June 15th, 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 253 FISK ROAD, HAMPTON, CONNECTICUT – CT33XC568 (lat. 41° 46' 12.79" N, long. -72° 04' 15.20" W)

Dear Ms. Bachman:

Sprint Spectrum, LP ("Sprint") currently maintains wireless telecommunications antennas at the (155-foot level) on an existing (165-foot Guyed Tower) at the above-referenced address. The property, and the tower are owned by American Tower Corporation.

Sprint's proposed work involves antenna replacement and tower work. Sprint intends to replace six (6) antennas, relocate three (3) RRHs from ground level to the tower and add nine (9) 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. The Structural Analysis prepared by American Tower Corporation contains "existing" noted contracted equipment which is not on the tower.

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 ALLAN CAHILL, FIRST SELECTMAN, and JOHN GUSZKOWSKI, TOWN PLANNER of the Town of HAMPTON. A copy of this letter is also being sent to JUSTINE PAUL the manager for AMERICAN TOWER CORPORATION who manages the site and owns the land.

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

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).

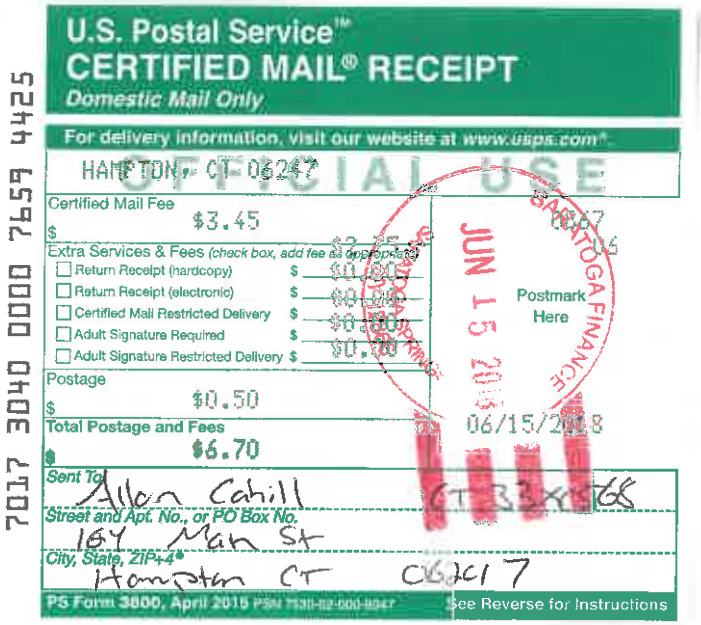
If you have any questions or require any additional information regarding this request, please do not hesitate to give me a call at (518) 350-4222 or email me to aperkowski@airosmithdevelopment.com

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: ALLAN CAHILL (First Selectman, HAMPTON, CT)
JUSTINE PAUL (Manager, AMERICAN TOWER CORPORATION)
JOHN GUSZKOWSKI (Town Planner, HAMPTON CT)



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Postage $0.50

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Sent To Allen Cahill

Street and Apt. No., or PO Box No. 164 Main St

City, State, ZIP+4® Hampton CT 06247

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

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Street and Apt. No., or PO Box No. 10 Residential Way

City, State, ZIP+4® Woburn MA 01801

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Postage $0.50

Total Postage and Fees $6.70

Sent To John Gaszkowski

Street and Apt. No., or PO Box No. 164 Main ST

City, State, ZIP+4® Hampton CT 06247

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

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neccog

Ashford Brooklyn Canterbury Chaplin Eastford Hampton Killingly Plainfield Pomfret Putnam Scotland Sterling Thompson Union Voluntown Woodstock

Parcel Information:

Report Generated: *1/17/2018 1:14:38 PM*

GIS ID: CT-063-2-9-25-28

Assessment: $573,930.00

Owner Name: *AMERICAN TOWER CORP*

Appraisal: $819,900.00

Street Address: 185 WEST FISK RD #CELL

Mailing Address: P.O. BOX 723597

ATLANTA GA 31139

Land: 0.00

Buildings: 1.00

	Land Value:	Improvement Value:	Total Value:
Appraised	$648,000.00	$171,900.00	$819,900.00
Assessed		$120,330.00	$573,930.00

Sale Date:

Sale Price: $0

Year Built:

Primary Structure Area: sq. ft.

No Photo Available

Taxlot highlighted in blue

neccog

Ashford Brooklyn Canterbury Chaplin Eastford Hampton Killingly Plainfield Pomfret Putnam Scotland Sterling Thompson Union Voluntown Woodstock

Parcel Information:

Report Generated: *1/17/2018 1:14:38 PM*

GIS ID: CT-063-2-9-25-28

Owner Name: ***HALMORA LLC***

Street Address: 185 WEST FISK RD

Mailing Address: 105-39 MAPLE AVE
VERNON CT 06066

Assessment: $109,050.00

Appraisal: $253,320.00

Land: 70.60

Buildings:

	Land Value:	Improvement Value:	Total Value:
Appraised	$253,320.00	$0.00	$253,320.00
Assessed		$0.00	$109,050.00

Sale Date:

Sale Price: $0

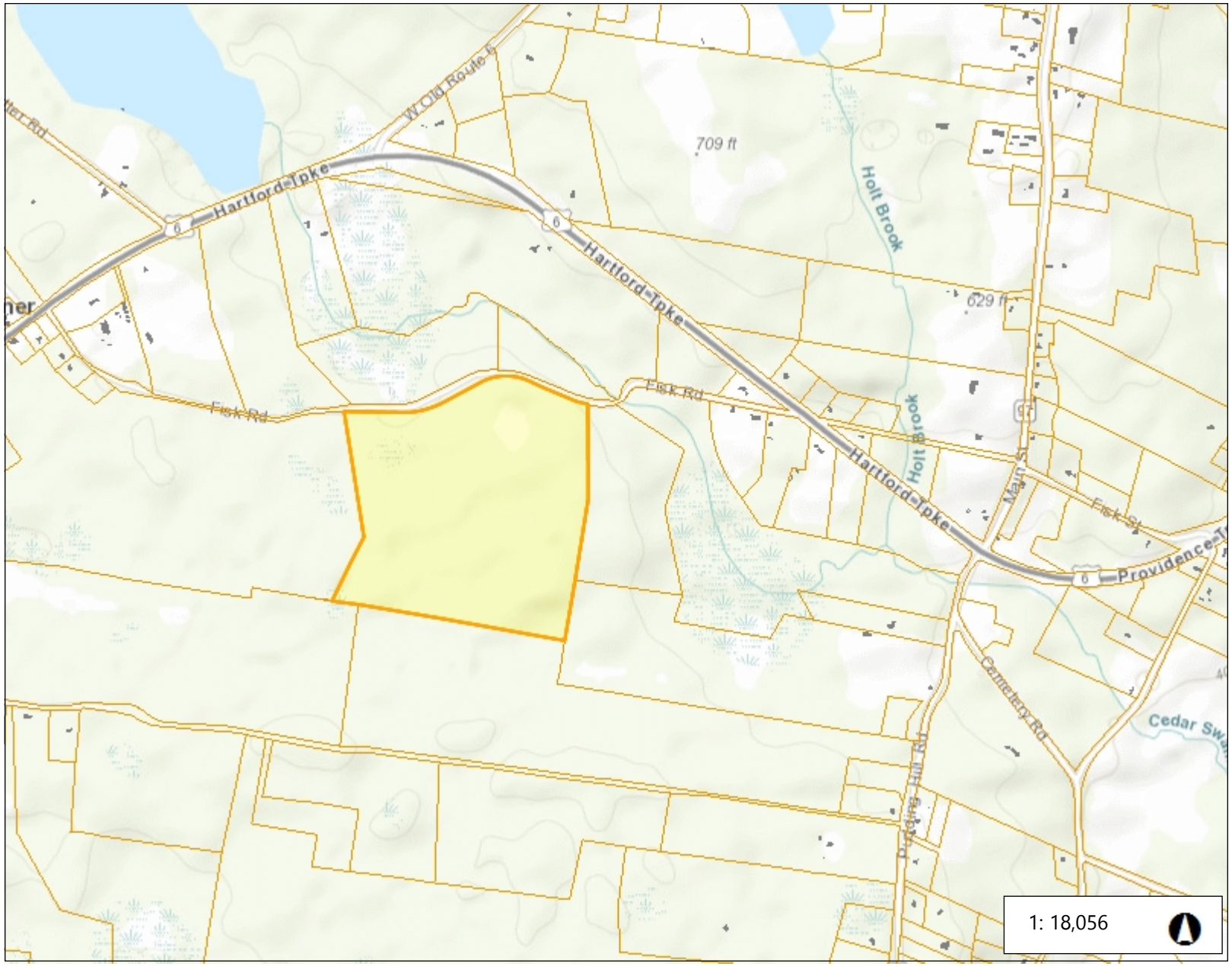
Year Built:

Primary Structure Area: sq. ft.

No Photo Available

Taxlot highlighted in blue

CT33XC568 - "253" Fisk Road, Hampton CT 06247



Legend

- Town
- buildings2012_Clip1
- Parcels

Notes

Enter Map Description

0.6 0 0.28 0.6 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

EBI Consulting
environmental | engineering | due diligence

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

SPRINT Existing Facility

Site ID: CT33XC568

Hampton / Chaplin
253 Fisk Road
Hampton, CT 06247

June 13, 2018

EBI Project Number: 6218004337

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	7.15 %

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

EBI Consulting
environmental | engineering | due diligence

June 13, 2018

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

Emissions Analysis for Site: **CT33XC568 – Hampton / Chaplin**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **253 Fisk Road, Hampton, 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 **253 Fisk Road, Hampton, 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 50 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 **Commscope NNVV-65B-R4 and the RFS APXVTM14-ALU-I20** 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 **155 feet** above ground level (AGL) for **Sector A**, **155 feet** above ground level (AGL) for **Sector B** and **155 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:	Commscope NNVV-65B-R4	Make / Model:	Commscope NNVV-65B-R4	Make / Model:	Commscope NNVV-65B-R4
Gain:	12.75 / 15.05 dBd	Gain:	12.75 / 15.05 dBd	Gain:	12.75 / 15.05 dBd
Height (AGL):	**155 feet**	Height (AGL):	**155 feet**	Height (AGL):	**155 feet**
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	10	Channel Count	10	Channel Count	10
Total TX Power(W):	280 Watts	Total TX Power(W):	280 Watts	Total TX Power(W):	280 Watts
ERP (W):	7,378.61	ERP (W):	7,378.61	ERP (W):	7,378.61
Antenna A1 MPE%	**1.47 %**	Antenna B1 MPE%	**1.47 %**	Antenna C1 MPE%	**1.47 %**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVTM14-ALU-I20	Make / Model:	RFS APXVTM14-ALU-I20	Make / Model:	RFS APXVTM14-ALU-I20
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	**155 feet**	Height (AGL):	**155 feet**	Height (AGL):	**155 feet**
Frequency Bands	2500 MHz (BRS)	Frequency Bands	2500 MHz (BRS)	Frequency Bands	2500 MHz (BRS)
Channel Count	8	Channel Count	8	Channel Count	8
Total TX Power(W):	160 Watts	Total TX Power(W):	160 Watts	Total TX Power(W):	160 Watts
ERP (W):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72
Antenna A2 MPE%	**1.01 %**	Antenna B2 MPE%	**1.01 %**	Antenna C2 MPE%	**1.01 %**

Site Composite MPE%	
Carrier	**MPE%**
SPRINT – Max per sector	**2.48 %**
Nextel	0.24 %
Verizon Wireless	1.79 %
AT&T	2.31 %
T-Mobile	0.33 %
Site Total MPE %:	**7.15 %**

SPRINT Sector A Total:	2.48 %
SPRINT Sector B Total:	2.48 %
SPRINT Sector C Total:	2.48 %
Site Total:	7.15 %

SPRINT _ Frequency Band / Technology Max Power Values (Per Sector)	**# Channels**	**Watts ERP (Per Channel)**	**Height (feet)**	**Total Power Density (μW/cm²)**	**Frequency (MHz)**	**Allowable MPE (μW/cm²)**	**Calculated % MPE**
Sprint 850 MHz CDMA	1	376.73	155	0.61	850 MHz	567	0.11%
Sprint 850 MHz LTE	2	941.82	155	3.05	850 MHz	567	0.54%
Sprint 1900 MHz (PCS) CDMA	5	511.82	155	4.14	1900 MHz (PCS)	1000	0.41%
Sprint 1900 MHz (PCS) LTE	2	1,279.56	155	4.14	1900 MHz (PCS)	1000	0.41%
Sprint 2500 MHz (BRS) LTE	8	778.09	155	10.08	2500 MHz (BRS)	1000	1.01%
						Total:	**2.48%**

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:	2.48 %
Sector B:	2.48 %
Sector C:	2.48 %
SPRINT Maximum Total (per sector):	2.48 %
Site Total:	7.15 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **7.15 %** 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.

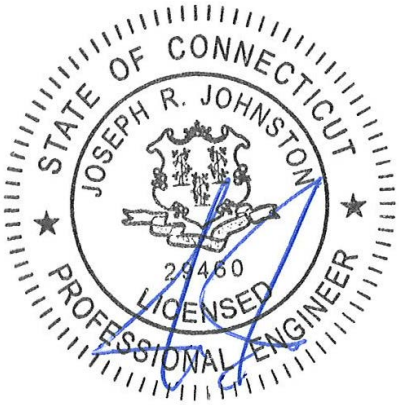
1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

Mount Analysis Report

April 15, 2018

Sprint Site #	CT33XC568
Infinigy Job Number	526-104
Client	Airosmith
Proposed Carrier	Sprint
Site Location	Fisk Road, Hampton, CT, 06247 41.76990˚ N NAD83 72.07060˚ W NAD83
Mount Centerline EL.	155.0’
Mount Classification	Sector Frame
Failing Structural Usage	**187.0%**
Passing Structural Usage	**92.7%**
Overall Result	**Contingent Pass – See Modification Below**
Notes	**Existing Mounts must be replaced with SitePro1 VFA12-HD prior to installation of proposed appurtenances.**

Upon reviewing the results of this analysis, it is our opinion that the structure and anchorage meets the specified TIA code requirements. The mount is therefore deemed adequate to support the existing and proposed loading as listed in this report.



04-16-18

Nathaniel R. Ober, E.I.T.
Northeast Structural Region Lead

Contents

Introduction

Infinigy Engineering has been requested to perform a mount analysis on the existing Sprint mounts. All supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using RISA-3D Version 16.0.2 structural analysis software.

Supporting Documentation

Structural Analysis	ATC Eng #OAA710558_C3_03, dated March 23, 2018

Analysis Code Requirements

Wind Speed	101 mph (3-Second Gust, V_{asd}) / 130 mph (3-Second Gust V_{ult})
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 3/4" ice
TIA Revision	ANSI/TIA222-G
Adopted IBC	2012 IBC / 2016 Connecticut State Building Code
Structure Class	II
Exposure Category	B
Topographic Category	1
Calculated Crest Height	0 ft

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The mount for the proposed carrier is therefore deemed adequate to support the final loading configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Nathaniel R Ober E.I.T.
Northeast Structural Region Lead | Infinigy
1033 Watervliet Shaker Road, Albany, NY 12205
(O) (518) 690-0790 | (M) (303) 704-0322
nober@infinigy.com | www.infinigy.com

Final Configuration Loading

Mount Centerline (ft)	RAD Height (ft)	Horizontal Offset (ft)*	Qty.	Appurtenance	Carrier
155.0	155.0	12.0	3	Commscope NNVV-65B-R4	Sprint
		4.0	3	RFS APXVTM14-ALU-I20	
		12.0	3	Alcatel-Lucent TD-RRH8x20-25	
		4.0,12.0	6	Alcatel-Lucent RRH2x50-08	
		4.0	3	Alcatel-Lucent 1900 MHz 4X45 RRH	

*** Horizontal Offset is defined as the distance from the left most edge of the mount face horizontal when viewed facing the tower**

Structure Usages

Stand off	92.5	Pass
Face Horizontal	52.6	Pass
Mount Pipe	51.6	Pass
RATING =	**92.5**	**Pass**

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the proposed carriers mount structure only and does not reflect adequacy of the existing tower, other mounts, or coax mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.

Site Name:	CT33XC568
Client:	Airosmith
Carrier:	Sprint
Engineer:	NRO
Date:	4/15/2018

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

INFINIGY WIND LOAD CALCULATOR 3.0.2

Site Information Inputs:

Adopted Building Code:	2012 IBC
Structure Load Standard:	TIA-222-G
Antenna Load Standard:	TIA-222-G
Structure Risk Category:	II
Structure Type:	Mount - Sector
Number of Sectors:	3
Structure Shape 1:	Round

Rooftop Inputs:

Rooftop Wind Speed-Up?:	No

Wind Loading Inputs:

Design Wind Velocity:	101	mph (nominal 3-second gust)
Wind Centerline 1 (z_1):	155.0	ft
Side Face Angle (θ):	60	degrees
Exposure Category:	B	
Topographic Category:	1	

Wind with No Ice		
q_z (psf)	Gh	F_{ST} (psf)
27.79	1.00	**33.34**

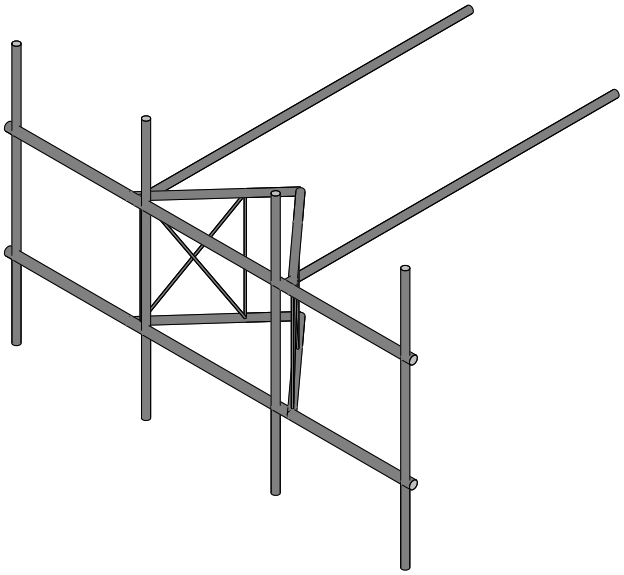
Wind with Ice		
q_z (psf)	Gh	F_{ST} (psf)
6.81	1.00	**24.52**

Ice Loading Inputs:

Is Ice Loading Needed?:	Yes	
Ice Wind Velocity:	50	mph (nominal 3-second gust)
Base Ice Thickness:	0.75	in

Input Appurtenance Information and Load Placements:

Appurtenance Name	Elevation (ft)	Total Quantity	Ka	Front Shape	Side Shape	q_z (psf)	EPA (ft^2)	Fz (lbs)	Fx (lbs)	Fz(60) (lbs)	Fx(30) (lbs)
Commscope NNVV-65B-R4	155.0	3	1.00	Flat	Flat	27.79	12.27	340.98	159.78	205.08	295.68
RFS APXVTM14-ALU-I20	155.0	3	1.00	Flat	Flat	27.79	6.34	176.24	100.24	119.24	157.24
Alcatel-Lucent TD-RRH8x20-25	155.0	3	1.00	Flat	Flat	27.79	4.05	112.41	42.59	60.04	94.96
Alcatel-Lucent 800 MHz RRH	155.0	6	1.00	Flat	Flat	27.79	2.13	59.30	49.27	51.78	56.79
Alcatel-Lucent 1900 MHz RRH	155.0	3	1.00	Flat	Flat	27.79	2.31	64.26	65.99	65.56	64.69



Envelope Only Solution

Infinigy Engineering PLLC	CT33XC568	
NRO		Apr 15, 2018 at 11:02 AM
526-104		VFA12-HD.r3d

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N3	N4			2.5"pipe	Beam	None	A53 Gr.B	Typical
2	M2	N1	N2			2.5"pipe	Beam	None	A53 Gr.B	Typical
3	M3	N8	N6			2" pipe	Beam	None	A53 Gr.B	Typical
4	M4	N9	N6			2" pipe	Beam	None	A53 Gr.B	Typical
5	M5	N7	N5			2" pipe	Beam	None	A53 Gr.B	Typical
6	M6	N10	N5			2" pipe	Beam	None	A53 Gr.B	Typical
7	M7	N12	N14			0.625" S.R.	Beam	None	A36 Gr.36	Typical
8	M8	N14	N16			0.625" S.R.	Beam	None	A36 Gr.36	Typical
9	M9	N16	N18			0.625" S.R.	Beam	None	A36 Gr.36	Typical
10	M10	N18	N12			0.625" S.R.	Beam	None	A36 Gr.36	Typical
11	M11	N19	N13			0.625" S.R.	Beam	None	A36 Gr.36	Typical
12	M12	N13	N15			0.625" S.R.	Beam	None	A36 Gr.36	Typical
13	M13	N15	N17			0.625" S.R.	Beam	None	A36 Gr.36	Typical
14	M14	N17	N19			0.625" S.R.	Beam	None	A36 Gr.36	Typical
15	M15	N21	N23			2" pipe	Beam	None	A53 Gr.B	Typical
16	M16	N22	N24			2" pipe	Beam	None	A53 Gr.B	Typical
17	MP4	N37	N33			2" pipe	Beam	None	A53 Gr.B	Typical
18	MP3	N39	N35			2" pipe	Beam	None	A53 Gr.B	Typical
19	MP2	N40	N36			2" pipe	Beam	None	A53 Gr.B	Typical
20	MP1	N38	N34			2" pipe	Beam	None	A53 Gr.B	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	Hot Rolled Steel				
2	A36 Gr.36	0.625" S.R._HRA	8	353.6	0
3	A53 Gr.B	PIPE_2.0	10	809	.2
4	A53 Gr.B	PIPE_2.5	2	300	.1
5	Total HR Steel		20	1462.6	.4

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut..	Area(M...	Surface...
1	Self Weight	DL		-1			8			
2	Wind Load AZI 000	WLZ					8		1	
3	Wind Load AZI 090	WLX					8		1	
4	Ice Weight	OL1					8	20		
5	Wind + Ice Load AZI 000	OL2					8		1	
6	Wind + Ice Load AZI 090	OL3					8		1	
7	Service Live 1	LL				2				
8	BLC 2 Transient Area Loads	None						12		
9	BLC 3 Transient Area Loads	None						12		
10	BLC 5 Transient Area Loads	None						12		
11	BLC 6 Transient Area Loads	None						12		

Load Combinations

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
1	1.4D	Yes	Y		DL	1.4																		
2	1.2D + 1.6W AZI 000	Yes	Y		DL	1.2	W...	1.6																
3	1.2D + 1.6W AZI 030	Yes	Y		DL	1.2	W...	1.3...	W...	.8														
4	1.2D + 1.6W AZI 060	Yes	Y		DL	1.2	W...	.8	W...	1.3...														
5	1.2D + 1.6W AZI 090	Yes	Y		DL	1.2			W...	1.6														
6	1.2D + 1.6W AZI 120	Yes	Y		DL	1.2	W...	-.8	W...	1.3...														

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
7	1.2D + 1.6W AZI 150	Yes	Y		DL	1.2	W...	-1.3...	W...	.8																
8	1.2D + 1.6W AZI 180	Yes	Y		DL	1.2	W...	-1.6																		
9	1.2D + 1.6W AZI 210	Yes	Y		DL	1.2	W...	-1.3...	W...	-.8																
10	1.2D + 1.6W AZI 240	Yes	Y		DL	1.2	W...	-.8	W...	-1.3...																
11	1.2D + 1.6W AZI 270	Yes	Y		DL	1.2			W...	-1.6																
12	1.2D + 1.6W AZI 300	Yes	Y		DL	1.2	W...	.8	W...	-1.3...																
13	1.2D + 1.6W AZI 330	Yes	Y		DL	1.2	W...	1.3...	W...	-.8																
14	0.9D + 1.6W AZI 000	Yes	Y		DL	.9	W...	1.6																		
15	0.9D + 1.6W AZI 030	Yes	Y		DL	.9	W...	1.3...	W...	.8																
16	0.9D + 1.6W AZI 060	Yes	Y		DL	.9	W...	.8	W...	1.3...																
17	0.9D + 1.6W AZI 090	Yes	Y		DL	.9			W...	1.6																
18	0.9D + 1.6W AZI 120	Yes	Y		DL	.9	W...	-.8	W...	1.3...																
19	0.9D + 1.6W AZI 150	Yes	Y		DL	.9	W...	-1.3...	W...	.8																
20	0.9D + 1.6W AZI 180	Yes	Y		DL	.9	W...	-1.6																		
21	0.9D + 1.6W AZI 210	Yes	Y		DL	.9	W...	-1.3...	W...	-.8																
22	0.9D + 1.6W AZI 240	Yes	Y		DL	.9	W...	-.8	W...	-1.3...																
23	0.9D + 1.6W AZI 270	Yes	Y		DL	.9			W...	-1.6																
24	0.9D + 1.6W AZI 300	Yes	Y		DL	.9	W...	.8	W...	-1.3...																
25	0.9D + 1.6W AZI 330	Yes	Y		DL	.9	W...	1.3...	W...	-.8																
26	1.2D + 1.0Di	Yes	Y		DL	1.2	OL1	1																		
27	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	1																
28	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	.866	OL3	.5														
29	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	.5	OL3	.866														
30	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1			OL3	1														
31	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	-.5	OL3	.866														
32	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	-.866	OL3	.5														
33	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	-1																
34	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	-.866	OL3	-.5														
35	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	-.5	OL3	-.866														
36	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1			OL3	-1														
37	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	.5	OL3	-.866														
38	1.2D + 1.0Di + 1.0Wi A...	Yes	Y		DL	1.2	OL1	1	OL2	.866	OL3	-.5														
39	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	.111																
40	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	.096	W...	.056														
41	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	.056	W...	.096														
42	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5			W...	.111														
43	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	-.056	W...	.096														
44	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	-.096	W...	.056														
45	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	-.111																
46	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	-.096	W...	-.056														
47	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	-.056	W...	-.096														
48	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5			W...	-.111														
49	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	.056	W...	-.096														
50	1.2D + 1.5L + 1.0WL (...	Yes	Y		DL	1.2	LL	1.5	W...	.096	W...	-.056														

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N6	max	471.131	17	2306.478	32	1923.45	14	-299.816	25	220.916	14	1078.66	31
2		min	-1422.79	36	473.172	25	-2786.859	8	-1360.592	31	-238.06	8	-66.015	25
3	N5	max	1340.953	30	439.04	37	1863.273	27	-22.259	19	880.468	7	282.302	19
4		min	-295.679	22	-11.289	19	-754.078	20	-355.235	38	-574.812	25	-282.94	13
5	N23	max	38.664	17	50.988	38	1697.986	19	0	1	0	1	0	1
6		min	-39.007	11	5.872	19	-1775.548	13	0	1	0	1	0	1
7	N24	max	41.041	16	63.902	30	698.33	12	0	1	0	1	0	1
8		min	-41.311	10	12.304	24	-656.898	18	0	1	0	1	0	1

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
9	Totals:	max	1438.545	5	2809.908	32	2082.926	14						
10		min	-1438.545	11	703.034	21	-2082.926	8						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Lo...	...	Shear C...	Loc[in] ...		LC	phi*Pnc...	phi*Pnt ...	phi*...	phi*...	...	Eqn
1	M4	PIPE_2.0	.927	44...	...	.320	44.7...		31	29772....	32130	1871...	1871...	1	H1-...
2	M7	0.625" ...	.652	40	...	.018	40		7	988.366	9946.8	96.768	96.768	...	H1-...
3	M9	0.625" ...	.526	40	...	.024	40		7	988.366	9946.8	96.768	96.768	...	H1-...
4	M1	PIPE_2.5	.526	10...	8	.156	45.3...		2	41331....	50715	3596...	3596...	1	H1-...
5	M2	PIPE_2.5	.523	10...	2	.219	106....		8	41331....	50715	3596...	3596...	1	H1-...
6	MP1	PIPE_2.0	.516	28	...	.116	28		2	28122....	32130	1871...	1871...	1	H1-...
7	M6	PIPE_2.0	.393	0	8	.294	2.798		32	29772....	32130	1871...	1871...	1	H1-...
8	M5	PIPE_2.0	.363	44....	7	.068	30.3...		7	29772....	32130	1871...	1871...	1	H1-...
9	MP3	PIPE_2.0	.304	68	7	.085	68		7	28122....	32130	1871...	1871...	1	H1-...
10	M13	0.625" ...	.284	48.4	...	.032	0		8	675.067	9946.8	96.768	96.768	...	H1-...
11	MP2	PIPE_2.0	.269	68	...	.108	68		7	28122....	32130	1871...	1871...	1	H1-...
12	M3	PIPE_2.0	.213	44...	...	.122	0		20	29772....	32130	1871...	1871...	1	H1-...
13	M16	PIPE_2.0	.208	2.5...	8	.187	0		8	9362.615	32130	1871...	1871...	...	H1-...
14	MP4	PIPE_2.0	.205	28	...	.025	68		44	28122....	32130	1871...	1871...	1	H1-...
15	M15	PIPE_2.0	.181	3.8...	...	.056	2.563		7	9362.615	32130	1871...	1871...	...	H1-...
16	M8	0.625" ...	.106	48.4	...	.009	0		6	675.067	9946.8	96.768	96.768	...	H1-...
17	M10	0.625" ...	.022	48.4	...	.013	48.4		7	675.067	9946.8	96.768	96.768	...	H1-...
18	M12	0.625" ...	.001	0	...	.015	0		21	988.366	9946.8	96.768	96.768	...	H1-...
19	M11	0.625" ...	.000	0	1	.000	0		1	675.067	9946.8	96.768	96.768	1	H1-...
20	M14	0.625" ...	.000	0	1	.000	0		1	988.366	9946.8	96.768	96.768	1	H1-...

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Structural Analysis Report

Structure	:	**160 ft Guyed Tower**
ATC Site Name	:	**Hampton CT, CT**
ATC Site Number	:	**10029**
Engineering Number	:	**OAA710558_C3_04**
Proposed Carrier	:	**Sprint Nextel**
Carrier Site Name	:	**Hampton CT**
Carrier Site Number	:	**CT33XC568**
Site Location	:	**Fisk Road** **Hampton, CT 06247-1305** **41.769900,-72.070600**
County	:	**Windham**
Date	:	**May 1, 2018**
Max Usage	:	**60%**
Result	:	**Pass**

Prepared By:
Christiana Lancaster
Structural Engineer I

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 160 ft guyed tower to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	Nudd Project #6606, dated February 17, 1999
Foundation Drawing	ATC Pier Measurements, dated January 3, 2013
Geotechnical Report	GEOServices Project #21-07254, dated February 16, 2008

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:	101 mph (3-Second Gust, V_{asd})/ 130 mph (3-second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" 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 = 0.17, 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					
160.0	160.0	9	Allgon 7120.16.05.00 / A-800-110-13I-0-N	Sector Frames	(9) 1 1/4" Coax	Sprint Nextel
155.0	-	-	-	-	(6) 1 5/8" Coax	
144.0	144.0	3	Antel BXA-70063-6CF-EDIN-X	Sector Frames	(12) 1 5/8" Coax	Verizon
		6	Antel LPA-80080-4CF-EDIN-0			
		3	Antel BXA-171085-8BF-EDIN-X			
		6	RFS FD9R6004/2C-3L			
133.0	133.0	1	Powerwave P65-17-XLH-RR	Sector Frames	(12) 1 1/4" Coax (2) 0.78" 8 AWG (1) 0.39" Cable	AT&T Mobility
		2	KMW AM-X-CD-17-65-00T-RET			
		6	Allgon 7770.00			
		3	Ericsson RRUS-11			
		6	Powerwave LGP17201			
		1	Raycap DC6-48-60-18-8F			
		6	Powerwave LGP13519			
77.0	77.0	1	Lucent KS-24019	Side Arm	(1) 7/8" Coax	Verizon

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	150.0	9	Decibel DB980H90B-KL	Sector Frames	(3) 1 5/8" Coax	Sprint Nextel

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
155.0	155.0	3	Commscope NNVV-65B-R4	VFA10-HD3L4NP Sector Frames	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS APXVTM14-ALU-I20			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ S.S.			
		3	Alcatel-Lucent 1900MHz 4x45 RRH			
		6	Alcatel-Lucent RRH2x50-08			

[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 anywhere on tower.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	59%	Pass
Diagonals	56%	Pass
Horizontals	37%	Pass
Guys	47%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Base Axial (kips)	-	-	134.3	60%
Anchor 1 Uplift (kips)	52.5	70.9	31.6	45%
Anchor 1 Shear (kips)	63.2	85.3	40.0	47%

*** 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 were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required. The guy anchor reactions resulting from this analysis are acceptable when compared to those shown on the original anchor drawings, therefore no modification or reinforcement of the guy anchors will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
155.0	Alcatel-Lucent 1900 MHz 4x45 RRH	Sprint Nextel	0.080	0.002	0.069
	Alcatel-Lucent RRH2x50-08				
	Alcatel-Lucent TD-RRH8x20-25 w/ S.S.				
	Commscope NNVV-65B-R4				
	RFS APXVTM14-ALU-I20				

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

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Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

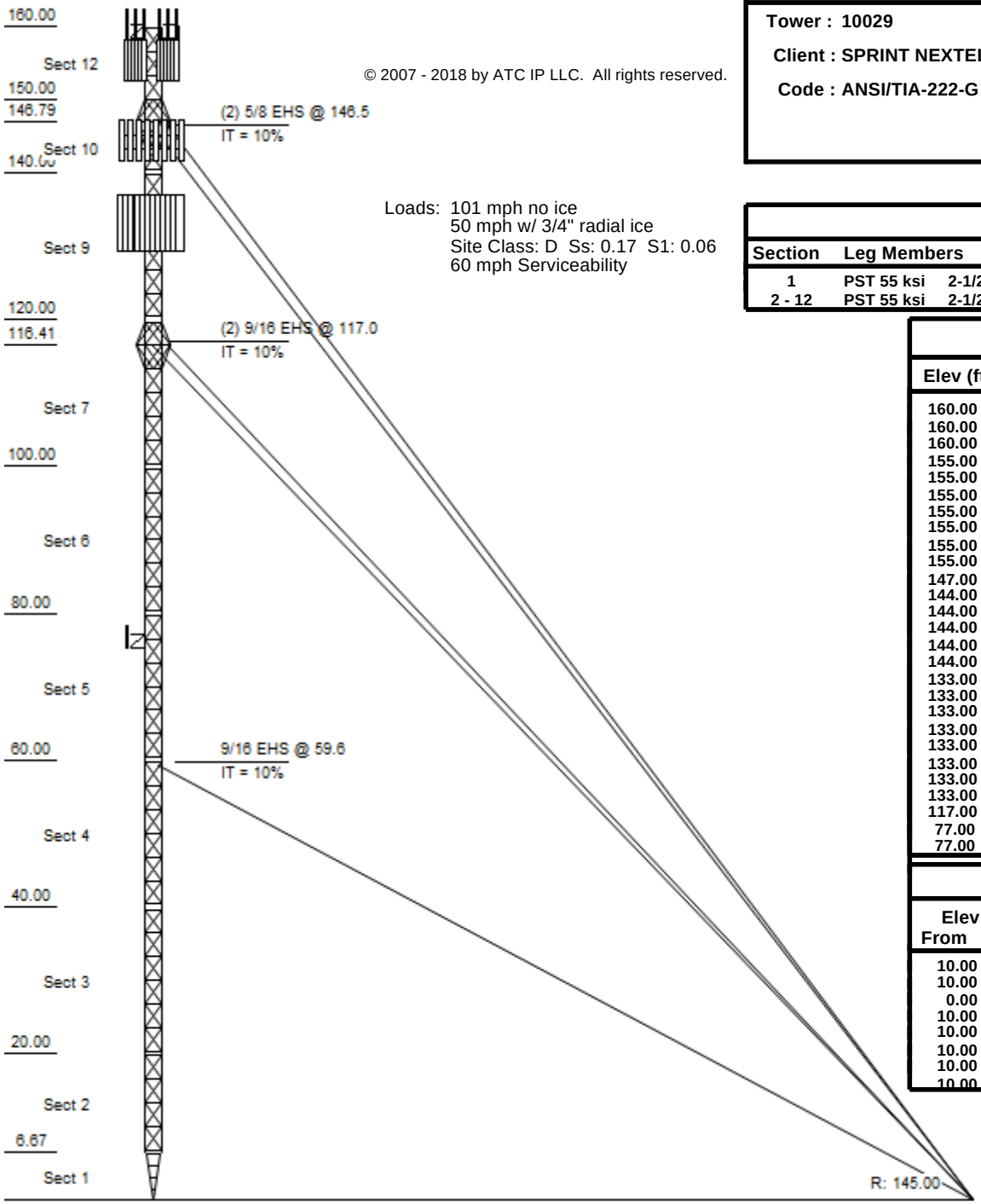
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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 supplied herein.



