

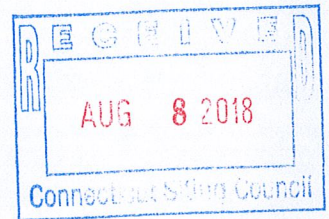


August 6th, 2018

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

EM-SPRINT-135-180808

RE: Notice of Exempt Modification – Antenna Swap for wireless facility located at 0 LOT 4 EASTOVER ROAD, STAMFORD, CONNECTICUT – CT03XC345 (lat. 41° 6' 44.999" N, long. - 73° 32' 18.599" W)



ORIGINAL

Dear Ms. Bachman:

Sprint Spectrum, LP ("Sprint") currently maintains wireless telecommunications antennas at the (120-foot level) on an existing (150-foot Monopole 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 add three (3) new antennas and add six (6) new RRHs onto the tower. All the proposed work is contained within the existing fenced area. Please refer to the attached drawings for site plans prepared by Infinigy Engineering. 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 DAVID MARTIN, MAYOR, and DAVID WOODS, PRINCIPAL PLANNER of the CITY of STAMFORD. A copy of this letter is also being sent to JUSTINE PAUL the manager for AMERICAN TOWER CORPORATION who manages the tower 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,

A handwritten signature in dark ink, appearing to be 'Arthur Perkowski', written over a horizontal line.

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: DAVID MARTIN (MAYOR, Stamford, CT)
JUSTINE PAUL (Manager, AMERICAN TOWER CORPORATION)
DAVID WOODS (PRINCIPAL PLANNER, Stamford, CT)

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

EASTOVER ROAD

Location EASTOVER ROAD

Mblu 004/ 2955/ / /

Acct# 004-2955

Owner CELLCO PARTNERSHIP

Assessment \$703,460

Appraisal \$1,004,930

PID 183864

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$412,320	\$592,610	\$1,004,930
Assessment			
Valuation Year	Improvements	Land	Total
2017	\$288,630	\$414,830	\$703,460

Owner of Record

Owner CELLCO PARTNERSHIP
Co-Owner VERIZON WIRELESS
Address P.O. BOX 2549
ADDISON, TX 75001

Sale Price \$594,710
Book & Page 4954/ 250
Sale Date 03/30/1998
Instrument 00

Ownership History

Ownership History				
Owner	Sale Price	Book & Page	Instrument	Sale Date
CELLCO PARTNERSHIP	\$594,710	4954/ 250	00	03/30/1998
METRO MOBILE CTS OF FAIRFIELD	\$0	3571/ 172	00	05/23/1990

Building Information

Building 1 : Section 1

Year Built: 1994
Living Area: 415

Building Attributes	
Field	Description
STYLE	Telephone Bldg
Stories:	1
Occupancy	1

Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	T&G/Rubber
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Concrete Slab
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Radiant
AC Type	None
Bldg Use	Industrial MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	300C
Heat/AC	None
Frame Type	Wood Frame
Baths/Plumbing	None
Ceiling/Wall	Ceil & Mn Wall
Rooms/Prtns	Light
Wall Height	9
% Comn Wall	

Building Photo



(<http://images.vgsi.com/photos/StamfordCTPhotos//\00\12\83\3>)

Building Layout

BAS[415]

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	415	415
		415	415

Extra Features

Extra Features	<u>Legend</u>
No Data for Extra Features	

Land

Land Use

Use Code	200
Description	Commercial MDL-94
Zone	RA1
Neighborhood	0100

Land Line Valuation

Size (Acres)	3.46
Depth	
Assessed Value	\$414,830
Appraised Value	\$592,610

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
AP1	Fence Chn Lk			1596 L.F.	\$13,770	1
CEL1	Cell Tower			2 SITES	\$370,500	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$412,320	\$592,610	\$1,004,930
2016	\$394,720	\$538,730	\$933,450
2015	\$394,720	\$538,730	\$933,450

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$288,630	\$414,830	\$703,460
2016	\$276,310	\$377,110	\$653,420
2015	\$276,310	\$377,110	\$653,420



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

SPRINT Existing Facility

Site ID: CT03XC345

Turn of the River
0 Lot4 Eastover Road
Stamford, CT 06905

August 1, 2018

EBI Project Number: 6218005246

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	13.39 %



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August 1, 2018

SPRINT

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

Emissions Analysis for Site: **CT03XC345 – Turn of the River**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **0 Lot4 Eastover Road, Stamford, 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 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ 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 ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 850 MHz Band is approximately $567 \mu\text{W}/\text{cm}^2$. The general population exposure limit for the 1900 MHz (PCS) and 2500 MHz (BRS) bands is $1000 \mu\text{W}/\text{cm}^2$. 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 **0 Lot4 Eastover Road, Stamford, 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 for directional panel antennas, 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 for directional panel antennas, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antennas used in this modeling are the **RFS APXVSPP18-C-A20 and the Commscope DT465B-2XR** for transmission in the 850 MHz, 1900 MHz (PCS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, 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 panel antennas are **120 feet** above ground level (AGL) for **Sector A**, **120 feet** above ground level (AGL) for **Sector B** and **120 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.



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SPRINT Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APXVSPP18-C-A20	Make / Model:	RFS APXVSPP18-C-A20	Make / Model:	RFS APXVSPP18-C-A20
Gain:	13.4 / 15.9 dBd	Gain:	13.4 / 15.9 dBd	Gain:	13.4 / 15.9 dBd
Height (AGL):	120 feet	Height (AGL):	120 feet	Height (AGL):	120 feet
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	8	Channel Count	8	Channel Count	8
Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts
ERP (W):	6,662.27	ERP (W):	6,662.27	ERP (W):	6,662.27
Antenna A1 MPE%	1.93 %	Antenna B1 MPE%	1.93 %	Antenna C1 MPE%	1.93 %
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR
Gain:	15.05 / 13.35 dBd	Gain:	15.05 / 13.35 dBd	Gain:	15.05 / 13.35 dBd
Height (AGL):	120 feet	Height (AGL):	120 feet	Height (AGL):	120 feet
Frequency Bands	2500 MHz (BRS) / 850 MHz	Frequency Bands	2500 MHz (BRS) / 850 MHz	Frequency Bands	2500 MHz (BRS) / 850 MHz
Channel Count	10	Channel Count	10	Channel Count	10
Total TX Power(W):	200 Watts	Total TX Power(W):	200 Watts	Total TX Power(W):	200 Watts
ERP (W):	5,983.32	ERP (W):	5,983.32	ERP (W):	5,983.32
Antenna A2 MPE%	1.84 %	Antenna B2 MPE%	1.84 %	Antenna C2 MPE%	1.84 %

Site Composite MPE%	
Carrier	MPE%
SPRINT – Max per sector	3.77 %
Sensus CL&P	0.12 %
AT&T	5.53 %
Clearwire	0.11 %
Nextel	0.76 %
Verizon Wireless	2.08 %
T-Mobile	1.02 %
Site Total MPE %:	13.39 %

SPRINT Sector A Total:	3.77 %
SPRINT Sector B Total:	3.77 %
SPRINT Sector C Total:	3.77 %
Site Total:	13.39 %

SPRINT_Frequency Band / Technology (All Sectors)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μ W/cm ²)	Frequency (MHz)	Allowable MPE (μ W/cm ²)	Calculated % MPE
Sprint 850 MHz CDMA	1	437.55	120	1.21	850 MHz	567	0.21%
Sprint 1900 MHz (PCS) CDMA	5	622.47	120	8.61	1900 MHz (PCS)	1000	0.86%
Sprint 1900 MHz (PCS) LTE	2	1,556.18	120	8.61	1900 MHz (PCS)	1000	0.86%
Sprint 2500 MHz (BRS) LTE	8	639.78	120	14.16	2500 MHz (BRS)	1000	1.42%
Sprint 850 MHz LTE	2	432.54	120	2.39	850 MHz	567	0.42%
						Total:	3.77%



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:	3.77 %
Sector B:	3.77 %
Sector C:	3.77 %
SPRINT Maximum MPE % (per sector):	3.77 %
Site Total:	13.39 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **13.39 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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



