AIROSMITH DEVELOPMENT
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March 12th, 2018

Melanie Bachman, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification – Antenna Swap for wireless facility located at 14 CANTON SPRINGS ROAD, CANTON, CONNECTICUT – CT54XC760 (lat. 41° 49' 22.37" N, long. -72° 53' 42.77" W)

Dear Ms. Bachman:

Sprint Spectrum, LP ("Sprint") currently maintains wireless telecommunications antennas at the (90-foot level) on an existing (140-foot Monopole Tower) at the above-referenced address. The property is owned by the CANTON VOLUNTEER FIRE DEPARTMENT, and the tower is owned by American Tower Corporation.

Sprint's proposed work involves antenna replacement and tower work. Sprint intends to install Four (4) antennas and add Six (6) new RRHs onto the tower. All the proposed work is contained within the existing fenced area. Please refer to the attached drawings for site plans prepared by Infinigy Engineering.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to LESLEE HILL, FIRST DELECTMAN, and NEIL S. PADE, AICP DIRECTOR of PLANNING and COMMUNITY DEVELOPMENT for the Town of CANTON. A Copy of this notification letter will also go to CATON VOLUNTEER FIRE DEPARTMENT who is the Land Owner on record, and JUSTINE PAUL who is a Manager at American Tower Corporation who own the tower.

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

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The antennas work is a one-for-one replacement of facility components.

32 Clinton Street, Saratoga Springs, NY 12866
Office 518-306-1733 – Fax 518-306-1711
www.airosmithdevelopment.com

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3. The proposed modifications will include the addition of ground base equipment as depicted on the attached drawings; however, the proposed equipment will not require an extension of the site boundaries.

4. The proposed modifications will not increase noise levels at the facility by six decibels or more.

5. The additional ground based equipment will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard.

For the foregoing reasons, Sprint respectfully submits that the proposed modifications to the above referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b).

If you have any questions or require any additional information regarding this request, please do not hesitate to give me a call at (518) 350-4222 or email me to aperkowski@airosmithdevelopment.com

Kind Regards,

Arthur Perkowski
Airosmith Development Inc.
32 Clinton Street
Saratoga Springs, NY 12866
518-306-1711 desk & fax
518-871-3707 cell
aperkowski@airosmithdevelopment.com

Attachment

CC: LESLEE HILL (First Selectman, Town of Canton)
NEIL S. PADE (AICP Director of Planning and Community Development, Town of Canton)
CANTON VOLUNTEER FIRE DEPARTMENT (Land Owner)
JUSTINE PAUL (Manager, American Tower Corporation)

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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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City, State, ZIP+4®: Woburn MA 01811

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Sent To: Leslee Hull 1st Selectman (CT54XC760)
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City, State, ZIP+4®: Collinsville CT 06022

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Total Postage and Fees $6.70

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03/12/2018

Sent To: Neil Pade (CT54XC760)
Street and Apt. No., or PO Box No.: P.O. Box 168 - 41 Market St
City, State, ZIP+4®: Collinsville CT 06022

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7016 0910 0001 7545 6860

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2013.

TOWN OF CANTON CT

Information on the Property Records for the Municipality of Canton was last updated on 3/9/2018.

Parcel Information

Location:	14 CANTON SPRINGS ROAD	Property Use:	Automotive	Primary Use:	Parking Structure
Unique ID:	1640014	Map Block Lot:	31/164/0014	Acres:	0.49
490 Acres:	0.00	Zone:	AR-1	Volume / Page:	059 /433
Developers Map / Lot:		Census:			

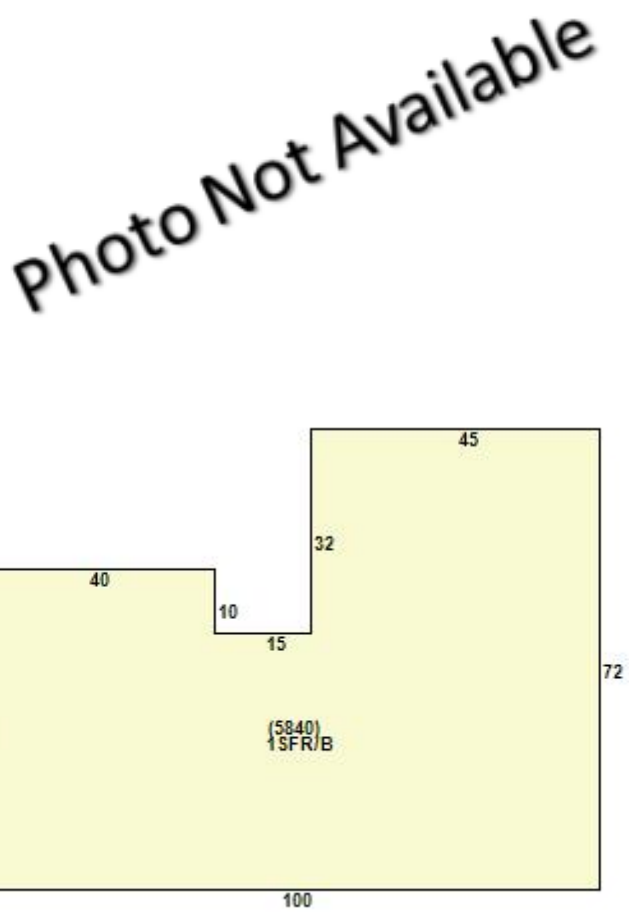
Value Information

	Appraised Value	Assessed Value
Land	36,750	25,730
Buildings	442,100	309,470
Detached Outbuildings	0	0
Total	478,850	335,200

Owner's Information

Owner's Data
CANTON VOLUNTEER FIRE DEPARTMENT P.O. BOX 104 CANTON CT 06019

Building 1



Category:	Automotive	Use:	Serv Sta w/Bays	GLA:	5,840
Stories:	1.00	Construction:	Wood Frame	Year Built:	1962
Heating:	FHA	Fuel:	UnKnown	Cooling Percent:	100
Siding:	Wood Frame	Roof Material:	Asphalt	Beds/Units:	0

Special Features

Attached Components

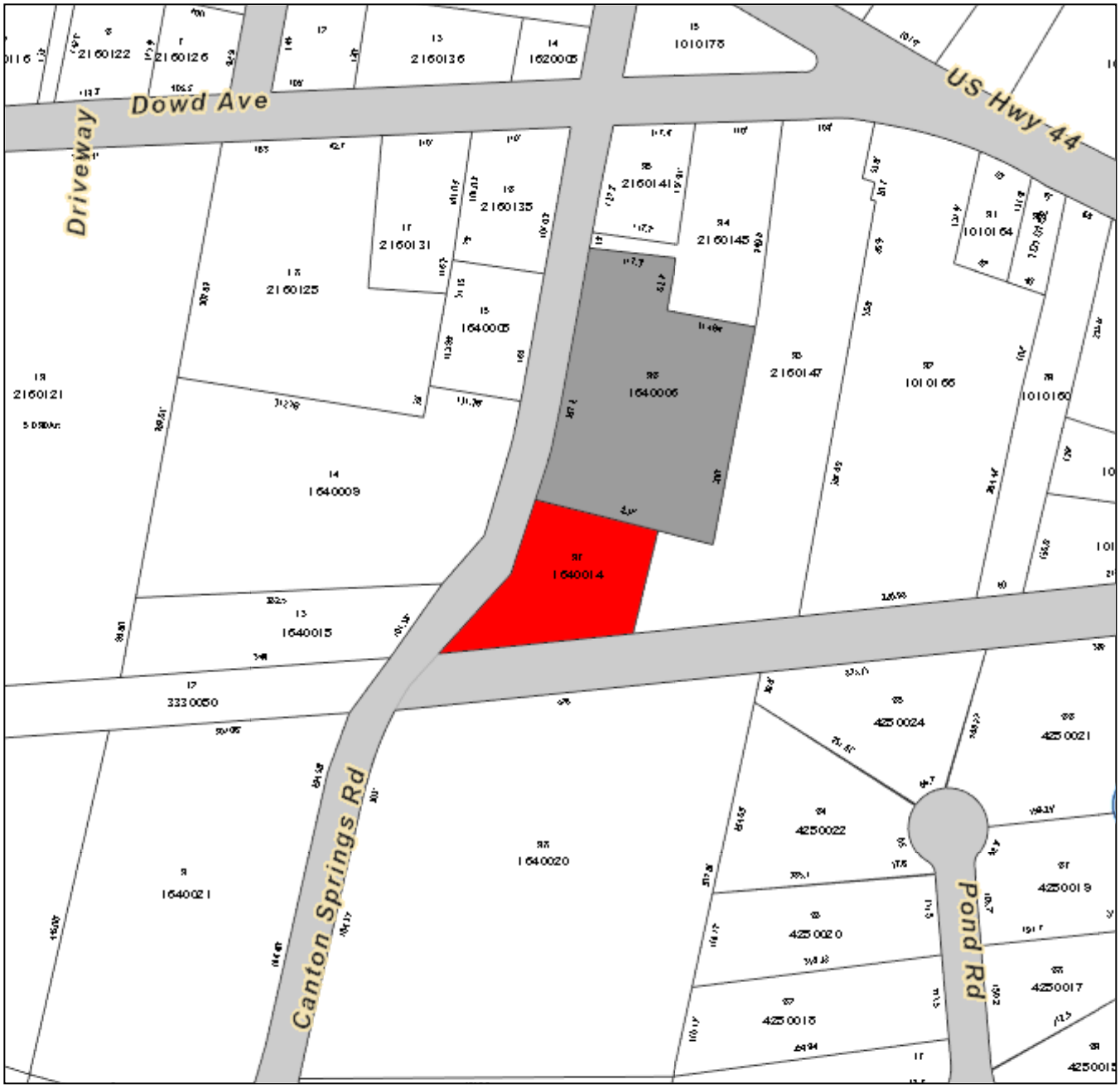
Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
CANTON VOLUNTEER FIRE	059	433			No	$0

Town of Canton

Geographic Information System (GIS)

Date Printed: 3/12/2018



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Canton and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 200 feet

0 200 Feet

N W E S

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

SPRINT Existing Facility

Site ID: CT54XC760

Avon - Verizon
14 Canton Springs Road
Canton, CT 06019

February 28, 2018

EBI Project Number: 6218001725

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	19.36 %

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

EBI Consulting
environmental | engineering | due diligence

February 28, 2018

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

Emissions Analysis for Site: **CT54XC760 – Avon - Verizon**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **14 Canton Springs Road, Canton, CT**, for the purpose of determining whether the emissions from the Proposed SPRINT Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

General population/uncontrolled exposure limits apply to situations in which the general population 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 population 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.

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 850 MHz Band is approximately 567 $\mu W/cm^2$. The general population exposure limit for the 1900 MHz (PCS) and 2500 MHz (BRS) 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 SPRINT Wireless antenna facility located at **14 Canton Springs Road, Canton, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since SPRINT is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

1) 1 CDMA channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

2) 2 LTE channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

3) 5 CDMA channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 16 Watts per Channel.

4) 2 LTE channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

5) 8 LTE channels (2500 MHz (BRS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

6) 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.

7) For the following calculations, the sample point was the top of a 6-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.

8) The antennas used in this modeling are the **RFS APXVSPP18-C-A20 and the Commscope DT465B-2XR** for transmission in the 850 MHz, 1900 MHz (PCS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. 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.

9) The antenna mounting height centerlines of the proposed antennas are **90 feet** above ground level (AGL) for **Sector A**, **90 feet** above ground level (AGL) for **Sector B** and **90 feet** above ground level (AGL) for Sector C.

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

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

SPRINT Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	RFS APXVSPP18-C-A20	Make / Model:	RFS APXVSPP18-C-A20	Make / Model:	RFS APXVSPP18-C-A20
Gain:	13.4 / 15.9 dBd	Gain:	13.4 / 15.9 dBd	Gain:	13.4 / 15.9 dBd
Height (AGL):	**90 feet**	Height (AGL):	**90 feet**	Height (AGL):	**90 feet**
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	8	Channel Count	8	Channel Count	8
Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts
ERP (W):	6,662.27	ERP (W):	6,662.27	ERP (W):	6,662.27
Antenna A1 MPE%	**3.56 %**	Antenna B1 MPE%	**3.56 %**	Antenna C1 MPE%	**3.56 %**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR
Gain:	15.05 / 13.35 dBd	Gain:	15.05 / 13.35 dBd	Gain:	15.05 / 13.35 dBd
Height (AGL):	**90 feet**	Height (AGL):	**90 feet**	Height (AGL):	**90 feet**
Frequency Bands	2500 MHz (BRS) / 850 MHz	Frequency Bands	2500 MHz (BRS) / 850 MHz	Frequency Bands	2500 MHz (BRS) / 850 MHz
Channel Count	10	Channel Count	10	Channel Count	10
Total TX Power(W):	200 Watts	Total TX Power(W):	200 Watts	Total TX Power(W):	200 Watts
ERP (W):	5,983.32	ERP (W):	5,983.32	ERP (W):	5,983.32
Antenna A2 MPE%	**3.39 %**	Antenna B2 MPE%	**3.39 %**	Antenna C2 MPE%	**3.39 %**

Site Composite MPE%	
Carrier	**MPE%**
SPRINT – Max per sector	**6.95 %**
AT&T	2.17 %
Verizon Wireless	6.69 %
MetroPCS	1.15 %
Canton FD	0.07 %
Nextel	0.53 %
T-Mobile	1.80 %
Site Total MPE %:	**19.36 %**

SPRINT Sector A Total:	6.95 %
SPRINT Sector B Total:	6.95 %
SPRINT Sector C Total:	6.95 %
Site Total:	19.36 %

SPRINT _ Frequency Band / Technology (All Sectors)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
Sprint 850 MHz CDMA	1	437.55	90	2.23	850 MHz	567	0.39%
Sprint 1900 MHz (PCS) CDMA	5	622.47	90	15.86	1900 MHz (PCS)	1000	1.59%
Sprint 1900 MHz (PCS) LTE	2	1,556.18	90	15.86	1900 MHz (PCS)	1000	1.59%
Sprint 2500 MHz (BRS) LTE	8	639.78	90	26.08	2500 MHz (BRS)	1000	2.61%
Sprint 850 MHz LTE	2	432.54	90	4.41	850 MHz	567	0.77%
						Total:	**6.95%**

Summary

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

The anticipated maximum composite contributions from the SPRINT facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

SPRINT Sector	Power Density Value (%)
Sector A:	6.95 %
Sector B:	6.95 %
Sector C:	6.95 %
SPRINT Maximum Total (per sector):	6.95 %
Site Total:	19.36 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **19.36 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**140 ft Monopole**
ATC Site Name	:	**Canton CT, CT**
ATC Site Number	:	**411256**
Engineering Number	:	**OAA713339_C3_01**
Proposed Carrier	:	**Sprint Nextel**
Carrier Site Name	:	**Avon - Verizon**
Carrier Site Number	:	**CT54XC760**
Site Location	:	**14 Canton Springs Road** **Canton, CT 06019-2401** **41.822900,-72.895200**
County	:	**Hartford**
Date	:	**October 4, 2017**
Max Usage	:	**62%**
Result	:	**Pass**

Prepared By:
Kingsley C. Igboanugo
Structural Engineer III

Reviewed By:

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 140 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	EEI Project #4960, dated May 20, 1999
Foundation Drawing	EEI Project #4960, dated May 21, 1999
Geotechnical Report	Clarence Welti Project #Banm Tower Site, dated November 23, 1998

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/TIA-222.

Basic Wind Speed:	93 mph (3-Second Gust, V_{ASD}) / 119 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	Ss = 0.18, S_1 = 0.06
Site Class:	D - Stiff Soil

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					
138.0	148.0	1	18' Omni	Stand-Off	(2) 7/8" Coax	--
130.0	130.0	6	CCI DTMABP7819VG12A	Platform w/ Handrails	(12) 7/8" Coax (3) 3" Conduit (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk	AT&T Mobility
		2	Raycap DC6-48-60-0-8F			
		6	Ericsson RRUS-11 (50 lbs.)			
		3	Ericsson RRUS 32 (50.8 lbs)			
		1	KMW AM-X-CD-14-65-00T-RET			
		3	Kathrein 800-10121			
		3	CSS DUO1417-8686			
		1	Andrew SBNHH-1D65A (33.5 lbs)			
		1	KMW AM-X-CD-17-65-00T-RET (96" Height)			
		1	Andrew SBNH-1D6565C (60.8 lbs)			
		2	CCI HPA-65R-BUU-H8			
120.0	120.0	1	GPS	Platform w/ Handrails	(18) 1 5/8" Coax (2) 1 5/8" Fiber (1) 1/2" Coax	Verizon
		3	Alcatel-Lucent B13 RRH4x30-4R 700U			
		3	Alcatel-Lucent PCS B25 RRH2x60/4x30			
		3	Alcatel-Lucent B66 RRH4x45			
		2	RFS DB-T1-6Z-8AB-0Z			
		2	Antel LPA-80080/4CF ___			
		2	Antel LPA-80080/4CF__			
		2	Antel LPA-80063/4CF ___			
		3	Antel BXA-70063-6CF-EDIN-2			
		6	Commscope SBNHH-1D65B			
		1	VZW Unused Reserve: 14,729 sq in			
104.0	104.0	2	Kathrein Smart Bias Tee	Low Profile Platform	(8) 1 5/8" Coax	T-Mobile
		2	Ericsson KRY 112 489/2			
		2	RFS APXV18-209014-C			
		2	Commscope LNX-6515DS-VTM			
90.0	90.0	1	PCTEL GPS-TMG-HR-26N	Low Profile Platform	(1) 1/2" Coax	Sprint Nextel
		3	Alcatel-Lucent 800MHz RRH			
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		3	RFS APXVSPP18-C-A20			
83.0	83.0	3	Kathrein 742 213	Low Profile Platform	-	Metro PCS

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
90.0	90.0	-	-	-	(3) 1 5/8" Fiber	Sprint Nextel

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
90.0	90.0	3	Alcatel-Lucent RRH2x50-08	Low Profile Platform	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	Commscope DT465B-2XR			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	44%	Pass
Shaft	47%	Pass
Base Plate	62%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	3,921.8	5,294.4	2,709.5	51%
Shear (Kips)	38.7	52.2	26.2	50%

*** The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1**

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 and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
90.0	Alcatel-Lucent RRH2x50-08	Sprint Nextel	0.603	0.815
	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	Commscope DT465B-2XR			

***Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G**

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CORPORATION

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:

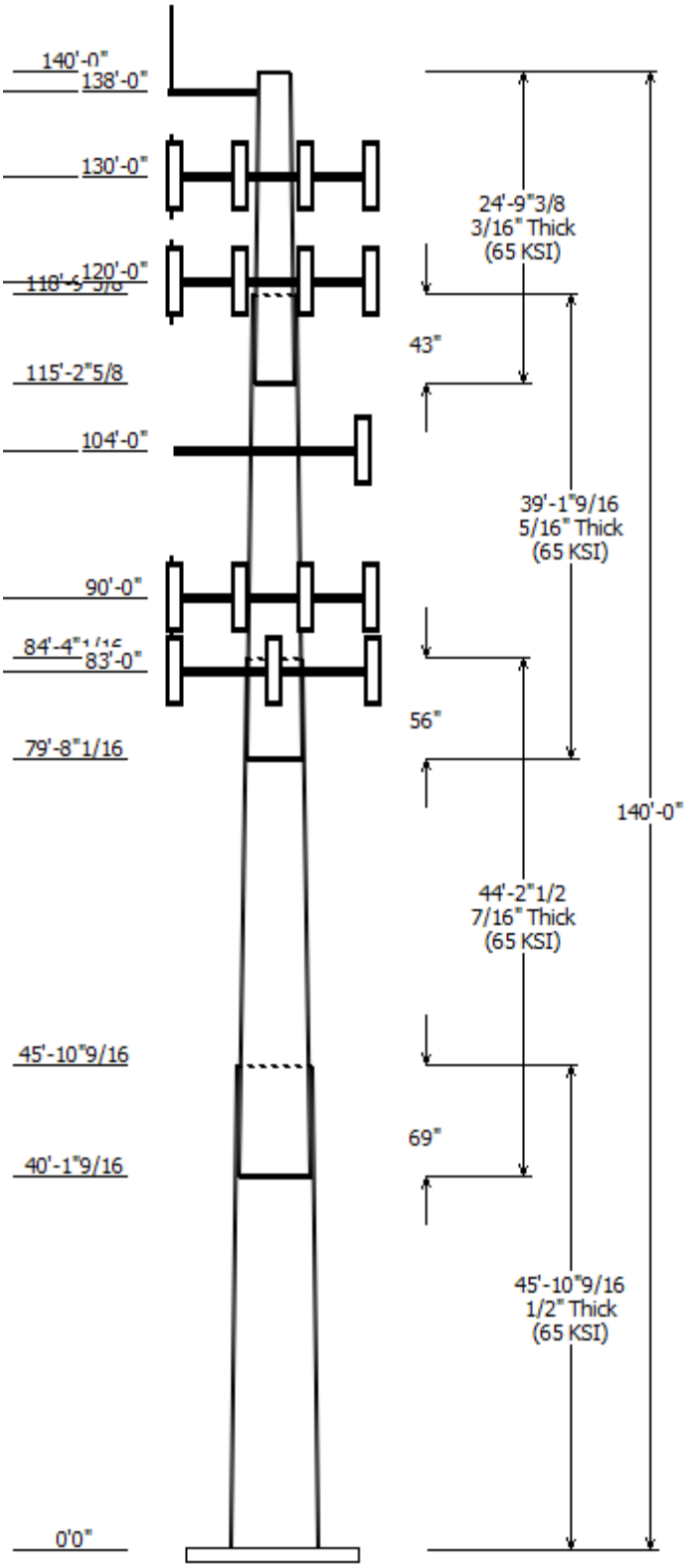
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- 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 A.T. Engineering Service, PLLC 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. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