Loads: 101 mph no ice
50 mph w/ 3/4" radial ice
Site Class: D Ss: 0.17 S1: 0.06
60 mph Serviceability

Job Information

Tower : 10029	**Location :** HAMPTON CT, CT	**Base Width :** 3.50 ft
Client : SPRINT NEXTEL		
Code : ANSI/TIA-222-G		**Tower Ht :** 160.00 ft
		Shape : Triangle

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1	PST 55 ksi 2-1/2" DIA PIPE		SAE 36 ksi 2.5X2.5X0.25
2 - 12	PST 55 ksi 2-1/2" DIA PIPE	SOL 36 ksi 5/8" SOLID	SAE 36 ksi 1.5X1.5X0.1875

Discrete Appurtenance

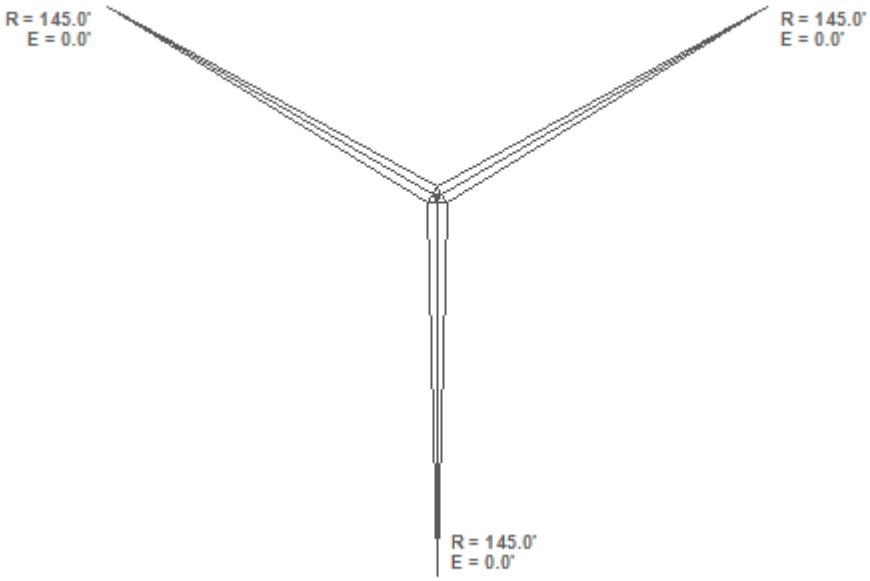
Elev (ft)	Type	Qty	Description
160.00	Mounting Frame	3	Flat Light Sector Frames
160.00	Straight Arm	3	Delta Mount
160.00	Panel	9	Allgon 7120.16.05.00 / A-800-1
155.00	Panel	3	Commscope NNVV-65B-R4
155.00	Panel	3	RFS APXVTM14-ALU-I20
155.00	Panel	3	Alcatel-Lucent TD-RRH8x20-25 w
155.00	Panel	3	Alcatel-Lucent 1900 MHz 4x45 R
155.00	Panel	6	Alcatel-Lucent RRH2x50-08
155.00	Mounting Frame	3	VFA10-HD3L4NP Sector Frame
155.00	Straight Arm	3	Delta Mount
147.00	Other	1	Torque Arms
144.00	Mounting Frame	3	Flat Light Sector Frames
144.00	Panel	3	Amphenol Antel BXA-70063-6CF-E
144.00	Panel	6	Amphenol Antel LPA-80080-4CF-E
144.00	Panel	3	Amphenol Antel BXA-171085-8BF-
144.00	Panel	6	RFS FD9R6004/2C-3L
133.00	Mounting Frame	3	Flat Light Sector Frames
133.00	Panel	1	Powerwave P65-17-XLH-RR
133.00	Panel	2	KMW AM-X-CD-17-65-00T-RET
133.00	Panel	6	Allgon 7770.00
133.00	Panel	3	Ericsson RRUS-11
133.00	Panel	6	Powerwave LGP17201
133.00	Panel	1	Raycap DC6-48-60-18-8F
133.00	Panel	6	Powerwave LGP13519
117.00	Other	1	Torque Arms
77.00	Straight Arm	1	Flat Side Arm
77.00	Whip	1	Lucent KS-24019

Linear Appurtenance

Elev (ft) From	To	Qty	Description
10.00	160.00	9	1 1/4" Coax
10.00	155.00	6	1 5/8" Coax
0.00	155.00	4	1 1/4" Hybriflex Cab
10.00	144.00	12	1 5/8" Coax
10.00	133.00	12	1 1/4" Coax
10.00	133.00	2	0.78" (19.7mm) 8 AWG
10.00	133.00	1	0.39" (10 mm) Cable
10.00	77.00	1	7/8" Coax

Job Information

Tower : 10029	**Location :** HAMPTON CT, CT	**Base Width :** 3.50 ft
Client : SPRINT NEXTEL		
Code : ANSI/TIA-222-G		**Tower Ht :** 160.00 ft
		Shape : Triangle



Guy Anchor Design Loads

Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (kip)	Shear (kip)
145.00	0.00	0	31.62	40.01
145.00	0.00	240	31.62	40.01
145.00	0.00	120	31.62	40.01

Global Base Foundation Design Loads

Vertical (kip)	Horizontal (kip)
134.32	1.97

Site Number:	10029	Code:	ANSI/TIA-222-G	
Site Name:	HAMPTON CT, CT	Engineering Number:	OAA710558_C3_04	5/1/2018 5:07:10 PM
Customer:	SPRINT NEXTEL			

Analysis Parameters

Location:	WINDHAM County, CT	Height (ft):	160
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	3.50
Tower Manufacturer:	Nudd Corporation	Top Face Width (ft):	3.50
Tower Type:	Guyed		
Kd:			
Ke:			

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	101 mph
Exposure Category:	B	Design Windspeed With Ice:	50 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	0.61				
T_L (sec):	6	p:	1	C_S:	0.065
S_S:	0.172	S_1:	0.062	C_S, Max:	0.065
F_a:	1.600	F_V:	2.400	C_S, Min:	0.030
S_{ds}:	0.183	S_{d1}:	0.099		

Load Cases

1.2D + 1.6W Normal	101 mph Normal with No Ice
1.2D + 1.6W 60 deg	101 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	101 mph 90 degree with No Ice
1.2D + 1.6W 120 deg	101 mph 120 degree with No Ice
1.2D + 1.6W 180 deg	101 mph 180 degree with No Ice
1.2D + 1.6W 210 deg	101 mph 210 degree with No Ice
1.2D + 1.6W 240 deg	101 mph 240 degree with No Ice
1.2D + 1.6W 300 deg	101 mph 300 degree with No Ice
1.2D + 1.6W 330 deg	101 mph 330 degree with No Ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 120 deg	50 mph 120 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 210 deg	50 mph 210 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	50 mph 240 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	50 mph 300 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	50 mph 330 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal

Analysis Parameters

(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 120 deg	Seismic 120 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 210 deg	Seismic 210 deg
(1.2 + 0.2Sds) * DL + E 240 deg	Seismic 240 deg
(1.2 + 0.2Sds) * DL + E 300 deg	Seismic 300 deg
(1.2 + 0.2Sds) * DL + E 330 deg	Seismic 330 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 120 deg	Serviceability - 60 mph Wind 120 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 210 deg	Serviceability - 60 mph Wind 210 deg
1.0D + 1.0W Service 240 deg	Serviceability - 60 mph Wind 240 deg
1.0D + 1.0W Service 300 deg	Serviceability - 60 mph Wind 300 deg
1.0D + 1.0W Service 330 deg	Serviceability - 60 mph Wind 330 deg

Site Number: 10029 Code: ANSI/TIA-222-G

Site Name: HAMPTON CT, CT Engineering Number: OAA710558_C3_04 5/1/2018 5:07:11 PM

Customer: SPRINT NEXTEL

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
160.0	Allgon 7120.16.05.00	9	15	5.3	4.3	7.9	11.4	0.80	0.71	0.0	0.0	25.09	928	166
160.0	Delta Mount	3	150	6.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	25.09	324	540
160.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	25.09	1031	1440
155.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	0.80	0.67	0.0	0.0	24.86	126	216
155.0	Alcatel-Lucent	6	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	24.86	138	381
155.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	0.0	0.0	24.86	220	252
155.0	Commscope NNVV-	3	77	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.0	24.86	637	279
155.0	Delta Mount	3	150	6.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	24.86	321	540
155.0	RFS APXVTM14-ALU-	3	56	6.3	4.6	12.6	6.3	0.80	0.66	0.0	0.0	24.86	340	202
155.0	VFA10-HD3L4NP	3	500	29.3	0.0	0.0	0.0	0.75	0.75	0.0	0.0	24.86	1672	1800
147.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	24.49	500	600
144.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	0.0	0.0	24.34	166	38
144.0	Amphenol Antel BXA-	3	17	7.6	5.9	11.2	5.2	0.80	0.66	0.0	0.0	24.34	397	61
144.0	Amphenol Antel LPA-	6	12	5.4	3.9	13.2	5.5	0.80	0.64	0.0	0.0	24.34	549	86
144.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	24.34	1000	1440
144.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	0.0	0.0	24.34	29	19
133.0	Allgon 7770.00	6	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	23.80	556	252
133.0	Ericsson RRUS-11	3	55	3.8	2.1	18.2	6.7	0.80	0.67	0.0	0.0	23.80	197	198
133.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	23.80	978	1440
133.0	KMW AM-X-CD-17-	2	60	11.3	8.0	11.8	6.0	0.80	0.68	0.0	0.0	23.80	398	143
133.0	Powerwave	6	5	0.3	0.4	7.9	2.7	0.80	0.50	0.0	0.0	23.80	26	38
133.0	Powerwave	6	31	1.7	1.2	14.4	3.7	0.80	0.50	0.0	0.0	23.80	130	223
133.0	Powerwave P65-17-	1	59	11.5	8.0	12.0	6.0	0.80	0.67	0.0	0.0	23.80	199	71
133.0	Raycap DC6-48-60-	1	33	1.3	2.0	11.0	11.0	0.80	1.00	0.0	0.0	23.80	33	39
117.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	22.94	468	600
77.00	Flat Side Arm	1	50	3.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.36	83	60
77.00	Lucent KS-24019	1	4	0.9	2.2	3.5	3.2	1.00	1.00	0.0	0.0	20.36	25	5
	Totals	92	9275	611.7									11472	11129

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
160.0	Allgon 7120.16.05.00	9	169	4.9	4.3	7.9	11.4	0.80	0.71	0.0	0.0	6.15	130	1550
160.0	Delta Mount	3	224	8.8	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.15	69	761
160.0	Flat Light Sector	3	703	33.1	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.15	292	2348
155.0	Alcatel-Lucent 1900	3	156	3.0	2.1	11.1	10.7	0.80	0.67	0.0	0.0	6.09	25	503
155.0	Alcatel-Lucent	6	125	2.3	1.3	13.0	9.8	0.80	0.50	0.0	0.0	6.09	28	812
155.0	Alcatel-Lucent TD-	3	165	5.4	2.2	18.6	6.7	0.80	0.67	0.0	0.0	6.09	45	537
155.0	Commscope NNVV-	3	182	16.3	6.0	19.6	7.8	0.80	0.64	0.0	0.0	6.09	130	594
155.0	Delta Mount	3	224	8.8	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.09	68	761
155.0	RFS APXVTM14-ALU-	3	132	8.4	4.6	12.6	6.3	0.80	0.66	0.0	0.0	6.09	69	431
155.0	VFA10-HD3L4NP	3	1053	46.7	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.09	409	3460
147.0	Torque Arms	1	847	25.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.00	130	947
144.0	Amphenol Antel BXA-	3	93	3.8	4.0	6.1	4.1	0.80	0.71	0.0	0.0	5.97	33	286
144.0	Amphenol Antel BXA-	3	190	8.8	5.9	11.2	5.2	0.80	0.66	0.0	0.0	5.97	71	581
144.0	Amphenol Antel LPA-	6	147	6.4	3.9	13.2	5.5	0.80	0.64	0.0	0.0	5.97	100	895
144.0	Flat Light Sector	3	700	33.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.97	282	2341
144.0	RFS FD9R6004/2C-3L	6	16	0.6	0.5	6.5	1.5	0.80	0.50	0.0	0.0	5.97	7	97
133.0	Allgon 7770.00	6	168	6.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	5.83	101	1048
133.0	Ericsson RRUS-11	3	158	4.6	2.1	18.2	6.7	0.80	0.67	0.0	0.0	5.83	36	508
133.0	Flat Light Sector	3	697	32.8	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.83	274	2332

Tower Loading

133.0	KMW AM-X-CD-17-	2	303	12.9	8.0	11.8	6.0	0.80	0.68	0.0	0.0	5.83	70	630
133.0	Powerwave	6	20	0.6	0.4	7.9	2.7	0.80	0.50	0.0	0.0	5.83	7	126
133.0	Powerwave	6	79	2.2	1.2	14.4	3.7	0.80	0.50	0.0	0.0	5.83	26	509
133.0	Powerwave P65-17-	1	305	13.1	8.0	12.0	6.0	0.80	0.67	0.0	0.0	5.83	35	317
133.0	Raycap DC6-48-60-	1	124	2.8	2.0	11.0	11.0	0.80	1.00	0.0	0.0	5.83	11	131
117.0	Torque Arms	1	838	25.1	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.62	120	938
77.00	Flat Side Arm	1	73	4.1	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.99	17	83
77.00	Lucent KS-24019	1	27	1.8	2.2	3.5	3.2	1.00	1.00	0.0	0.0	4.99	8	28
	Totals	92	21698	893.7									2593	23553

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
160.0	Allgon 7120.16.05.00	9	15	5.3	4.3	7.9	11.4	0.80	0.71	0.0	0.0	8.85	205	139
160.0	Delta Mount	3	150	6.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.85	71	450
160.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.85	227	1200
155.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	0.80	0.67	0.0	0.0	8.77	28	180
155.0	Alcatel-Lucent	6	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	8.77	30	317
155.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	0.0	0.0	8.77	49	210
155.0	Commscope NNVV-	3	77	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.0	8.77	141	232
155.0	Delta Mount	3	150	6.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.77	71	450
155.0	RFS APXVTM14-ALU-	3	56	6.3	4.6	12.6	6.3	0.80	0.66	0.0	0.0	8.77	75	169
155.0	VFA10-HD3L4NP	3	500	29.3	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.77	369	1500
147.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.64	110	500
144.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	0.0	0.0	8.59	37	32
144.0	Amphenol Antel BXA-	3	17	7.6	5.9	11.2	5.2	0.80	0.66	0.0	0.0	8.59	88	51
144.0	Amphenol Antel LPA-	6	12	5.4	3.9	13.2	5.5	0.80	0.64	0.0	0.0	8.59	121	72
144.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.59	221	1200
144.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	0.0	0.0	8.59	6	16
133.0	Allgon 7770.00	6	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	8.40	123	210
133.0	Ericsson RRUS-11	3	55	3.8	2.1	18.2	6.7	0.80	0.67	0.0	0.0	8.40	44	165
133.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.40	216	1200
133.0	KMW AM-X-CD-17-	2	60	11.3	8.0	11.8	6.0	0.80	0.68	0.0	0.0	8.40	88	119
133.0	Powerwave	6	5	0.3	0.4	7.9	2.7	0.80	0.50	0.0	0.0	8.40	6	32
133.0	Powerwave	6	31	1.7	1.2	14.4	3.7	0.80	0.50	0.0	0.0	8.40	29	186
133.0	Powerwave P65-17-	1	59	11.5	8.0	12.0	6.0	0.80	0.67	0.0	0.0	8.40	44	59
133.0	Raycap DC6-48-60-	1	33	1.3	2.0	11.0	11.0	0.80	1.00	0.0	0.0	8.40	7	33
117.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.10	103	500
77.00	Flat Side Arm	1	50	3.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.18	18	50
77.00	Lucent KS-24019	1	4	0.9	2.2	3.5	3.2	1.00	1.00	0.0	0.0	7.18	6	4
	Totals	92	9275	611.7									2530	9275

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
10.00	160.0	1 1/4" Coax	9	1.55	0.63	55	2	Block	0.00	N	1.00	0.00	0.00
0.00	155.0	1 1/4" Hybriflex	4	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	0.00	0.00
10.00	155.0	1 5/8" Coax	6	1.98	0.82	50	Lin App	Block	0.00	N	1.00	0.00	0.00
10.00	144.0	1 5/8" Coax	12	1.98	0.82	50	Lin App	Block	0.00	N	1.00	1.00	0.00
10.00	133.0	0.39" (10 mm)	1	0.39	0.06	0	Lin App	Individual	0.00	N	1.00	0.00	0.00
10.00	133.0	0.78" (19.7mm) 8	2	0.78	0.59	0	Lin App	Individual	0.00	N	1.00	0.00	0.00
10.00	133.0	1 1/4" Coax	12	1.55	0.63	33	Lin App	Block	0.00	N	1.00	0.00	0.00
10.00	77.00	7/8" Coax	1	1.09	0.33	0	1	Individual	0.00	N	1.00	0.00	0.00

Site Number: 10029 Code: ANSI/TIA-222-G

Site Name: HAMPTON CT, CT Engineering Number: OAA710558_C3_04 5/1/2018 5:07:11 PM

Customer: SPRINT NEXTEL

Section Forces

LoadCase 1.2D + 1.6W Normal

101 mph Normal with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	505	0	424	446	871
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	181	0	136	193	329
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	447	0	310	572	882
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1513	0	836	2310	3147
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	276	0	137	435	572
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1311	0	660	1941	2601
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1587	0	753	2244	2997
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1594	0	701	2118	2819
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	637	1929	2565
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	550	1667	2217
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	953	0	373	859	1232
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	299	0	162	52	214
														11858	0			20445

LoadCase 1.2D + 1.6W 60 deg

101 mph 60 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	505	0	403	446	849
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	181	0	129	193	322
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	447	0	289	572	861
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1513	0	789	2310	3100
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	276	0	131	435	565
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1311	0	621	1941	2562
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1587	0	710	2244	2954
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1594	0	661	2118	2779
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	601	1929	2529
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	519	1667	2186
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	953	0	351	859	1209
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	299	0	149	52	201
														11858	0			20118

LoadCase 1.2D + 1.6W 90 deg

101 mph 90 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	505	0	408	446	854
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	181	0	131	193	324
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	447	0	294	572	867
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1513	0	801	2310	3111
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	276	0	132	435	567
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1311	0	631	1941	2572
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1587	0	721	2244	2965

Section Forces

5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1594	0	671	2118	2789
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	610	1929	2538
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	527	1667	2194
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	953	0	356	859	1215
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	299	0	152	52	204
														11858	0			20200

LoadCase 1.2D + 1.6W 120 deg

101 mph 120 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	505	0	424	446	871
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	181	0	136	193	329
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	447	0	310	572	882
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1513	0	836	2310	3147
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	276	0	137	435	572
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1311	0	660	1941	2601
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1587	0	753	2244	2997
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1594	0	701	2118	2819
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	637	1929	2565
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	550	1667	2217
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	953	0	373	859	1232
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	299	0	162	52	214
														11858	0			20445

LoadCase 1.2D + 1.6W 180 deg

101 mph 180 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	505	0	403	446	849
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	181	0	129	193	322
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	447	0	289	572	861
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1513	0	789	2310	3100
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	276	0	131	435	565
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1311	0	621	1941	2562
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1587	0	710	2244	2954
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1594	0	661	2118	2779
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	601	1929	2529
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	519	1667	2186
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	953	0	351	859	1209
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	299	0	149	52	201
														11858	0			20118

Section Forces

LoadCase 1.2D + 1.6W 210 deg

101 mph 210 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	505	0	408	446	854
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	181	0	131	193	324
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	447	0	294	572	867
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1513	0	801	2310	3111
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	276	0	132	435	567
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1311	0	631	1941	2572
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1587	0	721	2244	2965
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1594	0	671	2118	2789
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	610	1929	2538
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	527	1667	2194
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	953	0	356	859	1215
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	299	0	152	52	204
														11858	0			20200