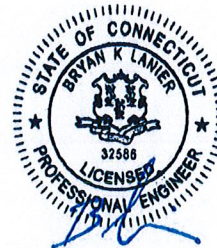
AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 148 ft Monopole
ATC Site Name : SMFR - North, CT
ATC Site Number : 302515
Engineering Number : OAA733621_C3_01
Proposed Carrier : Sprint Nextel
Carrier Site Name : Turn Of The River
Carrier Site Number : CT03XC345
Site Location : 0 Lot 4 Eastover Road
Stamford, CT 06905-1403
41.112800,-73.538400
County : Fairfield
Date : June 15, 2018
Max Usage : 73%
Result : Pass

Prepared By:
Trevor Ridilla, E.I.
Structural Engineer I

Reviewed By:



Authorized by "EOR"
Jun 15 2018 4:46 PM

cosign

COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 148 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	Engineered Endeavors Job #5591, dated November 22, 1999
Foundation Drawing	Engineered Endeavors Job #5591, dated November 17, 1999
Geotechnical Report	Dr. Clarence Welti, dated October 25, 2000
Modifications	ATC Project #43868633, dated September 1, 2009 ATC Project #51772939, dated April 11, 2013

Analysis

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

Basic Wind Speed:	93 mph (3-Second Gust, Vasd) / 120 mph (3-Second Gust, Vult)
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:	$S_s = 0.25$, $S_1 = 0.07$
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	3	Commscope ATSBT-TOP-MF-4G	Flush	(18) 1 5/8" Coax	T-Mobile
		3	Andrew E15S09P94			
		3	RFS ATMAP1412D-1A20			
		3	Andrew SBNHH-1D65B			
148.0	152.0	6	Kaelus DBC0061F1V51-2	Platform w/ Handrails	(12) 1 1/4" Coax (6) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 3" Conduit	AT&T Mobility
		6	Powerwave LGP21401			
		1	Raycap DC6-48-60-18-8F			
		1	Raycap DC6-48-60-18-8F (23.5" Height)			
		1	Raycap DC6-48-60-0-8F (24" Height)			
		3	Ericsson RRUS 4478 B14			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			
		3	Ericsson RRUS 32			
		3	Ericsson RRUS 32 B2			
		3	Ericsson RRUS 32 B66			
		3	Powerwave 7770.00			
		3	Quintel QS66512-2			
		3	CCI OPA-65R-LCUU-H6			
		3	Kathrein 80010965			
143.0	143.0	6	RFS FD9R6004	Low Profile Platform	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	Verizon
		4	Alcatel-Lucent RRH2X60-1900			
		4	Alcatel-Lucent RRH2x60 700			
		4	Alcatel-Lucent RRH4x45-B66 w/o Solar Shield			
		2	RFS DB-T1-6Z-8AB-0Z			
		1	Antel BXA-80063-6BF-EDIN-X			
		2	Antel BXA-70063/6CF __ 2°			
		1	Antel BXA-80080/6CF			
		4	Commscope SBNHH-1D65B			
		4	Commscope SBNHH-1D45B			
132.0	132.0	3	KMW KMDAPS2040000 (E-F Band)	Low Profile Platform	(9) 1 1/4" Coax (6) 1 5/8" Coax	
		3	KMW AM-X-WM-17-65-00T (48")			
		9	Decibel DB844H90E-XY			
120.0	120.0	3	Alcatel-Lucent 800MHz 2X50W RRH w/ Filter	Low Profile Platform	(3) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 4x40W RRH (91 lb)			
		3	RFS APXVSPP18-C-A20			
100.0	105.0	1	Antel BCD-87010 __ 4°	Side Arm	(1) 7/8" Coax	Sensus USA
75.0	75.0	1	PCTEL GPS-TMG-HR-26N	Side Arm	(1) 1/2" Coax	Sprint Nextel



Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
120.0	120.0	3	Commscope LLPX310R-V1	-	(2) 1" conduit	Sprint Nextel
		3	Nokia FWHR			
		2	Box Enclosures BEN-92P			

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
120.0	120.0	3	Alcatel-Lucent RRH2x50-08	Low Profile Platform	(1) 1 1/4" Hybriflex	Sprint Nextel
		3	TD-RRH8x20-25 w/ Solar Shield			
		3	Commscope DT465B-2XR			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	51%	Pass
Shaft	53%	Pass
Base Plate	42%	Pass
Reinforcement	58%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3,077.3	68%
Axial (Kips)	68.0	7%
Shear (Kips)	25.7	73%

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.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
120.0	Alcatel-Lucent RRH2x50-08	Sprint Nextel	1.073	1.058
	TD-RRH8x20-25 w/ Solar Shield			
	Commscope DT465B-2XR			

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



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.

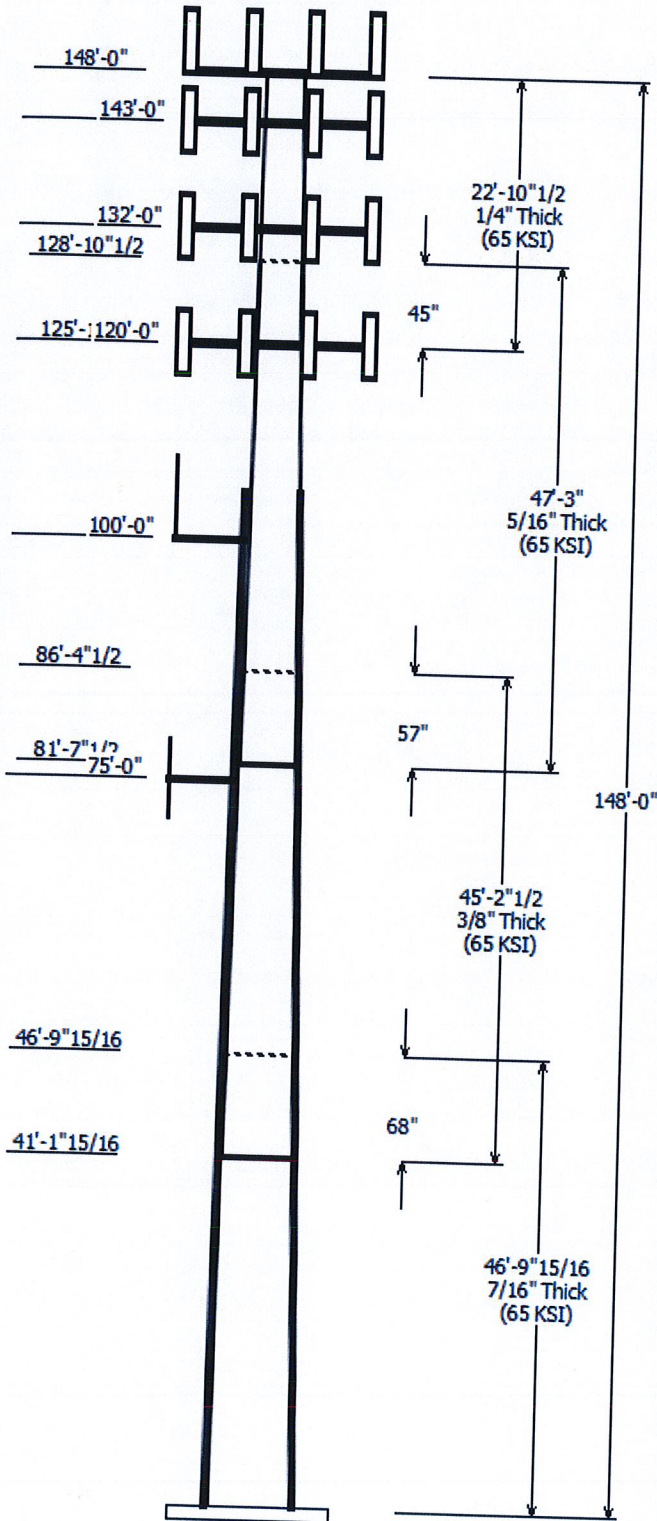
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