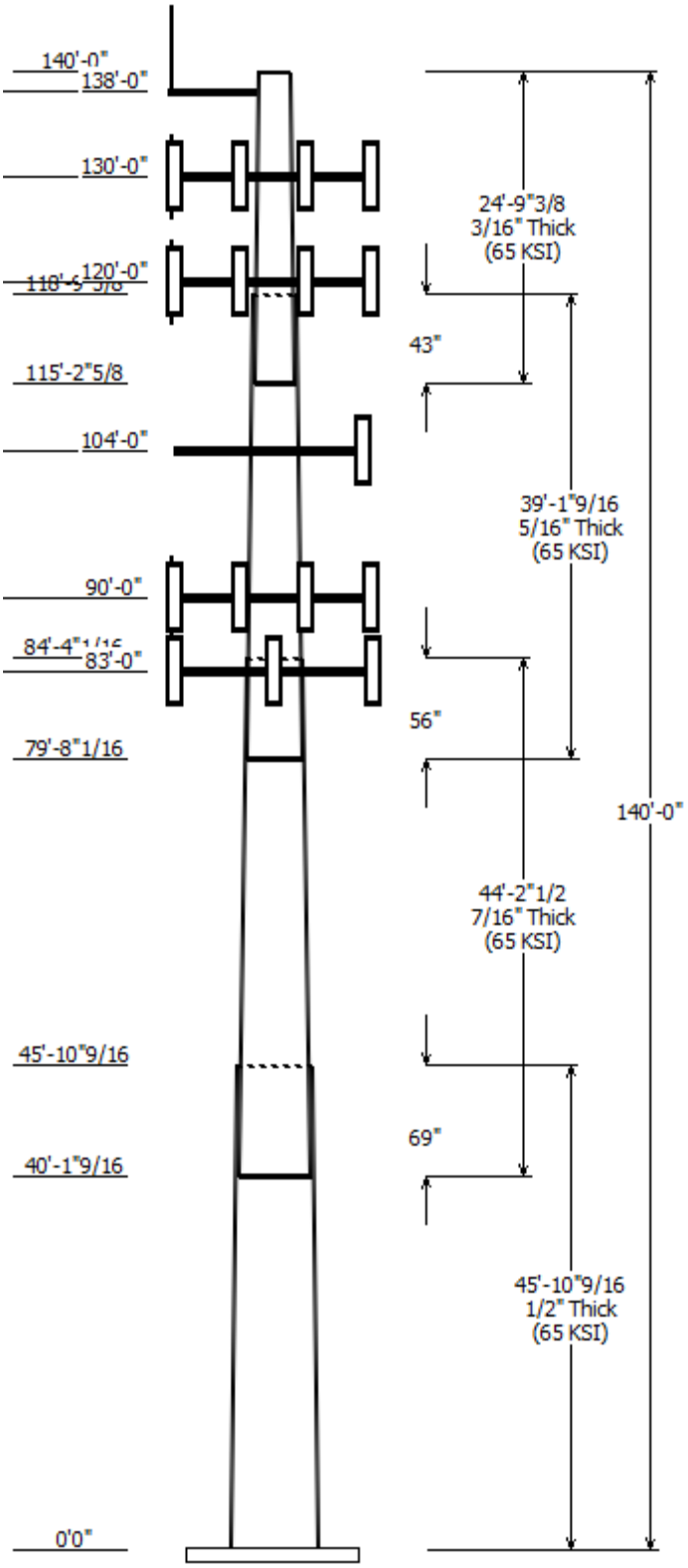
Pole :	411256	**Code:**	ANSI/TIA-222-G
Description :	140 ft Monopole		
Client :	SPRINT NEXTEL	**Struct Class :**	II
Location :	CANTON CT, CT		
Shape :	18 Sides	**Exposure :**	B
Height :	140.00 (ft)	**Topo :**	1
Base Elev (ft):	0.00		
Taper:	0.249089 (in/ft)		

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	45.880	39.57	51.00	0.500		0.000	0.249100	65
2	44.210	30.86	41.87	0.438	Slip Joint	69.000	0.249100	65
3	39.130	22.90	32.65	0.313	Slip Joint	56.000	0.249100	65
4	24.780	18.00	24.17	0.188	Slip Joint	43.000	0.249100	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
138.000	138.000	1	Stand-Off
138.000	148.000	1	18' Omni
130.000	130.000	1	KMW AM-X-CD-14-65-00T-RET
130.000	130.000	2	CCI HPA-65R-BUU-H8
130.000	130.000	1	KMW AM-X-CD-17-65-00T-RET
130.000	130.000	1	Andrew SBNHH-1D65A (33.5
130.000	130.000	3	Ericsson RRUS 32 (50.8 lbs)
130.000	130.000	2	Raycap DC6-48-60-0-8F
130.000	130.000	1	Flat Platform w/ Handrails
130.000	130.000	3	Kathrein Scala 800-10121
130.000	130.000	1	Andrew SBNH-1D6565C (60.8
130.000	130.000	3	CSS DUO1417-8686
130.000	130.000	6	CCI DTMABP7819VG12A
130.000	130.000	6	Ericsson RRUS-11 (50 lbs.)
120.000	120.000	1	GPS
120.000	120.000	6	Commscope SBNHH-1D65B
120.000	120.000	2	Antel LPA-80080/4CF__
120.000	120.000	2	RFS DB-T1-6Z-8AB-0Z
120.000	120.000	3	Alcatel-Lucent B66 RRH4x45
120.000	120.000	3	Alcatel-Lucent PCS B25
120.000	120.000	3	Alcatel-Lucent B13 RRH4x30-
120.000	120.000	1	Flat Platform w/ Handrails
120.000	120.000	3	Amphenol Antel BXA-70063-
120.000	120.000	2	Antel LPA-80063/4CF ___
120.000	120.000	2	Antel LPA-80080/4CF ___
120.000	120.000	1	VZW Unused Reserve: 14,729
104.000	104.000	1	Flat Low Profile Platform
104.000	104.000	2	Commscope LNX-6515DS-VTM
104.000	104.000	2	RFS APXV18-209014-C
104.000	104.000	2	Ericsson KRY 112 489/2
104.000	104.000	2	Kathrein Smart Bias Tee
90.000	90.000	3	Commscope DT465B-2XR
90.000	90.000	3	Alcatel-Lucent TD-RRH8x20-25
90.000	90.000	3	Alcatel-Lucent RRH2x50-08
90.000	90.000	1	Flat Low Profile Platform
90.000	90.000	3	RFS APXVSPP18-C-A20
90.000	90.000	3	Alcatel-Lucent 1900 MHz 4X45
90.000	90.000	3	Alcatel-Lucent 800 MHz RRH
90.000	90.000	1	PCTEL GPS-TMG-HR-26N
83.000	83.000	1	Flat Low Profile Platform
83.000	83.000	3	Kathrein Scala 742 213



Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	90.000	1 1/4" Hybriflex	No
0.000	90.000	1/2" Coax	No
0.000	104.0	1 5/8" Coax	Yes
0.000	104.0	1 5/8" Coax	Yes
0.000	120.0	1 5/8" Coax	No
0.000	120.0	1 5/8" Fiber	No
0.000	120.0	1/2" Coax	No
0.000	130.0	0.39" Fiber Trunk	No
0.000	130.0	0.78" 8 AWG 6	No
0.000	130.0	3" Conduit	No
0.000	130.0	7/8" Coax	No
0.000	138.0	7/8" Coax	No

Load Cases

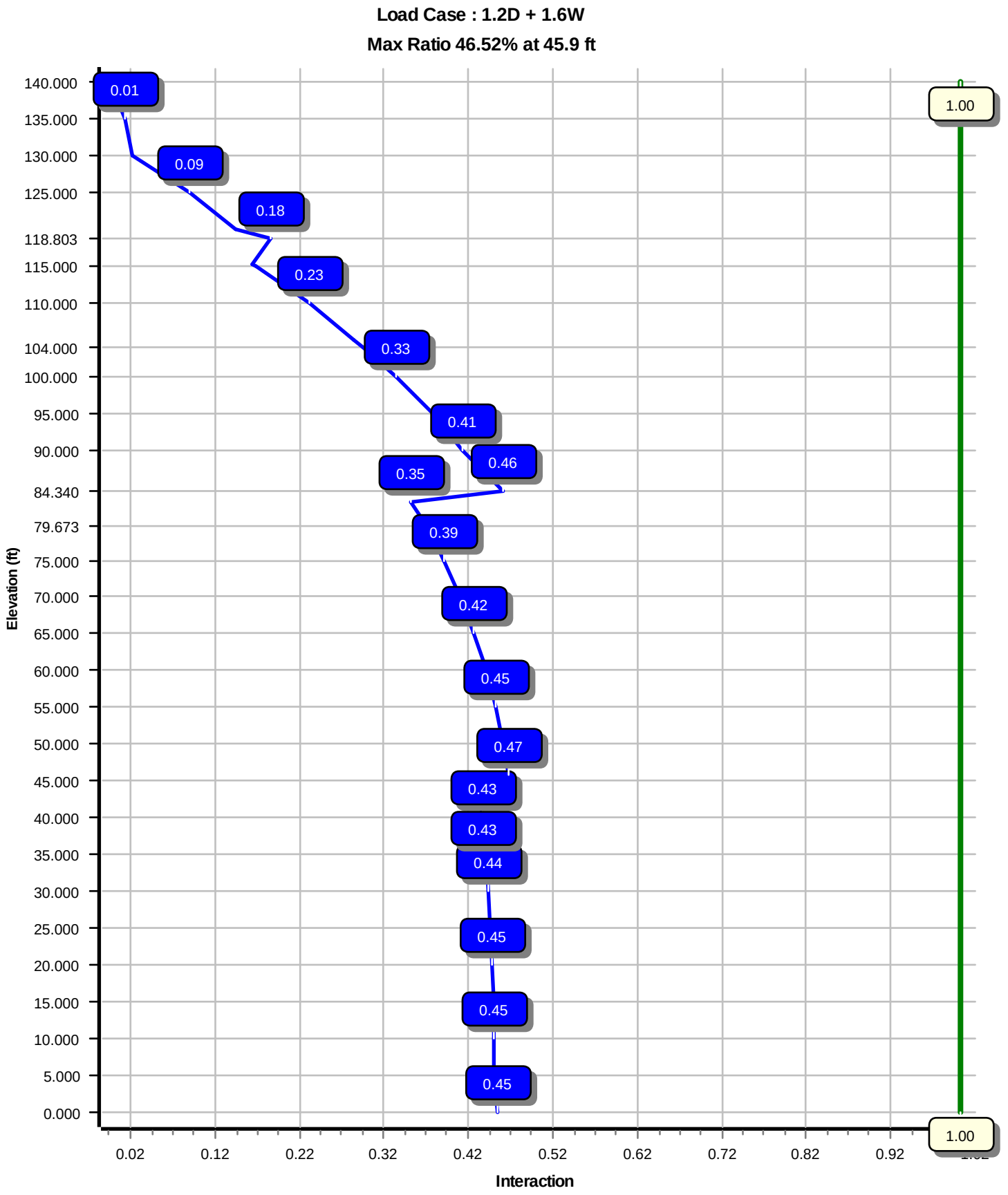
1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2709.54	26.25	52.73
0.9D + 1.6W	2665.17	26.04	39.54
1.2D + 1.0Di + 1.0Wi	880.35	8.35	90.43
(1.2 + 0.2Sds) * DL + E ELFM	203.04	1.92	52.42
(1.2 + 0.2Sds) * DL + E EMAM	172.59	1.76	52.42
(0.9 - 0.2Sds) * DL + E ELFM	200.61	1.92	36.47
(0.9 - 0.2Sds) * DL + E EMAM	170.28	1.76	36.47
1.0D + 1.0W	696.16	6.78	43.96

Dish Deflections

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


Load Case : 1.2D + 1.6W
Max Ratio 46.52% at 45.9 ft
Elevation (ft)
Interaction
140.000
135.000
130.000
125.000
118.803
115.000
110.000
104.000
100.000
95.000
90.000
84.340
79.673
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
0.01
0.09
0.18
0.23
0.33
0.41
0.46
0.35
0.39
0.42
0.45
0.47
0.43
0.43
0.44
0.45
0.45
0.45
1.00
1.00

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:OAA713339_C3_01 10/4/2017 3:55:02 PM

Customer: SPRINT NEXTEL

Analysis Parameters

Location:	HARTFORD County, CT	Height (ft):	140
Code:	ANSI/TIA-222-G	Base Diameter (in):	51.00
Shape:	18 Sides	Top Diameter (in):	18.00
Pole Type:	Taper	Taper (in/ft) :	0.249
Pole Manfacturer:	EEI	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	93 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	2.04				
T_L (sec):	6	p:	1.3	C_s:	0.034
S_s:	0.180	S_1:	0.064	C_s Max:	0.034
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.192	S_{d1}:	0.102		

Load Cases

1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

							Bottom						Top					
Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	45.880	0.5000	65		0.00	11,096	51.00	0.00	80.14	25821.9	16.57	102.00	39.57	45.88	62.00	11959.3	12.54	79.14	0.249089
2-18	44.210	0.4375	65	Slip	69.00	7,507	41.87	40.13	57.54	12486.2	15.47	95.72	30.86	84.34	42.25	4943.1	11.03	70.55	0.249089
3-18	39.130	0.3125	65	Slip	56.00	3,628	32.65	79.67	32.08	4239.2	17.01	104.49	22.90	118.80	22.41	1445.5	11.51	73.30	0.249089
4-18	24.780	0.1875	65	Slip	43.00	1,049	24.17	115.22	14.28	1037.8	21.32	128.93	18.00	140.00	10.60	425.1	15.52	96.01	0.249089
				Shaft Weight		23,279													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
138.00	18' Omni	1	50.00	5.400	1.00	401.06	13.991	1.00	0.000	10.000
138.00	Stand-Off	1	75.00	2.500	1.00	123.41	4.229	1.00	0.000	0.000
130.00	Andrew SBNH-1D6565C (60.8	1	60.80	11.450	0.70	362.41	15.707	0.70	0.000	0.000
130.00	Andrew SBNHH-1D65A (33.5	1	33.50	5.880	0.69	310.38	8.602	0.69	0.000	0.000
130.00	CCI DTMABP7819VG12A	6	19.20	0.970	0.50	68.94	1.550	0.50	0.000	0.000
130.00	CCI HPA-65R-BUU-H8	2	68.00	12.980	0.67	478.56	16.130	0.67	0.000	0.000
130.00	CSS DUO1417-8686	3	20.30	5.790	0.70	254.17	7.166	0.70	0.000	0.000
130.00	Ericsson RRUS 32 (50.8 lbs)	3	50.80	2.690	0.50	171.55	3.665	0.50	0.000	0.000
130.00	Ericsson RRUS-11 (50 lbs.)	6	50.00	2.570	0.50	139.61	3.949	0.50	0.000	0.000
130.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,868.17	69.968	1.00	0.000	0.000
130.00	Kathrein Scala 800-10121	3	44.10	5.160	0.68	194.78	7.929	0.68	0.000	0.000
130.00	KMW AM-X-CD-14-65-00T-	1	36.40	4.990	0.66	182.70	7.444	0.66	0.000	0.000
130.00	KMW AM-X-CD-17-65-00T-	1	59.50	11.310	0.68	404.01	13.503	0.68	0.000	0.000
130.00	Raycap DC6-48-60-0-8F	2	32.80	1.190	1.00	109.22	1.953	1.00	0.000	0.000
120.00	Alcatel-Lucent B13 RRH4x30-	3	57.20	2.170	0.67	172.06	3.018	0.67	0.000	0.000
120.00	Alcatel-Lucent B66 RRH4x45	3	67.00	2.580	0.67	186.61	3.516	0.67	0.000	0.000
120.00	Alcatel-Lucent PCS B25	3	55.00	2.200	0.67	147.57	3.527	0.67	0.000	0.000
120.00	Amphenol Antel BXA-70063-	3	17.00	7.570	0.66	210.27	11.172	0.66	0.000	0.000
120.00	Antel LPA-80063/4CF ___	2	20.00	6.140	0.76	301.91	7.524	0.76	0.000	0.000
120.00	Antel LPA-80080/4CF ___	2	12.00	5.400	0.64	200.06	6.727	0.64	0.000	0.000
120.00	Antel LPA-80080/4CF__	2	12.00	5.400	0.64	200.06	6.727	0.64	0.000	0.000
120.00	Commscope SBNHH-1D65B	6	50.70	8.170	0.69	331.40	9.908	0.69	0.000	0.000
120.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,855.95	69.788	1.00	0.000	0.000
120.00	GPS	1	10.00	1.000	1.00	65.65	1.090	1.00	0.000	0.000
120.00	RFS DB-T1-6Z-8AB-0Z	2	44.00	4.800	0.67	350.07	5.962	0.67	0.000	0.000
120.00	VZW Unused Reserve:	1	1421.20	102.37	1.00	2,714.19	195.505	1.00	0.000	0.000
104.00	Commscope LNX-6515DS-	2	50.30	11.440	0.70	406.11	13.589	0.70	0.000	0.000
104.00	Ericsson KRY 112 489/2	2	15.40	0.650	0.50	51.37	1.029	0.50	0.000	0.000
104.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,332.88	50.643	1.00	0.000	0.000
104.00	Kathrein Smart Bias Tee	2	3.30	0.090	0.50	14.28	0.313	0.50	0.000	0.000
104.00	RFS APXV18-209014-C	2	18.70	3.570	0.67	142.61	4.807	0.67	0.000	0.000
90.00	Alcatel-Lucent 1900 MHz	3	60.00	2.320	0.50	162.02	3.687	0.50	0.000	0.000
90.00	Alcatel-Lucent 800 MHz RRH	3	53.00	2.130	0.50	146.44	3.366	0.50	0.000	0.000
90.00	Alcatel-Lucent RRH2x50-08	3	52.90	1.700	0.50	149.38	2.413	0.50	0.000	0.000
90.00	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.050	0.67	189.64	5.732	0.67	0.000	0.000
90.00	Commscope DT465B-2XR	3	58.00	9.100	0.69	362.10	10.818	0.69	0.000	0.000
90.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,320.20	50.270	1.00	0.000	0.000
90.00	PCTEL GPS-TMG-HR-26N	1	0.60	0.090	0.50	6.73	0.318	0.50	0.000	0.000
90.00	RFS APXVSPP18-C-A20	3	57.00	8.020	0.68	275.38	11.550	0.68	0.000	0.000
83.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,314.40	50.098	1.00	0.000	0.000
83.00	Kathrein Scala 742 213	3	22.00	5.140	0.67	175.58	6.773	0.67	0.000	0.000
	Totals	94	13572.30			35,403.00			Number of Loadings :	41

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
0.00	138.00	2	7/8" Coax	1.09	0.33	N	0.00	N	Unknown
0.00	130.00	2	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	130.00	4	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	130.00	3	3" Conduit	3.50	7.58	N	0.00	N	AT&T Mobility
0.00	130.00	12	7/8" Coax	1.09	0.33	N	0.00	N	AT&T Mobility
0.00	120.00	18	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	120.00	2	1 5/8" Fiber	1.63	1.61	N	0.00	N	Verizon
0.00	120.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Verizon
0.00	104.00	6	1 5/8" Coax	1.98	0.82	N	1.98	Y	T-Mobile
0.00	104.00	2	1 5/8" Coax	1.98	0.82	N	1.98	Y	T-Mobile
0.00	90.00	4	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel
0.00	90.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.5000	51.000	80.141	25,821.9	16.57	102.00	81.9	997.2	0.0	0.0
5.00		0.5000	49.755	78.164	23,958.2	16.14	99.51	82.4	948.4	0.0	1,346.7
10.00		0.5000	48.509	76.188	22,186.3	15.70	97.02	82.6	900.8	0.0	1,313.1
15.00		0.5000	47.264	74.211	20,504.1	15.26	94.53	82.6	854.5	0.0	1,279.4
20.00		0.5000	46.018	72.235	18,909.1	14.82	92.04	82.6	809.3	0.0	1,245.8
25.00		0.5000	44.773	70.258	17,399.0	14.38	89.55	82.6	765.4	0.0	1,212.2
30.00		0.5000	43.527	68.282	15,971.6	13.94	87.05	82.6	722.7	0.0	1,178.6
35.00		0.5000	42.282	66.305	14,624.4	13.50	84.56	82.6	681.2	0.0	1,144.9
40.00		0.5000	41.036	64.329	13,355.2	13.06	82.07	82.6	641.0	0.0	1,111.3
40.13	Bot - Section 2	0.5000	41.004	64.278	13,323.2	13.05	82.01	82.6	640.0	0.0	28.4
45.00		0.5000	39.791	62.353	12,161.7	12.62	79.58	82.6	602.0	0.0	1,988.9
45.88	Top - Section 1	0.4375	40.447	55.556	11,235.8	14.89	92.45	82.6	547.1	0.0	353.0
50.00		0.4375	39.421	54.131	10,393.2	14.48	90.10	82.6	519.3	0.0	768.9
55.00		0.4375	38.175	52.401	9,428.6	13.98	87.26	82.6	486.5	0.0	906.3
60.00		0.4375	36.930	50.672	8,525.5	13.47	84.41	82.6	454.7	0.0	876.8
65.00		0.4375	35.684	48.943	7,682.1	12.97	81.56	82.6	424.0	0.0	847.4
70.00		0.4375	34.439	47.213	6,896.2	12.47	78.72	82.6	394.4	0.0	818.0
75.00		0.4375	33.193	45.484	6,165.8	11.97	75.87	82.6	365.9	0.0	788.6
79.67	Bot - Section 3	0.4375	32.029	43.867	5,531.5	11.50	73.21	82.6	340.2	0.0	710.4
80.00		0.4375	31.948	43.754	5,488.9	11.47	73.02	82.6	338.4	0.0	84.3
83.00		0.4375	31.201	42.717	5,107.5	11.16	71.32	82.6	322.4	0.0	764.2
84.34	Top - Section 2	0.3125	31.492	30.925	3,798.3	16.36	100.77	82.2	237.6	0.0	335.5
85.00		0.3125	31.327	30.762	3,738.6	16.27	100.25	82.3	235.1	0.0	69.3
90.00		0.3125	30.082	29.527	3,306.0	15.56	96.26	82.6	216.5	0.0	512.9
95.00		0.3125	28.837	28.291	2,908.2	14.86	92.28	82.6	198.6	0.0	491.9
100.0		0.3125	27.591	27.056	2,543.7	14.16	88.29	82.6	181.6	0.0	470.8
104.0		0.3125	26.595	26.068	2,275.0	13.60	85.10	82.6	168.5	0.0	361.5
105.0		0.3125	26.346	25.821	2,210.9	13.45	84.31	82.6	165.3	0.0	88.3
110.0		0.3125	25.100	24.585	1,908.5	12.75	80.32	82.6	149.8	0.0	428.8
115.0		0.3125	23.855	23.350	1,635.1	12.05	76.34	82.6	135.0	0.0	407.8
115.2	Bot - Section 4	0.3125	23.800	23.296	1,623.7	12.02	76.16	82.6	134.4	0.0	17.5
118.8	Top - Section 3	0.1875	23.282	13.744	926.2	20.48	124.17	77.3	78.4	0.0	449.5
120.0		0.1875	22.984	13.566	890.8	20.20	122.58	77.6	76.3	0.0	55.6
125.0		0.1875	21.739	12.825	752.6	19.03	115.94	79.0	68.2	0.0	224.5
130.0		0.1875	20.493	12.084	629.5	17.86	109.30	80.4	60.5	0.0	211.9
135.0		0.1875	19.248	11.343	520.6	16.69	102.66	81.8	53.3	0.0	199.3
138.0		0.1875	18.501	10.898	461.8	15.99	98.67	82.6	49.2	0.0	113.5
140.0		0.1875	18.003	10.602	425.1	15.52	96.01	82.6	46.5	0.0	73.2
											23,278.9