LoadCase 1.2D + 1.6W 240 deg

101 mph 240 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	505	0	424	446	871
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	181	0	136	193	329
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	447	0	310	572	882
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1513	0	836	2310	3147
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	276	0	137	435	572
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1311	0	660	1941	2601
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1587	0	753	2244	2997
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1594	0	701	2118	2819
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	637	1929	2565
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1595	0	550	1667	2217
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	953	0	373	859	1232
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	299	0	162	52	214
														11858	0			20445

LoadCase 1.2D + 1.6W 300 deg

101 mph 300 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	505	0	403	446	849
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	181	0	129	193	322
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	447	0	289	572	861
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1513	0	789	2310	3100
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	276	0	131	435	565
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1311	0	621	1941	2562
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1587	0	710	2244	2954

Section Forces

5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1594	0	661	2118	2779
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	601	1929	2529
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1595	0	519	1667	2186
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	953	0	351	859	1209
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	299	0	149	52	201
														11858	0			20118

LoadCase 1.2D + 1.6W 330 deg

101 mph 330 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	24.86	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	505	0	408	446	854
11	148.40	24.55	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	181	0	131	193	324
10	143.40	24.32	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	447	0	294	572	867
9	130.00	23.64	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1513	0	801	2310	3111
8	118.21	23.01	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	276	0	132	435	567
7	108.21	22.44	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1311	0	631	1941	2572
6	90.00	21.29	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1587	0	721	2244	2965
5	70.00	19.81	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1594	0	671	2118	2789
4	50.00	17.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	610	1929	2538
3	30.00	15.55	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1595	0	527	1667	2194
2	13.33	15.54	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	953	0	356	859	1215
1	3.33	15.54	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	299	0	152	52	204
														11858	0			20200

LoadCase 1.2D + 1.0Di + 1.0Wi Normal

50 mph Normal with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	1.00	1.00	1.8	18.86	33.90	17.21	1945	1440	176	73	249
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	1.00	1.00	1.7	6.23	11.16	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	1.00	1.00	1.7	14.24	25.36	12.47	1833	1386	128	81	210
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	1.00	1.00	1.7	38.76	69.46	34.83	6396	4883	342	360	703
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	1.00	1.00	1.7	6.20	11.28	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	1.00	1.00	1.7	31.94	57.21	28.52	5512	4200	267	305	573
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	1.00	1.00	1.7	37.39	67.28	33.57	6556	4969	298	366	664
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	1.00	1.00	1.6	36.50	65.87	32.74	6501	4907	272	357	629
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	1.00	1.00	1.6	35.36	64.10	31.66	6316	4721	240	332	572
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	1.00	1.00	1.5	33.73	61.62	30.08	6030	4435	200	294	493
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	1.00	1.00	1.4	21.37	39.42	18.76	3269	2316	128	157	285
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	1.00	1.00	1.2	7.46	13.33	4.41	671	372	43	12	55
														46935	35078			4654

Site Number: 10029 Code: ANSI/TIA-222-G

Site Name: HAMPTON CT, CT Engineering Number: OAA710558_C3_04 5/1/2018 5:07:11 PM

Customer: SPRINT NEXTEL

Section Forces

LoadCase 1.2D + 1.0Di + 1.0Wi 60 deg — 50 mph 60 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.80	1.00	1.8	18.62	33.46	17.21	1945	1440	173	73	246
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.80	1.00	1.7	6.15	11.01	5.64	735	553	56	33	89
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.80	1.00	1.7	14.00	24.93	12.47	1833	1386	126	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.80	1.00	1.7	38.19	68.44	34.83	6396	4883	337	360	697
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.80	1.00	1.7	6.12	11.14	5.73	1171	895	53	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.80	1.00	1.7	31.45	56.34	28.52	5512	4200	263	305	569
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.80	1.00	1.7	36.82	66.25	33.57	6556	4969	294	366	659
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.80	1.00	1.6	35.93	64.85	32.74	6501	4907	268	357	625
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.80	1.00	1.6	34.78	63.07	31.66	6316	4721	236	332	568
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.80	1.00	1.5	33.16	60.58	30.08	6030	4435	196	294	490
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.80	1.00	1.4	20.97	38.66	18.76	3269	2316	125	157	282
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.80	1.00	1.2	7.16	12.79	4.41	671	372	41	12	54
														46935	35078			4619

LoadCase 1.2D + 1.0Di + 1.0Wi 90 deg — 50 mph 90 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.85	1.00	1.8	18.68	33.57	17.21	1945	1440	174	73	247
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.85	1.00	1.7	6.17	11.05	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.85	1.00	1.7	14.06	25.04	12.47	1833	1386	127	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.85	1.00	1.7	38.33	68.70	34.83	6396	4883	338	360	699
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.85	1.00	1.7	6.14	11.17	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.85	1.00	1.7	31.58	56.56	28.52	5512	4200	264	305	570
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.85	1.00	1.7	36.96	66.51	33.57	6556	4969	295	366	660
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.85	1.00	1.6	36.07	65.10	32.74	6501	4907	269	357	626
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.85	1.00	1.6	34.93	63.33	31.66	6316	4721	237	332	569
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.85	1.00	1.5	33.30	60.84	30.08	6030	4435	197	294	491
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.85	1.00	1.4	21.07	38.85	18.76	3269	2316	126	157	283
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.85	1.00	1.2	7.23	12.92	4.41	671	372	42	12	54
														46935	35078			4628

LoadCase 1.2D + 1.0Di + 1.0Wi 120 deg — 50 mph 120 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	1.00	1.00	1.8	18.86	33.90	17.21	1945	1440	176	73	249
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	1.00	1.00	1.7	6.23	11.16	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	1.00	1.00	1.7	14.24	25.36	12.47	1833	1386	128	81	210
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	1.00	1.00	1.7	38.76	69.46	34.83	6396	4883	342	360	703
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	1.00	1.00	1.7	6.20	11.28	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	1.00	1.00	1.7	31.94	57.21	28.52	5512	4200	267	305	573
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	1.00	1.00	1.7	37.39	67.28	33.57	6556	4969	298	366	664

Section Forces

5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	1.00	1.00	1.6	36.50	65.87	32.74	6501	4907	272	357	629
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	1.00	1.00	1.6	35.36	64.10	31.66	6316	4721	240	332	572
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	1.00	1.00	1.5	33.73	61.62	30.08	6030	4435	200	294	493
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	1.00	1.00	1.4	21.37	39.42	18.76	3269	2316	128	157	285
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	1.00	1.00	1.2	7.46	13.33	4.41	671	372	43	12	55
														46935	35078			4654

LoadCase 1.2D + 1.0Di + 1.0Wi 180 deg — 50 mph 180 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.80	1.00	1.8	18.62	33.46	17.21	1945	1440	173	73	246
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.80	1.00	1.7	6.15	11.01	5.64	735	553	56	33	89
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.80	1.00	1.7	14.00	24.93	12.47	1833	1386	126	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.80	1.00	1.7	38.19	68.44	34.83	6396	4883	337	360	697
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.80	1.00	1.7	6.12	11.14	5.73	1171	895	53	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.80	1.00	1.7	31.45	56.34	28.52	5512	4200	263	305	569
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.80	1.00	1.7	36.82	66.25	33.57	6556	4969	294	366	659
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.80	1.00	1.6	35.93	64.85	32.74	6501	4907	268	357	625
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.80	1.00	1.6	34.78	63.07	31.66	6316	4721	236	332	568
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.80	1.00	1.5	33.16	60.58	30.08	6030	4435	196	294	490
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.80	1.00	1.4	20.97	38.66	18.76	3269	2316	125	157	282
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.80	1.00	1.2	7.16	12.79	4.41	671	372	41	12	54
														46935	35078			4619

LoadCase 1.2D + 1.0Di + 1.0Wi 210 deg — 50 mph 210 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.85	1.00	1.8	18.68	33.57	17.21	1945	1440	174	73	247
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.85	1.00	1.7	6.17	11.05	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.85	1.00	1.7	14.06	25.04	12.47	1833	1386	127	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.85	1.00	1.7	38.33	68.70	34.83	6396	4883	338	360	699
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.85	1.00	1.7	6.14	11.17	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.85	1.00	1.7	31.58	56.56	28.52	5512	4200	264	305	570
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.85	1.00	1.7	36.96	66.51	33.57	6556	4969	295	366	660
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.85	1.00	1.6	36.07	65.10	32.74	6501	4907	269	357	626
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.85	1.00	1.6	34.93	63.33	31.66	6316	4721	237	332	569
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.85	1.00	1.5	33.30	60.84	30.08	6030	4435	197	294	491
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.85	1.00	1.4	21.07	38.85	18.76	3269	2316	126	157	283
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.85	1.00	1.2	7.23	12.92	4.41	671	372	42	12	54
														46935	35078			4628

Site Number: 10029 Code: ANSI/TIA-222-G

Site Name: HAMPTON CT, CT Engineering Number: OAA710558_C3_04 5/1/2018 5:07:11 PM

Customer: SPRINT NEXTEL

Section Forces

LoadCase 1.2D + 1.0Di + 1.0Wi 240 deg — 50 mph 240 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	1.00	1.00	1.8	18.86	33.90	17.21	1945	1440	176	73	249
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	1.00	1.00	1.7	6.23	11.16	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	1.00	1.00	1.7	14.24	25.36	12.47	1833	1386	128	81	210
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	1.00	1.00	1.7	38.76	69.46	34.83	6396	4883	342	360	703
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	1.00	1.00	1.7	6.20	11.28	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	1.00	1.00	1.7	31.94	57.21	28.52	5512	4200	267	305	573
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	1.00	1.00	1.7	37.39	67.28	33.57	6556	4969	298	366	664
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	1.00	1.00	1.6	36.50	65.87	32.74	6501	4907	272	357	629
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	1.00	1.00	1.6	35.36	64.10	31.66	6316	4721	240	332	572
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	1.00	1.00	1.5	33.73	61.62	30.08	6030	4435	200	294	493
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	1.00	1.00	1.4	21.37	39.42	18.76	3269	2316	128	157	285
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	1.00	1.00	1.2	7.46	13.33	4.41	671	372	43	12	55
														46935	35078			4654

LoadCase 1.2D + 1.0Di + 1.0Wi 300 deg — 50 mph 300 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.80	1.00	1.8	18.62	33.46	17.21	1945	1440	173	73	246
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.80	1.00	1.7	6.15	11.01	5.64	735	553	56	33	89
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.80	1.00	1.7	14.00	24.93	12.47	1833	1386	126	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.80	1.00	1.7	38.19	68.44	34.83	6396	4883	337	360	697
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.80	1.00	1.7	6.12	11.14	5.73	1171	895	53	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.80	1.00	1.7	31.45	56.34	28.52	5512	4200	263	305	569
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.80	1.00	1.7	36.82	66.25	33.57	6556	4969	294	366	659
5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.80	1.00	1.6	35.93	64.85	32.74	6501	4907	268	357	625
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.80	1.00	1.6	34.78	63.07	31.66	6316	4721	236	332	568
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.80	1.00	1.5	33.16	60.58	30.08	6030	4435	196	294	490
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.80	1.00	1.4	20.97	38.66	18.76	3269	2316	125	157	282
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.80	1.00	1.2	7.16	12.79	4.41	671	372	41	12	54
														46935	35078			4619

LoadCase 1.2D + 1.0Di + 1.0Wi 330 deg — 50 mph 330 deg with 0.75 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	6.09	1.223	23.415	17.21	0.611	1.80	0.85	1.00	1.8	18.68	33.57	17.21	1945	1440	174	73	247
11	148.40	6.02	0.408	7.647	5.640	0.623	1.79	0.85	1.00	1.7	6.17	11.05	5.64	735	553	57	33	90
10	143.40	5.96	1.223	16.667	12.47	0.654	1.78	0.85	1.00	1.7	14.06	25.04	12.47	1833	1386	127	81	208
9	130.00	5.79	2.853	47.233	34.83	0.622	1.79	0.85	1.00	1.7	38.33	68.70	34.83	6396	4883	338	360	699
8	118.21	5.64	0.408	7.916	5.728	0.577	1.82	0.85	1.00	1.7	6.14	11.17	5.73	1171	895	54	77	131
7	108.21	5.50	2.445	38.734	28.52	0.624	1.79	0.85	1.00	1.7	31.58	56.56	28.52	5512	4200	264	305	570
6	90.00	5.22	2.853	45.975	33.57	0.608	1.80	0.85	1.00	1.7	36.96	66.51	33.57	6556	4969	295	366	660

Section Forces

5	70.00	4.86	2.853	45.142	32.74	0.599	1.80	0.85	1.00	1.6	36.07	65.10	32.74	6501	4907	269	357	626
4	50.00	4.41	2.853	44.059	31.65	0.586	1.81	0.85	1.00	1.6	34.93	63.33	31.66	6316	4721	237	332	569
3	30.00	3.81	2.853	42.482	30.08	0.569	1.83	0.85	1.00	1.5	33.30	60.84	30.08	6030	4435	197	294	491
2	13.33	3.81	2.038	27.025	18.75	0.549	1.84	0.85	1.00	1.4	21.07	38.85	18.76	3269	2316	126	157	283
1	3.33	3.81	1.521	7.749	4.411	0.635	1.79	0.85	1.00	1.2	7.23	12.92	4.41	671	372	42	12	54
														46935	35078			4628

LoadCase 1.0D + 1.0W Service Normal

Serviceability - 60 mph Wind Normal

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	421	0	94	98	192
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	151	0	30	43	73
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	373	0	68	126	195
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1261	0	185	510	694
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	230	0	30	96	126
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1093	0	146	428	574
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1323	0	166	495	661
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1328	0	155	467	622
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	140	425	566
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	121	368	489
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	794	0	82	189	272
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	249	0	36	11	47
														9881	0			4510

LoadCase 1.0D + 1.0W Service 60 deg

Serviceability - 60 mph Wind 60 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	421	0	89	98	187
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	373	0	64	126	190
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1261	0	174	510	684
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1093	0	137	428	565
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1323	0	157	495	652
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1328	0	146	467	613
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	132	425	558
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	114	368	482
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	794	0	77	189	267
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	249	0	33	11	44
														9881	0			4437

Site Number: 10029 Code: ANSI/TIA-222-G

Site Name: HAMPTON CT, CT Engineering Number: OAA710558_C3_04 5/1/2018 5:07:11 PM

Customer: SPRINT NEXTEL

Section Forces

LoadCase 1.0D + 1.0W Service 90 deg

Serviceability - 60 mph Wind 90 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	421	0	90	98	188
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	373	0	65	126	191
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1261	0	177	510	686
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1093	0	139	428	567
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1323	0	159	495	654
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1328	0	148	467	615
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	134	425	560
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	116	368	484
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	794	0	79	189	268
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	249	0	34	11	45
														9881	0			4455

LoadCase 1.0D + 1.0W Service 120 deg

Serviceability - 60 mph Wind 120 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	421	0	94	98	192
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	151	0	30	43	73
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	373	0	68	126	195
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1261	0	185	510	694
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	230	0	30	96	126
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1093	0	146	428	574
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1323	0	166	495	661
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1328	0	155	467	622
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	140	425	566
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	121	368	489
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	794	0	82	189	272
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	249	0	36	11	47
														9881	0			4510

LoadCase 1.0D + 1.0W Service 180 deg

Serviceability - 60 mph Wind 180 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	421	0	89	98	187
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	373	0	64	126	190
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1261	0	174	510	684
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1093	0	137	428	565
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1323	0	157	495	652

Section Forces

5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1328	0	146	467	613
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	132	425	558
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	114	368	482
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	794	0	77	189	267
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	249	0	33	11	44
														9881	0			4437

LoadCase 1.0D + 1.0W Service 210 deg — Serviceability - 60 mph Wind 210 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	421	0	90	98	188
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	373	0	65	126	191
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1261	0	177	510	686
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1093	0	139	428	567
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1323	0	159	495	654
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1328	0	148	467	615
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	134	425	560
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	116	368	484
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	794	0	79	189	268
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	249	0	34	11	45
														9881	0			4455

LoadCase 1.0D + 1.0W Service 240 deg — Serviceability - 60 mph Wind 240 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	1.00	1.00	0.0	4.83	12.55	0.00	421	0	94	98	192
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	1.00	1.00	0.0	1.58	4.08	0.00	151	0	30	43	73
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	1.00	1.00	0.0	3.67	9.37	0.00	373	0	68	126	195
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1261	0	185	510	694
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	1.00	1.00	0.0	1.68	4.39	0.00	230	0	30	96	126
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	1.00	1.00	0.0	8.40	21.62	0.00	1093	0	146	428	574
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1323	0	166	495	661
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1328	0	155	467	622
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	140	425	566
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	1.00	1.00	0.0	10.07	26.01	0.00	1329	0	121	368	489
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	1.00	1.00	0.0	6.85	17.64	0.00	794	0	82	189	272
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	1.00	1.00	0.0	3.60	7.68	0.00	249	0	36	11	47
														9881	0			4510

Section Forces

LoadCase 1.0D + 1.0W Service 300 deg

Serviceability - 60 mph Wind 300 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.80	1.00	0.0	4.58	11.92	0.00	421	0	89	98	187
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.80	1.00	0.0	1.49	3.87	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.80	1.00	0.0	3.43	8.75	0.00	373	0	64	126	190
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1261	0	174	510	684
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.80	1.00	0.0	1.59	4.17	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.80	1.00	0.0	7.91	20.36	0.00	1093	0	137	428	565
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1323	0	157	495	652
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1328	0	146	467	613
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	132	425	558
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.80	1.00	0.0	9.50	24.54	0.00	1329	0	114	368	482
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.80	1.00	0.0	6.45	16.59	0.00	794	0	77	189	267
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.80	1.00	0.0	3.29	7.03	0.00	249	0	33	11	44
														9881	0			4437

LoadCase 1.0D + 1.0W Service 330 deg

Serviceability - 60 mph Wind 330 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
12	155.00	8.77	1.223	6.201	0.000	0.199	2.60	0.85	1.00	0.0	4.64	12.08	0.00	421	0	90	98	188
11	148.40	8.67	0.408	2.007	0.000	0.201	2.59	0.85	1.00	0.0	1.51	3.92	0.00	151	0	29	43	71
10	143.40	8.58	1.223	4.194	0.000	0.213	2.55	0.85	1.00	0.0	3.49	8.90	0.00	373	0	65	126	191
9	130.00	8.34	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1261	0	177	510	686
8	118.21	8.12	0.408	2.188	0.000	0.194	2.62	0.85	1.00	0.0	1.62	4.23	0.00	230	0	29	96	125
7	108.21	7.92	2.445	10.214	0.000	0.206	2.58	0.85	1.00	0.0	8.03	20.68	0.00	1093	0	139	428	567
6	90.00	7.51	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1323	0	159	495	654
5	70.00	6.99	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1328	0	148	467	615
4	50.00	6.35	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	134	425	560
3	30.00	5.49	2.853	12.401	0.000	0.204	2.58	0.85	1.00	0.0	9.64	24.91	0.00	1329	0	116	368	484
2	13.33	5.48	2.038	8.267	0.000	0.207	2.57	0.85	1.00	0.0	6.55	16.86	0.00	794	0	79	189	268
1	3.33	5.48	1.521	3.338	0.000	0.366	2.13	0.85	1.00	0.0	3.37	7.19	0.00	249	0	34	11	45
														9881	0			4455