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Job Information			
Pole : 302515	Code: ANSI/TIA-222-G		
Location : SMFR - North, CT			
Description : 148 ft EEI Monopole			
Client : SPRINT NEXTEL	Struct Class : II		
Shape : 18 Sides	Exposure : B		
Height : 148.00 (ft)	Topo : 1		
Base Elev (ft): 0.00			
Taper: 0.19510(in/ft)			

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade
		Across Flats Top	Across Flats Bottom				
1	46.830	38.86	48.00	0.438		0.000 18 Sides	65
2	45.210	31.89	40.71	0.375	Slip Joint	68.000 18 Sides	65
3	47.250	24.23	33.45	0.313	Slip Joint	57.000 18 Sides	65
4	22.877	21.00	25.46	0.250	Slip Joint	45.000 18 Sides	65

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
160.000	160.000	3	Andrew SBNHH-1D65B	
160.000	160.000	3	RFS ATMAP1412D-1A20	
160.000	160.000	3	Andrew E15S09P94	
160.000	160.000	3	Commscope ATSBT-TOP-MF-	
148.000	152.000	1	Raycap DC6-48-60-0-8F (24" Hei	
148.000	152.000	3	Ericsson RRUS 32 B66	
148.000	152.000	3	Ericsson RRUS 4478 B14	
148.000	152.000	3	Kathrein 80010965	
148.000	152.000	6	Kaelus DBC0061F1V51-2	
148.000	152.000	1	Raycap DC6-48-60-18-8F (23.5"	
148.000	148.000	1	Flat Platform w/ Handrails	
148.000	152.000	3	CCI OPA-65R-LCUU-H6	
148.000	152.000	3	Quintel QS66512-2	
148.000	152.000	3	Powerwave Allgon 7770.00	
148.000	152.000	3	Ericsson RRUS 32 B2	
148.000	152.000	3	Ericsson RRUS 32	
148.000	152.000	3	Ericsson RRUS 11 (Band 12) (55	
148.000	152.000	1	Raycap DC6-48-60-18-8F	
148.000	152.000	6	Powerwave Allgon LGP21401	
148.000	152.000	1	Pipe Mount	
143.000	143.000	4	Commscope SBNHH-1D65B	
143.000	143.000	6	RFS FD9R6004	
143.000	143.000	1	Flat Low Profile Platform	
143.000	143.000	1	Antel BXA-80080/6CF	
143.000	143.000	4	Commscope SBNHH-1D45B	
143.000	143.000	2	Antel BXA-70063/6CF _ 2°	
143.000	143.000	1	Antel BXA-80063-6BF-EDIN-X	
143.000	143.000	2	RFS DB-T1-6Z-8AB-0Z	
143.000	143.000	4	Alcatel-Lucent RRH4x45-B66	
143.000	143.000	4	Alcatel-Lucent RRH2x60 700	
143.000	143.000	4	Alcatel-Lucent RRH2X60-1900	
132.000	132.000	1	Flat Low Profile Platform	
132.000	132.000	9	Decibel DB844H90E-XY	
132.000	132.000	3	KMW AM-X-WM-17-65-00T (48")	
132.000	132.000	3	KMW KMDAPS2040000 (E-F	
120.000	120.000	3	Alcatel-Lucent RRH2x50-08	
120.000	120.000	3	TD-RRH8x20-25 w/ Solar Shield	
120.000	120.000	3	Commscope DT465B-2XR	
120.000	120.000	1	Flat Low Profile Platform	
120.000	120.000	3	RFS APXVSP18-C-A20	
120.000	120.000	3	Alcatel-Lucent 4x40W RRH (91 I	
120.000	120.000	3	Alcatel-Lucent 800 MHz 2X50W	
100.000	100.000	1	Flat Side Arm	
100.000	105.000	1	Antel BCD-87010 _ 4°	



75.000	75.000	1	Round Side Arm
75.000	75.000	1	PCTEL GPS-TMG-HR-26N

Linear Appurtenance

Elev (ft)		Description	Exposed To Wind
From	To		
10.000	120.0	1 1/4" Hybriflex	Yes
10.000	120.0	1 1/4" Hybriflex	Yes
10.000	132.0	1 1/4" Coax	No
10.000	132.0	1 5/8" Coax	No
10.000	143.0	1 5/8" Coax	No
10.000	143.0	1 5/8" Hybriflex	Yes
10.000	148.0	0.39" Fiber Trunk	No
10.000	148.0	0.78" 8 AWG 6	No
10.000	148.0	1 1/4" Coax	No
10.000	148.0	3" Conduit	No
10.000	160.0	1 5/8" Coax	No
10.000	160.0	1 5/8" Coax	Yes
10.000	75.000	1/2" Coax	Yes
10.000	100.0	7/8" Coax	Yes
0.000	113.2	DYWIDAG	Yes

Load Cases

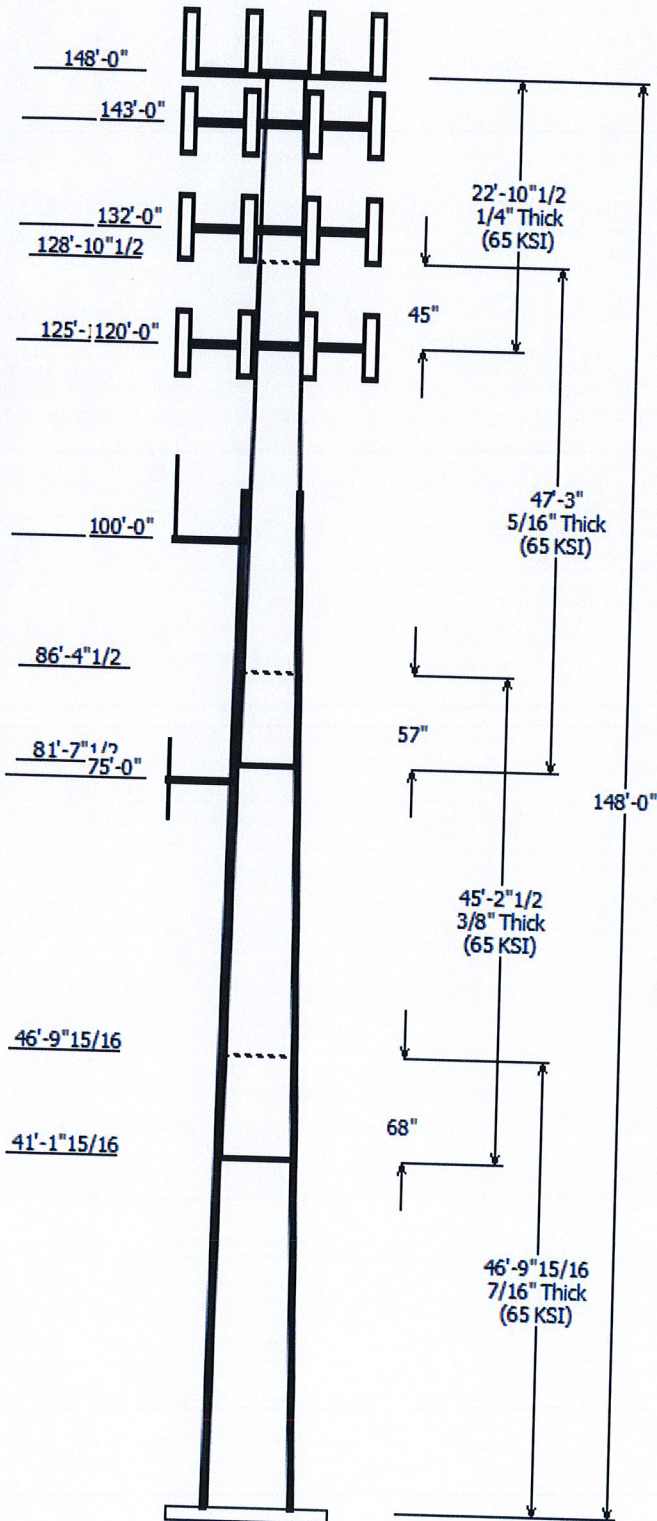
1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions

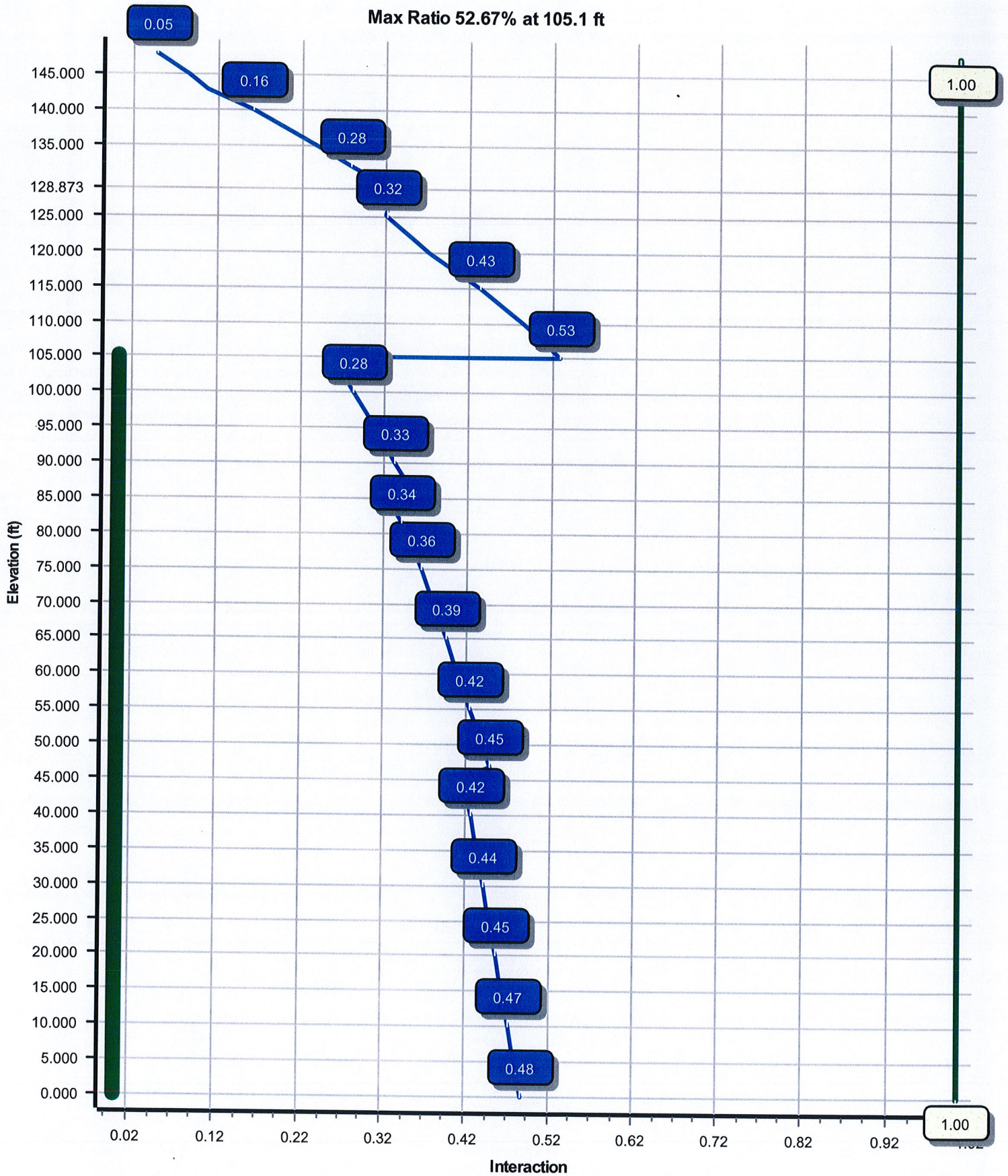
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	3077.31	25.74	68.04
0.9D + 1.6W	2908.20	24.33	51.02
1.2D + 1.0Di + 1.0Wi	880.04	7.26	104.56
(1.2 + 0.2Sds) * DL + E ELFM	269.32	2.19	68.55
(1.2 + 0.2Sds) * DL + E EMAM	579.80	4.82	68.55
(0.9 - 0.2Sds) * DL + E ELFM	264.56	2.19	46.33
(0.9 - 0.2Sds) * DL + E EMAM	568.75	4.82	46.33
1.0D + 1.0W	760.85	6.33	56.73

Dish Deflections

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



Load Case : 1.2D + 1.6W
Max Ratio 52.67% at 105.1 ft



Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Analysis Parameters

Location :	FAIRFIELD County, CT	Height (ft) :	148
Code :	ANSI/TIA-222-G	Base Diameter (in) :	48.00
Shape :	18 Sides	Top Diameter (in) :	21.00
Pole Type :	Taper	Taper (in/ft) :	0.195
Pole Manufacturer :	EI	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	93 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 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):	2.51		
T_L (sec):	6	p :	1.3
S_s :	0.249	S_1 :	0.069
F_a :	1.600	F_v :	2.400
S_{ds} :	0.266	S_{d1} :	0.110
		C_s :	0.030
		C_s Max:	0.030
		C_s Min:	0.030

Load Cases

1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip			Bottom				Top				Taper (in/ft)				
				Joint Type	Joint Len (in)	Weight (lb)	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)		Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio
1-18	46.830	0.4375	65		0.00	9,513	48.00	0.00	66.04	18876.3	17.93	109.71	38.86	46.83	53.36	9953.9	14.25	88.83	0.195101
2-18	45.210	0.3750	65	Slip	68.00	6,579	40.71	41.16	48.02	9874.4	17.74	108.58	31.89	86.37	37.52	4710.6	13.59	85.06	0.195101
3-18	47.250	0.3125	65	Slip	57.00	4,549	33.45	81.62	32.87	4560.0	17.46	107.04	24.23	128.87	23.72	1714.9	12.26	77.54	0.195101
4-18	22.877	0.2500	65	Slip	45.00	1,420	25.46	125.12	20.01	1606.8	16.55	101.85	21.00	148.00	16.46	895.7	13.40	84.00	0.195101
Shaft Weight						22,062													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Distance From Face (ft)	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor
160.00	Andrew E15S09P94	3	0.000	0.000	14.60	0.660	0.50
160.00	Andrew SBNHH-1D65B	3	0.000	0.000	50.70	8.170	0.69
160.00	Commscope ATSBT-TOP-MF-4G	3	0.000	0.000	1.80	0.200	0.50
160.00	RFS ATMAP1412D-1A20	3	0.000	0.000	13.00	1.000	0.50
148.00	CCI OPA-65R-LCUU-H6	3	0.000	4.000	73.00	9.660	0.66
148.00	Ericsson RRUS 11 (Band 12) (55	3	0.000	4.000	55.00	2.520	0.67
148.00	Ericsson RRUS 32	3	0.000	4.000	50.80	2.690	0.67
148.00	Ericsson RRUS 32 B2	3	0.000	4.000	53.00	2.740	0.67
148.00	Ericsson RRUS 32 B66	3	0.000	4.000	53.00	2.740	0.67
148.00	Ericsson RRUS 4478 B14	3	0.000	4.000	59.90	1.840	0.50
148.00	Flat Platform w/ Handrails	1	0.000	0.000	2000.00	42.400	1.00
148.00	Kaelus DBC0061F1V51-2	6	0.000	4.000	25.50	0.510	0.50
148.00	Kathrein 80010965	3	0.000	4.000	97.60	13.810	0.62
148.00	Pipe Mount	1	0.000	4.000	200.00	6.400	1.00
148.00	Powerwave Allgon 7770.00	3	0.000	4.000	35.00	5.510	0.65
148.00	Powerwave Allgon LGP21401	6	0.000	4.000	14.10	1.100	0.50
148.00	Quintel QS66512-2	3	0.000	4.000	111.00	8.130	0.74
148.00	Raycap DC6-48-60-0-8F (24" Hei	1	0.000	4.000	32.80	1.280	1.00
148.00	Raycap DC6-48-60-18-8F	1	0.000	4.000	20.00	1.110	1.00
148.00	Raycap DC6-48-60-18-8F (23.5"	1	0.000	4.000	20.00	1.110	1.00
143.00	Alcatel-Lucent RRH2x60 700	4	0.000	0.000	56.70	2.150	0.67
143.00	Alcatel-Lucent RRH2X60-1900	4	0.000	0.000	43.00	1.880	0.50
143.00	Alcatel-Lucent RRH4x45-B66 w/o	4	0.000	0.000	63.30	2.470	0.67
143.00	Antel BXA-70063/6CF __ 2°	2	0.000	0.000	17.00	7.570	0.65
143.00	Antel BXA-80063-6BF-EDIN-X	1	0.000	0.000	19.20	7.260	0.66
143.00	Antel BXA-80080/6CF	1	0.000	0.000	22.00	7.780	0.65
143.00	Commscope SBNHH-1D45B	4	0.000	0.000	61.70	11.400	0.63
143.00	Commscope SBNHH-1D65B	4	0.000	0.000	50.70	8.170	0.69
143.00	Flat Low Profile Platform	1	0.000	0.000	1500.00	26.100	1.00
143.00	RFS DB-T1-6Z-8AB-OZ	2	0.000	0.000	44.00	4.800	0.67
143.00	RFS FD9R6004	6	0.000	0.000	3.10	0.370	0.50
132.00	Decibel DB844H90E-XY	9	0.000	0.000	14.00	3.610	0.74
132.00	Flat Low Profile Platform	1	0.000	0.000	1500.00	26.100	1.00
132.00	KMW AM-X-WM-17-65-00T (48")	3	0.000	0.000	14.20	3.360	0.64
132.00	KMW KMDAPS2040000 (E-F	3	0.000	0.000	15.90	0.970	0.50
120.00	Alcatel-Lucent 4x40W RRH (91 I	3	0.000	0.000	91.00	3.290	0.67
120.00	Alcatel-Lucent 800 MHz 2X50W R	3	0.000	0.000	64.00	2.060	0.67
120.00	Alcatel-Lucent RRH2x50-08	3	0.000	0.000	52.90	1.700	0.50
120.00	Commscope DT465B-2XR	3	0.000	0.000	58.00	9.100	0.69
120.00	Flat Low Profile Platform	1	0.000	0.000	1500.00	26.100	1.00
120.00	RFS APXVSP18-C-A20	3	0.000	0.000	57.00	8.020	0.69
120.00	TD-RRH8x20-25 w/ Solar Shield	3	0.000	0.000	70.00	4.050	0.67
100.00	Antel BCD-87010 __ 4°	1	0.000	5.000	26.50	2.900	1.00
100.00	Flat Side Arm	1	0.000	0.000	150.00	6.300	1.00
75.00	PCTEL GPS-TMG-HR-26N	1	0.000	0.000	0.60	0.090	1.00
75.00	Round Side Arm	1	0.000	0.000	150.00	5.200	1.00

