIGY HAS SELECTED THE ABOVE CABLE PART NUMBER BASED ON THE ESTIMATED LENGTH AS SHOWN ON SHEET A-5.

2.5 CABLE CROSS SECTION DATA | NO SCALE | 1

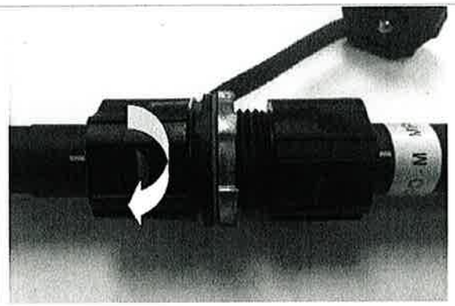


FIBER JUNCTION BOX PENETRATION | NO SCALE | 2

IMPORTANT!! Line up white markings on jumper and riser IP-MPO connectors and slide the riser connector to the jumper connector. Push the white mark on the jumper connector flush again the red seal on the riser connector.

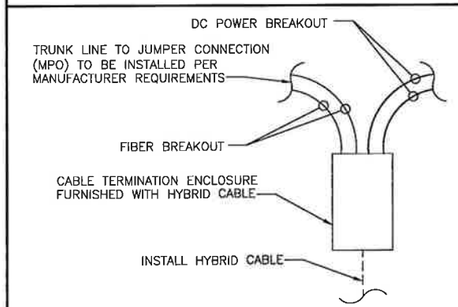


IMPORTANT!! Rotate the bayonet housing clock wise until you hear a click sound (means a good connection is in place).

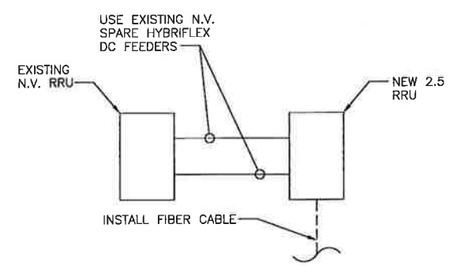


INFORMATION BASED ON PROVIDED INFORMATION FROM ALCATEL-LUCENT 2.5 GHz UPGRADE INSTALLATION GUIDE.

HYBRIFLEX RISER/JUMPER CONNECTION DETAIL | NO SCALE | 3



2.5 HYBRID RISER CABLE (FIBER AND DC FEEDERS)



FIBER ONLY RISER CABLE

TRUNK LINE DETAIL (TYP.) | NO SCALE | 4

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	8/5/2014	NPS	0
ISSUED FOR REVIEW	7/15/14	AHS	A