Equivalent Lateral Force Method

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

Spectral Response Acceleration for Short Period (S_s):	0.17
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	2.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.18
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.06
Upper Limit C_s:	0.06
Lower Limit C_s:	0.03
Period based on Rayleigh Method (sec):	0.61
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.06
Total Unfactored Dead Load:	19.16 k
Seismic Base Shear (E):	1.24 k

LoadCase (1.2 + 0.2Sds) * DL + E Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
12	155.00	421	86,906	0.031	38	521
11	148.40	151	29,806	0.011	13	187
10	143.40	373	70,857	0.025	31	461
9	130.00	1,261	216,209	0.077	95	1,560
8	118.21	230	35,668	0.013	16	284
7	108.21	1,093	154,309	0.055	68	1,351
6	90.00	1,323	153,746	0.055	68	1,636
5	70.00	1,328	118,384	0.042	52	1,643
4	50.00	1,329	83,019	0.029	37	1,644
3	30.00	1,329	48,386	0.017	21	1,644
2	13.33	794	12,266	0.004	5	982
1	3.33	249	890	0.000	0	308
Allgon 7120.16.05.00 / A-800-110-13I-0-N	160.00	139	29,593	0.011	13	171
Delta Mount	160.00	450	96,082	0.034	42	557
Flat Light Sector Frames	160.00	1,200	256,219	0.091	113	1,484
Alcatel-Lucent 1900 MHz 4x45 RRH	155.00	180	37,165	0.013	16	223
Alcatel-Lucent RRH2x50-08	155.00	317	65,534	0.023	29	393
Alcatel-Lucent TD-RRH8x20-25 w/ S.S.	155.00	210	43,359	0.015	19	260
Commscope NNVV-65B-R4	155.00	232	47,942	0.017	21	287
Delta Mount	155.00	450	92,912	0.033	41	557
RFS APXVTM14-ALU-I20	155.00	169	34,811	0.012	15	209
VFA10-HD3L4NP Sector Frame	155.00	1,500	309,705	0.110	136	1,855
Torque Arms	147.00	500	97,612	0.035	43	618
Amphenol Antel BXA-171085-8BF-EDIN-X	144.00	32	6,017	0.002	3	39

Equivalent Lateral Force Method

Amphenol Antel BXA-70063-6CF-EDIN-X	144.00	51	9,742	0.003	4	63
Amphenol Antel LPA-80080-4CF-EDIN-0	144.00	72	13,753	0.005	6	89
Flat Light Sector Frames	144.00	1,200	229,220	0.081	101	1,484
RFS FD9R6004/2C-3L	144.00	16	2,980	0.001	1	19
Allgon 7770.00	133.00	210	36,882	0.013	16	260
Ericsson RRUS-11	133.00	165	28,979	0.010	13	204
Flat Light Sector Frames	133.00	1,200	210,755	0.075	93	1,484
KMW AM-X-CD-17-65-00T-RET	133.00	119	20,900	0.007	9	147
Powerwave LGP13519	133.00	32	5,585	0.002	2	39
Powerwave LGP17201	133.00	186	32,667	0.012	14	230
Powerwave P65-17-XLH-RR	133.00	59	10,362	0.004	5	73
Raycap DC6-48-60-18-8F	133.00	33	5,761	0.002	3	41
Torque Arms	117.00	500	76,690	0.027	34	618
Flat Side Arm	77.00	50	4,928	0.002	2	62
Lucent KS-24019	77.00	4	394	0.000	0	5
		19,156	2,816,995	1.000	1,239	23,690

Equivalent Modal Analysis Method

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

Spectral Response Acceleration for Short Period (S_s):	0.17
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):	2.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.18
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	0.61
Redundancy Factor (p):	1.00

LoadCase (1.2 + 0.2Sds) * DL + E Seismic

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
12	155.00	421	1.774	1.422	0.933	0.393	66	521
11	148.40	151	1.626	0.861	0.706	0.320	19	187
10	143.40	373	1.518	0.547	0.565	0.273	41	461
9	130.00	1,261	1.248	0.054	0.292	0.182	92	1,560
8	118.21	230	1.032	-0.101	0.148	0.134	12	284
7	108.21	1,093	0.864	-0.120	0.074	0.110	48	1,351
6	90.00	1,323	0.598	-0.052	0.014	0.085	45	1,636
5	70.00	1,328	0.362	0.030	0.008	0.064	34	1,643
4	50.00	1,329	0.185	0.065	0.025	0.043	23	1,644
3	30.00	1,329	0.066	0.072	0.041	0.025	13	1,644
2	13.33	794	0.013	0.059	0.034	0.014	4	982
1	3.33	249	0.001	0.022	0.012	0.005	0	308
Allgon 7120.16.05.00 / A-800-110-	160.00	139	1.890	1.980	1.140	0.457	25	171
Delta Mount	160.00	450	1.890	1.980	1.140	0.457	82	557
Flat Light Sector Frames	160.00	1,200	1.890	1.980	1.140	0.457	219	1,484
Alcatel-Lucent 1900 MHz 4x45	155.00	180	1.774	1.422	0.933	0.393	28	223
Alcatel-Lucent RRH2x50-08	155.00	317	1.774	1.422	0.933	0.393	50	393
Alcatel-Lucent TD-RRH8x20-25	155.00	210	1.774	1.422	0.933	0.393	33	260
Commscope NNVV-65B-R4	155.00	232	1.774	1.422	0.933	0.393	36	287
Delta Mount	155.00	450	1.774	1.422	0.933	0.393	71	557
RFS APXVTM14-ALU-I20	155.00	169	1.774	1.422	0.933	0.393	26	209
VFA10-HD3L4NP Sector Frame	155.00	1,500	1.774	1.422	0.933	0.393	236	1,855
Torque Arms	147.00	500	1.595	0.764	0.664	0.306	61	618
Amphenol Antel BXA-171085-	144.00	32	1.531	0.580	0.580	0.279	4	39
Amphenol Antel BXA-70063-6CF-	144.00	51	1.531	0.580	0.580	0.279	6	63
Amphenol Antel LPA-80080-4CF-	144.00	72	1.531	0.580	0.580	0.279	8	89
Flat Light Sector Frames	144.00	1,200	1.531	0.580	0.580	0.279	134	1,484
RFS FD9R6004/2C-3L	144.00	16	1.531	0.580	0.580	0.279	2	19
Allgon 7770.00	133.00	210	1.306	0.129	0.341	0.198	17	260
Ericsson RRUS-11	133.00	165	1.306	0.129	0.341	0.198	13	204
Flat Light Sector Frames	133.00	1,200	1.306	0.129	0.341	0.198	95	1,484
KMW AM-X-CD-17-65-00T-RET	133.00	119	1.306	0.129	0.341	0.198	9	147
Powerwave LGP13519	133.00	32	1.306	0.129	0.341	0.198	3	39
Powerwave LGP17201	133.00	186	1.306	0.129	0.341	0.198	15	230
Powerwave P65-17-XLH-RR	133.00	59	1.306	0.129	0.341	0.198	5	73
Raycap DC6-48-60-18-8F	133.00	33	1.306	0.129	0.341	0.198	3	41
Torque Arms	117.00	500	1.011	-0.107	0.137	0.130	26	618
Flat Side Arm	77.00	50	0.438	0.006	0.006	0.072	1	62
Lucent KS-24019	77.00	4	0.438	0.006	0.006	0.072	0	5

Equivalent Modal Analysis Method

19,156	48.956	23.348	19.245	9.325	1,606	23,690

Force/Stress Summary

Section: 1 Section 1 Bot Elev (ft): 0.00 Height (ft): 6.667

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-47.47	1.2D + 1.0Di +	1.64	100	100	100	13.5	55.0	83.11	0	0	0.00	0.00	57	Member X
HORIZ SAE - 2.5X2.5X0.25	-0.05	1.2D + 1.6W	0.826	100	100	100	13.1	36.0	38.21	0	0	0.00	0.00	0	Member Z
DIAG	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00		

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 2.5X2.5X0.25	4.03	1.2D + 1.0Di +	36	58	38.56	0	0	0.00	0.00	0.00	10	Member
DIAG	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	

Section: 2 Section 2 Bot Elev (ft): 6.67 Height (ft): 13.333

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-47.25	1.2D + 1.0Di +	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	59	Member X
HORIZ SAE - 1.5X1.5X0.1875	-0.45	1.2D + 1.0Di +	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	4	Member Z
DIAG SOL - 5/8" SOLID	-2.00	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 1.5X1.5X0.1875	5.70	1.2D + 1.0Di +	36	58	17.17	0	0	0.00	0.00	0.00	33	Member
DIAG SOL - 5/8" SOLID	0.61	1.2D + 1.0Di +	36	58	9.94	0	0	0.00	0.00	0.00	6	Member

Section: 3 Section 3-9 Bot Elev (ft): 20.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-46.57	1.2D + 1.0Di +	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	58	Member X
HORIZ SAE - 1.5X1.5X0.1875	-0.15	1.2D + 1.0Di +	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	1	Member Z
DIAG SOL - 5/8" SOLID	-1.59	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 1.5X1.5X0.1875	3.66	1.2D + 1.0Di +	36	58	17.17	0	0	0.00	0.00	0.00	21	Member
DIAG SOL - 5/8" SOLID	0.36	1.2D + 1.0Di +	36	58	9.94	0	0	0.00	0.00	0.00	3	Member

Force/Stress Summary

Section: 4 Section 3-9 Bot Elev (ft): 40.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-44.51	1.2D + 1.0Di +	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	55	Member X
HORIZ SAE - 1.5X1.5X0.1875	-1.95	1.2D + 1.6W 90	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	17	Member Z
DIAG SOL - 5/8" SOLID	-0.50	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 1.5X1.5X0.1875	5.20	1.2D + 1.6W	36	58	17.17	0	0	0.00	0.00	0.00	30	Member
DIAG SOL - 5/8" SOLID	2.77	1.2D + 1.6W 90	36	58	9.94	0	0	0.00	0.00	0.00	27	Member

Section: 5 Section 3-9 Bot Elev (ft): 60.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-37.10	1.2D + 1.0Di +	0.38	100	100	100	3.1	55.0	84.28	0	0	0.00	0.00	44	Member X
HORIZ SAE - 1.5X1.5X0.1875	-0.61	1.2D + 1.6W 90	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	5	Member Z
DIAG SOL - 5/8" SOLID	-2.51	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 1.5X1.5X0.1875	2.83	1.2D + 1.0Di +	36	58	17.17	0	0	0.00	0.00	0.00	16	Member
DIAG SOL - 5/8" SOLID	2.82	1.2D + 1.6W 90	36	58	9.94	0	0	0.00	0.00	0.00	28	Member

Section: 6 Section 3-9 Bot Elev (ft): 80.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-35.79	1.2D + 1.0Di +	0.38	100	100	100	3.1	55.0	84.28	0	0	0.00	0.00	42	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SOL - 5/8" SOLID	-1.04	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ SAE - 1.5X1.5X0.1875	2.84	1.2D + 1.0Di +	36	58	17.17	0	0	0.00	0.00	0.00	16	Member
DIAG	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	

Force/Stress Summary

Section: 7 Section 8 Bot Elev (ft): 100.0 Height (ft): 16.415

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-37.63	1.2D + 1.6W	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	47	Member X
HORIZ SAE - 1.5X1.5X0.1875	-2.63	1.2D + 1.6W 90	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	24	Member Z
DIAG SOL - 5/8" SOLID	-1.20	1.2D + 1.6W	4.748	50	50	50	164.3	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	1.86	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		2	Member
HORIZ SAE - 1.5X1.5X0.1875	3.49	1.2D + 1.6W 60	36	58	17.17	0	0	0.00	0.00	0.00	20	Member
DIAG SOL - 5/8" SOLID	3.59	1.2D + 1.6W 90	36	58	9.94	0	0	0.00	0.00	0.00	36	Member

Section: 8 Section 8 Bot Elev (ft): 116.4 Height (ft): 3.585

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-36.58	1.2D + 1.6W	0.38	100	100	100	3.1	55.0	84.28	0	0	0.00	0.00	43	Member X
HORIZ SAE - 1.5X1.5X0.1875	-1.98	1.2D + 1.6W	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	18	Member Z
DIAG SOL - 5/8" SOLID	-0.61	1.2D + 1.6W	4.749	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	7.24	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		8	Member
HORIZ SAE - 1.5X1.5X0.1875	2.94	1.2D + 1.6W 60	36	58	17.17	0	0	0.00	0.00	0.00	17	Member
DIAG	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	

Section: 9 Section 3-9 Bot Elev (ft): 120.0 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-36.44	1.2D + 1.6W	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	45	Member X
HORIZ SAE - 1.5X1.5X0.1875	-2.31	1.2D + 1.6W	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	21	Member Z
DIAG SOL - 5/8" SOLID	-0.39	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	7.28	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		8	Member
HORIZ SAE - 1.5X1.5X0.1875	1.83	1.2D + 1.6W 60	36	58	17.17	0	0	0.00	0.00	0.00	10	Member
DIAG SOL - 5/8" SOLID	3.45	1.2D + 1.6W 90	36	58	9.94	0	0	0.00	0.00	0.00	34	Member

Force/Stress Summary

Section: 10 Section 9 Bot Elev (ft): 140.0 Height (ft): 6.792

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-21.37	1.2D + 1.6W	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	26	Member X
HORIZ SAE - 1.5X1.5X0.1875	-0.76	1.2D + 1.6W	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	6	Member Z
DIAG SOL - 5/8" SOLID	-0.16	1.2D + 1.6W	4.748	50	50	50	164.3	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	6.63	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		7	Member
HORIZ SAE - 1.5X1.5X0.1875	2.29	1.2D + 1.6W 60	36	58	17.17	0	0	0.00	0.00	0.00	13	Member
DIAG SOL - 5/8" SOLID	0.21	1.2D + 1.6W 60	36	58	9.94	0	0	0.00	0.00	0.00	2	Member

Section: 11 Section 9 Bot Elev (ft): 146.7 Height (ft): 3.208

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-18.53	1.2D + 1.6W	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	23	Member X
HORIZ SAE - 1.5X1.5X0.1875	-3.57	1.2D + 1.6W	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	32	Member Z
DIAG SOL - 5/8" SOLID	-0.35	1.2D + 1.6W	4.748	50	50	50	164.3	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	7.93	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		9	Member
HORIZ SAE - 1.5X1.5X0.1875	4.00	1.2D + 1.6W 60	36	58	17.17	0	0	0.00	0.00	0.00	23	Member
DIAG	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	

Section: 12 Section 9 Bot Elev (ft): 150.0 Height (ft): 10.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-18.84	1.2D + 1.6W	3.21	100	100	100	26.4	55.0	79.74	0	0	0.00	0.00	23	Member X
HORIZ SAE - 1.5X1.5X0.1875	-4.07	1.2D + 1.6W 90	3.500	100	100	100	93.2	36.0	10.87	0	0	0.00	0.00	37	Member Z
DIAG SOL - 5/8" SOLID	-0.28	1.2D + 1.6W	4.748	50	50	50	164.4	36.0	2.57	0	0	0.00	0.00		Member X

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	7.91	1.2D + 1.6W 60	55	70	84.35	0	0	0.00	0.00		9	Member
HORIZ SAE - 1.5X1.5X0.1875	0.42	1.2D + 1.6W	36	58	17.17	0	0	0.00	0.00	0.00	2	Member
DIAG SOL - 5/8" SOLID	5.65	1.2D + 1.6W 90	36	58	9.94	0	0	0.00	0.00	0.00	56	Member

Force/Stress Summary

Maximum Reactions Summary

	Base	Anch1
Vertical (kip)	134.32	-31.62
Horizontal (kip)	1.97	40.01

Force/Stress Summary

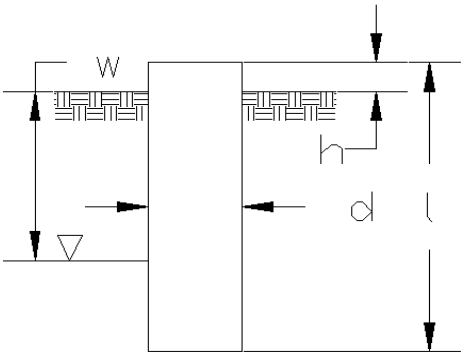
Guy Anchor Design Loads

Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (kip)	Shear (kip)
145.00	0.00	0	31.62	40.01
145.00	0.00	240	31.62	40.01
145.00	0.00	120	31.62	40.01

Maximum Cable Forces Summary

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Allow Tension (kip)	Applied Tension (kip)	Use %
1.2D + 1.6W 60 deg	59.62	9/16 EHS	A1a	27b	21.00	9.91	47
1.2D + 1.6W 60 deg	116.41	9/16 EHS	A1a	T2a	21.00	9.02	43
1.2D + 1.6W 60 deg	146.79	5/8 EHS	A1a	T3a	25.44	12.01	47

Site Name:	Hampton CT, CT	*Program Last Updated:*	*5/13/2014*
Site Number:	10029	*American Tower Corporation*	
Engineer:	Christiana.Lancaster		
Engineering Number:	OAA710558		
Date:	05/01/18		



Design Base Loads (Factored) - Analysis per TIA-222-G Standards

Analyze or Design a Foundation?	Analyze	
Foundation Mapped:	Y	
Moment (M):	0.0	k-ft
Shear/Leg (V):	2.0	k
Axial Load (P):	134.3	k
Uplift/Leg (U):	0.0	k
Tower Type (GT / SST / MP):	GT	
Diameter of Caisson (d):	5.8	ft
Caisson Embedment (L-h):	5.4	ft
Caisson Height Above Ground (h):	2.6	ft
Depth Below Ground Surface to Water Table (w):	4.0	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Water:	62.4	pcf
Tension Skin Friction/Compression Skin Friction:	1.00	
Pullout Angle:	30.0	degrees

Engineer Notes

Soil Mechanical Properties

Depth (ft) Top	Depth (ft) Bottom	γ_{Soil} (pcf)	Cohesion (psf)	ϕ (degree)	Ultimate Skin Friction (psf)	Ultimate Bearing Pressure (psf)
0.0	3.0	120	0	0	0	0
3.0	8.0	120	0	35	0	15000

Volume of Concrete:	207.7 ft^3 =	7.7 yd^3
Weight of Concrete (Buoyancy Effect Considered):	28.9 k	
Average Soil Unit Weight:	97.7 pcf	
Skin Friction Resistance:	0.0 k	
Compressive Bearing Resistance:	389.5 k	
Pullout Weight (Minus Concrete Weight):	20.4 k	
Nominal Uplift Capacity per Leg ($\phi_s T_n$):	15.3 k	
Nominal Compressive Capacity per Leg ($\phi_s P_n$):	233.7 k	
P_u:	140.4 k	
$T_u/\phi_s T_n$:	0.00 Result: OK	
$P_u/\phi_s P_n$:	0.60 Result: OK	
Total Lateral Resistance:	65.3 k	
Inflection Point (Below Ground Surface):	4.3 ft	
Design Overturning Moment At Inflection Point (M_D):	13.5 k-ft	
Nominal Moment Capacity ($\phi_s M_n$):	37.1 k-ft	
$M_D/\phi_s M_n$:	0.36 Result: OK	
ϕ_s:	0.75	

Sprint

PROJECT:	DO MACRO UPGRADE
SITE NAME:	HAMPTON / CHAPLIN
SITE CASCADE:	CT33XC568
SITE ADDRESS:	253 FISK ROAD HAMPTON, CT 06247
SITE TYPE:	GUYED TOWER
MARKET:	NORTHERN CONNECTICUT

SITE INFORMATION

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

LATITUDE (NAD83):
41° 46' 12.79" N
41.77022°

LONGITUDE (NAD83):
72° 04' 15.20" W
-72.07089°

COUNTY:
WINDHAM COUNTY

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

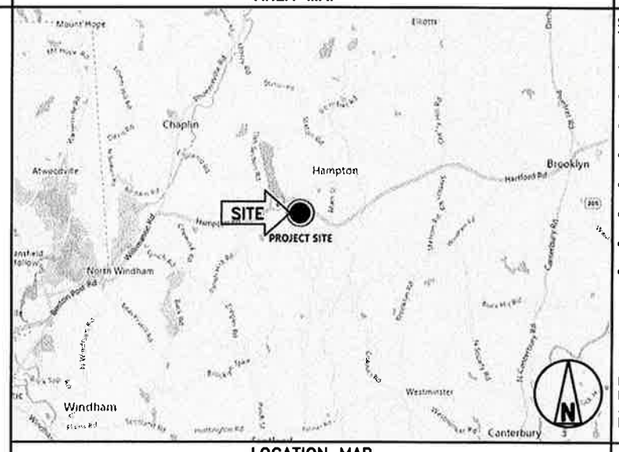
ZONING DISTRICT:
TBD

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

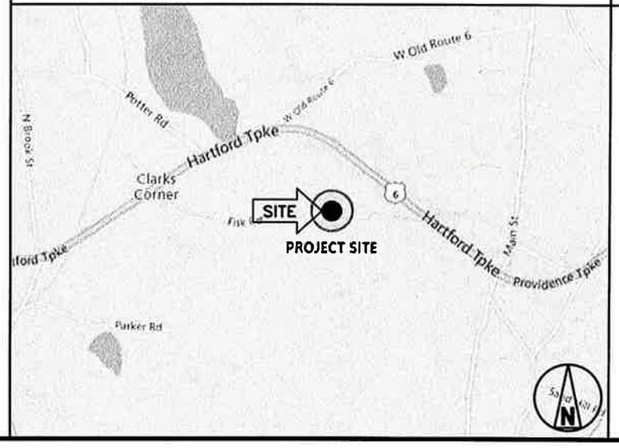
AAV PROVIDER:
AT&T
(800) 288-2020

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.