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:OAA713339_C3_01 10/4/2017 3:55:02 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W 93 mph with No Ice 23 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		179.5	0.0					0.0	0.0	179.5	0.0	0.0	0.0
5.00		354.6	1,616.0					0.0	352.1	354.6	1,968.1	0.0	0.0
10.00		345.7	1,575.7					0.0	352.1	345.7	1,927.8	0.0	0.0
15.00		336.8	1,535.3					0.0	352.1	336.8	1,887.4	0.0	0.0
20.00		328.0	1,495.0					0.0	352.1	328.0	1,847.1	0.0	0.0
25.00		319.1	1,454.6					0.0	352.1	319.1	1,806.7	0.0	0.0
30.00		313.9	1,414.3					0.0	352.1	313.9	1,766.3	0.0	0.0
35.00		314.9	1,373.9					0.0	352.1	314.9	1,726.0	0.0	0.0
40.00		162.5	1,333.6					0.0	352.1	162.5	1,685.6	0.0	0.0
40.13	Bot - Section 2	162.6	34.1					0.0	9.2	162.6	43.3	0.0	0.0
45.00		187.1	2,386.7					0.0	342.9	187.1	2,729.6	0.0	0.0
45.88	Top - Section 1	162.8	423.6					0.0	62.0	162.8	485.6	0.0	0.0
50.00		296.8	922.6					0.0	290.1	296.8	1,212.8	0.0	0.0
55.00		325.8	1,087.5					0.0	352.1	325.8	1,439.6	0.0	0.0
60.00		326.4	1,052.2					0.0	352.1	326.4	1,404.3	0.0	0.0
65.00		326.2	1,016.9					0.0	352.1	326.2	1,369.0	0.0	0.0
70.00		325.3	981.6					0.0	352.1	325.3	1,333.7	0.0	0.0
75.00		313.2	946.3					0.0	352.1	313.2	1,298.4	0.0	0.0
79.67	Bot - Section 3	161.6	852.5					0.0	329.1	161.6	1,181.6	0.0	0.0
80.00		108.9	101.2					0.0	23.0	108.9	124.2	0.0	0.0
83.00	Appertunance(s)	141.8	917.1	1,192.1	0.0	0.0	1,879.2	0.0	211.2	1,333.9	3,007.5	0.0	0.0
84.34	Top - Section 2	65.0	402.6					0.0	94.4	65.0	496.9	0.0	0.0
85.00		182.1	83.1					0.0	46.5	182.1	129.6	0.0	0.0
90.00	Appertunance(s)	319.7	615.4	2,420.6	0.0	0.0	3,064.0	0.0	352.1	2,740.4	4,031.5	0.0	0.0
95.00		316.1	590.2					0.0	327.2	316.1	917.4	0.0	0.0
100.00		281.2	565.0					0.0	327.2	281.2	892.2	0.0	0.0
104.00	Appertunance(s)	151.1	433.8	1,603.2	0.0	0.0	2,010.5	0.0	261.7	1,754.2	2,706.1	0.0	0.0
105.00		159.1	105.9					0.0	57.6	159.1	163.5	0.0	0.0
110.00		259.5	514.6					0.0	287.8	259.5	802.4	0.0	0.0
115.00		132.8	489.3					0.0	287.8	132.8	777.2	0.0	0.0
115.22	Bot - Section 4	95.0	21.0					0.0	12.7	95.0	33.6	0.0	0.0
118.80	Top - Section 3	118.8	539.4					0.0	206.3	118.8	745.6	0.0	0.0
120.00	Appertunance(s)	148.5	66.7	8,288.2	0.0	0.0	5,400.0	0.0	68.9	8,436.7	5,535.6	0.0	0.0
125.00		233.1	269.4					0.0	179.0	233.1	448.5	0.0	0.0
130.00	Appertunance(s)	222.2	254.3	4,042.9	0.0	0.0	3,783.1	0.0	179.0	4,265.1	4,216.4	0.0	0.0
135.00		170.6	239.2					0.0	4.0	170.6	243.1	0.0	0.0
138.00	Appertunance(s)	102.6	136.2	321.3	0.0	2,209.7	150.0	0.0	2.4	423.9	288.6	0.0	0.0
140.00		40.3	87.8					0.0	0.0	40.3	87.8	0.0	0.0
								Totals:		26,359.0	52,760.3	0.00	0.00

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:OAA713339_C3_01 10/4/2017 3:55:04 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W 93 mph with No Ice 23 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-52.73	-26.25	0.00	-2,709.54	0.00	2,709.54	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.451
5.00	-50.69	-26.02	0.00	-2,578.30	0.00	2,578.30	5,798.22	2,899.11	11,708.2	5,862.84	0.08	-0.15	0.449
10.00	-48.70	-25.80	0.00	-2,448.20	0.00	2,448.20	5,660.37	2,830.18	11,137.9	5,577.27	0.31	-0.29	0.448
15.00	-46.74	-25.57	0.00	-2,319.22	0.00	2,319.22	5,513.53	2,756.76	10,564.7	5,290.20	0.70	-0.45	0.447
20.00	-44.83	-25.35	0.00	-2,191.35	0.00	2,191.35	5,366.68	2,683.34	10,006.5	5,010.72	1.25	-0.60	0.446
25.00	-42.96	-25.13	0.00	-2,064.59	0.00	2,064.59	5,219.84	2,609.92	9,463.58	4,738.82	1.97	-0.76	0.444
30.00	-41.12	-24.91	0.00	-1,938.92	0.00	1,938.92	5,073.00	2,536.50	8,935.73	4,474.51	2.86	-0.93	0.442
35.00	-39.33	-24.68	0.00	-1,814.36	0.00	1,814.36	4,926.16	2,463.08	8,423.04	4,217.78	3.92	-1.10	0.438
40.00	-37.61	-24.54	0.00	-1,690.95	0.00	1,690.95	4,779.32	2,389.66	7,925.49	3,968.63	5.16	-1.27	0.434
40.13	-37.53	-24.44	0.00	-1,687.76	0.00	1,687.76	4,775.51	2,387.75	7,912.75	3,962.26	5.20	-1.27	0.434
45.00	-34.77	-24.25	0.00	-1,568.75	0.00	1,568.75	4,632.48	2,316.24	7,443.09	3,727.08	6.58	-1.44	0.429
45.88	-34.25	-24.12	0.00	-1,547.42	0.00	1,547.42	4,127.52	2,063.76	6,764.96	3,387.51	6.85	-1.47	0.465
50.00	-32.97	-23.89	0.00	-1,448.02	0.00	1,448.02	4,021.65	2,010.83	6,420.54	3,215.04	8.18	-1.62	0.459
55.00	-31.47	-23.63	0.00	-1,328.56	0.00	1,328.56	3,893.17	1,946.58	6,014.64	3,011.79	9.98	-1.81	0.449
60.00	-29.99	-23.36	0.00	-1,210.42	0.00	1,210.42	3,764.68	1,882.34	5,621.99	2,815.17	11.98	-2.00	0.438
65.00	-28.56	-23.08	0.00	-1,093.64	0.00	1,093.64	3,636.20	1,818.10	5,242.60	2,625.19	14.18	-2.19	0.425
70.00	-27.17	-22.79	0.00	-978.26	0.00	978.26	3,507.71	1,753.86	4,876.46	2,441.85	16.58	-2.38	0.409
75.00	-25.81	-22.50	0.00	-864.31	0.00	864.31	3,379.23	1,689.61	4,523.57	2,265.15	19.18	-2.57	0.389
79.67	-24.60	-22.33	0.00	-759.15	0.00	759.15	3,259.13	1,629.57	4,205.72	2,105.99	21.78	-2.75	0.368
80.00	-24.46	-22.24	0.00	-751.86	0.00	751.86	3,250.74	1,625.37	4,183.94	2,095.08	21.97	-2.76	0.367
83.00	-21.49	-20.79	0.00	-685.15	0.00	685.15	3,173.65	1,586.82	3,986.52	1,996.22	23.74	-2.87	0.350
84.34	-20.99	-20.71	0.00	-657.30	0.00	657.30	2,286.71	1,143.35	2,923.37	1,463.86	24.56	-2.92	0.459
85.00	-20.82	-20.57	0.00	-643.63	0.00	643.63	2,277.67	1,138.84	2,896.31	1,450.31	24.96	-2.95	0.453
90.00	-16.87	-17.68	0.00	-540.78	0.00	540.78	2,193.67	1,096.84	2,676.37	1,340.17	28.17	-3.17	0.411
95.00	-15.91	-17.37	0.00	-452.37	0.00	452.37	2,101.90	1,050.95	2,456.00	1,229.83	31.61	-3.39	0.376
100.00	-14.99	-17.08	0.00	-365.51	0.00	365.51	2,010.12	1,005.06	2,245.10	1,124.22	35.27	-3.59	0.333
104.00	-12.37	-15.18	0.00	-297.19	0.00	297.19	1,936.70	968.35	2,083.19	1,043.15	38.34	-3.74	0.292
105.00	-12.20	-15.03	0.00	-282.01	0.00	282.01	1,918.35	959.17	2,043.66	1,023.35	39.12	-3.77	0.282
110.00	-11.38	-14.75	0.00	-206.86	0.00	206.86	1,826.57	913.29	1,851.70	927.22	43.16	-3.93	0.230
115.00	-10.59	-14.57	0.00	-133.14	0.00	133.14	1,734.80	867.40	1,669.20	835.84	47.34	-4.06	0.166
115.22	-10.56	-14.48	0.00	-129.93	0.00	129.93	1,730.76	865.38	1,661.38	831.93	47.53	-4.06	0.163
118.80	-9.81	-14.31	0.00	-78.05	0.00	78.05	956.25	478.12	907.22	454.29	50.60	-4.13	0.183
120.00	-4.90	-5.50	0.00	-60.92	0.00	60.92	947.93	473.97	887.63	444.47	51.64	-4.14	0.142
125.00	-4.46	-5.24	0.00	-33.39	0.00	33.39	912.05	456.02	806.99	404.09	56.02	-4.22	0.088
130.00	-0.57	-0.68	0.00	-7.17	0.00	7.17	874.32	437.16	728.52	364.80	60.46	-4.26	0.020
135.00	-0.34	-0.49	0.00	-3.78	0.00	3.78	834.76	417.38	652.50	326.73	64.92	-4.27	0.012
138.00	-0.08	-0.05	0.00	-0.09	0.00	0.09	809.68	404.84	607.85	304.38	67.60	-4.27	0.000
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	69.39	-4.27	0.000

Load Case: 0.9D + 1.6W — 93 mph with No Ice (Reduced DL) — 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.60

Wind Importance Factor 1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		179.5	0.0					0.0	0.0	179.5	0.0	0.0	0.0
5.00		354.6	1,212.0					0.0	264.1	354.6	1,476.1	0.0	0.0
10.00		345.7	1,181.8					0.0	264.1	345.7	1,445.8	0.0	0.0
15.00		336.8	1,151.5					0.0	264.1	336.8	1,415.6	0.0	0.0
20.00		328.0	1,121.2					0.0	264.1	328.0	1,385.3	0.0	0.0
25.00		319.1	1,091.0					0.0	264.1	319.1	1,355.0	0.0	0.0
30.00		313.9	1,060.7					0.0	264.1	313.9	1,324.8	0.0	0.0
35.00		314.9	1,030.4					0.0	264.1	314.9	1,294.5	0.0	0.0
40.00		162.5	1,000.2					0.0	264.1	162.5	1,264.2	0.0	0.0
40.13	Bot - Section 2	162.6	25.6					0.0	6.9	162.6	32.5	0.0	0.0
45.00		187.1	1,790.0					0.0	257.2	187.1	2,047.2	0.0	0.0
45.88	Top - Section 1	162.8	317.7					0.0	46.5	162.8	364.2	0.0	0.0
50.00		296.5	692.0					0.0	217.6	296.5	909.6	0.0	0.0
55.00		323.6	815.6					0.0	264.1	323.6	1,079.7	0.0	0.0
60.00		321.0	789.2					0.0	264.1	321.0	1,053.2	0.0	0.0
65.00		317.3	762.7					0.0	264.1	317.3	1,026.7	0.0	0.0
70.00		312.8	736.2					0.0	264.1	312.8	1,000.3	0.0	0.0
75.00		297.7	709.7					0.0	264.1	297.7	973.8	0.0	0.0
79.67	Bot - Section 3	152.5	639.4					0.0	246.8	152.5	886.2	0.0	0.0
80.00		101.7	75.9					0.0	17.3	101.7	93.1	0.0	0.0
83.00	Appertunance(s)	132.2	687.8	1,192.1	0.0	0.0	1,409.4	0.0	158.4	1,324.3	2,255.6	0.0	0.0
84.34	Top - Section 2	60.5	301.9					0.0	70.8	60.5	372.7	0.0	0.0
85.00		168.6	62.3					0.0	34.9	168.6	97.2	0.0	0.0
90.00	Appertunance(s)	293.6	461.6	2,420.6	0.0	0.0	2,298.0	0.0	264.1	2,714.2	3,023.6	0.0	0.0
95.00		285.8	442.7					0.0	245.4	285.8	688.1	0.0	0.0
100.00		250.6	423.8					0.0	245.4	250.6	669.1	0.0	0.0
104.00	Appertunance(s)	136.6	325.4	1,603.2	0.0	0.0	1,507.9	0.0	196.3	1,739.8	2,029.6	0.0	0.0
105.00		159.1	79.5					0.0	43.2	159.1	122.6	0.0	0.0
110.00		259.5	385.9					0.0	215.9	259.5	601.8	0.0	0.0
115.00		132.8	367.0					0.0	215.9	132.8	582.9	0.0	0.0
115.22	Bot - Section 4	95.0	15.7					0.0	9.5	95.0	25.2	0.0	0.0
118.80	Top - Section 3	118.8	404.5					0.0	154.7	118.8	559.2	0.0	0.0
120.00	Appertunance(s)	148.5	50.0	8,288.2	0.0	0.0	4,050.0	0.0	51.7	8,436.7	4,151.7	0.0	0.0
125.00		233.1	202.1					0.0	134.3	233.1	336.3	0.0	0.0
130.00	Appertunance(s)	222.2	190.7	4,042.9	0.0	0.0	2,837.3	0.0	134.3	4,265.1	3,162.3	0.0	0.0
135.00		170.6	179.4					0.0	3.0	170.6	182.3	0.0	0.0
138.00	Appertunance(s)	102.6	102.2	321.3	0.0	2,209.7	112.5	0.0	1.8	423.9	216.5	0.0	0.0
140.00		40.3	65.8					0.0	0.0	40.3	65.8	0.0	0.0
								Totals:		26,169.2	39,570.2	0.00	0.00

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:OAA713339_C3_01 10/4/2017 3:55:06 PM

Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W 93 mph with No Ice (Reduced DL) 23 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-39.54	-26.04	0.00	-2,665.17	0.00	2,665.17	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.442
5.00	-38.00	-25.78	0.00	-2,534.97	0.00	2,534.97	5,798.22	2,899.11	11,708.2	5,862.84	0.08	-0.14	0.439
10.00	-36.49	-25.52	0.00	-2,406.07	0.00	2,406.07	5,660.37	2,830.18	11,137.9	5,577.27	0.31	-0.29	0.438
15.00	-35.01	-25.27	0.00	-2,278.46	0.00	2,278.46	5,513.53	2,756.76	10,564.7	5,290.20	0.69	-0.44	0.437
20.00	-33.56	-25.02	0.00	-2,152.11	0.00	2,152.11	5,366.68	2,683.34	10,006.5	5,010.72	1.23	-0.59	0.436
25.00	-32.14	-24.78	0.00	-2,027.01	0.00	2,027.01	5,219.84	2,609.92	9,463.58	4,738.82	1.94	-0.75	0.434
30.00	-30.75	-24.53	0.00	-1,903.13	0.00	1,903.13	5,073.00	2,536.50	8,935.73	4,474.51	2.81	-0.91	0.431
35.00	-29.39	-24.28	0.00	-1,780.49	0.00	1,780.49	4,926.16	2,463.08	8,423.04	4,217.78	3.86	-1.08	0.428
40.00	-28.09	-24.13	0.00	-1,659.10	0.00	1,659.10	4,779.32	2,389.66	7,925.49	3,968.63	5.07	-1.24	0.424
40.13	-28.03	-24.01	0.00	-1,655.97	0.00	1,655.97	4,775.51	2,387.75	7,912.75	3,962.26	5.11	-1.25	0.424
45.00	-25.94	-23.82	0.00	-1,539.04	0.00	1,539.04	4,632.48	2,316.24	7,443.09	3,727.08	6.47	-1.41	0.419
45.88	-25.55	-23.69	0.00	-1,518.08	0.00	1,518.08	4,127.52	2,063.76	6,764.96	3,387.51	6.73	-1.45	0.454
50.00	-24.58	-23.44	0.00	-1,420.49	0.00	1,420.49	4,021.65	2,010.83	6,420.54	3,215.04	8.04	-1.59	0.448
55.00	-23.43	-23.16	0.00	-1,303.30	0.00	1,303.30	3,893.17	1,946.58	6,014.64	3,011.79	9.81	-1.78	0.439
60.00	-22.31	-22.88	0.00	-1,187.51	0.00	1,187.51	3,764.68	1,882.34	5,621.99	2,815.17	11.77	-1.96	0.428
65.00	-21.23	-22.59	0.00	-1,073.12	0.00	1,073.12	3,636.20	1,818.10	5,242.60	2,625.19	13.92	-2.15	0.415
70.00	-20.17	-22.31	0.00	-960.16	0.00	960.16	3,507.71	1,753.86	4,876.46	2,441.85	16.28	-2.34	0.399
75.00	-19.14	-22.03	0.00	-848.62	0.00	848.62	3,379.23	1,689.61	4,523.57	2,265.15	18.83	-2.53	0.380
79.67	-18.22	-21.86	0.00	-745.67	0.00	745.67	3,259.13	1,629.57	4,205.72	2,105.99	21.39	-2.70	0.360
80.00	-18.11	-21.78	0.00	-738.53	0.00	738.53	3,250.74	1,625.37	4,183.94	2,095.08	21.58	-2.71	0.358
83.00	-15.89	-20.37	0.00	-673.19	0.00	673.19	3,173.65	1,586.82	3,986.52	1,996.22	23.32	-2.82	0.342
84.34	-15.51	-20.30	0.00	-645.90	0.00	645.90	2,286.71	1,143.35	2,923.37	1,463.86	24.11	-2.87	0.448
85.00	-15.38	-20.16	0.00	-632.50	0.00	632.50	2,277.67	1,138.84	2,896.31	1,450.31	24.51	-2.89	0.443
90.00	-12.44	-17.34	0.00	-531.70	0.00	531.70	2,193.67	1,096.84	2,676.37	1,340.17	27.66	-3.12	0.403
95.00	-11.71	-17.06	0.00	-445.01	0.00	445.01	2,101.90	1,050.95	2,456.00	1,229.83	31.04	-3.33	0.368
100.00	-11.00	-16.80	0.00	-359.73	0.00	359.73	2,010.12	1,005.06	2,245.10	1,124.22	34.63	-3.52	0.326
104.00	-9.06	-14.95	0.00	-292.54	0.00	292.54	1,936.70	968.35	2,083.19	1,043.15	37.65	-3.67	0.285
105.00	-8.93	-14.80	0.00	-277.59	0.00	277.59	1,918.35	959.17	2,043.66	1,023.35	38.42	-3.70	0.276
110.00	-8.31	-14.52	0.00	-203.61	0.00	203.61	1,826.57	913.29	1,851.70	927.22	42.38	-3.86	0.224
115.00	-7.72	-14.36	0.00	-131.01	0.00	131.01	1,734.80	867.40	1,669.20	835.84	46.49	-3.98	0.161
115.22	-7.69	-14.26	0.00	-127.85	0.00	127.85	1,730.76	865.38	1,661.38	831.93	46.68	-3.99	0.158
118.80	-7.13	-14.11	0.00	-76.74	0.00	76.74	956.25	478.12	907.22	454.29	49.70	-4.05	0.177
120.00	-3.59	-5.40	0.00	-59.86	0.00	59.86	947.93	473.97	887.63	444.47	50.71	-4.07	0.139
125.00	-3.26	-5.15	0.00	-32.84	0.00	32.84	912.05	456.02	806.99	404.09	55.01	-4.14	0.085
130.00	-0.42	-0.67	0.00	-7.09	0.00	7.09	874.32	437.16	728.52	364.80	59.38	-4.18	0.020
135.00	-0.25	-0.48	0.00	-3.75	0.00	3.75	834.76	417.38	652.50	326.73	63.76	-4.19	0.012
138.00	-0.06	-0.05	0.00	-0.09	0.00	0.09	809.68	404.84	607.85	304.38	66.39	-4.20	0.000
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	68.15	-4.20	0.000