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Totals Num Loadings:46 128 12021.10

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
10.00	160.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
10.00	160.00	12	1 5/8" Coax	1.98	0.82	N	3.96	Y	T-Mobile
10.00	148.00	2	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
10.00	148.00	6	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
10.00	148.00	12	1 1/4" Coax	1.55	0.63	N	0.00	N	AT&T Mobility
10.00	148.00	1	3" Conduit	3.50	7.58	N	0.00	N	AT&T Mobility
10.00	143.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
10.00	143.00	2	1 5/8" Hybriflex	1.98	1.30	N	0.00	Y	Verizon
10.00	132.00	9	1 1/4" Coax	1.55	0.63	N	0.00	N	Sprint Nextel
10.00	132.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	Sprint Nextel
10.00	120.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	Y	Sprint Nextel
10.00	120.00	1	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	Y	Sprint Nextel
0.00	113.25	4	DYWIDAG	2.50	16.70	N	1.66	Y	-
10.00	100.00	1	7/8" Coax	1.09	0.33	N	0.00	Y	Sensus USA
10.00	75.00	1	1/2" Coax	0.63	0.15	N	0.00	Y	Sprint Nextel

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connections Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	105.1	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.4375	48.000	66.044	18,876.3	17.93	109.71	80.3	774.6	0.0	0.0	19.64	7,401	0.0
5.00		0.4375	47.024	64.690	17,738.5	17.54	107.48	80.8	743.0	0.0	1,112.1	19.64	7,141	334.0
10.00		0.4375	46.049	63.335	16,647.3	17.15	105.25	81.2	712.0	0.0	1,089.1	19.64	6,885	334.0
15.00		0.4375	45.073	61.980	15,601.9	16.76	103.03	81.7	681.8	0.0	1,066.1	19.64	6,634	334.0
20.00		0.4375	44.098	60.626	14,601.2	16.36	100.80	82.2	652.2	0.0	1,043.0	19.64	6,387	334.0
25.00		0.4375	43.122	59.271	13,644.2	15.97	98.57	82.6	623.2	0.0	1,020.0	19.64	6,145	334.0
30.00		0.4375	42.147	57.917	12,729.9	15.58	96.34	82.6	594.9	0.0	996.9	19.64	5,908	334.0
35.00		0.4375	41.171	56.562	11,857.5	15.18	94.11	82.6	567.3	0.0	973.9	19.64	5,676	334.0
40.00		0.4375	40.196	55.208	11,025.8	14.79	91.88	82.6	540.3	0.0	950.8	19.64	5,448	334.0
41.16	Bot - Section 2	0.4375	39.969	54.892	10,838.1	14.70	91.36	82.6	534.1	0.0	217.9	19.64	5,396	77.7
45.00		0.4375	39.220	53.853	10,234.0	14.40	89.65	82.6	513.9	0.0	1,330.9	19.64	5,396	256.3
46.83	Top - Section 1	0.3750	39.613	46.702	9,084.7	17.22	105.64	81.2	451.7	0.0	625.9	19.64	5,314	122.2
50.00		0.3750	38.995	45.966	8,661.8	16.93	103.99	81.5	437.5	0.0	499.8	19.64	5,174	211.8
55.00		0.3750	38.019	44.805	8,021.9	16.47	101.39	82.0	415.6	0.0	772.2	19.64	4,956	334.0
60.00		0.3750	37.044	43.644	7,414.3	16.01	98.78	82.6	394.2	0.0	752.4	19.64	4,744	334.0
65.00		0.3750	36.068	42.483	6,838.2	15.55	96.18	82.6	373.4	0.0	732.7	19.64	4,536	334.0
70.00		0.3750	35.093	41.321	6,292.7	15.09	93.58	82.6	353.2	0.0	712.9	19.64	4,332	334.0
75.00		0.3750	34.117	40.160	5,777.0	14.63	90.98	82.6	333.5	0.0	693.2	19.64	4,134	334.0
80.00		0.3750	33.142	38.999	5,290.3	14.17	88.38	82.6	314.4	0.0	673.4	19.64	3,940	334.0
81.62	Bot - Section 3	0.3750	32.825	38.622	5,138.4	14.02	87.53	82.6	308.3	0.0	214.4	19.64	3,878	108.4
85.00		0.3750	32.166	37.838	4,831.7	13.71	85.78	82.6	295.9	0.0	813.2	19.64	3,871	225.6
86.37	Top - Section 2	0.3125	32.523	31.948	4,188.0	16.94	104.08	81.5	253.6	0.0	326.0	19.64	3,819	91.7
90.00		0.3125	31.816	31.246	3,918.0	16.54	101.81	81.9	242.6	0.0	389.9	19.64	3,683	242.3
95.00		0.3125	30.840	30.279	3,565.2	15.99	98.69	82.6	227.7	0.0	523.4	19.64	3,500	334.0
100.0		0.3125	29.865	29.311	3,234.2	15.44	95.57	82.6	213.3	0.0	506.9	19.64	3,322	334.0
105.0		0.3125	28.889	28.344	2,924.4	14.89	92.45	82.6	199.4	0.0	490.5	19.64	3,148	334.0
105.1	Reinf. Top	0.3125	28.865	28.319	2,916.9	14.88	92.37	82.6	199.0	0.0	12.1	19.64	3,144	8.3
110.0		0.3125	27.914	27.376	2,635.0	14.34	89.32	82.6	185.9	0.0	462.0			
115.0		0.3125	26.938	26.409	2,365.4	13.79	86.20	82.6	172.9	0.0	457.5			
120.0		0.3125	25.963	25.441	2,114.8	13.24	83.08	82.6	160.4	0.0	441.1			
125.0		0.3125	24.987	24.473	1,882.6	12.69	79.96	82.6	148.4	0.0	424.6			
125.1	Bot - Section 4	0.3125	24.963	24.450	1,877.1	12.67	79.88	82.6	148.1	0.0	10.3			
128.8	Top - Section 3	0.2500	24.732	19.425	1,471.0	16.03	98.93	82.5	117.1	0.0	558.9			
130.0		0.2500	24.512	19.251	1,431.7	15.88	98.05	82.6	115.0	0.0	74.1			
132.0		0.2500	24.122	18.941	1,363.7	15.60	96.49	82.6	111.4	0.0	130.0			
135.0		0.2500	23.536	18.477	1,265.9	15.19	94.15	82.6	105.9	0.0	191.0			
140.0		0.2500	22.561	17.703	1,113.3	14.50	90.24	82.6	97.2	0.0	307.8			
143.0		0.2500	21.976	17.239	1,028.0	14.09	87.90	82.6	92.1	0.0	178.3			
145.0		0.2500	21.585	16.929	973.6	13.81	86.34	82.6	88.8	0.0	116.3			
148.0		0.2500	21.000	16.465	895.7	13.40	84.00	82.6	84.0	0.0	170.4			
											22,061.8			
												7,022.3		