- REMOVE (6) EXISTING ANTENNAS
- INSTALL (6) PANEL ANTENNAS
- RELOCATE (3) 1900 MHz RRHS BEHIND ANTENNAS
- INSTALL (3) 2.5 GHz & (3) 800 MHz RRH'S BEHIND ANTENNAS
- INSTALL (3) 800 MHz RRH'S ON PROPOSED PIPE MOUNT
- INSTALL (48) JUMPER CABLES
- INSTALL (4) 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

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SP-2	SPRINT SPECIFICATIONS	0
SP-3	SPRINT SPECIFICATIONS	0
A-1	SITE PLAN	0
A-2	TOWER ELEVATION	0
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0
A-4	EQUIPMENT & MOUNTING DETAILS	0
A-5	EQUIPMENT & MOUNTING DETAILS	0
A-6	CIVIL DETAILS	0
A-7	PLUMBING DIAGRAM	0
E-1	ELECTRICAL & GROUNDING PLAN	0
E-2	ELECTRICAL & GROUNDING DETAILS	0

PLANS PREPARED FOR:
Sprint

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:
JOHN S. STEVENS
STATE OF CONNECTICUT
No. 24709
LICENSED PROFESSIONAL ENGINEER
MAY 30 2018

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REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:
HAMPTON / CHAPLIN

SITE NUMBER:
CT33XC568

SITE ADDRESS:
253 FISK ROAD
HAMPTON, CT 06247

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
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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. 29018
LICENSED PROFESSIONAL ENGINEER
MAY

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:

HAMPTON / CHAPLIN

SITE NUMBER:

CT33XC568

SITE ADDRESS:

253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-1

CONTINUE FROM SP-1

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

3.2 GENERAL REQUIREMENTS FOR CIVIL CONSTRUCTION:

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

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

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

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

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

E. CONDUCT TESTING AS REQUIRED HEREIN.

3.3 DELIVERABLES:

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

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

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

SECTION 01 400 – SUBMITTALS & TESTS

PART 1 – GENERAL

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

1.2 RELATED DOCUMENTS:

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

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

1.3 SUBMITTALS:

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

B. SUBMIT THE FOLLOWING TO COMPANY REPRESENTATIVE FOR APPROVAL.

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

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

1.4 TESTS AND INSPECTIONS:

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

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

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

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

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

1.5 COMMISSIONING: PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPs

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

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 REQUIREMENTS FOR TESTING:

A. THIRD PARTY TESTING AGENCY:

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

3.2 REQUIRED TESTS:

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

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

3.3 REQUIRED INSPECTIONS

A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.

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

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

PLANS PREPARED FOR:

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PLANS PREPARED BY:

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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.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:

HAMPTON / CHAPLIN

SITE NUMBER:

CT33XC568

SITE ADDRESS:

253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-2

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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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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
MAY 30 2018
NO. 24705
LICENSED PROFESSIONAL ENGINEER

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:

HAMPTON / CHAPLIN

SITE NUMBER:

CT33XC568

SITE ADDRESS:

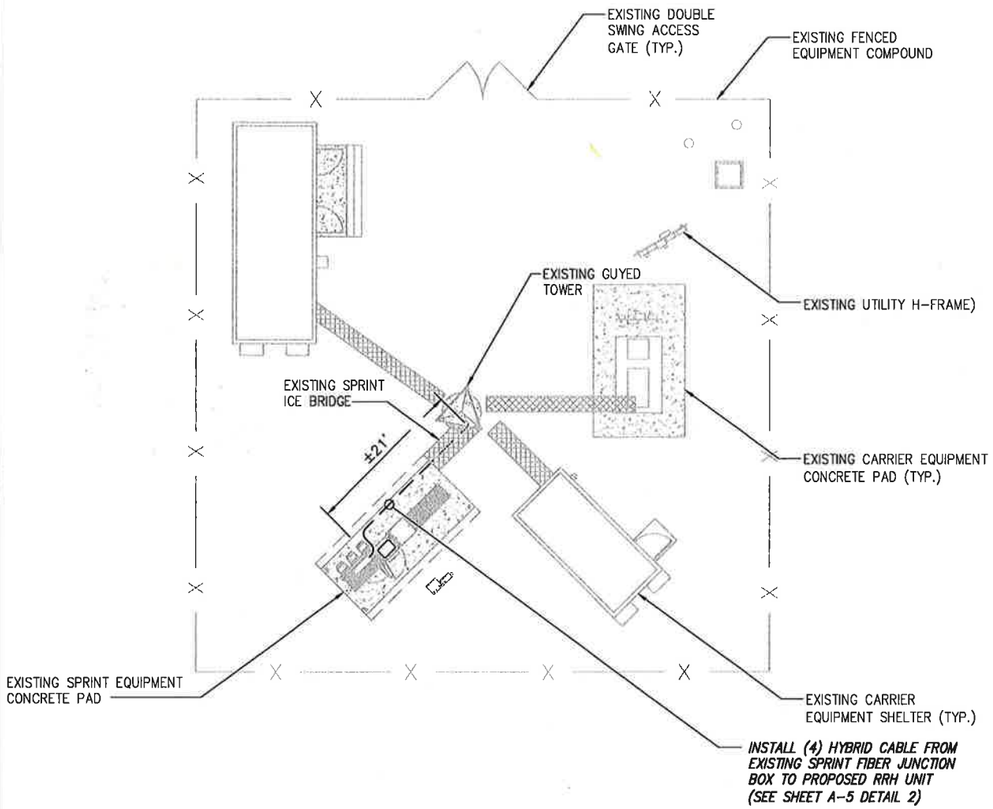
253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-3

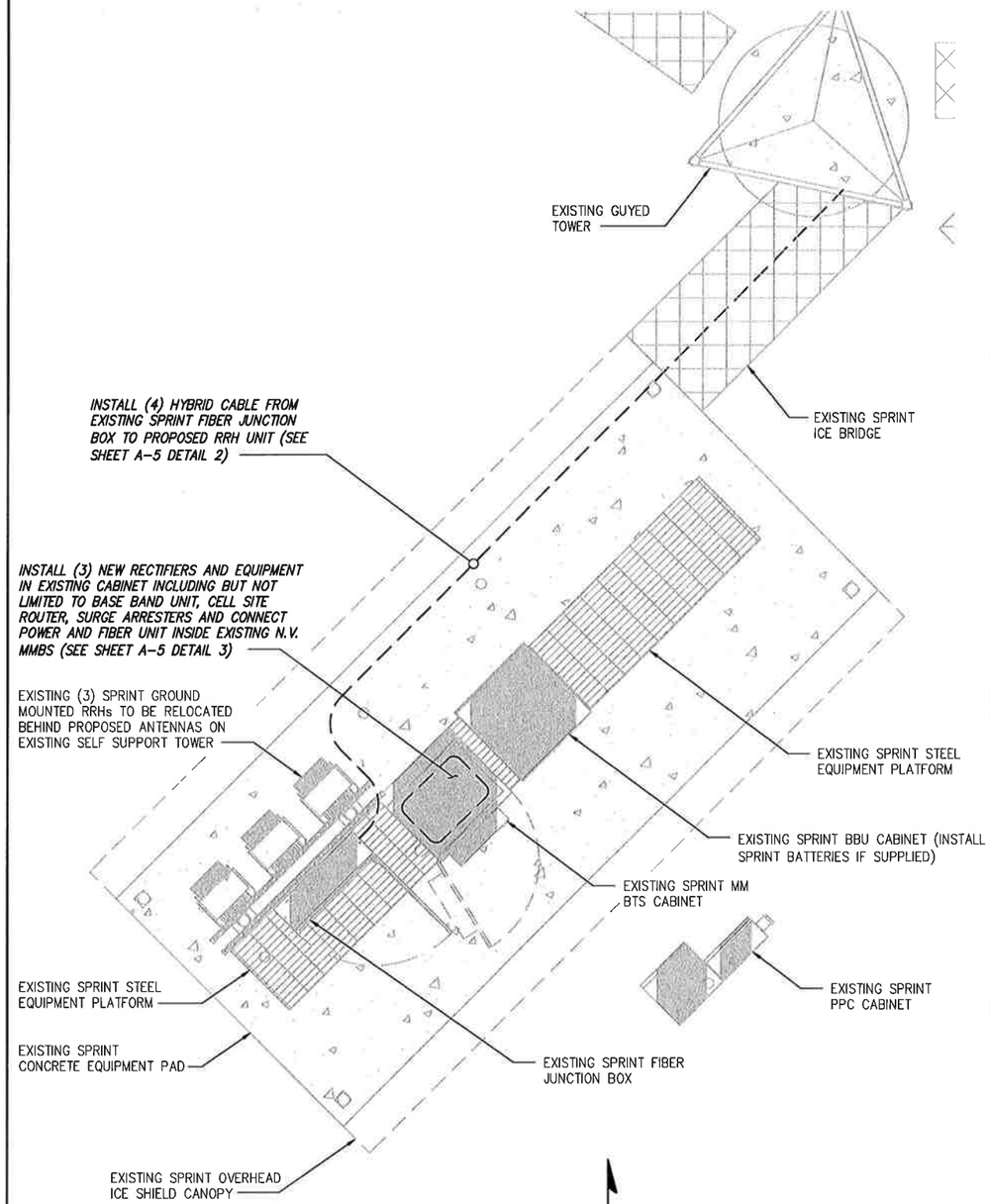


INFORMATION CONTAINED WITHIN DRAWINGS ARE BASED ON PROVIDED INFORMATION AND ARE NOT THE RESULT OF A FIELD SURVEY.

N

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

OVERALL SITE PLAN | SCALE: AS NOTED | 1



N

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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OFFICE#, (516) 306-3740

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
MAY 3 0 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:
HAMPTON / CHAPLIN

SITE NUMBER:
CT33XC568

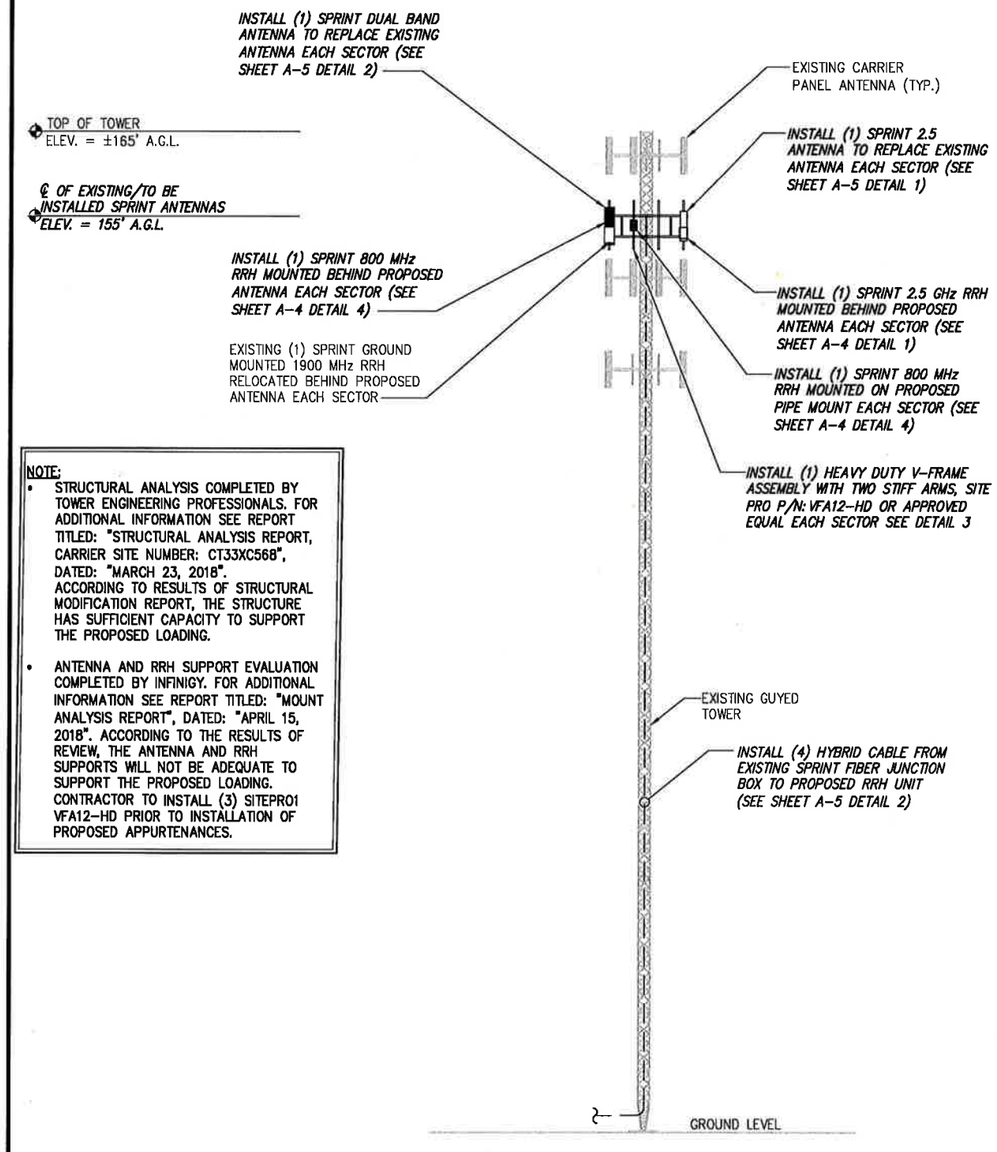
SITE ADDRESS:
253 FISK ROAD
HAMPTON, CT 06247

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 TOWER ENGINEERING PROFESSIONALS. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "STRUCTURAL ANALYSIS REPORT, CARRIER SITE NUMBER: CT33XC568", DATED: "MARCH 23, 2018". 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: "MOUNT ANALYSIS REPORT", DATED: "APRIL 15, 2018". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS WILL NOT BE ADEQUATE TO SUPPORT THE PROPOSED LOADING. CONTRACTOR TO INSTALL (3) SITEPRO1 VFA12-HD PRIOR TO INSTALLATION OF PROPOSED APPURTENANCES.