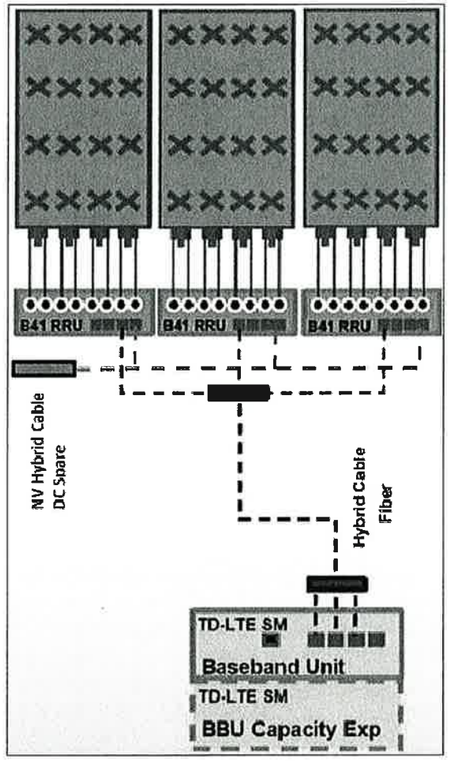
SITE NAME: REDDING

SITE CASCADE: CT03XC358

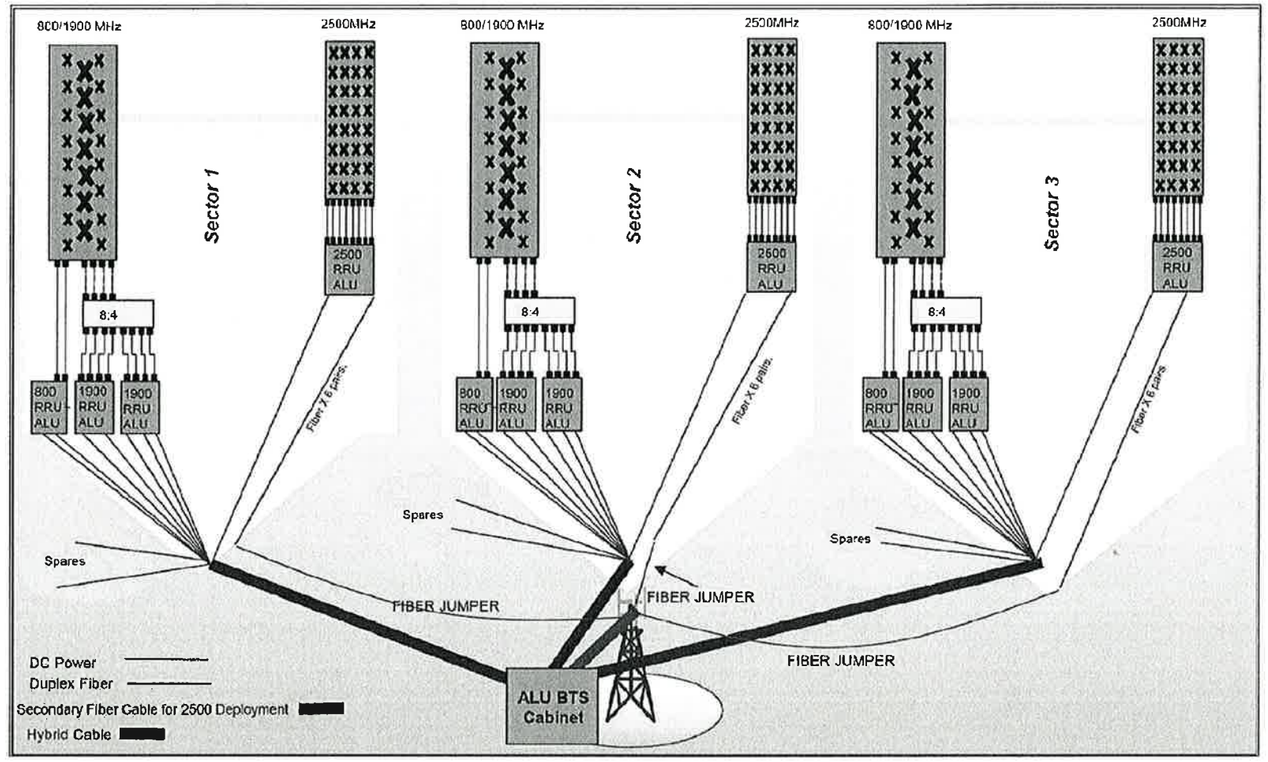
SITE ADDRESS: OLD REDDING ROAD
REDDING, CT 06896

SHEET DESCRIPTION: CIVIL DETAILS

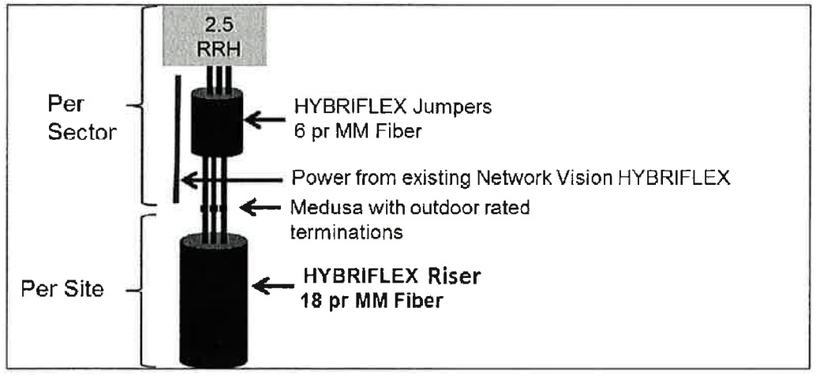
SHEET NUMBER: A-6



ALU 2.5 ALU SCENARIO 1



RAN WIRING DIAGRAM



RF 2.5 ALU SCENARIO 1

PLUMBING DIAGRAM | NO SCALE | 1

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CT03XC358

SITE ADDRESS:

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REDDING, CT 06896

SHEET DESCRIPTION:

PLUMBING DIAGRAM

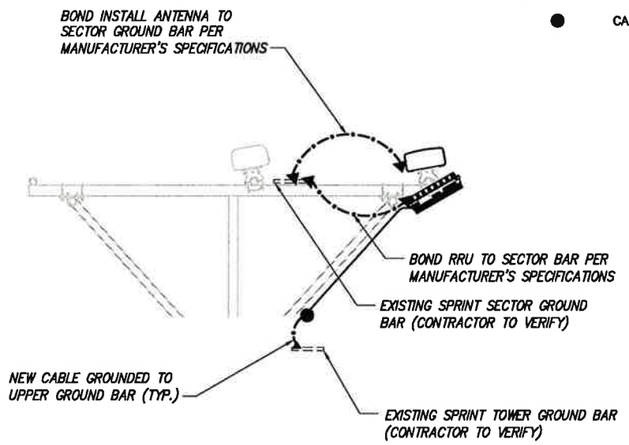
SHEET NUMBER:

A-7

PLAN NOT USED | NO SCALE | 1

LEGEND:

- EXISTING GROUND RING
- CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- GROUND ROD
- CABLE GROUND KIT



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 2

TYPICAL EQUIPMENT GROUNDING PLAN (ELEVATION) | NO SCALE | 3

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REDDING, CT 06896

SHEET DESCRIPTION:

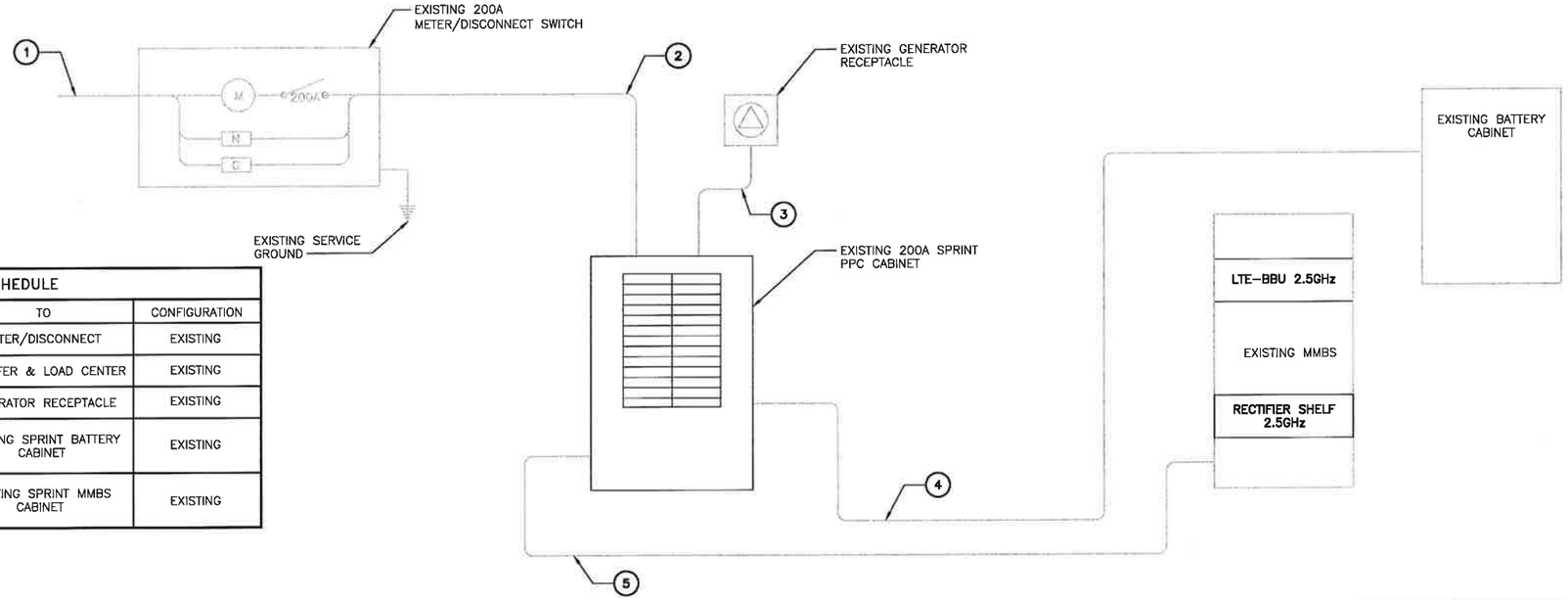
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:

E-1

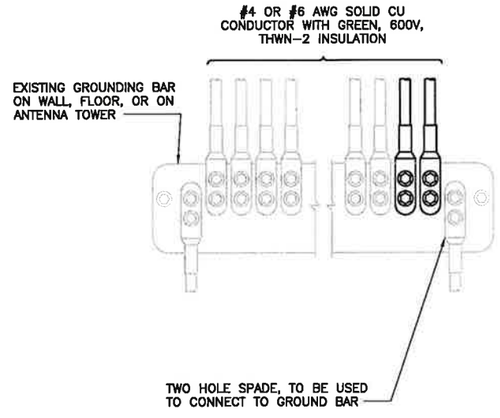
NOTES

CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.