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:21 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W

93 mph with No Ice

23 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		169.3	0.0					0.0	0.0	169.3	0.0	0.0	0.0
5.00		335.1	1,334.6					0.0	801.6	335.1	2,136.2	0.0	0.0
10.00		338.6	1,306.9					0.0	801.6	338.6	2,108.5	0.0	0.0
15.00		343.2	1,279.3					0.0	1,168.0	343.2	2,447.3	0.0	0.0
20.00		338.3	1,251.6					0.0	1,168.0	338.3	2,419.6	0.0	0.0
25.00		333.5	1,223.9					0.0	1,168.0	333.5	2,392.0	0.0	0.0
30.00		332.5	1,196.3					0.0	1,168.0	332.5	2,364.3	0.0	0.0
35.00		338.4	1,168.6					0.0	1,168.0	338.4	2,336.6	0.0	0.0
40.00		211.8	1,141.0					0.0	1,168.0	211.8	2,309.0	0.0	0.0
41.16	Bot - Section 2	177.4	261.5					0.0	271.8	177.4	533.3	0.0	0.0
45.00		203.1	1,597.1					0.0	896.2	203.1	2,493.4	0.0	0.0
46.83	Top - Section 1	180.4	751.1					0.0	427.5	180.4	1,178.6	0.0	0.0
50.00		296.7	599.8					0.0	740.5	296.7	1,340.3	0.0	0.0
55.00		366.4	926.6					0.0	1,168.0	366.4	2,094.6	0.0	0.0
60.00		369.7	902.9					0.0	1,168.0	369.7	2,070.9	0.0	0.0
65.00		372.2	879.2					0.0	1,168.0	372.2	2,047.2	0.0	0.0
70.00		374.0	855.5					0.0	1,168.0	374.0	2,023.5	0.0	0.0
75.00	Appurtenance(s)	375.1	831.8	178.3	0.0	0.0	180.7	0.0	1,168.0	553.4	2,180.5	0.0	0.0
80.00		248.8	808.1					0.0	1,167.1	248.8	1,975.2	0.0	0.0
81.62	Bot - Section 3	190.3	257.3					0.0	378.9	190.3	636.2	0.0	0.0
85.00		181.9	975.8					0.0	788.2	181.9	1,764.0	0.0	0.0
86.37	Top - Section 2	190.3	391.2					0.0	320.6	190.3	711.8	0.0	0.0
90.00		327.3	467.9					0.0	846.5	327.3	1,314.5	0.0	0.0
95.00		378.6	628.1					0.0	1,167.1	378.6	1,795.2	0.0	0.0
100.00	Appurtenance(s)	377.3	608.3	338.1	0.0	537.9	211.8	0.0	1,167.1	715.4	1,987.2	0.0	0.0
105.00		193.0	588.6					0.0	1,165.1	193.0	1,753.7	0.0	0.0
105.13	Reinf. Top	187.4	14.5					0.0	29.1	187.4	43.6	0.0	0.0
110.00		360.0	554.3					0.0	745.2	360.0	1,299.6	0.0	0.0
115.00		336.5	549.1					0.0	624.0	336.5	1,173.1	0.0	0.0
120.00	Appurtenance(s)	316.6	529.3	2,759.8	0.0	0.0	3,214.4	0.0	363.5	3,076.4	4,107.3	0.0	0.0
125.00		161.3	509.5					0.0	339.5	161.3	849.1	0.0	0.0
125.12	Bot - Section 4	123.1	12.3					0.0	8.4	123.1	20.7	0.0	0.0
128.87	Top - Section 3	154.5	670.7					0.0	254.6	154.5	925.4	0.0	0.0
130.00		97.7	89.0					0.0	76.5	97.7	165.5	0.0	0.0
132.00	Appurtenance(s)	155.5	156.0	2,046.0	0.0	0.0	2,059.6	0.0	135.8	2,201.4	2,351.3	0.0	0.0
135.00		246.4	229.2					0.0	165.6	246.4	394.8	0.0	0.0
140.00		244.3	369.3					0.0	276.0	244.3	645.3	0.0	0.0
143.00	Appurtenance(s)	151.1	214.0	4,125.9	0.0	0.0	3,340.1	0.0	165.6	4,277.0	3,719.7	0.0	0.0
145.00		149.7	139.5					0.0	80.5	149.7	220.1	0.0	0.0
148.00	Appurtenance(s)	89.6	204.5	5,216.8	0.0	13,926.8	5,130.4	0.0	120.8	5,306.3	5,455.7	0.0	0.0
Totals:										24,981.6	67,784.4	0.00	0.00

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:27 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W