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00 Wind Importance Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		63.5	0.0					0.0	0.0	63.5	0.0	0.0	0.0
5.00		125.9	2,112.5					0.0	489.5	125.9	2,602.1	0.0	0.0
10.00		123.6	2,118.3					0.0	507.7	123.6	2,626.0	0.0	0.0
15.00		121.0	2,093.2					0.0	517.2	121.0	2,610.4	0.0	0.0
20.00		118.3	2,058.0					0.0	523.8	118.3	2,581.9	0.0	0.0
25.00		115.5	2,017.5					0.0	529.0	115.5	2,546.6	0.0	0.0
30.00		114.1	1,973.8					0.0	533.3	114.1	2,507.0	0.0	0.0
35.00		114.9	1,927.6					0.0	536.9	114.9	2,464.5	0.0	0.0
40.00		59.4	1,879.8					0.0	540.1	59.4	2,419.9	0.0	0.0
40.13	Bot - Section 2	59.5	48.4					0.0	14.1	59.5	62.5	0.0	0.0
45.00		68.5	2,921.2					0.0	528.8	68.5	3,450.0	0.0	0.0
45.88	Top - Section 1	59.8	520.4					0.0	95.8	59.8	616.2	0.0	0.0
50.00		109.2	1,367.2					0.0	449.7	109.2	1,816.8	0.0	0.0
55.00		119.7	1,615.8					0.0	547.8	119.7	2,163.7	0.0	0.0
60.00		119.2	1,569.1					0.0	550.0	119.2	2,119.1	0.0	0.0
65.00		118.3	1,521.7					0.0	552.0	118.3	2,073.7	0.0	0.0
70.00		117.2	1,473.7					0.0	553.9	117.2	2,027.6	0.0	0.0
75.00		112.0	1,425.3					0.0	555.7	112.0	1,980.9	0.0	0.0
79.67	Bot - Section 3	57.6	1,288.5					0.0	520.9	57.6	1,809.3	0.0	0.0
80.00		38.5	132.2					0.0	36.5	38.5	168.7	0.0	0.0
83.00	Appertunance(s)	50.0	1,196.8	382.2	0.0	0.0	2,954.3	0.0	335.1	432.2	4,486.3	0.0	0.0
84.34	Top - Section 2	22.9	526.6					0.0	149.9	22.9	676.5	0.0	0.0
85.00		64.1	144.0					0.0	73.9	64.1	217.9	0.0	0.0
90.00	Appertunance(s)	112.1	1,061.1	691.0	0.0	0.0	6,128.8	0.0	560.4	803.1	7,750.2	0.0	0.0
95.00		109.8	1,021.2					0.0	536.9	109.8	1,558.1	0.0	0.0
100.00		96.8	981.0					0.0	538.3	96.8	1,519.3	0.0	0.0
104.00	Appertunance(s)	53.0	757.1	481.8	0.0	0.0	3,696.7	0.0	431.5	534.8	4,885.4	0.0	0.0
105.00		62.1	186.3					0.0	57.6	62.1	243.8	0.0	0.0
110.00		101.9	899.8					0.0	287.8	101.9	1,187.7	0.0	0.0
115.00		52.4	858.9					0.0	287.8	52.4	1,146.7	0.0	0.0
115.22	Bot - Section 4	37.6	37.2					0.0	12.7	37.6	49.9	0.0	0.0
118.80	Top - Section 3	47.1	799.5					0.0	206.3	47.1	1,005.8	0.0	0.0
120.00	Appertunance(s)	59.4	152.8	2,481.4	0.0	0.0	14,560.7	0.0	68.9	2,540.8	14,782.4	0.0	0.0
125.00		93.8	612.2					0.0	179.0	93.8	791.2	0.0	0.0
130.00	Appertunance(s)	90.4	580.7	1,084.9	0.0	0.0	9,247.6	0.0	179.0	1,175.3	10,007.3	0.0	0.0
135.00		70.1	549.0					0.0	4.0	70.1	552.9	0.0	0.0
138.00	Appertunance(s)	42.6	316.3	134.1	0.0	1,034.3	405.8	0.0	2.4	176.6	724.4	0.0	0.0
140.00		16.8	205.2					0.0	0.0	16.8	205.2	0.0	0.0
								Totals:		8,374.32	90,437.8	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph with 1.00 in Radial Ice — 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00 Wind Importance Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-90.43	-8.35	0.00	-880.35	0.00	880.35	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.159
5.00	-87.83	-8.29	0.00	-838.61	0.00	838.61	5,798.22	2,899.11	11,708.2	5,862.84	0.03	-0.05	0.158
10.00	-85.19	-8.24	0.00	-797.13	0.00	797.13	5,660.37	2,830.18	11,137.9	5,577.27	0.10	-0.10	0.158
15.00	-82.58	-8.19	0.00	-755.93	0.00	755.93	5,513.53	2,756.76	10,564.7	5,290.20	0.23	-0.15	0.158
20.00	-79.99	-8.13	0.00	-714.99	0.00	714.99	5,366.68	2,683.34	10,006.5	5,010.72	0.41	-0.20	0.158
25.00	-77.43	-8.08	0.00	-674.33	0.00	674.33	5,219.84	2,609.92	9,463.58	4,738.82	0.64	-0.25	0.157
30.00	-74.92	-8.02	0.00	-633.93	0.00	633.93	5,073.00	2,536.50	8,935.73	4,474.51	0.93	-0.30	0.156
35.00	-72.45	-7.96	0.00	-593.81	0.00	593.81	4,926.16	2,463.08	8,423.04	4,217.78	1.28	-0.36	0.156
40.00	-70.02	-7.92	0.00	-553.99	0.00	553.99	4,779.32	2,389.66	7,925.49	3,968.63	1.68	-0.41	0.154
40.13	-69.96	-7.90	0.00	-552.96	0.00	552.96	4,775.51	2,387.75	7,912.75	3,962.26	1.69	-0.41	0.154
45.00	-66.50	-7.84	0.00	-514.49	0.00	514.49	4,632.48	2,316.24	7,443.09	3,727.08	2.15	-0.47	0.152
45.88	-65.88	-7.81	0.00	-507.59	0.00	507.59	4,127.52	2,063.76	6,764.96	3,387.51	2.23	-0.48	0.166
50.00	-64.06	-7.75	0.00	-475.41	0.00	475.41	4,021.65	2,010.83	6,420.54	3,215.04	2.67	-0.53	0.164
55.00	-61.89	-7.67	0.00	-436.68	0.00	436.68	3,893.17	1,946.58	6,014.64	3,011.79	3.26	-0.59	0.161
60.00	-59.76	-7.60	0.00	-398.30	0.00	398.30	3,764.68	1,882.34	5,621.99	2,815.17	3.91	-0.65	0.157
65.00	-57.68	-7.52	0.00	-360.31	0.00	360.31	3,636.20	1,818.10	5,242.60	2,625.19	4.63	-0.72	0.153
70.00	-55.65	-7.44	0.00	-322.72	0.00	322.72	3,507.71	1,753.86	4,876.46	2,441.85	5.41	-0.78	0.148
75.00	-53.66	-7.35	0.00	-285.54	0.00	285.54	3,379.23	1,689.61	4,523.57	2,265.15	6.27	-0.84	0.142
79.67	-51.85	-7.30	0.00	-251.18	0.00	251.18	3,259.13	1,629.57	4,205.72	2,105.99	7.12	-0.90	0.135
80.00	-51.68	-7.27	0.00	-248.79	0.00	248.79	3,250.74	1,625.37	4,183.94	2,095.08	7.18	-0.91	0.135
83.00	-47.20	-6.79	0.00	-226.97	0.00	226.97	3,173.65	1,586.82	3,986.52	1,996.22	7.76	-0.94	0.129
84.34	-46.52	-6.77	0.00	-217.88	0.00	217.88	2,286.71	1,143.35	2,923.37	1,463.86	8.03	-0.96	0.169
85.00	-46.30	-6.73	0.00	-213.41	0.00	213.41	2,277.67	1,138.84	2,896.31	1,450.31	8.16	-0.97	0.168
90.00	-38.56	-5.84	0.00	-179.75	0.00	179.75	2,193.67	1,096.84	2,676.37	1,340.17	9.22	-1.04	0.152
95.00	-36.99	-5.75	0.00	-150.53	0.00	150.53	2,101.90	1,050.95	2,456.00	1,229.83	10.35	-1.11	0.140
100.00	-35.47	-5.66	0.00	-121.79	0.00	121.79	2,010.12	1,005.06	2,245.10	1,124.22	11.55	-1.18	0.126
104.00	-30.60	-5.04	0.00	-99.17	0.00	99.17	1,936.70	968.35	2,083.19	1,043.15	12.56	-1.23	0.111
105.00	-30.35	-4.99	0.00	-94.13	0.00	94.13	1,918.35	959.17	2,043.66	1,023.35	12.82	-1.24	0.108
110.00	-29.16	-4.88	0.00	-69.20	0.00	69.20	1,826.57	913.29	1,851.70	927.22	14.15	-1.29	0.091
115.00	-28.01	-4.81	0.00	-44.79	0.00	44.79	1,734.80	867.40	1,669.20	835.84	15.53	-1.34	0.070
115.22	-27.96	-4.78	0.00	-43.73	0.00	43.73	1,730.76	865.38	1,661.38	831.93	15.59	-1.34	0.069
118.80	-26.96	-4.72	0.00	-26.60	0.00	26.60	956.25	478.12	907.22	454.29	16.60	-1.36	0.087
120.00	-12.24	-1.83	0.00	-20.96	0.00	20.96	947.93	473.97	887.63	444.47	16.94	-1.37	0.060
125.00	-11.45	-1.72	0.00	-11.82	0.00	11.82	912.05	456.02	806.99	404.09	18.39	-1.39	0.042
130.00	-1.48	-0.30	0.00	-3.23	0.00	3.23	874.32	437.16	728.52	364.80	19.86	-1.41	0.011
135.00	-0.92	-0.22	0.00	-1.73	0.00	1.73	834.76	417.38	652.50	326.73	21.33	-1.41	0.006
138.00	-0.20	-0.02	0.00	-0.04	0.00	0.04	809.68	404.84	607.85	304.38	22.22	-1.41	0.000
140.00	0.00	-0.02	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	22.81	-1.41	0.000

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:OAA713339_C3_01 10/4/2017 3:55:08 PM

Customer: SPRINT NEXTEL

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		46.7	0.0					0.0	0.0	46.7	0.0	0.0	0.0
5.00		92.2	1,346.7					0.0	293.4	92.2	1,640.1	0.0	0.0
10.00		89.9	1,313.1					0.0	293.4	89.9	1,606.5	0.0	0.0
15.00		87.6	1,279.4					0.0	293.4	87.6	1,572.8	0.0	0.0
20.00		85.3	1,245.8					0.0	293.4	85.3	1,539.2	0.0	0.0
25.00		83.0	1,212.2					0.0	293.4	83.0	1,505.6	0.0	0.0
30.00		81.7	1,178.6					0.0	293.4	81.7	1,472.0	0.0	0.0
35.00		81.9	1,144.9					0.0	293.4	81.9	1,438.3	0.0	0.0
40.00		42.3	1,111.3					0.0	293.4	42.3	1,404.7	0.0	0.0
40.13	Bot - Section 2	42.3	28.4					0.0	7.6	42.3	36.1	0.0	0.0
45.00		48.7	1,988.9					0.0	285.8	48.7	2,274.6	0.0	0.0
45.88	Top - Section 1	42.4	353.0					0.0	51.6	42.4	404.6	0.0	0.0
50.00		77.1	768.9					0.0	241.8	77.1	1,010.6	0.0	0.0
55.00		84.2	906.3					0.0	293.4	84.2	1,199.7	0.0	0.0
60.00		83.5	876.8					0.0	293.4	83.5	1,170.2	0.0	0.0
65.00		82.6	847.4					0.0	293.4	82.6	1,140.8	0.0	0.0
70.00		81.4	818.0					0.0	293.4	81.4	1,111.4	0.0	0.0
75.00		77.4	788.6					0.0	293.4	77.4	1,082.0	0.0	0.0
79.67	Bot - Section 3	39.7	710.4					0.0	274.2	39.7	984.7	0.0	0.0
80.00		26.5	84.3					0.0	19.2	26.5	103.5	0.0	0.0
83.00	Appertunance(s)	34.4	764.2	310.1	0.0	0.0	1,566.0	0.0	176.0	344.5	2,506.3	0.0	0.0
84.34	Top - Section 2	15.7	335.5					0.0	78.6	15.7	414.1	0.0	0.0
85.00		43.9	69.3					0.0	38.7	43.9	108.0	0.0	0.0
90.00	Appertunance(s)	76.4	512.9	629.7	0.0	0.0	2,553.3	0.0	293.4	706.1	3,359.6	0.0	0.0
95.00		74.4	491.9					0.0	272.7	74.4	764.5	0.0	0.0
100.00		65.2	470.8					0.0	272.7	65.2	743.5	0.0	0.0
104.00	Appertunance(s)	35.5	361.5	417.1	0.0	0.0	1,675.4	0.0	218.1	452.6	2,255.1	0.0	0.0
105.00		41.4	88.3					0.0	48.0	41.4	136.3	0.0	0.0
110.00		67.5	428.8					0.0	239.9	67.5	668.7	0.0	0.0
115.00		34.6	407.8					0.0	239.9	34.6	647.6	0.0	0.0
115.22	Bot - Section 4	24.7	17.5					0.0	10.6	24.7	28.0	0.0	0.0
118.80	Top - Section 3	30.9	449.5					0.0	171.9	30.9	621.4	0.0	0.0
120.00	Appertunance(s)	38.6	55.6	2,156.1	0.0	0.0	4,500.0	0.0	57.4	2,194.8	4,613.0	0.0	0.0
125.00		60.6	224.5					0.0	149.2	60.6	373.7	0.0	0.0
130.00	Appertunance(s)	57.8	211.9	1,051.7	0.0	0.0	3,152.6	0.0	149.2	1,109.6	3,513.7	0.0	0.0
135.00		44.4	199.3					0.0	3.3	44.4	202.6	0.0	0.0
138.00	Appertunance(s)	26.7	113.5	83.6	0.0	574.9	125.0	0.0	2.0	110.3	240.5	0.0	0.0
140.00		10.5	73.2					0.0	0.0	10.5	73.2	0.0	0.0
								Totals:		6,807.81	43,966.9	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-43.96	-6.78	0.00	-696.16	0.00	696.16	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.121
5.00	-42.32	-6.71	0.00	-662.28	0.00	662.28	5,798.22	2,899.11	11,708.2	5,862.84	0.02	-0.04	0.120
10.00	-40.71	-6.65	0.00	-628.73	0.00	628.73	5,660.37	2,830.18	11,137.9	5,577.27	0.08	-0.08	0.120
15.00	-39.13	-6.58	0.00	-595.50	0.00	595.50	5,513.53	2,756.76	10,564.7	5,290.20	0.18	-0.11	0.120
20.00	-37.59	-6.52	0.00	-562.58	0.00	562.58	5,366.68	2,683.34	10,006.5	5,010.72	0.32	-0.16	0.119
25.00	-36.08	-6.46	0.00	-529.97	0.00	529.97	5,219.84	2,609.92	9,463.58	4,738.82	0.51	-0.20	0.119
30.00	-34.60	-6.40	0.00	-497.68	0.00	497.68	5,073.00	2,536.50	8,935.73	4,474.51	0.74	-0.24	0.118
35.00	-33.16	-6.33	0.00	-465.69	0.00	465.69	4,926.16	2,463.08	8,423.04	4,217.78	1.01	-0.28	0.117
40.00	-31.75	-6.30	0.00	-434.01	0.00	434.01	4,779.32	2,389.66	7,925.49	3,968.63	1.33	-0.32	0.116
40.13	-31.71	-6.27	0.00	-433.19	0.00	433.19	4,775.51	2,387.75	7,912.75	3,962.26	1.33	-0.33	0.116
45.00	-29.44	-6.22	0.00	-402.67	0.00	402.67	4,632.48	2,316.24	7,443.09	3,727.08	1.69	-0.37	0.114
45.88	-29.03	-6.18	0.00	-397.20	0.00	397.20	4,127.52	2,063.76	6,764.96	3,387.51	1.76	-0.38	0.124
50.00	-28.02	-6.12	0.00	-371.72	0.00	371.72	4,021.65	2,010.83	6,420.54	3,215.04	2.10	-0.42	0.123
55.00	-26.81	-6.05	0.00	-341.11	0.00	341.11	3,893.17	1,946.58	6,014.64	3,011.79	2.56	-0.46	0.120
60.00	-25.64	-5.98	0.00	-310.85	0.00	310.85	3,764.68	1,882.34	5,621.99	2,815.17	3.08	-0.51	0.117
65.00	-24.49	-5.91	0.00	-280.95	0.00	280.95	3,636.20	1,818.10	5,242.60	2,625.19	3.64	-0.56	0.114
70.00	-23.38	-5.84	0.00	-251.41	0.00	251.41	3,507.71	1,753.86	4,876.46	2,441.85	4.26	-0.61	0.110
75.00	-22.29	-5.76	0.00	-222.24	0.00	222.24	3,379.23	1,689.61	4,523.57	2,265.15	4.92	-0.66	0.105
79.67	-21.30	-5.72	0.00	-195.30	0.00	195.30	3,259.13	1,629.57	4,205.72	2,105.99	5.59	-0.71	0.099
80.00	-21.20	-5.70	0.00	-193.43	0.00	193.43	3,250.74	1,625.37	4,183.94	2,095.08	5.64	-0.71	0.099
83.00	-18.70	-5.33	0.00	-176.34	0.00	176.34	3,173.65	1,586.82	3,986.52	1,996.22	6.10	-0.74	0.094
84.34	-18.28	-5.31	0.00	-169.19	0.00	169.19	2,286.71	1,143.35	2,923.37	1,463.86	6.31	-0.75	0.124
85.00	-18.17	-5.28	0.00	-165.69	0.00	165.69	2,277.67	1,138.84	2,896.31	1,450.31	6.41	-0.76	0.122
90.00	-14.82	-4.54	0.00	-139.30	0.00	139.30	2,193.67	1,096.84	2,676.37	1,340.17	7.24	-0.82	0.111
95.00	-14.05	-4.47	0.00	-116.60	0.00	116.60	2,101.90	1,050.95	2,456.00	1,229.83	8.12	-0.87	0.102
100.00	-13.30	-4.40	0.00	-94.27	0.00	94.27	2,010.12	1,005.06	2,245.10	1,124.22	9.06	-0.92	0.090
104.00	-11.05	-3.92	0.00	-76.66	0.00	76.66	1,936.70	968.35	2,083.19	1,043.15	9.85	-0.96	0.079
105.00	-10.92	-3.88	0.00	-72.75	0.00	72.75	1,918.35	959.17	2,043.66	1,023.35	10.05	-0.97	0.077
110.00	-10.25	-3.80	0.00	-53.36	0.00	53.36	1,826.57	913.29	1,851.70	927.22	11.09	-1.01	0.063
115.00	-9.60	-3.76	0.00	-34.34	0.00	34.34	1,734.80	867.40	1,669.20	835.84	12.17	-1.04	0.047
115.22	-9.57	-3.74	0.00	-33.51	0.00	33.51	1,730.76	865.38	1,661.38	831.93	12.21	-1.04	0.046
118.80	-8.95	-3.70	0.00	-20.12	0.00	20.12	956.25	478.12	907.22	454.29	13.01	-1.06	0.054
120.00	-4.38	-1.42	0.00	-15.70	0.00	15.70	947.93	473.97	887.63	444.47	13.27	-1.07	0.040
125.00	-4.00	-1.35	0.00	-8.61	0.00	8.61	912.05	456.02	806.99	404.09	14.40	-1.08	0.026
130.00	-0.51	-0.17	0.00	-1.85	0.00	1.85	874.32	437.16	728.52	364.80	15.54	-1.09	0.006
135.00	-0.31	-0.13	0.00	-0.98	0.00	0.98	834.76	417.38	652.50	326.73	16.69	-1.10	0.003
138.00	-0.07	-0.01	0.00	-0.02	0.00	0.02	809.68	404.84	607.85	304.38	17.38	-1.10	0.000
140.00	0.00	-0.01	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	17.84	-1.10	0.000

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_s):	0.18	
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06	
Long-Period Transition Period (T_L):	6	
Importance Factor (I_E):	1.00	
Site Coefficient F_a:	1.60	
Site Coeffiecient F_v:	2.40	
Response Modification Coefficient (R):	1.50	
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19	
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10	
Seismic Response Coefficient (C_s):	0.03	
Upper Limit C_s	0.03	
Lower Limit C_s	0.03	
Period based on Rayleigh Method (sec):	2.04	
Redundancy Factor (p):	1.30	
Seismic Force Distribution Exponent (k):	1.77	
Total Unfactored Dead Load:	43.97	k
Seismic Base Shear (E):	1.91	k

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	139.00	73	452	0.004	9	91
36	136.50	116	691	0.007	13	143
35	132.50	203	1,149	0.011	22	251
34	127.50	361	1,914	0.019	36	447
33	122.50	374	1,846	0.018	35	463
32	119.40	113	533	0.005	10	140
31	117.01	621	2,830	0.028	53	770
30	115.11	28	124	0.001	2	35
29	112.50	648	2,751	0.027	52	802
28	107.50	669	2,621	0.026	49	828
27	104.50	136	508	0.005	10	169
26	102.00	580	2,071	0.020	39	718
25	97.50	743	2,452	0.024	46	921
24	92.50	765	2,297	0.023	43	947
23	87.50	806	2,196	0.022	41	998
22	84.67	108	278	0.003	5	134
21	83.67	414	1,042	0.010	20	513
20	81.50	940	2,258	0.022	42	1,164
19	79.84	103	240	0.002	5	128
18	77.34	985	2,156	0.021	41	1,219
17	72.50	1,082	2,113	0.021	40	1,340
16	67.50	1,111	1,913	0.019	36	1,376
15	62.50	1,141	1,713	0.017	32	1,413

14	57.50	1,170	1,517	0.015	29	1,449
13	52.50	1,200	1,324	0.013	25	1,486
12	47.94	1,011	950	0.009	18	1,252
11	45.44	405	346	0.003	7	501
10	42.56	2,275	1,732	0.017	33	2,817
9	40.06	36	25	0.000	0	45
8	37.50	1,405	855	0.008	16	1,740
7	32.50	1,438	679	0.007	13	1,781
6	27.50	1,472	517	0.005	10	1,823
5	22.50	1,506	371	0.004	7	1,865
4	17.50	1,539	243	0.002	5	1,906
3	12.50	1,573	137	0.001	3	1,948
2	7.50	1,606	57	0.001	1	1,989
1	2.50	1,640	8	0.000	0	2,031
Stand-Off	138.00	75	457	0.004	9	93
18' Omni	138.00	50	305	0.003	6	62
CCI DTMABP7819VG12A	130.00	115	632	0.006	12	143
Raycap DC6-48-60-0-8	130.00	66	360	0.004	7	81
Ericsson RRUS-11 (50	130.00	300	1,646	0.016	31	372
Ericsson RRUS 32 (50	130.00	152	836	0.008	16	189
KMW AM-X-CD-14-65-00	130.00	36	200	0.002	4	45
Kathrein Scala 800-1	130.00	132	726	0.007	14	164
CSS DUO1417-8686	130.00	61	334	0.003	6	75
Andrew SBNHH-1D65A (	130.00	34	184	0.002	3	41
KMW AM-X-CD-17-65-00	130.00	60	326	0.003	6	74
Andrew SBNH-1D6565C	130.00	61	334	0.003	6	75
CCI HPA-65R-BUU-H8	130.00	136	746	0.007	14	168
Flat Platform w/ Han	130.00	2,000	10,972	0.108	206	2,477
GPS	120.00	10	48	0.000	1	12
Alcatel-Lucent B13 R	120.00	172	817	0.008	15	213
Alcatel-Lucent PCS B	120.00	165	786	0.008	15	204
Alcatel-Lucent B66 R	120.00	201	957	0.009	18	249
RFS DB-T1-6Z-8AB-0Z	120.00	88	419	0.004	8	109
Antel LPA-80080/4CF_	120.00	24	114	0.001	2	30
Antel LPA-80080/4CF	120.00	24	114	0.001	2	30
Antel LPA-80063/4CF	120.00	40	190	0.002	4	50
Amphenol Antel BXA-7	120.00	51	243	0.002	5	63
Commscope SBNHH-1D65	120.00	304	1,449	0.014	27	377
Flat Platform w/ Han	120.00	2,000	9,523	0.094	179	2,477
VZW Unused Reserve:	120.00	1,421	6,767	0.066	127	1,760
Kathrein Smart Bias	104.00	7	24	0.000	0	8
Ericsson KRY 112 489	104.00	31	114	0.001	2	38
RFS APXV18-209014-C	104.00	37	138	0.001	3	46
Commscope LNX-6515DS	104.00	101	372	0.004	7	125
Flat Low Profile Pla	104.00	1,500	5,545	0.054	104	1,858
PCTEL GPS-TMG-HR-26N	90.00	1	2	0.000	0	1
Alcatel-Lucent RRH2x	90.00	159	454	0.004	9	197
Alcatel-Lucent 800 M	90.00	159	455	0.004	9	197
Alcatel-Lucent 1900	90.00	180	515	0.005	10	223
Alcatel-Lucent TD-RR	90.00	210	601	0.006	11	260
RFS APXVSPP18-C-A20	90.00	171	490	0.005	9	212
Commscope DT465B-2XR	90.00	174	498	0.005	9	215
Flat Low Profile Pla	90.00	1,500	4,294	0.042	81	1,858
Kathrein Scala 742 2	83.00	66	164	0.002	3	82
Flat Low Profile Pla	83.00	1,500	3,721	0.037	70	1,858
		43,967	101,778	1.000	1,915	54,449