CIRCUIT SCHEDULE			
NO	FROM	TO	CONFIGURATION
1	UTILITY SOURCE	METER/DISCONNECT	EXISTING
2	METER/DISCONNECT	TRANSFER & LOAD CENTER	EXISTING
3	TRANSFER & LOAD CENTER	GENERATOR RECEPTACLE	EXISTING
4	TRANSFER & LOAD CENTER	EXISTING SPRINT BATTERY CABINET	EXISTING
5	TRANSFER & LOAD CENTER	EXISTING SPRINT MMBS CABINET	EXISTING

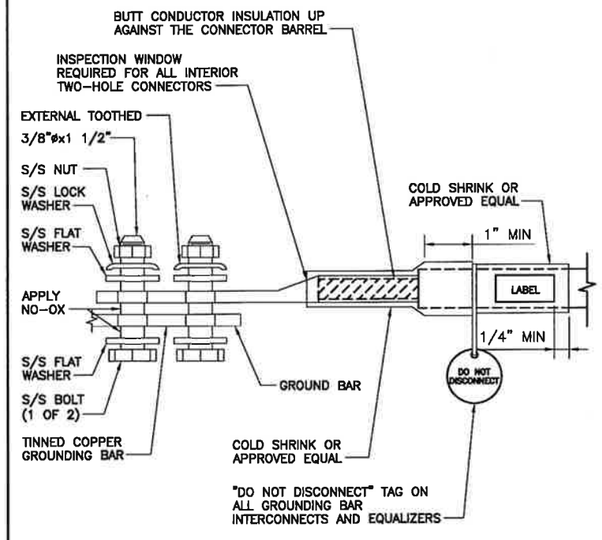
ELECTRICAL ONE-LINE DIAGRAM — NO SCALE — 1



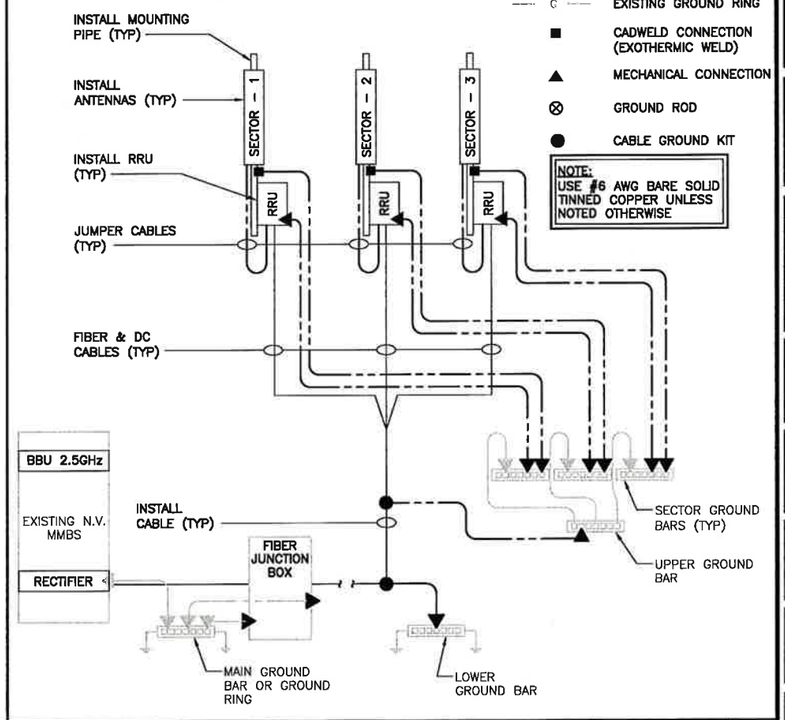
NOTES

1. APPLY NO-OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR — NO SCALE — 2



TWO HOLE LUG — NO SCALE — 3



GROUNDING RISER DIAGRAM — NO SCALE — 4

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SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2