93 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-68.04	-25.74	0.00	-3,077.31	0.00	3,077.31	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.485
5.00	-65.83	-25.59	0.00	-2,948.64	0.00	2,948.64	4,702.37	2,351.19	8,987.95	4,500.65	0.09	-0.16	0.478
10.00	-63.65	-25.42	0.00	-2,820.72	0.00	2,820.72	4,630.27	2,315.13	8,663.09	4,337.98	0.35	-0.33	0.471
15.00	-61.13	-25.24	0.00	-2,693.61	0.00	2,693.61	4,557.03	2,278.52	8,341.98	4,177.19	0.78	-0.49	0.463
20.00	-58.64	-25.05	0.00	-2,567.41	0.00	2,567.41	4,482.67	2,241.34	8,024.78	4,018.36	1.39	-0.66	0.454
25.00	-56.18	-24.85	0.00	-2,442.17	0.00	2,442.17	4,403.56	2,201.78	7,705.28	3,858.37	2.17	-0.83	0.446
30.00	-53.74	-24.64	0.00	-2,317.91	0.00	2,317.91	4,302.92	2,151.46	7,355.37	3,683.15	3.14	-1.00	0.439
35.00	-51.34	-24.42	0.00	-2,194.69	0.00	2,194.69	4,202.28	2,101.14	7,013.59	3,512.01	4.28	-1.18	0.432
40.00	-48.99	-24.24	0.00	-2,072.62	0.00	2,072.62	4,101.65	2,050.82	6,679.95	3,344.94	5.61	-1.35	0.424
41.16	-48.43	-24.13	0.00	-2,044.41	0.00	2,044.41	4,078.23	2,039.12	6,603.48	3,306.65	5.94	-1.39	0.422
45.00	-45.90	-23.94	0.00	-1,951.84	0.00	1,951.84	4,001.01	2,000.51	6,354.43	3,181.94	7.11	-1.52	0.410
46.83	-44.69	-23.80	0.00	-1,908.03	0.00	1,908.03	3,410.94	1,705.47	5,490.25	2,749.21	7.71	-1.59	0.447
50.00	-43.30	-23.57	0.00	-1,832.59	0.00	1,832.59	3,371.32	1,685.66	5,340.15	2,674.05	8.80	-1.70	0.438
55.00	-41.14	-23.27	0.00	-1,714.73	0.00	1,714.73	3,307.92	1,653.96	5,106.10	2,556.85	10.68	-1.88	0.423
60.00	-39.01	-22.96	0.00	-1,598.37	0.00	1,598.37	3,242.50	1,621.25	4,874.14	2,440.69	12.75	-2.06	0.408
65.00	-36.91	-22.62	0.00	-1,483.59	0.00	1,483.59	3,156.24	1,578.12	4,616.98	2,311.92	15.01	-2.24	0.394
70.00	-34.83	-22.27	0.00	-1,370.49	0.00	1,370.49	3,069.98	1,534.99	4,366.78	2,186.64	17.46	-2.42	0.379
75.00	-32.61	-21.72	0.00	-1,259.12	0.00	1,259.12	2,983.72	1,491.86	4,123.56	2,064.84	20.09	-2.60	0.363
80.00	-30.61	-21.44	0.00	-1,150.50	0.00	1,150.50	2,897.46	1,448.73	3,887.31	1,946.54	22.90	-2.77	0.346
81.62	-29.95	-21.27	0.00	-1,115.69	0.00	1,115.69	2,869.45	1,434.73	3,812.10	1,908.88	23.85	-2.83	0.340
85.00	-28.17	-21.04	0.00	-1,043.87	0.00	1,043.87	2,811.20	1,405.60	3,658.02	1,831.73	25.89	-2.94	0.323
86.37	-27.44	-20.85	0.00	-1,014.98	0.00	1,014.98	2,342.68	1,171.34	3,095.01	1,549.81	26.75	-2.99	0.350
90.00	-26.09	-20.52	0.00	-939.37	0.00	939.37	2,304.43	1,152.21	2,976.95	1,490.69	29.06	-3.11	0.332
95.00	-24.26	-20.11	0.00	-836.78	0.00	836.78	2,249.56	1,124.78	2,815.20	1,409.69	32.41	-3.27	0.306
100.00	-22.27	-19.34	0.00	-735.69	0.00	735.69	2,177.68	1,088.84	2,637.27	1,320.60	35.92	-3.43	0.281
105.00	-20.51	-19.07	0.00	-639.00	0.00	639.00	2,105.79	1,052.90	2,465.16	1,234.41	39.60	-3.58	0.255
105.13	-20.45	-18.90	0.00	-636.62	0.00	636.62	2,103.99	1,052.00	2,460.93	1,232.29	39.69	-3.58	0.255
105.13	-20.45	-18.90	0.00	-636.62	0.00	636.62	2,103.99	1,052.00	2,460.93	1,232.29	39.69	-3.58	0.527
110.00	-19.11	-18.53	0.00	-544.48	0.00	544.48	2,033.91	1,016.95	2,298.85	1,151.13	43.42	-3.72	0.483
115.00	-17.88	-18.19	0.00	-451.84	0.00	451.84	1,962.02	981.01	2,138.35	1,070.76	47.46	-3.99	0.431
120.00	-13.95	-14.89	0.00	-360.88	0.00	360.88	1,890.14	945.07	1,983.66	993.30	51.77	-4.23	0.371
125.00	-13.09	-14.69	0.00	-286.45	0.00	286.45	1,818.26	909.13	1,834.77	918.75	56.32	-4.45	0.319
125.12	-13.05	-14.58	0.00	-284.64	0.00	284.64	1,816.48	908.24	1,831.17	916.95	56.43	-4.46	0.318
128.87	-12.12	-14.37	0.00	-229.97	0.00	229.97	1,443.09	721.55	1,448.31	725.23	59.99	-4.60	0.326
130.00	-11.95	-14.27	0.00	-213.78	0.00	213.78	1,430.26	715.13	1,422.41	712.26	61.08	-4.64	0.309
132.00	-9.77	-11.90	0.00	-185.23	0.00	185.23	1,407.26	703.63	1,376.79	689.42	63.04	-4.72	0.276
135.00	-9.37	-11.64	0.00	-149.52	0.00	149.52	1,372.75	686.38	1,309.76	655.86	66.04	-4.83	0.235
140.00	-8.73	-11.36	0.00	-91.30	0.00	91.30	1,315.24	657.62	1,201.77	601.78	71.17	-4.96	0.159
143.00	-5.39	-6.78	0.00	-57.22	0.00	57.22	1,280.74	640.37	1,139.20	570.45	74.31	-5.02	0.105
145.00	-5.18	-6.61	0.00	-43.66	0.00	43.66	1,257.74	628.87	1,098.42	550.03	76.41	-5.05	0.084
148.00	0.00	-6.13	0.00	-23.82	0.00	23.82	1,223.23	611.62	1,038.64	520.09	79.59	-5.08	0.046

Site Number: 302515 Code: ANSI/TIA-222-G ©2007 - 2018 by ATC IP LLC. All rights reserved.
 Site Name: SMFR - North, CT Engineering Number: OAA733621_C3_01 6/15/2018 2:38:27 PM
 Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W 93 mph with No Ice (Reduced DL) 23 Iterations
 Gust Response Factor : 1.10
 Dead Load Factor : 0.90 Wind Importance Factor : 1.00
 Wind Load Factor : 1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		169.3	0.0					0.0	0.0	169.3	0.0	0.0	0.0
5.00		335.1	1,000.9					0.0	601.2	335.1	1,602.1	0.0	0.0
10.00		328.2	980.2					0.0	601.2	328.2	1,581.4	0.0	0.0
15.00		321.2	959.4					0.0	876.0	321.2	1,835.5	0.0	0.0
20.00		314.3	938.7					0.0	876.0	314.3	1,814.7	0.0	0.0
25.00		307.3	918.0					0.0	876.0	307.3	1,794.0	0.0	0.0
30.00		303.9	897.2					0.0	876.0	303.9	1,773.2	0.0	0.0
35.00		306.7	876.5					0.0	876.0	306.7	1,752.5	0.0	0.0
40.00		190.9	855.7					0.0	876.0	190.9	1,731.7	0.0	0.0
41.16	Bot - Section 2	158.7	196.1					0.0	203.8	158.7	399.9	0.0	0.0
45.00		181.1	1,197.8					0.0	672.2	181.1	1,870.0	0.0	0.0
46.83	Top - Section 1	160.5	563.3					0.0	320.6	160.5	884.0	0.0	0.0
50.00		263.0	449.8					0.0	555.4	263.0	1,005.2	0.0	0.0
55.00		322.3	695.0					0.0	876.0	322.3	1,571.0	0.0	0.0
60.00		322.0	677.2					0.0	876.0	322.0	1,553.2	0.0	0.0
65.00		320.8	659.4					0.0	876.0	320.8	1,535.4	0.0	0.0
70.00		318.8	641.6					0.0	876.0	318.8	1,517.6	0.0	0.0
75.00	Appurtenance(s)	316.1	623.8	178.3	0.0	0.0	135.5	0.0	876.0	494.4	1,635.4	0.0	0.0
80.00		208.0	606.1					0.0	875.3	208.0	1,481.4	0.0	0.0
81.62	Bot - Section 3	157.5	192.9					0.0	284.2	157.5	477.1	0.0	0.0
85.00		150.0	731.8					0.0	591.1	150.0	1,323.0	0.0	0.0
86.37	Top - Section 2	156.4	293.4					0.0	240.4	156.4	533.8	0.0	0.0
90.00		267.4	350.9					0.0	634.9	267.4	985.8	0.0	0.0
95.00		305.7	471.1					0.0	875.3	305.7	1,346.4	0.0	0.0
100.00	Appurtenance(s)	300.4	456.2	338.1	0.0	537.9	158.8	0.0	875.3	638.5	1,490.4	0.0	0.0
105.00		152.5	441.4					0.0	873.8	152.5	1,315.3	0.0	0.0
105.13	Reinf. Top	145.9	10.8					0.0	21.8	145.9	32.7	0.0	0.0
110.00		284.9	415.8					0.0	558.9	284.9	974.7	0.0	0.0
115.00		282.0	411.8					0.0	468.0	282.0	879.8	0.0	0.0
120.00	Appurtenance(s)	275.1	397.0	2,759.8	0.0	0.0	2,410.8	0.0	272.6	3,034.9	3,080.5	0.0	0.0
125.00		139.1	382.2					0.0	254.6	139.1	636.8	0.0	0.0
125.12	Bot - Section 4	104.7	9.2					0.0	6.3	104.7	15.5	0.0	0.0
128.87	Top - Section 3	131.4	503.0					0.0	191.0	131.4	694.0	0.0	0.0
130.00		82.9	66.7					0.0	57.4	82.9	124.1	0.0	0.0
132.00	Appurtenance(s)	131.0	117.0	2,046.0	0.0	0.0	1,544.7	0.0	101.9	2,176.9	1,763.5	0.0	0.0
135.00		205.1	171.9					0.0	124.2	205.1	296.1	0.0	0.0
140.00		201.2	277.0					0.0	207.0	201.2	484.0	0.0	0.0
143.00	Appurtenance(s)	122.9	160.5	4,125.9	0.0	0.0	2,505.1	0.0	124.2	4,248.7	2,789.8	0.0	0.0
145.00		120.3	104.6					0.0	60.4	120.3	165.0	0.0	0.0
148.00	Appurtenance(s)	71.7	153.4	5,216.8	0.0	13,926.8	3,847.8	0.0	90.6	5,288.4	4,091.8	0.0	0.0
Totals:										23,601.0	50,838.3	0.00	0.00