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	139.00	73	452	0.004	9	63
36	136.50	116	691	0.007	13	100
35	132.50	203	1,149	0.011	22	175
34	127.50	361	1,914	0.019	36	311
33	122.50	374	1,846	0.018	35	322
32	119.40	113	533	0.005	10	97
31	117.01	621	2,830	0.028	53	535
30	115.11	28	124	0.001	2	24
29	112.50	648	2,751	0.027	52	558
28	107.50	669	2,621	0.026	49	576
27	104.50	136	508	0.005	10	117
26	102.00	580	2,071	0.020	39	499
25	97.50	743	2,452	0.024	46	641
24	92.50	765	2,297	0.023	43	659
23	87.50	806	2,196	0.022	41	695
22	84.67	108	278	0.003	5	93
21	83.67	414	1,042	0.010	20	357
20	81.50	940	2,258	0.022	42	810
19	79.84	103	240	0.002	5	89
18	77.34	985	2,156	0.021	41	848
17	72.50	1,082	2,113	0.021	40	932
16	67.50	1,111	1,913	0.019	36	958
15	62.50	1,141	1,713	0.017	32	983
14	57.50	1,170	1,517	0.015	29	1,008
13	52.50	1,200	1,324	0.013	25	1,034
12	47.94	1,011	950	0.009	18	871
11	45.44	405	346	0.003	7	349
10	42.56	2,275	1,732	0.017	33	1,960
9	40.06	36	25	0.000	0	31
8	37.50	1,405	855	0.008	16	1,210
7	32.50	1,438	679	0.007	13	1,239
6	27.50	1,472	517	0.005	10	1,268
5	22.50	1,506	371	0.004	7	1,297
4	17.50	1,539	243	0.002	5	1,326
3	12.50	1,573	137	0.001	3	1,355
2	7.50	1,606	57	0.001	1	1,384
1	2.50	1,640	8	0.000	0	1,413
Stand-Off	138.00	75	457	0.004	9	65
18' Omni	138.00	50	305	0.003	6	43
CCI DTMABP7819VG12A	130.00	115	632	0.006	12	99
Raycap DC6-48-60-0-8	130.00	66	360	0.004	7	57
Ericsson RRUS-11 (50	130.00	300	1,646	0.016	31	258
Ericsson RRUS 32 (50	130.00	152	836	0.008	16	131
KMW AM-X-CD-14-65-00	130.00	36	200	0.002	4	31
Kathrein Scala 800-1	130.00	132	726	0.007	14	114
CSS DUO1417-8686	130.00	61	334	0.003	6	52
Andrew SBNHH-1D65A (	130.00	34	184	0.002	3	29
KMW AM-X-CD-17-65-00	130.00	60	326	0.003	6	51
Andrew SBNH-1D6565C	130.00	61	334	0.003	6	52
CCI HPA-65R-BUU-H8	130.00	136	746	0.007	14	117
Flat Platform w/ Han	130.00	2,000	10,972	0.108	206	1,723
GPS	120.00	10	48	0.000	1	9
Alcatel-Lucent B13 R	120.00	172	817	0.008	15	148
Alcatel-Lucent PCS B	120.00	165	786	0.008	15	142
Alcatel-Lucent B66 R	120.00	201	957	0.009	18	173
RFS DB-T1-6Z-8AB-0Z	120.00	88	419	0.004	8	76
Antel LPA-80080/4CF_	120.00	24	114	0.001	2	21

Antel LPA-80080/4CF	120.00	24	114	0.001	2	21
Antel LPA-80063/4CF	120.00	40	190	0.002	4	34
Amphenol Antel BXA-7	120.00	51	243	0.002	5	44
Commscope SBNHH-1D65	120.00	304	1,449	0.014	27	262
Flat Platform w/ Han	120.00	2,000	9,523	0.094	179	1,723
VZW Unused Reserve:	120.00	1,421	6,767	0.066	127	1,225
Kathrein Smart Bias	104.00	7	24	0.000	0	6
Ericsson KRY 112 489	104.00	31	114	0.001	2	27
RFS APXV18-209014-C	104.00	37	138	0.001	3	32
Commscope LNX-6515DS	104.00	101	372	0.004	7	87
Flat Low Profile Pla	104.00	1,500	5,545	0.054	104	1,292
PCTEL GPS-TMG-HR-26N	90.00	1	2	0.000	0	1
Alcatel-Lucent RRH2x	90.00	159	454	0.004	9	137
Alcatel-Lucent 800 M	90.00	159	455	0.004	9	137
Alcatel-Lucent 1900	90.00	180	515	0.005	10	155
Alcatel-Lucent TD-RR	90.00	210	601	0.006	11	181
RFS APXVSPP18-C-A20	90.00	171	490	0.005	9	147
Commscope DT465B-2XR	90.00	174	498	0.005	9	150
Flat Low Profile Pla	90.00	1,500	4,294	0.042	81	1,292
Kathrein Scala 742 2	83.00	66	164	0.002	3	57
Flat Low Profile Pla	83.00	1,500	3,721	0.037	70	1,292
		43,967	101,778	1.000	1,915	37,882

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-52.42	-1.92	0.00	-203.04	0.00	203.04	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.042
5.00	-50.43	-1.93	0.00	-193.44	0.00	193.44	5,798.22	2,899.11	11,708.2	5,862.84	0.01	-0.01	0.042
10.00	-48.48	-1.93	0.00	-183.80	0.00	183.80	5,660.37	2,830.18	11,137.9	5,577.27	0.02	-0.02	0.042
15.00	-46.57	-1.94	0.00	-174.13	0.00	174.13	5,513.53	2,756.76	10,564.7	5,290.20	0.05	-0.03	0.041
20.00	-44.71	-1.94	0.00	-164.44	0.00	164.44	5,366.68	2,683.34	10,006.5	5,010.72	0.09	-0.05	0.041
25.00	-42.88	-1.94	0.00	-154.74	0.00	154.74	5,219.84	2,609.92	9,463.58	4,738.82	0.15	-0.06	0.041
30.00	-41.10	-1.93	0.00	-145.06	0.00	145.06	5,073.00	2,536.50	8,935.73	4,474.51	0.21	-0.07	0.041
35.00	-39.36	-1.92	0.00	-135.41	0.00	135.41	4,926.16	2,463.08	8,423.04	4,217.78	0.29	-0.08	0.040
40.00	-39.32	-1.93	0.00	-125.80	0.00	125.80	4,779.32	2,389.66	7,925.49	3,968.63	0.39	-0.09	0.040
40.13	-36.50	-1.89	0.00	-125.55	0.00	125.55	4,775.51	2,387.75	7,912.75	3,962.26	0.39	-0.10	0.039
45.00	-36.00	-1.89	0.00	-116.33	0.00	116.33	4,632.48	2,316.24	7,443.09	3,727.08	0.49	-0.11	0.039
45.88	-34.75	-1.87	0.00	-114.67	0.00	114.67	4,127.52	2,063.76	6,764.96	3,387.51	0.51	-0.11	0.042
50.00	-33.26	-1.85	0.00	-106.95	0.00	106.95	4,021.65	2,010.83	6,420.54	3,215.04	0.61	-0.12	0.042
55.00	-31.81	-1.83	0.00	-97.69	0.00	97.69	3,893.17	1,946.58	6,014.64	3,011.79	0.75	-0.13	0.041
60.00	-30.40	-1.80	0.00	-88.55	0.00	88.55	3,764.68	1,882.34	5,621.99	2,815.17	0.90	-0.15	0.040
65.00	-29.02	-1.77	0.00	-79.55	0.00	79.55	3,636.20	1,818.10	5,242.60	2,625.19	1.06	-0.16	0.038
70.00	-27.68	-1.73	0.00	-70.71	0.00	70.71	3,507.71	1,753.86	4,876.46	2,441.85	1.24	-0.18	0.037
75.00	-26.46	-1.69	0.00	-62.06	0.00	62.06	3,379.23	1,689.61	4,523.57	2,265.15	1.43	-0.19	0.035
79.67	-26.33	-1.69	0.00	-54.15	0.00	54.15	3,259.13	1,629.57	4,205.72	2,105.99	1.62	-0.20	0.034
80.00	-25.17	-1.65	0.00	-53.60	0.00	53.60	3,250.74	1,625.37	4,183.94	2,095.08	1.64	-0.20	0.033
83.00	-22.72	-1.55	0.00	-48.66	0.00	48.66	3,173.65	1,586.82	3,986.52	1,996.22	1.77	-0.21	0.032
84.34	-22.58	-1.54	0.00	-46.59	0.00	46.59	2,286.71	1,143.35	2,923.37	1,463.86	1.83	-0.22	0.042
85.00	-21.59	-1.50	0.00	-45.57	0.00	45.57	2,277.67	1,138.84	2,896.31	1,450.31	1.86	-0.22	0.041
90.00	-17.48	-1.31	0.00	-38.07	0.00	38.07	2,193.67	1,096.84	2,676.37	1,340.17	2.10	-0.23	0.036
95.00	-16.56	-1.26	0.00	-31.53	0.00	31.53	2,101.90	1,050.95	2,456.00	1,229.83	2.35	-0.25	0.034
100.00	-15.84	-1.22	0.00	-25.22	0.00	25.22	2,010.12	1,005.06	2,245.10	1,124.22	2.62	-0.26	0.030
104.00	-13.60	-1.09	0.00	-20.33	0.00	20.33	1,936.70	968.35	2,083.19	1,043.15	2.84	-0.27	0.027
105.00	-12.77	-1.04	0.00	-19.24	0.00	19.24	1,918.35	959.17	2,043.66	1,023.35	2.90	-0.27	0.025
110.00	-11.97	-0.98	0.00	-14.06	0.00	14.06	1,826.57	913.29	1,851.70	927.22	3.19	-0.29	0.022
115.00	-11.93	-0.98	0.00	-9.14	0.00	9.14	1,734.80	867.40	1,669.20	835.84	3.49	-0.29	0.018
115.22	-11.16	-0.92	0.00	-8.93	0.00	8.93	1,730.76	865.38	1,661.38	831.93	3.51	-0.29	0.017
118.80	-11.02	-0.91	0.00	-5.62	0.00	5.62	956.25	478.12	907.22	454.29	3.73	-0.30	0.024
120.00	-4.99	-0.45	0.00	-4.52	0.00	4.52	947.93	473.97	887.63	444.47	3.81	-0.30	0.015
125.00	-4.54	-0.41	0.00	-2.30	0.00	2.30	912.05	456.02	806.99	404.09	4.12	-0.31	0.011
130.00	-0.39	-0.04	0.00	-0.26	0.00	0.26	874.32	437.16	728.52	364.80	4.45	-0.31	0.001
135.00	-0.25	-0.02	0.00	-0.07	0.00	0.07	834.76	417.38	652.50	326.73	4.77	-0.31	0.001
138.00	0.00	0.00	0.00	0.00	0.00	0.00	809.68	404.84	607.85	304.38	4.96	-0.31	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	5.09	-0.31	0.000

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-36.47	-1.92	0.00	-200.61	0.00	200.61	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.039
5.00	-35.08	-1.92	0.00	-191.02	0.00	191.02	5,798.22	2,899.11	11,708.2	5,862.84	0.01	-0.01	0.039
10.00	-33.73	-1.93	0.00	-181.41	0.00	181.41	5,660.37	2,830.18	11,137.9	5,577.27	0.02	-0.02	0.038
15.00	-32.40	-1.93	0.00	-171.77	0.00	171.77	5,513.53	2,756.76	10,564.7	5,290.20	0.05	-0.03	0.038
20.00	-31.10	-1.93	0.00	-162.13	0.00	162.13	5,366.68	2,683.34	10,006.5	5,010.72	0.09	-0.04	0.038
25.00	-29.84	-1.92	0.00	-152.50	0.00	152.50	5,219.84	2,609.92	9,463.58	4,738.82	0.15	-0.06	0.038
30.00	-28.60	-1.91	0.00	-142.89	0.00	142.89	5,073.00	2,536.50	8,935.73	4,474.51	0.21	-0.07	0.038
35.00	-27.39	-1.90	0.00	-133.32	0.00	133.32	4,926.16	2,463.08	8,423.04	4,217.78	0.29	-0.08	0.037
40.00	-27.35	-1.90	0.00	-123.81	0.00	123.81	4,779.32	2,389.66	7,925.49	3,968.63	0.38	-0.09	0.037
40.13	-25.39	-1.87	0.00	-123.56	0.00	123.56	4,775.51	2,387.75	7,912.75	3,962.26	0.38	-0.09	0.037
45.00	-25.05	-1.87	0.00	-114.44	0.00	114.44	4,632.48	2,316.24	7,443.09	3,727.08	0.49	-0.11	0.036
45.88	-24.17	-1.85	0.00	-112.80	0.00	112.80	4,127.52	2,063.76	6,764.96	3,387.51	0.51	-0.11	0.039
50.00	-23.14	-1.83	0.00	-105.17	0.00	105.17	4,021.65	2,010.83	6,420.54	3,215.04	0.60	-0.12	0.038
55.00	-22.13	-1.80	0.00	-96.03	0.00	96.03	3,893.17	1,946.58	6,014.64	3,011.79	0.74	-0.13	0.038
60.00	-21.15	-1.77	0.00	-87.01	0.00	87.01	3,764.68	1,882.34	5,621.99	2,815.17	0.88	-0.15	0.037
65.00	-20.19	-1.74	0.00	-78.14	0.00	78.14	3,636.20	1,818.10	5,242.60	2,625.19	1.05	-0.16	0.035
70.00	-19.26	-1.70	0.00	-69.43	0.00	69.43	3,507.71	1,753.86	4,876.46	2,441.85	1.22	-0.17	0.034
75.00	-18.41	-1.66	0.00	-60.92	0.00	60.92	3,379.23	1,689.61	4,523.57	2,265.15	1.41	-0.19	0.032
79.67	-18.32	-1.66	0.00	-53.15	0.00	53.15	3,259.13	1,629.57	4,205.72	2,105.99	1.60	-0.20	0.031
80.00	-17.51	-1.62	0.00	-52.60	0.00	52.60	3,250.74	1,625.37	4,183.94	2,095.08	1.61	-0.20	0.030
83.00	-15.80	-1.52	0.00	-47.75	0.00	47.75	3,173.65	1,586.82	3,986.52	1,996.22	1.74	-0.21	0.029
84.34	-15.71	-1.51	0.00	-45.72	0.00	45.72	2,286.71	1,143.35	2,923.37	1,463.86	1.80	-0.21	0.038
85.00	-15.02	-1.47	0.00	-44.72	0.00	44.72	2,277.67	1,138.84	2,896.31	1,450.31	1.83	-0.21	0.037
90.00	-12.16	-1.28	0.00	-37.35	0.00	37.35	2,193.67	1,096.84	2,676.37	1,340.17	2.06	-0.23	0.033
95.00	-11.52	-1.24	0.00	-30.93	0.00	30.93	2,101.90	1,050.95	2,456.00	1,229.83	2.31	-0.24	0.031
100.00	-11.02	-1.20	0.00	-24.74	0.00	24.74	2,010.12	1,005.06	2,245.10	1,124.22	2.58	-0.26	0.027
104.00	-9.46	-1.07	0.00	-19.94	0.00	19.94	1,936.70	968.35	2,083.19	1,043.15	2.80	-0.27	0.024
105.00	-8.88	-1.02	0.00	-18.87	0.00	18.87	1,918.35	959.17	2,043.66	1,023.35	2.85	-0.27	0.023
110.00	-8.32	-0.96	0.00	-13.79	0.00	13.79	1,826.57	913.29	1,851.70	927.22	3.14	-0.28	0.019
115.00	-8.30	-0.96	0.00	-8.97	0.00	8.97	1,734.80	867.40	1,669.20	835.84	3.44	-0.29	0.016
115.22	-7.76	-0.91	0.00	-8.76	0.00	8.76	1,730.76	865.38	1,661.38	831.93	3.45	-0.29	0.015
118.80	-7.67	-0.90	0.00	-5.51	0.00	5.51	956.25	478.12	907.22	454.29	3.67	-0.29	0.020
120.00	-3.47	-0.44	0.00	-4.44	0.00	4.44	947.93	473.97	887.63	444.47	3.75	-0.30	0.014
125.00	-3.16	-0.40	0.00	-2.25	0.00	2.25	912.05	456.02	806.99	404.09	4.06	-0.30	0.009
130.00	-0.27	-0.04	0.00	-0.26	0.00	0.26	874.32	437.16	728.52	364.80	4.38	-0.30	0.001
135.00	-0.17	-0.02	0.00	-0.07	0.00	0.07	834.76	417.38	652.50	326.73	4.69	-0.30	0.000
138.00	0.00	0.00	0.00	0.00	0.00	0.00	809.68	404.84	607.85	304.38	4.88	-0.30	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	5.01	-0.30	0.000

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.04
Redundancy Factor (p):	1.30

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	139.00	73	1.863	1.841	1.090	0.351	22	91
36	136.50	116	1.797	1.523	0.972	0.310	31	143
35	132.50	203	1.693	1.096	0.804	0.249	44	251
34	127.50	361	1.568	0.682	0.627	0.182	57	447
33	122.50	374	1.447	0.379	0.482	0.124	40	463
32	119.40	113	1.375	0.238	0.406	0.093	9	140
31	117.01	621	1.320	0.150	0.354	0.071	38	770
30	115.11	28	1.278	0.091	0.317	0.055	1	35
29	112.50	648	1.220	0.025	0.270	0.036	20	802
28	107.50	669	1.114	-0.061	0.196	0.006	3	828
27	104.50	136	1.053	-0.093	0.159	-0.008	-1	169
26	102.00	580	1.003	-0.109	0.133	-0.017	-9	718
25	97.50	743	0.917	-0.121	0.094	-0.028	-18	921
24	92.50	765	0.825	-0.116	0.061	-0.032	-21	947
23	87.50	806	0.738	-0.098	0.038	-0.028	-19	998
22	84.67	108	0.691	-0.084	0.028	-0.023	-2	134
21	83.67	414	0.675	-0.079	0.025	-0.021	-7	513
20	81.50	940	0.641	-0.067	0.020	-0.015	-12	1,164
19	79.84	103	0.615	-0.058	0.016	-0.011	-1	128
18	77.34	985	0.577	-0.044	0.012	-0.003	-3	1,219
17	72.50	1,082	0.507	-0.019	0.007	0.011	11	1,340
16	67.50	1,111	0.439	0.005	0.006	0.025	24	1,376
15	62.50	1,141	0.377	0.025	0.007	0.036	35	1,413
14	57.50	1,170	0.319	0.041	0.011	0.043	43	1,449
13	52.50	1,200	0.266	0.052	0.015	0.047	49	1,486
12	47.94	1,011	0.222	0.060	0.020	0.048	42	1,252
11	45.44	405	0.199	0.063	0.023	0.048	17	501
10	42.56	2,275	0.175	0.066	0.027	0.048	95	2,817
9	40.06	36	0.155	0.067	0.029	0.048	1	45
8	37.50	1,405	0.136	0.069	0.032	0.047	58	1,740
7	32.50	1,438	0.102	0.071	0.037	0.046	57	1,781
6	27.50	1,472	0.073	0.072	0.040	0.045	57	1,823
5	22.50	1,506	0.049	0.071	0.042	0.043	56	1,865
4	17.50	1,539	0.030	0.068	0.040	0.041	54	1,906

3	12.50	1,573	0.015	0.061	0.036	0.037	50	1,948
2	7.50	1,606	0.005	0.046	0.026	0.029	40	1,989
1	2.50	1,640	0.001	0.019	0.010	0.013	19	2,031
Stand-Off	138.00	75	1.836	1.709	1.041	0.334	22	93
18' Omni	138.00	50	1.836	1.709	1.041	0.334	14	62
CCI DTMABP7819VG12A	130.00	115	1.630	0.873	0.711	0.214	21	143
Raycap DC6-48-60-0-8	130.00	66	1.630	0.873	0.711	0.214	12	81
Ericsson RRUS-11 (50	130.00	300	1.630	0.873	0.711	0.214	56	372
Ericsson RRUS 32 (50	130.00	152	1.630	0.873	0.711	0.214	28	189
KMW AM-X-CD-14-65-00	130.00	36	1.630	0.873	0.711	0.214	7	45
Kathrein Scala 800-1	130.00	132	1.630	0.873	0.711	0.214	25	164
CSS DUO1417-8686	130.00	61	1.630	0.873	0.711	0.214	11	75
Andrew SBNHH-1D65A (	130.00	34	1.630	0.873	0.711	0.214	6	41
KMW AM-X-CD-17-65-00	130.00	60	1.630	0.873	0.711	0.214	11	74
Andrew SBNH-1D6565C	130.00	61	1.630	0.873	0.711	0.214	11	75
CCI HPA-65R-BUU-H8	130.00	136	1.630	0.873	0.711	0.214	25	168
Flat Platform w/ Han	130.00	2,000	1.630	0.873	0.711	0.214	371	2,477
GPS	120.00	10	1.389	0.263	0.420	0.098	1	12
Alcatel-Lucent B13 R	120.00	172	1.389	0.263	0.420	0.098	15	213
Alcatel-Lucent PCS B	120.00	165	1.389	0.263	0.420	0.098	14	204
Alcatel-Lucent B66 R	120.00	201	1.389	0.263	0.420	0.098	17	249
RFS DB-T1-6Z-8AB-0Z	120.00	88	1.389	0.263	0.420	0.098	7	109
Antel LPA-80080/4CF_	120.00	24	1.389	0.263	0.420	0.098	2	30
Antel LPA-80080/4CF	120.00	24	1.389	0.263	0.420	0.098	2	30
Antel LPA-80063/4CF	120.00	40	1.389	0.263	0.420	0.098	3	50
Amphenol Antel BXA-7	120.00	51	1.389	0.263	0.420	0.098	4	63
Commscope SBNHH-	120.00	304	1.389	0.263	0.420	0.098	26	377
Flat Platform w/ Han	120.00	2,000	1.389	0.263	0.420	0.098	170	2,477
VZW Unused Reserve:	120.00	1,421	1.389	0.263	0.420	0.098	121	1,760
Kathrein Smart Bias	104.00	7	1.043	-0.097	0.154	-0.010	0	8
Ericsson KRY 112 489	104.00	31	1.043	-0.097	0.154	-0.010	0	38
RFS APXV18-209014-C	104.00	37	1.043	-0.097	0.154	-0.010	0	46
Commscope LNX-	104.00	101	1.043	-0.097	0.154	-0.010	-1	125
Flat Low Profile Pla	104.00	1,500	1.043	-0.097	0.154	-0.010	-13	1,858
PCTEL GPS-TMG-HR-	90.00	1	0.781	-0.108	0.049	-0.031	0	1
Alcatel-Lucent RRH2x	90.00	159	0.781	-0.108	0.049	-0.031	-4	197
Alcatel-Lucent 800 M	90.00	159	0.781	-0.108	0.049	-0.031	-4	197
Alcatel-Lucent 1900	90.00	180	0.781	-0.108	0.049	-0.031	-5	223
Alcatel-Lucent TD-RR	90.00	210	0.781	-0.108	0.049	-0.031	-6	260
RFS APXVSPP18-C-A20	90.00	171	0.781	-0.108	0.049	-0.031	-5	212
Commscope DT465B-	90.00	174	0.781	-0.108	0.049	-0.031	-5	215
Flat Low Profile Pla	90.00	1,500	0.781	-0.108	0.049	-0.031	-40	1,858
Kathrein Scala 742 2	83.00	66	0.664	-0.075	0.023	-0.019	-1	82
Flat Low Profile Pla	83.00	1,500	0.664	-0.075	0.023	-0.019	-25	1,858
		43,967	78.160	21.477	23.374	6.028	1,777	54,449

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	139.00	73	1.863	1.841	1.090	0.351	22	63
36	136.50	116	1.797	1.523	0.972	0.310	31	100
35	132.50	203	1.693	1.096	0.804	0.249	44	175
34	127.50	361	1.568	0.682	0.627	0.182	57	311
33	122.50	374	1.447	0.379	0.482	0.124	40	322
32	119.40	113	1.375	0.238	0.406	0.093	9	97
31	117.01	621	1.320	0.150	0.354	0.071	38	535
30	115.11	28	1.278	0.091	0.317	0.055	1	24
29	112.50	648	1.220	0.025	0.270	0.036	20	558