TOWER ELEVATION | NO SCALE | 1

SITE LOADING CHART

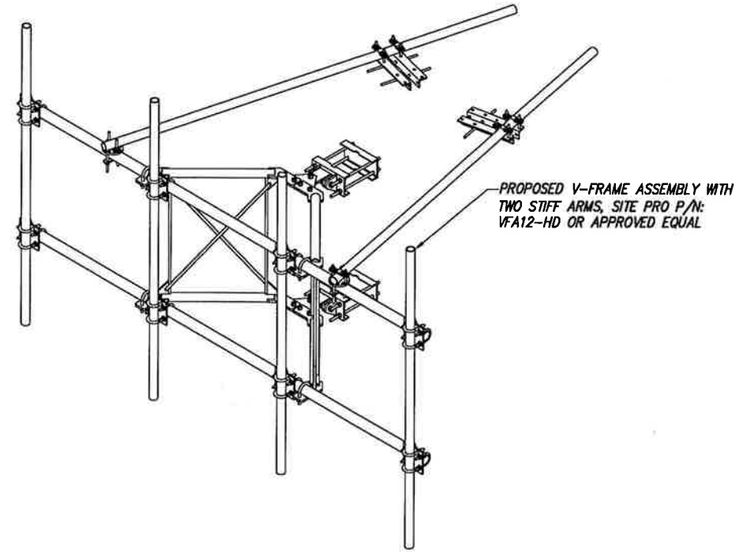
SECTOR	EXISTING/ PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/ REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	PROPOSED	APXVTM14-ALU-120	RFS	75°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1	±194'*	±155' AGL
	PROPOSED	NNVV-65B-R4	COMMSCOPE	75°	1	–		SEE SHEET A-5 DETAIL 1		
	EXISTING	DB980H90E-M	DECIBEL	75°	2	REMOVE	(1) 1900 MHz 4X45 RRH	EXISTING COAX		
BETA	PROPOSED	APXVTM14-ALU-120	RFS	165°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		±155' AGL
	PROPOSED	NNVV-65B-R4	COMMSCOPE	165°	1	–		SEE SHEET A-5 DETAIL 1		
	EXISTING	DB980H90E-M	DECIBEL	165°	2	REMOVE	(1) 1900 MHz 4X45 RRH	EXISTING COAX		
GAMMA	PROPOSED	APXVTM14-ALU-120	RFS	270°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		±155' AGL
	PROPOSED	NNVV-65B-R4	COMMSCOPE	270°	1	–		SEE SHEET A-5 DETAIL 1		
	EXISTING	DB980H90E-M	DECIBEL	270°	2	REMOVE	(1) 1900 MHz 4X45 RRH	EXISTING COAX		

PROJECT SCOPE:

REMOVE: (6) PANEL ANTENNAS INSTALL: (6) PANEL ANTENNAS AND (9) RRH'S RELOCATE: (3) EXISTING RRH'S

* 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



V-FRAME ASSEMBLY WITH STIFF ARM DETAIL | 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. 24709
LICENSED PROFESSIONAL ENGINEER
MAY 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

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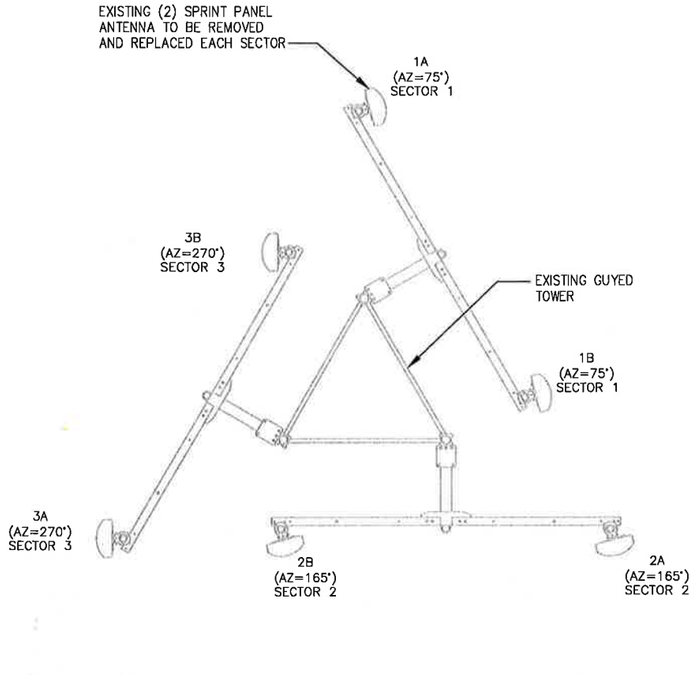
SITE NUMBER:
CT33XC568

SITE ADDRESS:
253 FISK ROAD
HAMPTON, CT 06247

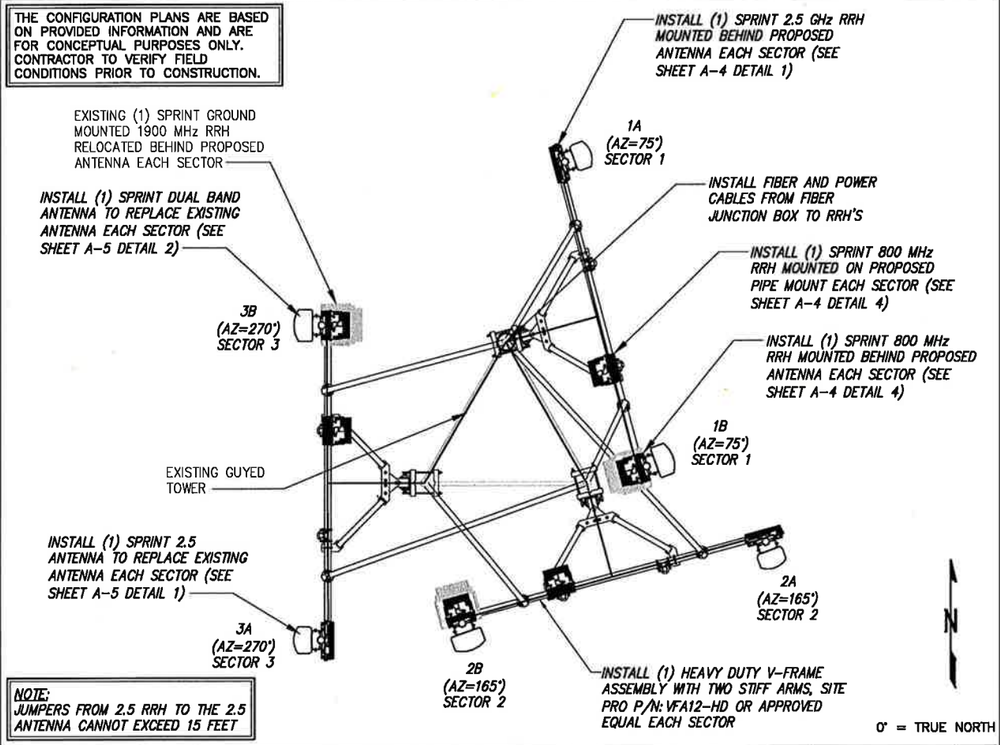
SHEET DESCRIPTION:
TOWER ELEVATION

SHEET NUMBER:
A-2



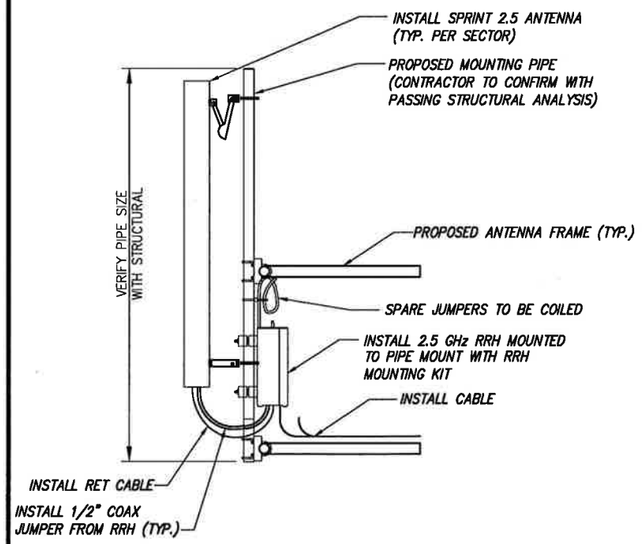
EXISTING ANTENNA LAYOUT | NO SCALE | 1

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 AND RRH LAYOUT | NO SCALE | 2



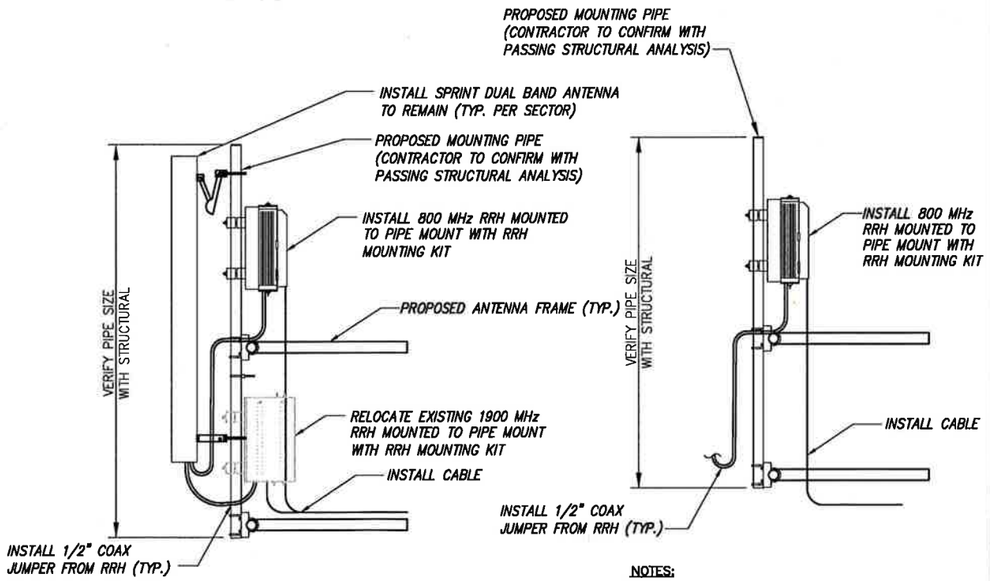
NOTE:
CONTRACTOR TO POSITION RRH ON MOUNT BEHIND ANTENNA SUCH THAT THE RRH DOES NOT INTERFERE WITH THE EXISTING PLATFORM/T-ARM MOUNTING HARDWARE.

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 2.5 ANTENNA & RRH MOUNTING DETAILS | NO SCALE | 3



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 DUAL BAND & RRH MOUNTING DETAILS | NO SCALE | 4

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ENGINEERING LICENSE:

STATE OF CONNECTICUT · JOHN S. STEVENS · MAY 2 0 2018 · No. 21705 · LICENSED PROFESSIONAL ENGINEER

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HAMPTON / CHAPLIN

SITE NUMBER:

CT33XC568

SITE ADDRESS:

253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

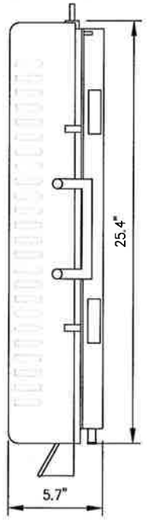
ANTENNA LAYOUT & MOUNTING DETAILS

SHEET NUMBER:

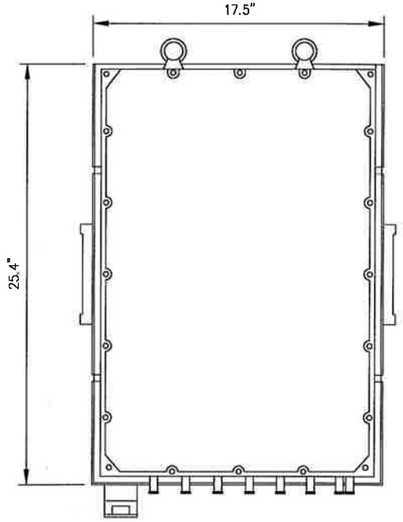
A-3

RRH: ALCATEL LUCENT TD-RRH8X20

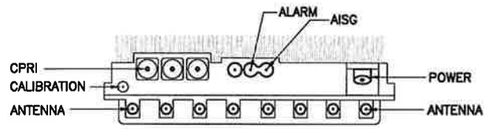
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

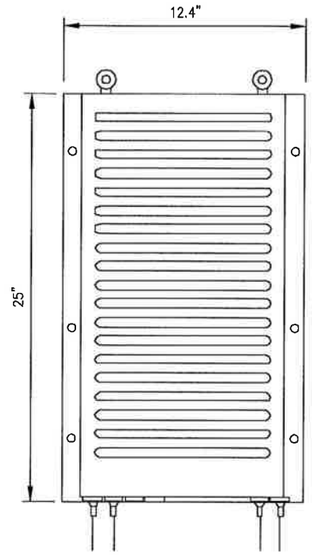
NOTES

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.

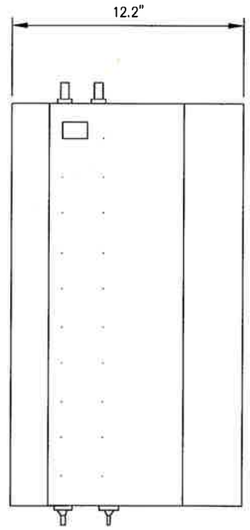
2.5 RRH'S | NO SCALE | 1

RRH: ALCATEL LUCENT 1900 MHz

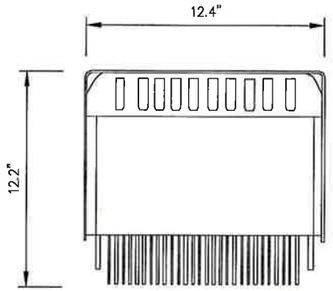
COLOR: LIGHT GREY
WEIGHT: 70 LBS.
(INCLUDING OPTIONAL SOLAR SHIELD)



FRONT VIEW



SIDE VIEW

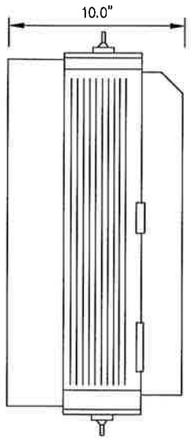


TOP VIEW

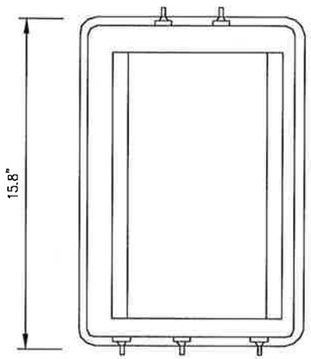
1900 MHz RRH | NO SCALE | 2

RRH: ALCATEL LUCENT RRH 800 MHz 2x50W

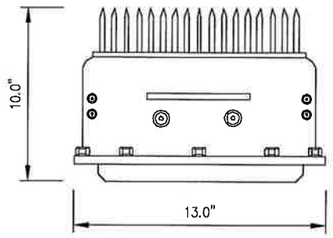
COLOR: LIGHT GREY
WEIGHT: 53 LBS.



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.

DETAIL NOT USED | NO SCALE | 3

800 MHz RRH | NO SCALE | 4

PLANS PREPARED FOR:
Sprint

PLANS PREPARED BY:
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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. 24795
LICENSED
PROFESSIONAL ENGINEER
MAY 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:
HAMPTON / CHAPLIN

SITE NUMBER:
CT33XC568

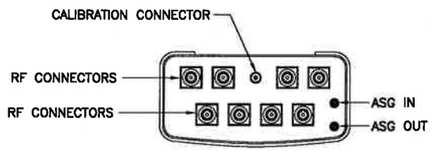
SITE ADDRESS:
253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:
EQUIPMENT & MOUNTING DETAILS

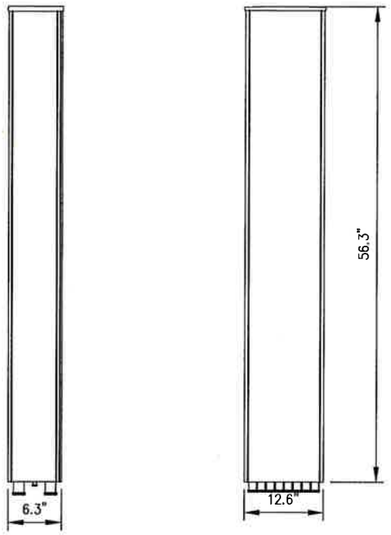
SHEET NUMBER:
A-4

ANTENNA RFS APXVTM14-ALU-I20

RADOME MATERIAL:	ASA
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.In(mlm):	56.3"x12.6"x6.3" (1549x439x300mm)
WEIGHT:	56.2 lbs
CONNECTORS:	(8) 4.1/9.5 DIN FEMALE (1) NF – CALIBRATION CONNECTOR



PLAN VIEW

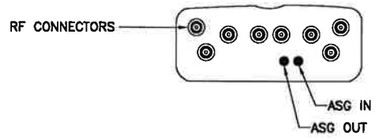


SIDE VIEW FRONT VIEW

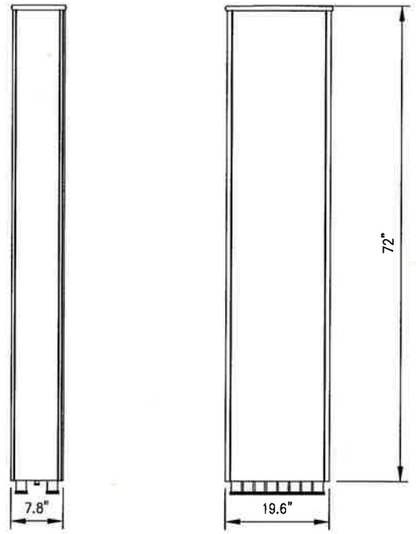
2.5 ANTENNA DETAIL | NO SCALE | 1

ANTENNA COMMSCOPE NNVV-65B-R4

RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.In(mlm):	72"x19.6"x7.8" (1829x498x198mm)
WEIGHT:	77.4 lbs
CONNECTORS:	(8) PIN DIN FEMALE (8) 8 PIN DIN MALE



PLAN VIEW



SIDE VIEW FRONT VIEW

DUAL BAND ANTENNA DETAIL | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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No. 24705
LICENSED PROFESSIONAL ENGINEER
MAY 3 0 2018

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253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

EQUIPMENT & MOUNTING DETAILS

SHEET NUMBER:

A-5

RFS HYBRIFLEX RISER CABLE SCHEDULE

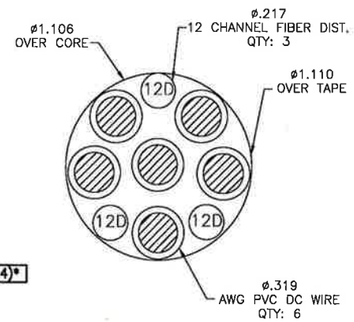
Fiber Only (Existing DC Power)	Hybrid cable MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	175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

RFS HYBRIFLEX JUMPER CABLE SCHEDULE

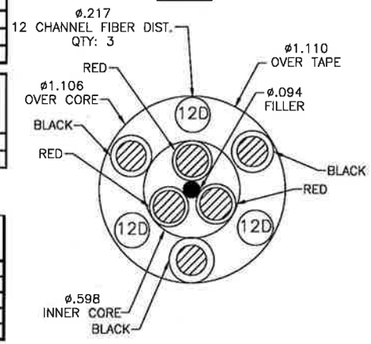
Fiber Only	Hybrid Jumper cable MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	Hybrid Jumper cable MN: HBF058-08U1M3-5F1 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

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.

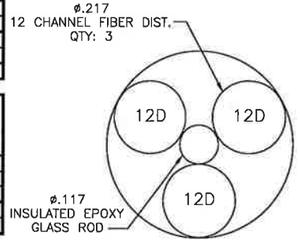
* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.