28	107.50	669	1.114	-0.061	0.196	0.006	3	576
27	104.50	136	1.053	-0.093	0.159	-0.008	-1	117
26	102.00	580	1.003	-0.109	0.133	-0.017	-9	499
25	97.50	743	0.917	-0.121	0.094	-0.028	-18	641
24	92.50	765	0.825	-0.116	0.061	-0.032	-21	659
23	87.50	806	0.738	-0.098	0.038	-0.028	-19	695
22	84.67	108	0.691	-0.084	0.028	-0.023	-2	93
21	83.67	414	0.675	-0.079	0.025	-0.021	-7	357
20	81.50	940	0.641	-0.067	0.020	-0.015	-12	810
19	79.84	103	0.615	-0.058	0.016	-0.011	-1	89
18	77.34	985	0.577	-0.044	0.012	-0.003	-3	848
17	72.50	1,082	0.507	-0.019	0.007	0.011	11	932
16	67.50	1,111	0.439	0.005	0.006	0.025	24	958
15	62.50	1,141	0.377	0.025	0.007	0.036	35	983
14	57.50	1,170	0.319	0.041	0.011	0.043	43	1,008
13	52.50	1,200	0.266	0.052	0.015	0.047	49	1,034
12	47.94	1,011	0.222	0.060	0.020	0.048	42	871
11	45.44	405	0.199	0.063	0.023	0.048	17	349
10	42.56	2,275	0.175	0.066	0.027	0.048	95	1,960
9	40.06	36	0.155	0.067	0.029	0.048	1	31
8	37.50	1,405	0.136	0.069	0.032	0.047	58	1,210
7	32.50	1,438	0.102	0.071	0.037	0.046	57	1,239
6	27.50	1,472	0.073	0.072	0.040	0.045	57	1,268
5	22.50	1,506	0.049	0.071	0.042	0.043	56	1,297
4	17.50	1,539	0.030	0.068	0.040	0.041	54	1,326
3	12.50	1,573	0.015	0.061	0.036	0.037	50	1,355
2	7.50	1,606	0.005	0.046	0.026	0.029	40	1,384
1	2.50	1,640	0.001	0.019	0.010	0.013	19	1,413
Stand-Off	138.00	75	1.836	1.709	1.041	0.334	22	65
18' Omni	138.00	50	1.836	1.709	1.041	0.334	14	43
CCI DTMABP7819VG12A	130.00	115	1.630	0.873	0.711	0.214	21	99
Raycap DC6-48-60-0-8	130.00	66	1.630	0.873	0.711	0.214	12	57
Ericsson RRUS-11 (50	130.00	300	1.630	0.873	0.711	0.214	56	258
Ericsson RRUS 32 (50	130.00	152	1.630	0.873	0.711	0.214	28	131
KMW AM-X-CD-14-65-00	130.00	36	1.630	0.873	0.711	0.214	7	31
Kathrein Scala 800-1	130.00	132	1.630	0.873	0.711	0.214	25	114
CSS DUO1417-8686	130.00	61	1.630	0.873	0.711	0.214	11	52
Andrew SBNHH-1D65A (	130.00	34	1.630	0.873	0.711	0.214	6	29
KMW AM-X-CD-17-65-00	130.00	60	1.630	0.873	0.711	0.214	11	51
Andrew SBNH-1D6565C	130.00	61	1.630	0.873	0.711	0.214	11	52
CCI HPA-65R-BUU-H8	130.00	136	1.630	0.873	0.711	0.214	25	117
Flat Platform w/ Han	130.00	2,000	1.630	0.873	0.711	0.214	371	1,723
GPS	120.00	10	1.389	0.263	0.420	0.098	1	9
Alcatel-Lucent B13 R	120.00	172	1.389	0.263	0.420	0.098	15	148
Alcatel-Lucent PCS B	120.00	165	1.389	0.263	0.420	0.098	14	142
Alcatel-Lucent B66 R	120.00	201	1.389	0.263	0.420	0.098	17	173
RFS DB-T1-6Z-8AB-0Z	120.00	88	1.389	0.263	0.420	0.098	7	76
Antel LPA-80080/4CF_	120.00	24	1.389	0.263	0.420	0.098	2	21
Antel LPA-80080/4CF	120.00	24	1.389	0.263	0.420	0.098	2	21
Antel LPA-80063/4CF	120.00	40	1.389	0.263	0.420	0.098	3	34
Amphenol Antel BXA-7	120.00	51	1.389	0.263	0.420	0.098	4	44
Commscope SBNHH-	120.00	304	1.389	0.263	0.420	0.098	26	262
Flat Platform w/ Han	120.00	2,000	1.389	0.263	0.420	0.098	170	1,723
VZW Unused Reserve:	120.00	1,421	1.389	0.263	0.420	0.098	121	1,225
Kathrein Smart Bias	104.00	7	1.043	-0.097	0.154	-0.010	0	6
Ericsson KRY 112 489	104.00	31	1.043	-0.097	0.154	-0.010	0	27
RFS APXV18-209014-C	104.00	37	1.043	-0.097	0.154	-0.010	0	32
Commscope LNX-	104.00	101	1.043	-0.097	0.154	-0.010	-1	87
Flat Low Profile Pla	104.00	1,500	1.043	-0.097	0.154	-0.010	-13	1,292
PCTEL GPS-TMG-HR-	90.00	1	0.781	-0.108	0.049	-0.031	0	1
Alcatel-Lucent RRH2x	90.00	159	0.781	-0.108	0.049	-0.031	-4	137
Alcatel-Lucent 800 M	90.00	159	0.781	-0.108	0.049	-0.031	-4	137
Alcatel-Lucent 1900	90.00	180	0.781	-0.108	0.049	-0.031	-5	155
Alcatel-Lucent TD-RR	90.00	210	0.781	-0.108	0.049	-0.031	-6	181

RFS APXVSPP18-C-A20	90.00	171	0.781	-0.108	0.049	-0.031	-5	147
Commscope DT465B-	90.00	174	0.781	-0.108	0.049	-0.031	-5	150
Flat Low Profile Pla	90.00	1,500	0.781	-0.108	0.049	-0.031	-40	1,292
Kathrein Scala 742 2	83.00	66	0.664	-0.075	0.023	-0.019	-1	57
Flat Low Profile Pla	83.00	1,500	0.664	-0.075	0.023	-0.019	-25	1,292
		43,967	78.160	21.477	23.374	6.028	1,777	37,882

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-52.42	-1.76	0.00	-172.59	0.00	172.59	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.037
5.00	-50.43	-1.73	0.00	-163.78	0.00	163.78	5,798.22	2,899.11	11,708.2	5,862.84	0.00	-0.01	0.037
10.00	-48.48	-1.69	0.00	-155.13	0.00	155.13	5,660.37	2,830.18	11,137.9	5,577.27	0.02	-0.02	0.036
15.00	-46.57	-1.64	0.00	-146.69	0.00	146.69	5,513.53	2,756.76	10,564.7	5,290.20	0.04	-0.03	0.036
20.00	-44.71	-1.59	0.00	-138.48	0.00	138.48	5,366.68	2,683.34	10,006.5	5,010.72	0.08	-0.04	0.036
25.00	-42.89	-1.54	0.00	-130.52	0.00	130.52	5,219.84	2,609.92	9,463.58	4,738.82	0.13	-0.05	0.036
30.00	-41.10	-1.49	0.00	-122.82	0.00	122.82	5,073.00	2,536.50	8,935.73	4,474.51	0.18	-0.06	0.036
35.00	-39.36	-1.44	0.00	-115.38	0.00	115.38	4,926.16	2,463.08	8,423.04	4,217.78	0.25	-0.07	0.035
40.00	-39.32	-1.44	0.00	-108.19	0.00	108.19	4,779.32	2,389.66	7,925.49	3,968.63	0.33	-0.08	0.035
40.13	-36.50	-1.34	0.00	-108.00	0.00	108.00	4,775.51	2,387.75	7,912.75	3,962.26	0.33	-0.08	0.035
45.00	-36.00	-1.33	0.00	-101.46	0.00	101.46	4,632.48	2,316.24	7,443.09	3,727.08	0.42	-0.09	0.035
45.88	-34.75	-1.29	0.00	-100.29	0.00	100.29	4,127.52	2,063.76	6,764.96	3,387.51	0.43	-0.09	0.038
50.00	-33.26	-1.24	0.00	-94.98	0.00	94.98	4,021.65	2,010.83	6,420.54	3,215.04	0.52	-0.10	0.038
55.00	-31.81	-1.21	0.00	-88.76	0.00	88.76	3,893.17	1,946.58	6,014.64	3,011.79	0.63	-0.12	0.038
60.00	-30.40	-1.17	0.00	-82.73	0.00	82.73	3,764.68	1,882.34	5,621.99	2,815.17	0.76	-0.13	0.037
65.00	-29.02	-1.15	0.00	-76.86	0.00	76.86	3,636.20	1,818.10	5,242.60	2,625.19	0.90	-0.14	0.037
70.00	-27.68	-1.15	0.00	-71.09	0.00	71.09	3,507.71	1,753.86	4,876.46	2,441.85	1.06	-0.16	0.037
75.00	-26.46	-1.15	0.00	-65.36	0.00	65.36	3,379.23	1,689.61	4,523.57	2,265.15	1.23	-0.17	0.037
79.67	-26.34	-1.16	0.00	-59.98	0.00	59.98	3,259.13	1,629.57	4,205.72	2,105.99	1.40	-0.18	0.037
80.00	-25.17	-1.17	0.00	-59.60	0.00	59.60	3,250.74	1,625.37	4,183.94	2,095.08	1.42	-0.18	0.036
83.00	-22.72	-1.19	0.00	-56.10	0.00	56.10	3,173.65	1,586.82	3,986.52	1,996.22	1.53	-0.19	0.035
84.34	-22.59	-1.20	0.00	-54.50	0.00	54.50	2,286.71	1,143.35	2,923.37	1,463.86	1.59	-0.20	0.047
85.00	-21.59	-1.22	0.00	-53.71	0.00	53.71	2,277.67	1,138.84	2,896.31	1,450.31	1.62	-0.20	0.047
90.00	-17.48	-1.30	0.00	-47.62	0.00	47.62	2,193.67	1,096.84	2,676.37	1,340.17	1.84	-0.22	0.043
95.00	-16.56	-1.32	0.00	-41.13	0.00	41.13	2,101.90	1,050.95	2,456.00	1,229.83	2.08	-0.24	0.041
100.00	-15.84	-1.33	0.00	-34.55	0.00	34.55	2,010.12	1,005.06	2,245.10	1,124.22	2.33	-0.26	0.039
104.00	-13.59	-1.33	0.00	-29.24	0.00	29.24	1,936.70	968.35	2,083.19	1,043.15	2.56	-0.27	0.035
105.00	-12.77	-1.33	0.00	-27.90	0.00	27.90	1,918.35	959.17	2,043.66	1,023.35	2.61	-0.27	0.034
110.00	-11.96	-1.31	0.00	-21.25	0.00	21.25	1,826.57	913.29	1,851.70	927.22	2.91	-0.29	0.029
115.00	-11.93	-1.31	0.00	-14.71	0.00	14.71	1,734.80	867.40	1,669.20	835.84	3.22	-0.30	0.024
115.22	-11.16	-1.27	0.00	-14.42	0.00	14.42	1,730.76	865.38	1,661.38	831.93	3.23	-0.30	0.024
118.80	-11.02	-1.26	0.00	-9.88	0.00	9.88	956.25	478.12	907.22	454.29	3.47	-0.31	0.033
120.00	-4.99	-0.80	0.00	-8.37	0.00	8.37	947.93	473.97	887.63	444.47	3.54	-0.31	0.024
125.00	-4.54	-0.74	0.00	-4.36	0.00	4.36	912.05	456.02	806.99	404.09	3.88	-0.32	0.016
130.00	-0.39	-0.09	0.00	-0.64	0.00	0.64	874.32	437.16	728.52	364.80	4.22	-0.33	0.002
135.00	-0.25	-0.06	0.00	-0.18	0.00	0.18	834.76	417.38	652.50	326.73	4.57	-0.33	0.001
138.00	0.00	0.00	0.00	0.00	0.00	0.00	809.68	404.84	607.85	304.38	4.77	-0.33	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	4.91	-0.33	0.000

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-36.47	-1.76	0.00	-170.28	0.00	170.28	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.034
5.00	-35.08	-1.73	0.00	-161.48	0.00	161.48	5,798.22	2,899.11	11,708.2	5,862.84	0.00	-0.01	0.034
10.00	-33.73	-1.68	0.00	-152.85	0.00	152.85	5,660.37	2,830.18	11,137.9	5,577.27	0.02	-0.02	0.033
15.00	-32.40	-1.63	0.00	-144.45	0.00	144.45	5,513.53	2,756.76	10,564.7	5,290.20	0.04	-0.03	0.033
20.00	-31.11	-1.58	0.00	-136.29	0.00	136.29	5,366.68	2,683.34	10,006.5	5,010.72	0.08	-0.04	0.033
25.00	-29.84	-1.53	0.00	-128.39	0.00	128.39	5,219.84	2,609.92	9,463.58	4,738.82	0.12	-0.05	0.033
30.00	-28.60	-1.47	0.00	-120.76	0.00	120.76	5,073.00	2,536.50	8,935.73	4,474.51	0.18	-0.06	0.033
35.00	-27.39	-1.42	0.00	-113.39	0.00	113.39	4,926.16	2,463.08	8,423.04	4,217.78	0.25	-0.07	0.032
40.00	-27.36	-1.42	0.00	-106.29	0.00	106.29	4,779.32	2,389.66	7,925.49	3,968.63	0.32	-0.08	0.033
40.13	-25.40	-1.33	0.00	-106.10	0.00	106.10	4,775.51	2,387.75	7,912.75	3,962.26	0.32	-0.08	0.032
45.00	-25.05	-1.31	0.00	-99.65	0.00	99.65	4,632.48	2,316.24	7,443.09	3,727.08	0.41	-0.09	0.032
45.88	-24.18	-1.27	0.00	-98.50	0.00	98.50	4,127.52	2,063.76	6,764.96	3,387.51	0.43	-0.09	0.035
50.00	-23.14	-1.22	0.00	-93.27	0.00	93.27	4,021.65	2,010.83	6,420.54	3,215.04	0.51	-0.10	0.035
55.00	-22.13	-1.18	0.00	-87.15	0.00	87.15	3,893.17	1,946.58	6,014.64	3,011.79	0.62	-0.11	0.035
60.00	-21.15	-1.15	0.00	-81.23	0.00	81.23	3,764.68	1,882.34	5,621.99	2,815.17	0.75	-0.13	0.034
65.00	-20.19	-1.13	0.00	-75.48	0.00	75.48	3,636.20	1,818.10	5,242.60	2,625.19	0.89	-0.14	0.034
70.00	-19.26	-1.12	0.00	-69.83	0.00	69.83	3,507.71	1,753.86	4,876.46	2,441.85	1.04	-0.15	0.034
75.00	-18.41	-1.13	0.00	-64.23	0.00	64.23	3,379.23	1,689.61	4,523.57	2,265.15	1.21	-0.17	0.034
79.67	-18.32	-1.13	0.00	-58.97	0.00	58.97	3,259.13	1,629.57	4,205.72	2,105.99	1.38	-0.18	0.034
80.00	-17.51	-1.14	0.00	-58.60	0.00	58.60	3,250.74	1,625.37	4,183.94	2,095.08	1.39	-0.18	0.033
83.00	-15.81	-1.17	0.00	-55.18	0.00	55.18	3,173.65	1,586.82	3,986.52	1,996.22	1.51	-0.19	0.033
84.34	-15.71	-1.17	0.00	-53.61	0.00	53.61	2,286.71	1,143.35	2,923.37	1,463.86	1.56	-0.19	0.043
85.00	-15.02	-1.19	0.00	-52.84	0.00	52.84	2,277.67	1,138.84	2,896.31	1,450.31	1.59	-0.20	0.043
90.00	-12.16	-1.27	0.00	-46.88	0.00	46.88	2,193.67	1,096.84	2,676.37	1,340.17	1.81	-0.21	0.041
95.00	-11.52	-1.29	0.00	-40.51	0.00	40.51	2,101.90	1,050.95	2,456.00	1,229.83	2.04	-0.23	0.038
100.00	-11.02	-1.30	0.00	-34.04	0.00	34.04	2,010.12	1,005.06	2,245.10	1,124.22	2.30	-0.25	0.036
104.00	-9.46	-1.31	0.00	-28.82	0.00	28.82	1,936.70	968.35	2,083.19	1,043.15	2.51	-0.27	0.033
105.00	-8.88	-1.31	0.00	-27.51	0.00	27.51	1,918.35	959.17	2,043.66	1,023.35	2.57	-0.27	0.032
110.00	-8.32	-1.29	0.00	-20.96	0.00	20.96	1,826.57	913.29	1,851.70	927.22	2.86	-0.29	0.027
115.00	-8.30	-1.29	0.00	-14.52	0.00	14.52	1,734.80	867.40	1,669.20	835.84	3.17	-0.30	0.022
115.22	-7.76	-1.25	0.00	-14.24	0.00	14.24	1,730.76	865.38	1,661.38	831.93	3.18	-0.30	0.022
118.80	-7.66	-1.24	0.00	-9.76	0.00	9.76	956.25	478.12	907.22	454.29	3.41	-0.31	0.030
120.00	-3.47	-0.79	0.00	-8.28	0.00	8.28	947.93	473.97	887.63	444.47	3.49	-0.31	0.022
125.00	-3.16	-0.74	0.00	-4.31	0.00	4.31	912.05	456.02	806.99	404.09	3.81	-0.32	0.014
130.00	-0.27	-0.09	0.00	-0.63	0.00	0.63	874.32	437.16	728.52	364.80	4.15	-0.32	0.002
135.00	-0.17	-0.06	0.00	-0.18	0.00	0.18	834.76	417.38	652.50	326.73	4.49	-0.32	0.001
138.00	0.00	0.00	0.00	0.00	0.00	0.00	809.68	404.84	607.85	304.38	4.69	-0.32	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	787.66	393.83	575.06	287.96	4.83	-0.32	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	26.25	0.00	52.73	0.00	0.00	2709.54	45.88	0.47
0.9D + 1.6W	26.04	0.00	39.54	0.00	0.00	2665.17	45.88	0.45
1.2D + 1.0Di + 1.0Wi	8.35	0.00	90.43	0.00	0.00	880.35	84.34	0.17
(1.2 + 0.2Sds) * DL + E ELFM	1.92	0.00	52.42	0.00	0.00	203.04	45.88	0.04
(1.2 + 0.2Sds) * DL + E EMAM	1.76	0.00	52.42	0.00	0.00	172.59	84.34	0.05
(0.9 - 0.2Sds) * DL + E ELFM	1.92	0.00	36.47	0.00	0.00	200.61	45.88	0.04
(0.9 - 0.2Sds) * DL + E EMAM	1.76	0.00	36.47	0.00	0.00	170.28	84.34	0.04
1.0D + 1.0W	6.78	0.00	43.96	0.00	0.00	696.16	45.88	0.12

Base Summary

Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
3,921.80	41.90	38.70	2,709.54	90.43	26.25	51.18

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
60.0	2.250	66.000	Round	0	0.00	8.093	345.48	553.13	0.62

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression Force (kip)	Compression Allow (kip)	Compression Ratio	Tension Force (kip)	Tension Allow (kip)	Tension Ratio
60.00	20	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	112.90	260.00	0.44	103.86	260.00	0.41

Sprint

PROJECT:	DO MACRO UPGRADE
SITE NAME:	AVON - VERIZON
SITE CASCADE:	CT54XC760
SITE ADDRESS:	14 CANTON SPRINGS RD. CANTON, CT 06019
SITE TYPE:	MONOPOLE TOWER
MARKET:	NORTHERN CONNECTICUT

SITE INFORMATION

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

LATITUDE (NAD83):
41° 49' 22.37" N
41.82288055°

LONGITUDE (NAD83):
72° 53' 42.77" W
-72.89521388°

COUNTY:
HARTFORD COUNTY

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

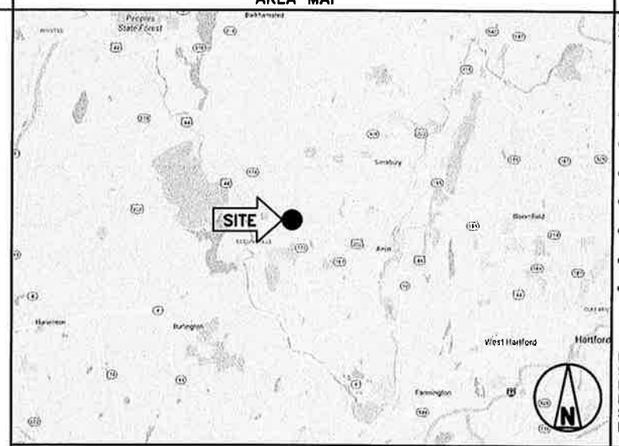
ZONING DISTRICT:
TBD

POWER COMPANY:
CONNECTICUT LIGHT & POWER
PHONE: (800) 322-3223

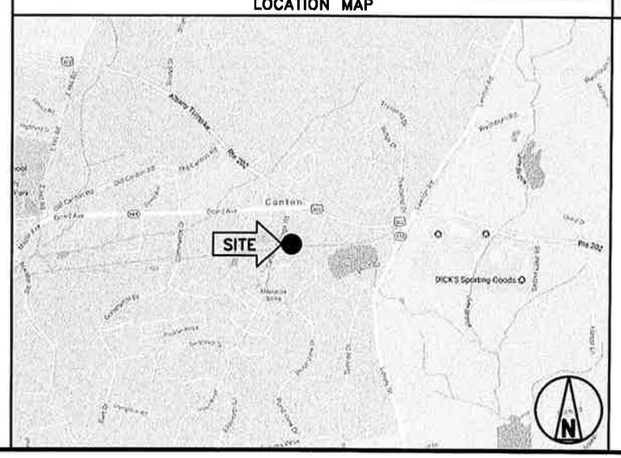
AAV PROVIDER:
AT&T
PHONE: (210) 821-4105

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
TERRI BURKHOLDER
(315) 719-2928
TBURKHOLDER@AIROSMITHDEVELOPMENT.COM

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL (4) PANEL ANTENNAS
- REMOVE (1) PANEL ANTENNA, (2) PANEL ANTENNAS TO REMAIN
- INSTALL (3) 800 MHz RRH'S BEHIND ANTENNAS
- INSTALL (3) 2.5 GHz RRH'S BEHIND ANTENNAS
- REPLACE GAMMA SECTOR ANTENNA WITH APXVSPP18-C-A20
- INSTALL (30) JUMPER CABLES
- INSTALL (1) HYBRID CABLE
- INSTALL 2.5 EQUIPMENT INSIDE EXISTING N.V. MMBS 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 (2015 IBC)
2. TIA-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.
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A-3	ANTENNA LAYOUT & MOUNTING DETAILS	1
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A-5	CIVIL DETAILS	1
A-6	PLUMBING DIAGRAM	1
E-1	ELECTRICAL & GROUNDING PLAN	1
E-2	ELECTRICAL & GROUNDING DETAILS	1

PLANS PREPARED FOR:
Sprint

PLANS PREPARED BY:
INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#: (518) 306-3740

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED/ ISSUED FOR PERMIT	02/22/18	JJM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

SITE NAME:
AVON - VERIZON

SITE NUMBER:
CT54XC760

SITE ADDRESS:
14 CANTON SPRINGS RD
CANTON, CT 06019

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: WHEN 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

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED/ ISSUED FOR PERMIT	02/22/18	JLM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

SITE NAME:

AVON - VERIZON

SITE NUMBER:

CT54XC760

SITE ADDRESS:

14 CANTON SPRINGS RD
CANTON, CT 06019

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)

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JOB NUMBER 526-104

PROJECT MANAGER:

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SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED/ ISSUED FOR PERMIT	02/22/18	JLM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

SITE NAME:

AVON - VERIZON

SITE NUMBER:

CT54XC760

SITE ADDRESS:

14 CANTON SPRINGS RD
CANTON, CT 06019

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.

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PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED/ ISSUED FOR PERMIT	02/22/18	JLM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

SITE NAME:

AVON - VERIZON

SITE NUMBER:

CT54XC760

SITE ADDRESS:

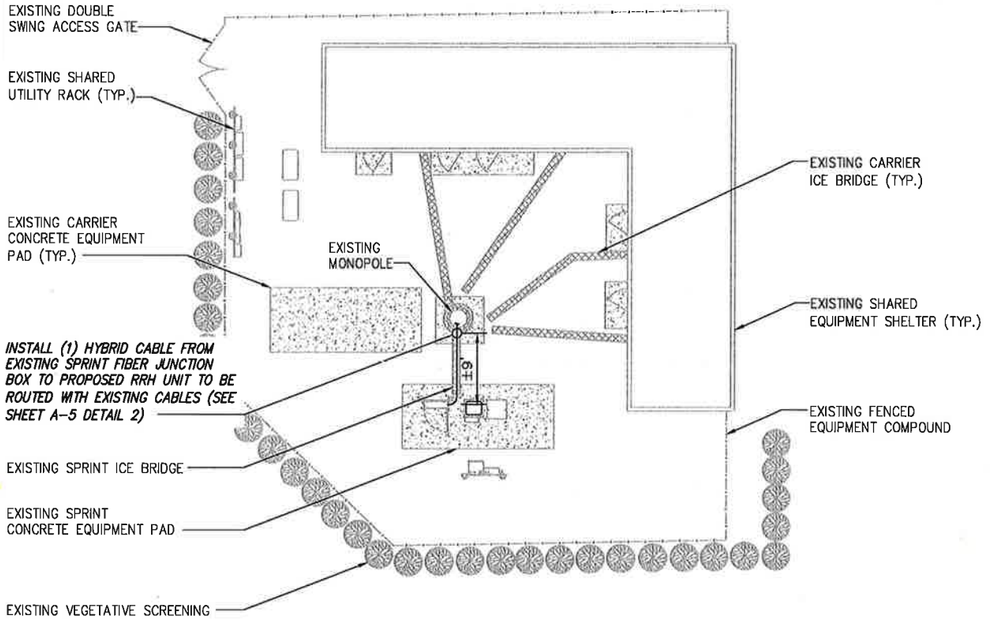
14 CANTON SPRINGS RD
CANTON, CT 06019

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

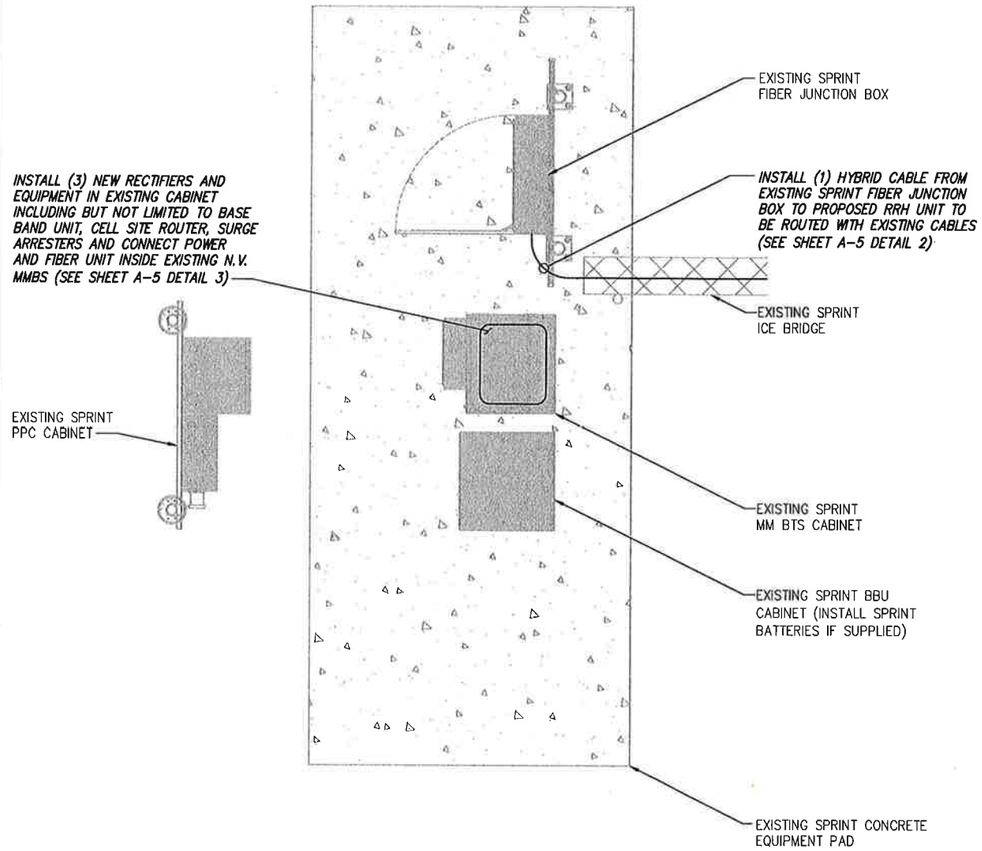
SP-3



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

GRAPHIC SCALE:
20' 10' 0 10' 20'
SCALE (11x17): 1" = 20'-0"
SCALE (22x34): 1" = 10'-0"

OVERALL SITE PLAN | SCALE: AS NOTED | 1



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

SPRINT EQUIPMENT PLAN | SCALE: AS NOTED | 2

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REVISIONS:

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SITE NAME:
AVON - VERIZON

SITE NUMBER:
CT54XC760

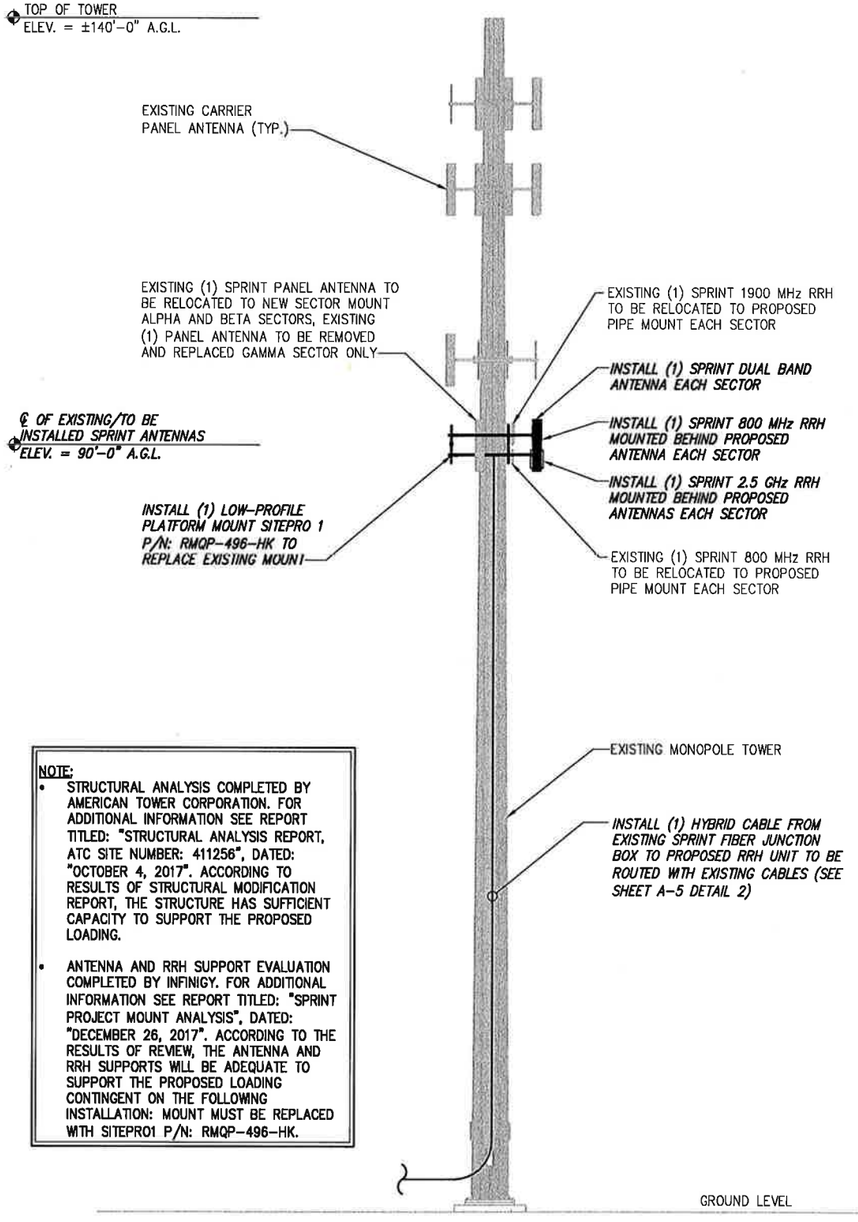
SITE ADDRESS:
14 CANTON SPRINGS RD
CANTON, CT 06019

SHEET DESCRIPTION:
SITE PLAN

SHEET NUMBER:
A-1

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING STRUCTURE 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



NOTE:
- STRUCTURAL ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "STRUCTURAL ANALYSIS REPORT, ATC SITE NUMBER: 411256", DATED: "OCTOBER 4, 2017". ACCORDING TO RESULTS OF STRUCTURAL MODIFICATION REPORT, THE STRUCTURE HAS SUFFICIENT CAPACITY TO SUPPORT THE PROPOSED LOADING.
- ANTENNA AND RRH SUPPORT EVALUATION COMPLETED BY INFINIGY. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "SPRINT PROJECT MOUNT ANALYSIS", DATED: "DECEMBER 26, 2017". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS WILL BE ADEQUATE TO SUPPORT THE PROPOSED LOADING CONTINGENT ON THE FOLLOWING INSTALLATION: MOUNT MUST BE REPLACED WITH SITEPRO1 P/N: RMQP-496-HK.

TOWER ELEVATION | NO SCALE | 1

SITE LOADING CHART

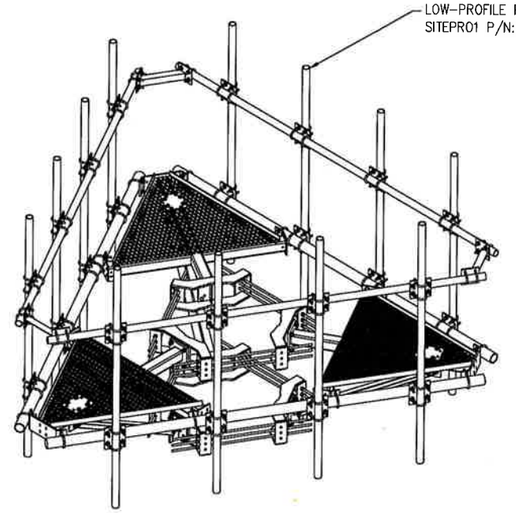
SECTOR	EXISTING/ PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/ REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	*PROPOSED*	*DT465B-2XR*	*COMMSCOPE*	*320°*	1	–	*(2) 800 MHZ 2X50W RRH W/ FILTER*	*SEE SHEET A-5 DETAIL 1*	*±122'**	*±90' AGL*
	---	---	---	---	---	---	*(1) TD-RRH8X20-25 W/ SOLAR SHIELD*	---		
	EXISTING	*APXVSPP18-C-A20*	*RFS*	*320°*	1	*REMAIN*	*(1) 1900 MHz 4X45 RRH*	*EXISTING HYBRID*		
BETA	*PROPOSED*	*DT465B-2XR*	*COMMSCOPE*	*90°*	1	–	*(2) 800 MHZ 2X50W RRH W/ FILTER*	*SEE SHEET A-5 DETAIL 1*		
	---	---	---	---	---	---	*(1) TD-RRH8X20-25 W/ SOLAR SHIELD*	---		
	EXISTING	*APXVSPP18-C-A20*	*RFS*	*90°*	1	*REMAIN*	*(1) 1900 MHz 4X45 RRH*	*EXISTING HYBRID*		
GAMMA	*PROPOSED*	*DT465B-2XR*	*COMMSCOPE*	*220°*	1	–	*(2) 800 MHZ 2X50W RRH W/ FILTER*	*SEE SHEET A-5 DETAIL 1*		
	EXISTING	*ET-X-TU-42-15-37-18-iR-RA*	*KMW*	*220°*	1	*REMOVE*	*(1) TD-RRH8X20-25 W/ SOLAR SHIELD*	---		
	PROPOSED	*APXVSPP18-C-A20*	*RFS*	*220°*	1	---	*(1) 1900 MHz 4X45 RRH*	*EXISTING HYBRID*		

PROJECT SCOPE:

INSTALL: (4) PANEL ANTENNAS AND (6) RRH'S REMOVE: (1) PANEL ANTENNA

* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

SITE LOADING CHART | NO SCALE | 2



DETAIL NOT USED | NO SCALE | 3

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PROJECT MANAGER:
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SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

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

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED/ ISSUED FOR PERMIT	02/22/18	JLM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

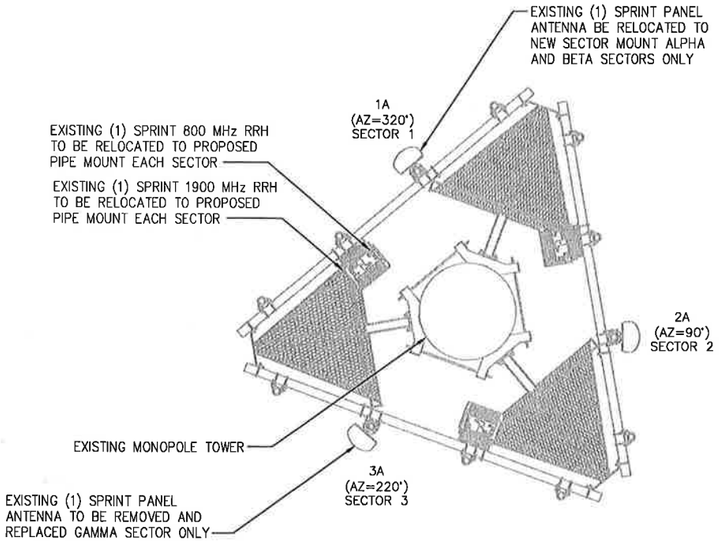
SITE NAME:
AVON - VERIZON

SITE NUMBER:
CT54XC760

SITE ADDRESS:
14 CANTON SPRINGS RD
CANTON, CT 06019

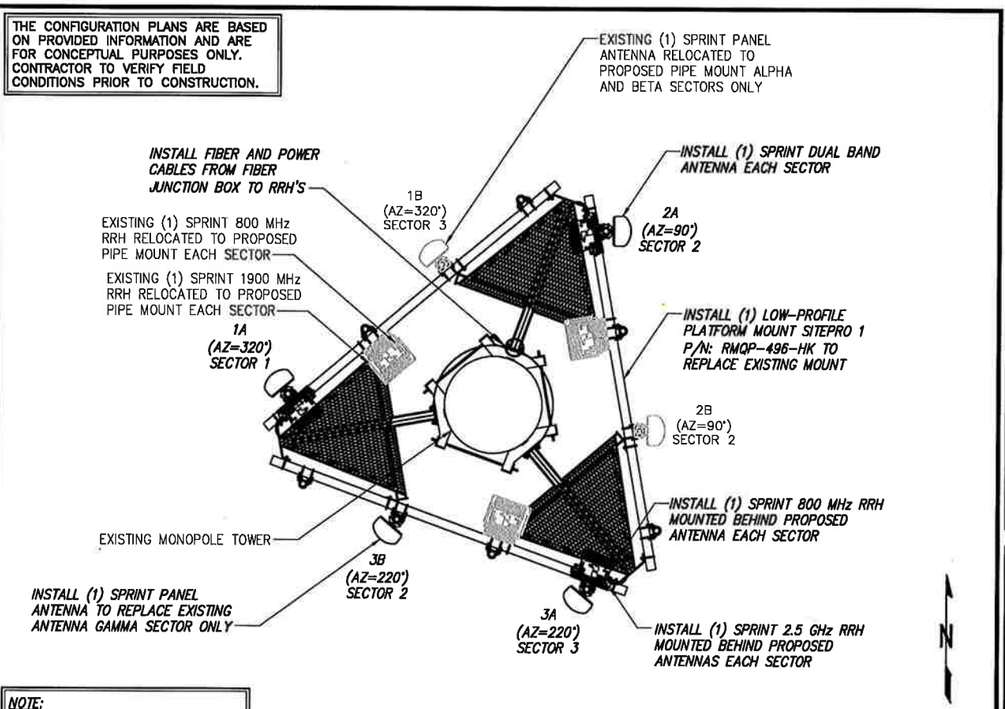
SHEET DESCRIPTION:
TOWER ELEVATION

SHEET NUMBER:
A-2



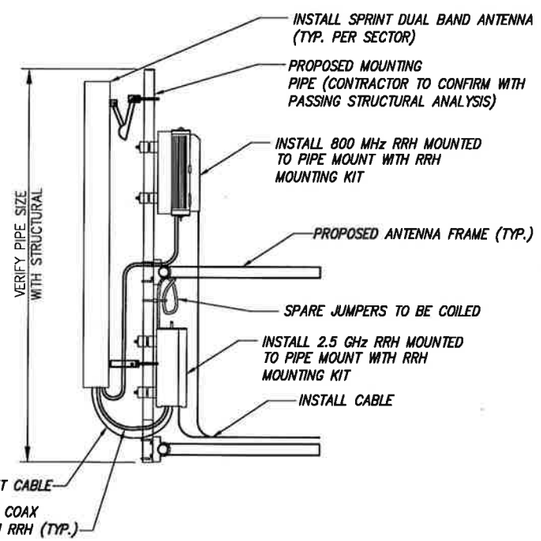
EXISTING ANTENNA & RRH LAYOUT | NO SCALE | 1

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 & RRH LAYOUT | NO SCALE | 2



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

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

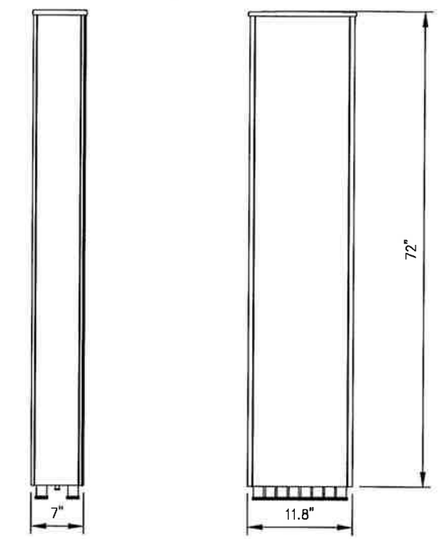
NOTES:

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

TYPICAL ANTENNA & RRH MOUNTING DETAILS | NO SCALE | 3

ANTENNA RFS APXVSPP18-C-A20

RADOME MATERIAL:	ASA
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.In(mlm):	72"x11.8"x7"
WEIGHT:	58.0 lbs



PANEL ANTENNA | NO SCALE | 4

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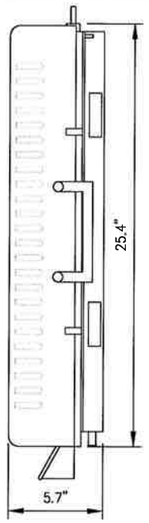
CANTON, CT 06019

SHEET DESCRIPTION:
ANTENNA LAYOUT & MOUNTING DETAILS

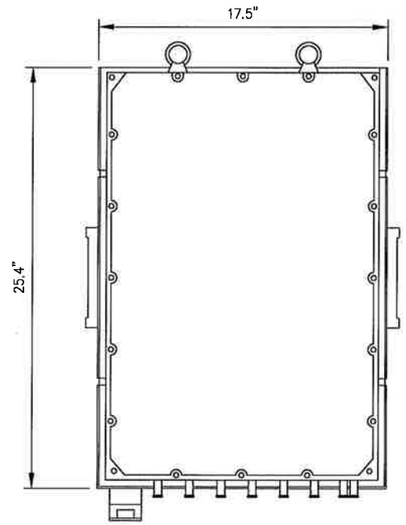
SHEET NUMBER:
A-3

RRH: ALCATEL LUCENT TD-RRH8X20

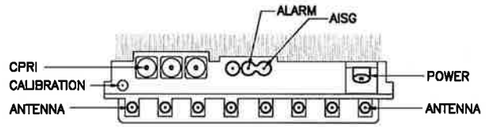
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

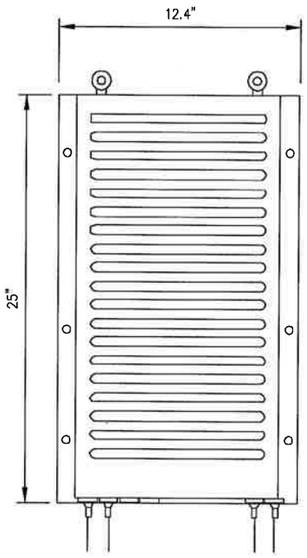
NOTES

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

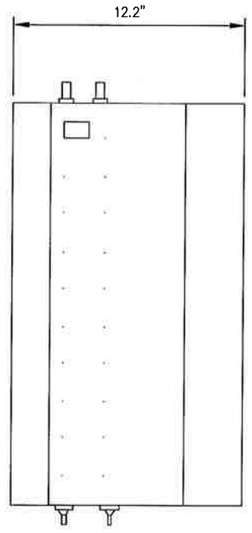
2.5 GHz RRH | NO SCALE | 1

RRH: ALCATEL LUCENT 1900 MHz

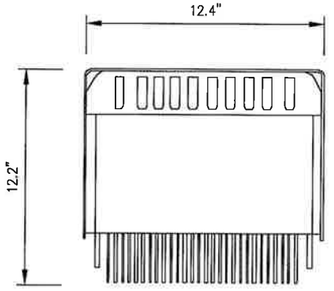
COLOR: LIGHT GREY
WEIGHT: 70 LBS.
(INCLUDING OPTIONAL SOLAR SHIELD)



FRONT VIEW



SIDE VIEW

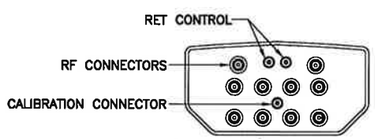


TOP VIEW

EXISTING 1900 MHz RRH | NO SCALE | 2

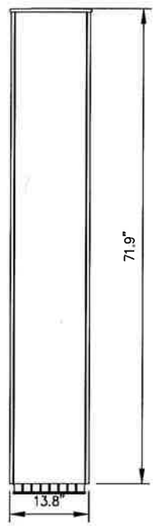
ANTENNA COMMSCOPE DT465B-2XR

RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.in(mim):	71.9"x13.8"x8.2" (1825x350x209mm)
WEIGHT:	58 lbs
CONNECTORS:	(2) 7/16" DIN FEMALE
	(8) 4.1/9.5 DIN FEMALE



PLAN VIEW

SIDE VIEW



FRONT VIEW

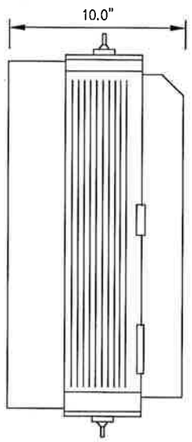
DUAL BAND ANTENNA | NO SCALE | 3

RRH: ALCATEL LUCENT RRH 800 MHz 2x50W

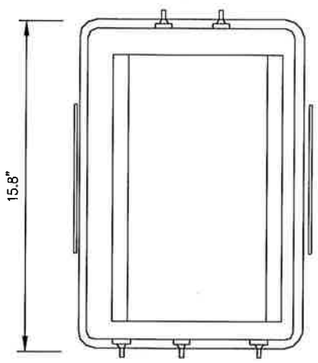
COLOR: LIGHT GREY
WEIGHT: 53 LBS.