4 AWG

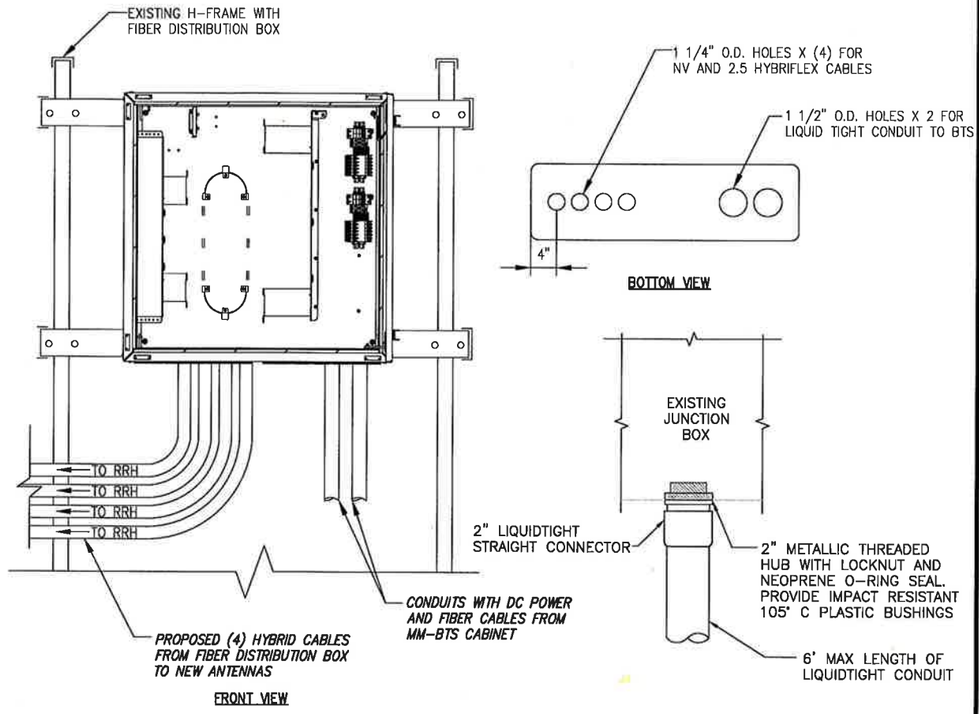


8 & 6 AWG



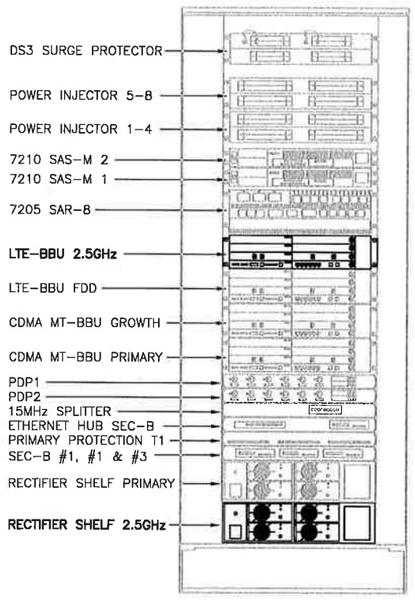
FIBER ONLY

800/1900/2500 CABLE CROSS SECTION DATA | NO SCALE | 1



FRONT VIEW

FIBER JUNCTION BOX & PENETRATION | NO SCALE | 2



FRONT VIEW

NEW EQUIPMENT IN EXISTING CABINET | NO SCALE | 3

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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. 24795
LICENSED PROFESSIONAL ENGINEER
MAY 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:
HAMPTON / CHAPLIN

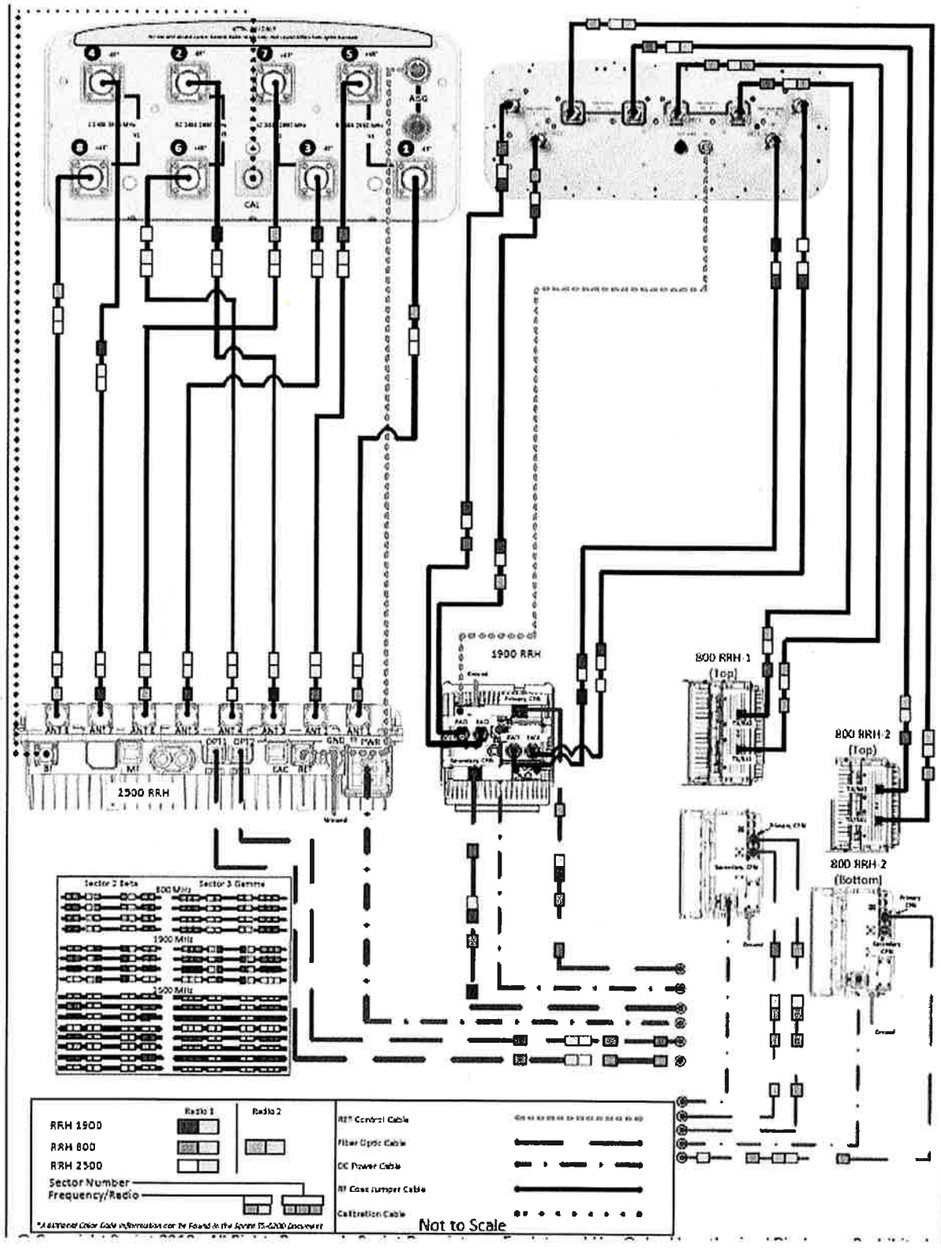
SITE NUMBER:
CT33XC568

SITE ADDRESS:
253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:
CIVIL DETAILS

SHEET NUMBER:
A-6

ALU-NSN 211 APXVTM14-ALU-I20 & NNVV-65B-R4 wo Filters



PLUMBING DIAGRAM | NO SCALE | 1

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

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
LICENSED PROFESSIONAL ENGINEER
No. 24032
MAY 2018

DRAWING NOTICE:

REVISIONS:

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ISSUED FOR PERMIT	05/23/18	ETC	0

SITE NAME:

HAMPTON / CHAPLIN

SITE NUMBER:

CT33XC568

SITE ADDRESS:

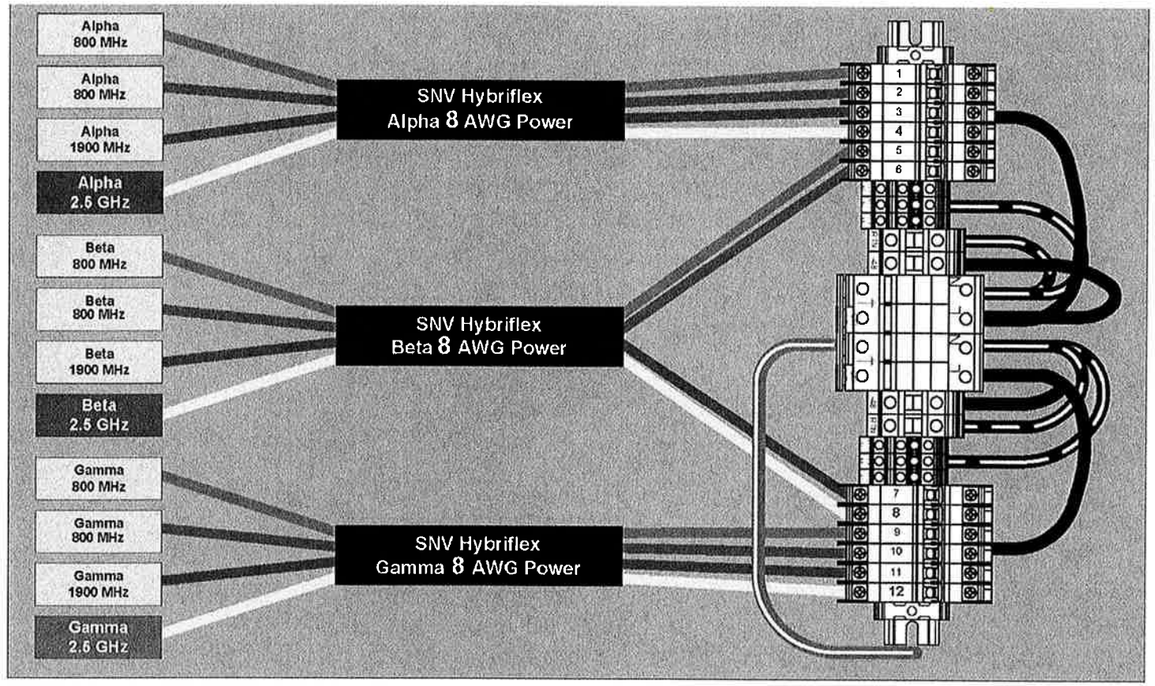
253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

PLUMBING DIAGRAM

SHEET NUMBER:

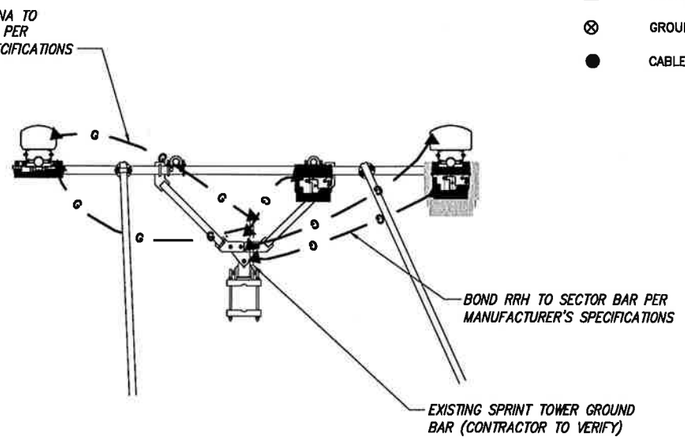
A-7



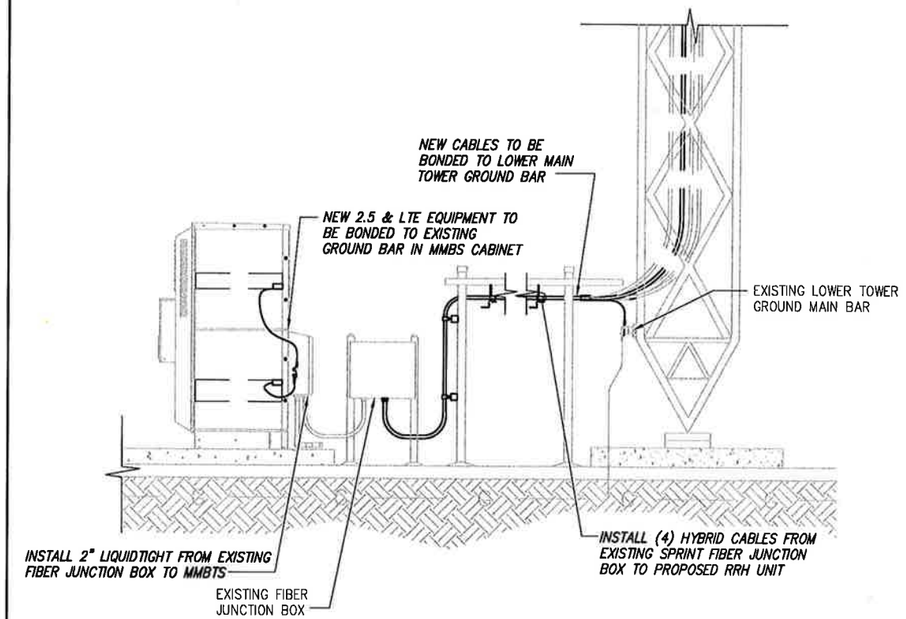
RRH TO DISTRIBUTION BOX POWER CONNECTIVITY | NO SCALE | 1

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

PLANS PREPARED FOR:

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CT33XC568

SITE ADDRESS:

253 FISK ROAD
HAMPTON, CT 06247

SHEET DESCRIPTION:

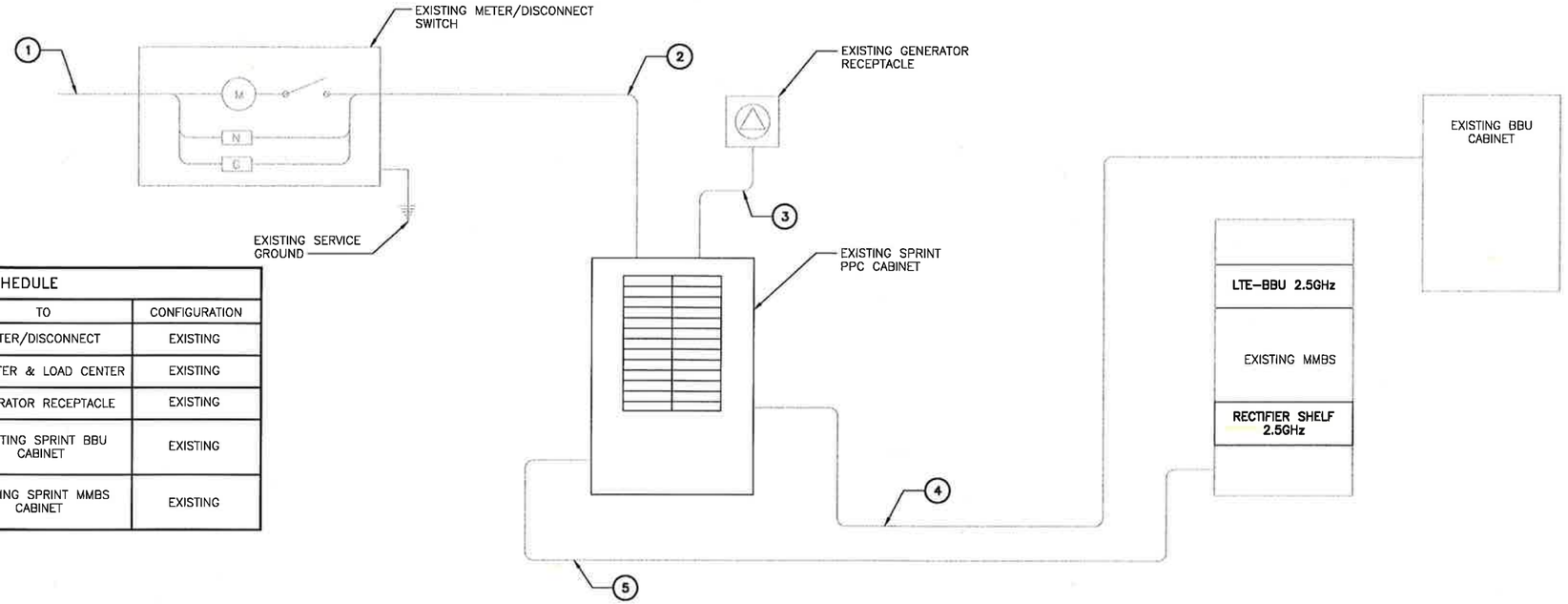
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:

E-1

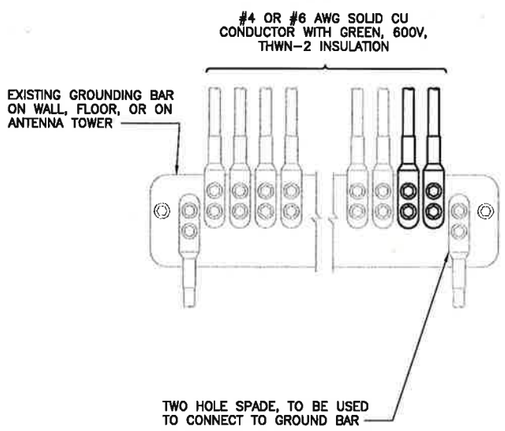
NOTES

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

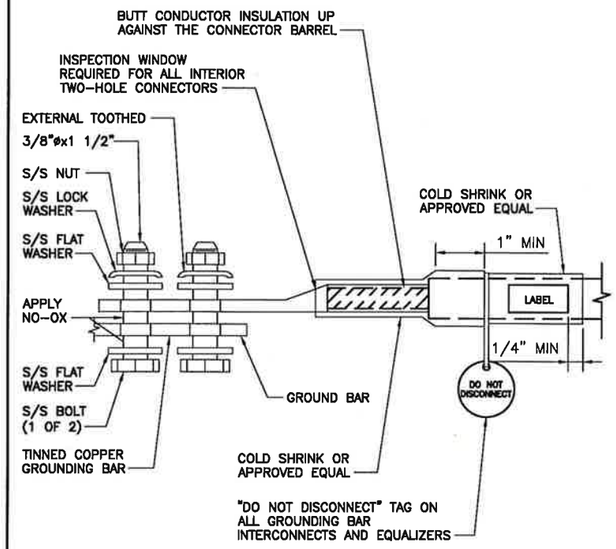
ELECTRICAL ONE–LINE DIAGRAM — NO SCALE — 1



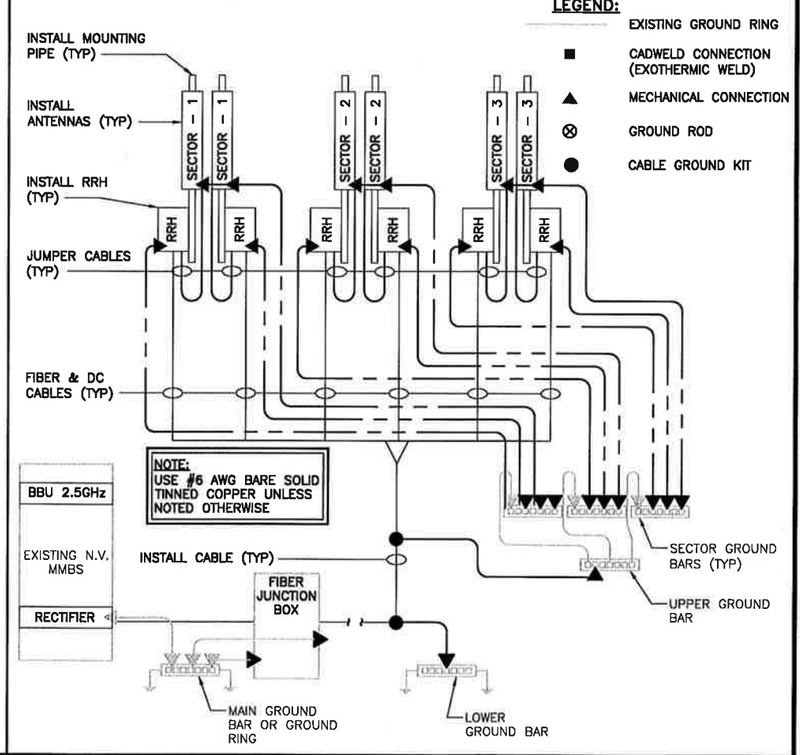
NOTES

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



GROUNDING RISER DIAGRAM — NO SCALE — 4

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ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2