NOTES

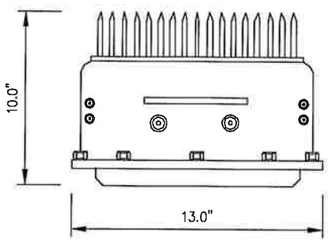
COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRH'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRH PACKAGES IN THE RAIN.



SIDE VIEW



FRONT VIEW



PLAN VIEW

800 MHz RRH | NO SCALE | 4

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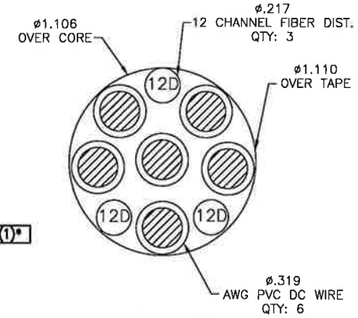
SITE ADDRESS:
14 CANTON SPRINGS RD
CANTON, CT 06019

SHEET DESCRIPTION:
EQUIPMENT & MOUNTING DETAILS

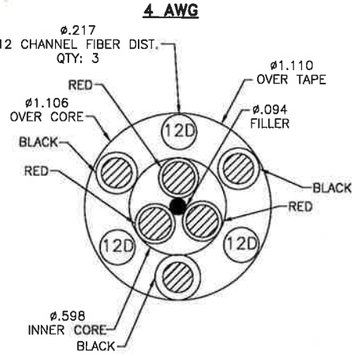
SHEET NUMBER:
A-4

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 (1)*
	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



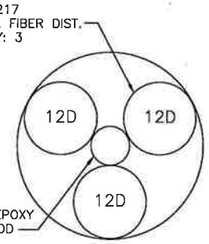
4 AWG



8 & 6 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



FIBER ONLY

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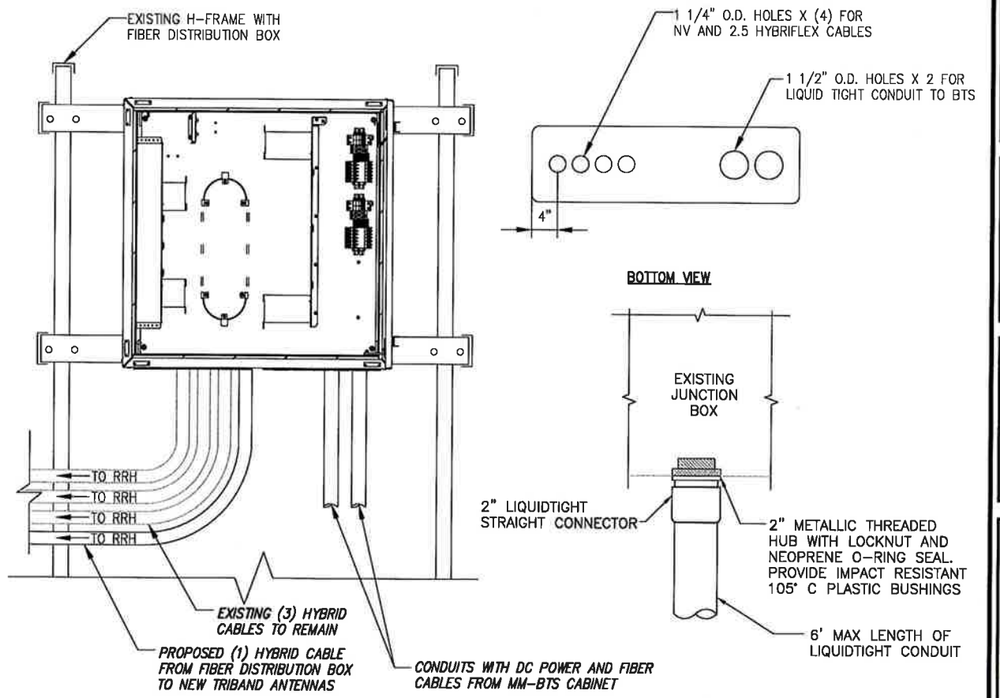
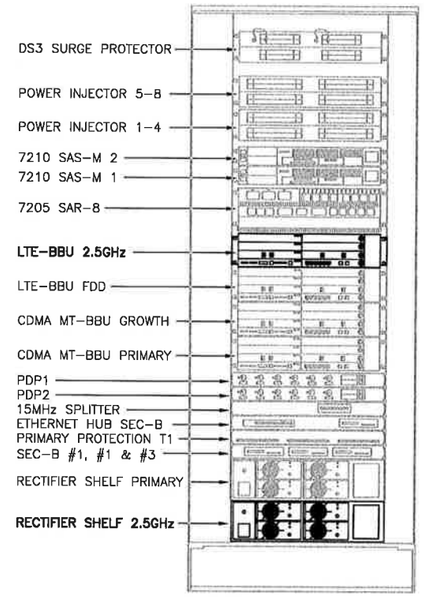
NOTE:
SPRINT CM TO CONFIRM HYBRID OR FIBER RISER CABLE AND HYBRID OR FIBER JUMPER CABLE MODEL NUMBERS IF HYBRID CABLES ARE REQUIRED BEFORE PREPARING BOM.

2.5 CABLE CROSS SECTION DATA | NO SCALE | 1



FIBER JUNCTION BOX PENETRATION | NO SCALE | 2



FRONT VIEW

NEW EQUIPMENT IN EXISTING CABINET | NO SCALE | 3

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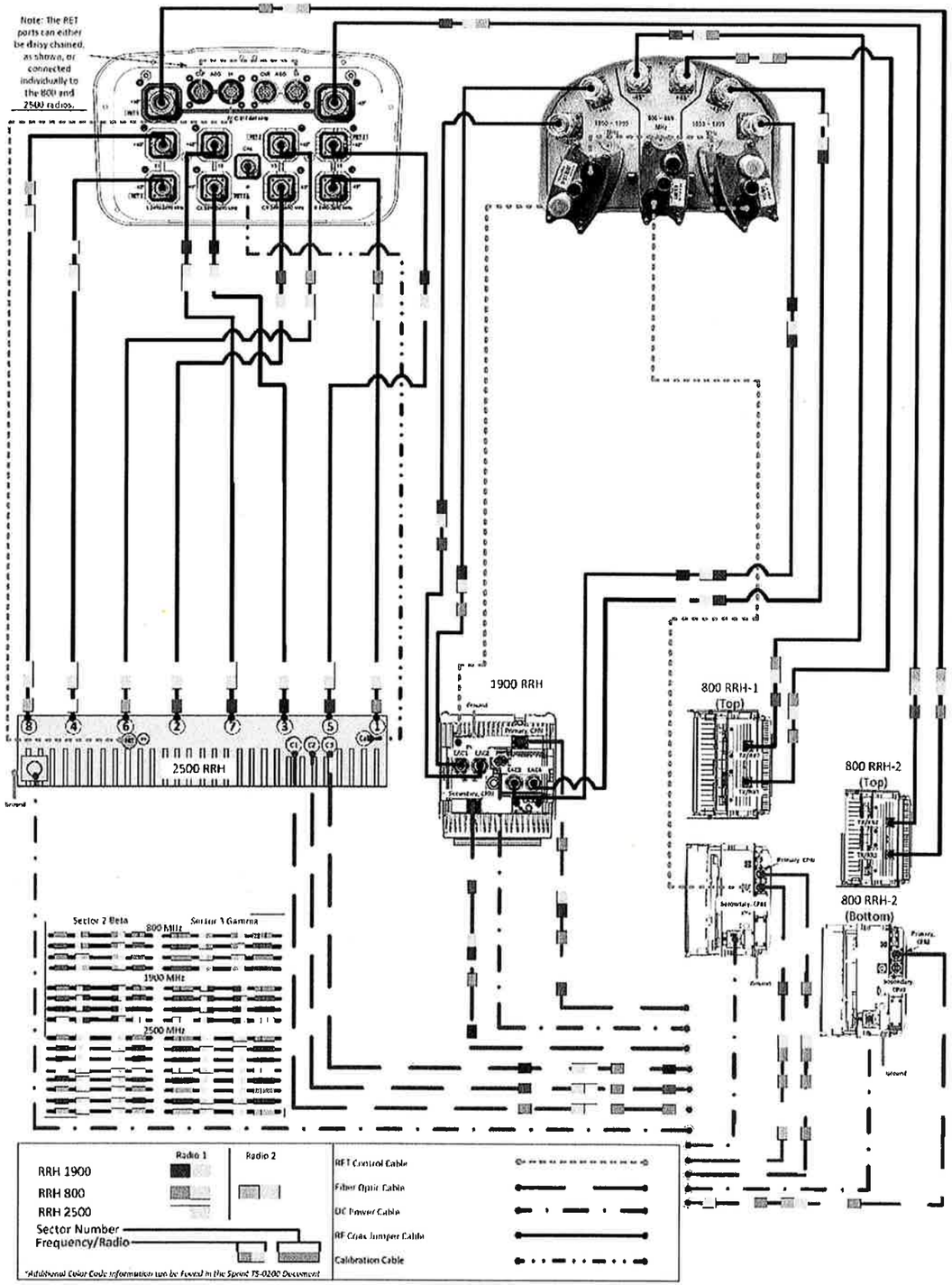
SHEET DESCRIPTION:
CIVIL DETAILS

SHEET NUMBER:
A-5

ALU 211 DT465B-2XR & APXVSPP18-C-A20 wo Filters



PLUMBING DIAGRAM | NO SCALE | 1

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AVON - VERIZON

SITE NUMBER:

CT54XC760

SITE ADDRESS:

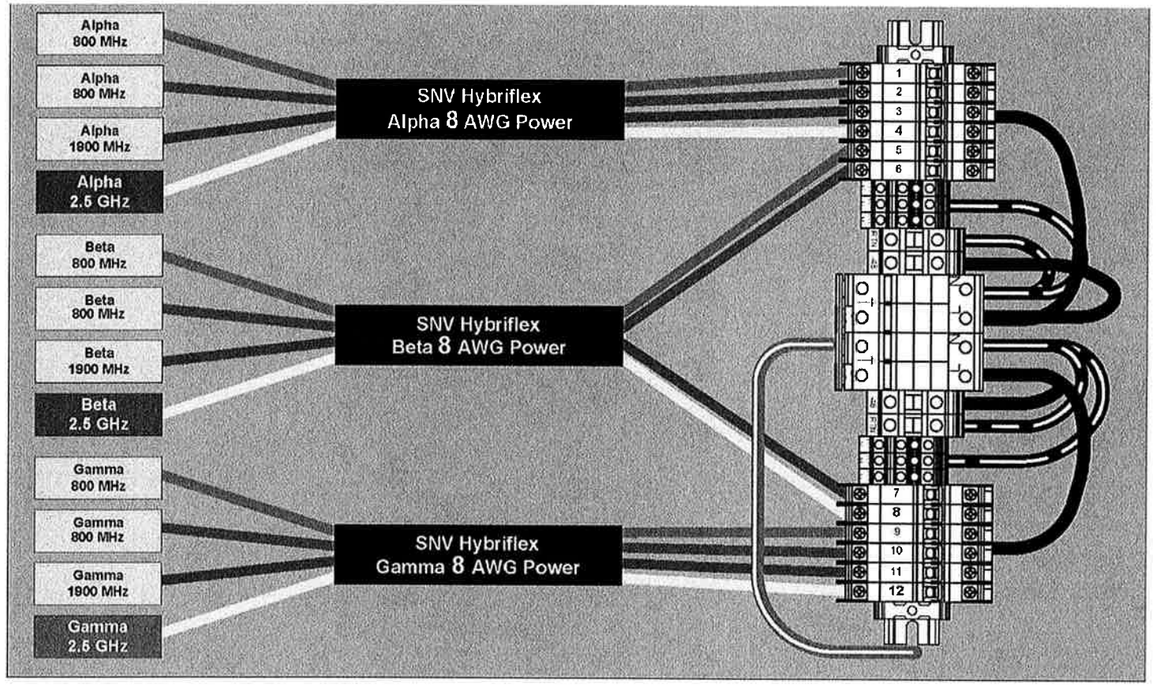
14 CANTON SPRINGS RD
CANTON, CT 06019

SHEET DESCRIPTION:

PLUMBING DIAGRAM

SHEET NUMBER:

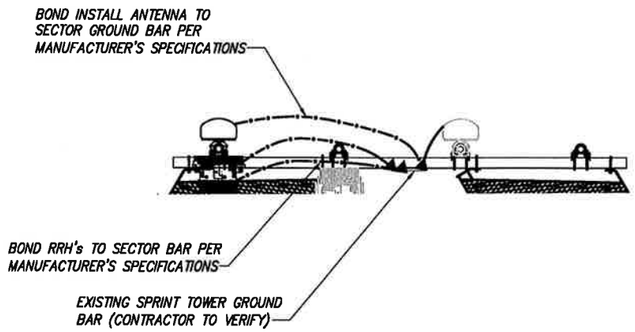
A-6



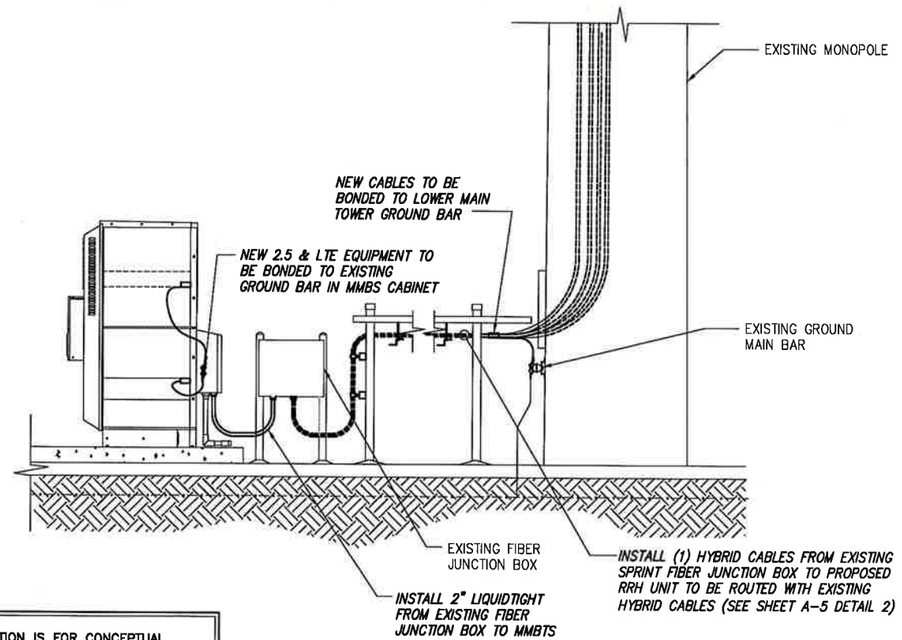
RRH TO DISTRIBUTION BOX POWER CONNECTIVITY | NO SCALE | 1

LEGEND:

- EXISTING GROUND RING
- ■ CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD
- ● CABLE GROUND KIT



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 2



NOTE:
DEPICTION IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR IS TO FIELD VERIFY PRIOR TO CONSTRUCTION

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

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www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ ISSUED FOR PERMIT	02/22/18	JLM	1
ISSUED FOR PERMIT	02/12/18	ETC	0

SITE NAME:
AVON - VERIZON

SITE NUMBER:
CT54XC760

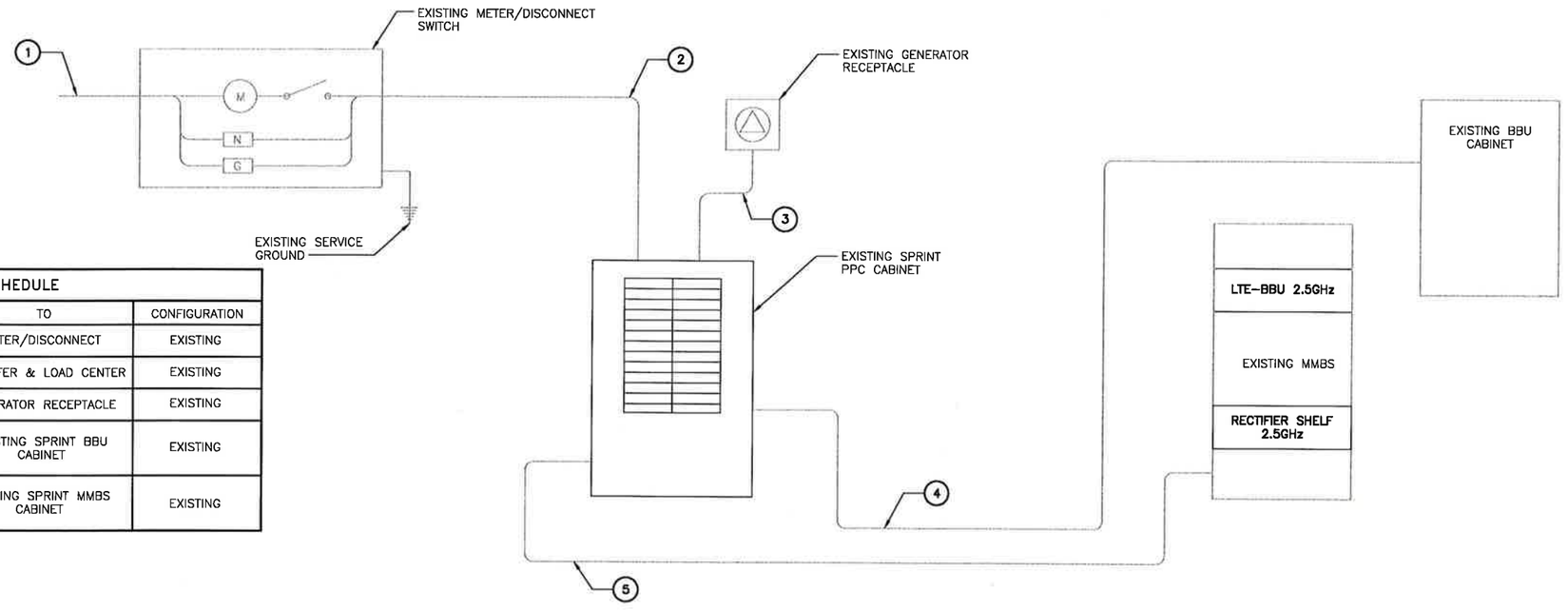
SITE ADDRESS:
14 CANTON SPRINGS RD
CANTON, CT 06019

SHEET DESCRIPTION:
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:
E-1

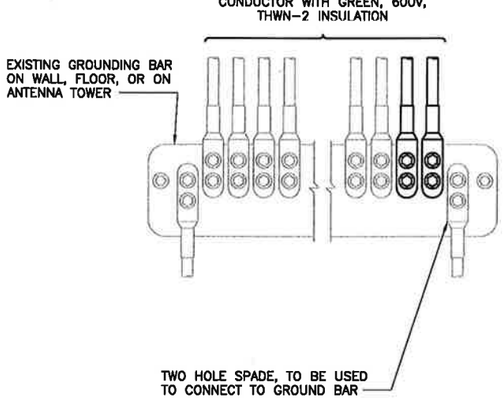
NOTES

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 BBU CABINET	EXISTING
5	TRANSFER & LOAD CENTER	EXISTING SPRINT MMBS CABINET	EXISTING

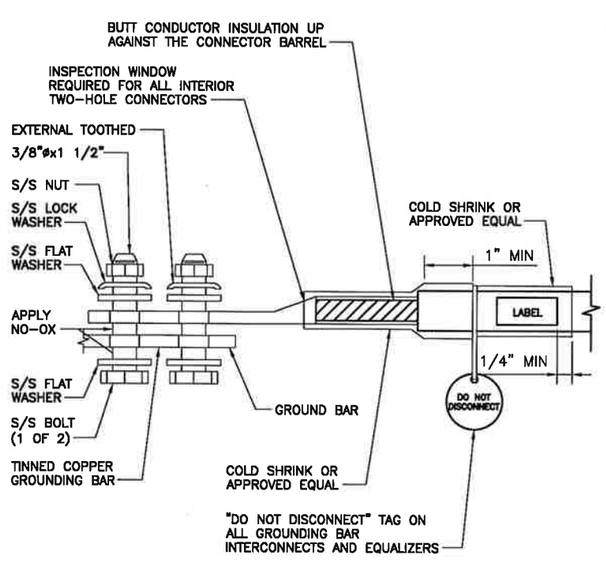
ELECTRICAL ONE–LINE DIAGRAM — NO SCALE — 1



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.

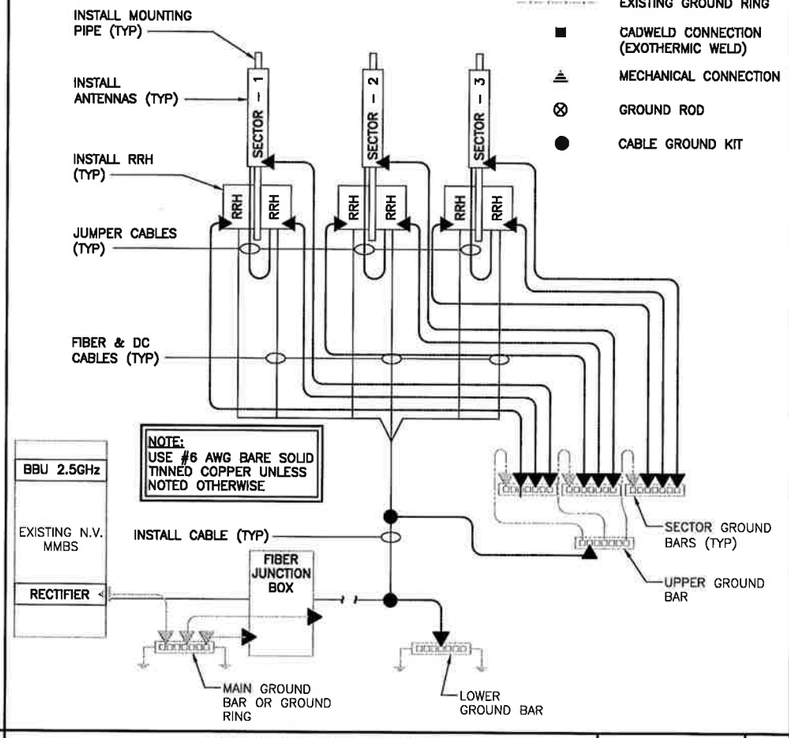
INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR — NO SCALE — 2



TWO HOLE LUG — NO SCALE — 3

LEGEND:

- EXISTING GROUND RING
- ■ CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD
- ● CABLE GROUND KIT



GROUNDING RISER DIAGRAM — NO SCALE — 4

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CANTON, CT 06019

SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2