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:33 PM

Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W

93 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-51.02	-24.33	0.00	-2,908.20	0.00	2,908.20	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.456
5.00	-49.35	-24.12	0.00	-2,786.57	0.00	2,786.57	4,702.37	2,351.19	8,987.95	4,500.65	0.08	-0.15	0.450
10.00	-47.71	-23.92	0.00	-2,665.96	0.00	2,665.96	4,630.27	2,315.13	8,663.09	4,337.98	0.33	-0.31	0.443
15.00	-45.81	-23.71	0.00	-2,546.38	0.00	2,546.38	4,557.03	2,278.52	8,341.98	4,177.19	0.74	-0.47	0.435
20.00	-43.93	-23.50	0.00	-2,427.82	0.00	2,427.82	4,482.67	2,241.34	8,024.78	4,018.36	1.31	-0.63	0.428
25.00	-42.08	-23.29	0.00	-2,310.32	0.00	2,310.32	4,403.56	2,201.78	7,705.28	3,858.37	2.06	-0.79	0.420
30.00	-40.24	-23.07	0.00	-2,193.86	0.00	2,193.86	4,302.92	2,151.46	7,355.37	3,683.15	2.97	-0.95	0.414
35.00	-38.43	-22.85	0.00	-2,078.49	0.00	2,078.49	4,202.28	2,101.14	7,013.59	3,512.01	4.05	-1.11	0.407
40.00	-36.67	-22.68	0.00	-1,964.27	0.00	1,964.27	4,101.65	2,050.82	6,679.95	3,344.94	5.30	-1.28	0.400
41.16	-36.24	-22.57	0.00	-1,937.88	0.00	1,937.88	4,078.23	2,039.12	6,603.48	3,306.65	5.62	-1.32	0.398
45.00	-34.33	-22.40	0.00	-1,851.29	0.00	1,851.29	4,001.01	2,000.51	6,354.43	3,181.94	6.73	-1.44	0.387
46.83	-33.42	-22.26	0.00	-1,810.30	0.00	1,810.30	3,410.94	1,705.47	5,490.25	2,749.21	7.29	-1.50	0.423
50.00	-32.37	-22.05	0.00	-1,739.72	0.00	1,739.72	3,371.32	1,685.66	5,340.15	2,674.05	8.33	-1.61	0.414
55.00	-30.74	-21.78	0.00	-1,629.46	0.00	1,629.46	3,307.92	1,653.96	5,106.10	2,556.85	10.10	-1.78	0.401
60.00	-29.14	-21.49	0.00	-1,520.58	0.00	1,520.58	3,242.50	1,621.25	4,874.14	2,440.69	12.06	-1.95	0.386
65.00	-27.55	-21.20	0.00	-1,413.12	0.00	1,413.12	3,156.24	1,578.12	4,616.98	2,311.92	14.20	-2.13	0.374
70.00	-25.99	-20.90	0.00	-1,307.12	0.00	1,307.12	3,069.98	1,534.99	4,366.78	2,186.64	16.52	-2.30	0.360
75.00	-24.31	-20.41	0.00	-1,202.63	0.00	1,202.63	2,983.72	1,491.86	4,123.56	2,064.84	19.02	-2.46	0.345
80.00	-22.81	-20.18	0.00	-1,100.59	0.00	1,100.59	2,897.46	1,448.73	3,887.31	1,946.54	21.68	-2.63	0.329
81.62	-22.31	-20.03	0.00	-1,067.83	0.00	1,067.83	2,869.45	1,434.73	3,812.10	1,908.88	22.59	-2.68	0.324
85.00	-20.97	-19.85	0.00	-1,000.20	0.00	1,000.20	2,811.20	1,405.60	3,658.02	1,831.73	24.53	-2.79	0.308
86.37	-20.41	-19.69	0.00	-972.94	0.00	972.94	2,342.68	1,171.34	3,095.01	1,549.81	25.34	-2.84	0.334
90.00	-19.40	-19.42	0.00	-901.53	0.00	901.53	2,304.43	1,152.21	2,976.95	1,490.69	27.54	-2.95	0.317
95.00	-18.02	-19.09	0.00	-804.43	0.00	804.43	2,249.56	1,124.78	2,815.20	1,409.69	30.71	-3.11	0.293
100.00	-16.52	-18.42	0.00	-708.42	0.00	708.42	2,177.68	1,088.84	2,637.27	1,320.60	34.05	-3.26	0.269
105.00	-15.19	-18.21	0.00	-616.34	0.00	616.34	2,105.79	1,052.90	2,465.16	1,234.41	37.55	-3.41	0.245
105.13	-15.14	-18.08	0.00	-614.07	0.00	614.07	2,103.99	1,052.00	2,460.93	1,232.29	37.64	-3.41	0.244
105.13	-15.14	-18.08	0.00	-614.07	0.00	614.07	2,103.99	1,052.00	2,460.93	1,232.29	37.64	-3.41	0.506
110.00	-14.13	-17.78	0.00	-525.94	0.00	525.94	2,033.91	1,016.95	2,298.85	1,151.13	41.19	-3.54	0.464
115.00	-13.19	-17.50	0.00	-437.03	0.00	437.03	1,962.02	981.01	2,138.35	1,070.76	45.04	-3.80	0.415
120.00	-10.27	-14.30	0.00	-349.52	0.00	349.52	1,890.14	945.07	1,983.66	993.30	49.15	-4.04	0.358
125.00	-9.62	-14.14	0.00	-278.01	0.00	278.01	1,818.26	909.13	1,834.77	918.75	53.49	-4.25	0.308
125.12	-9.59	-14.04	0.00	-276.26	0.00	276.26	1,816.48	908.24	1,831.17	916.95	53.60	-4.25	0.307
128.87	-8.89	-13.87	0.00	-223.60	0.00	223.60	1,443.09	721.55	1,448.31	725.23	56.99	-4.40	0.315
130.00	-8.76	-13.79	0.00	-207.97	0.00	207.97	1,430.26	715.13	1,422.41	712.26	58.04	-4.44	0.298
132.00	-7.15	-11.49	0.00	-180.39	0.00	180.39	1,407.26	703.63	1,376.79	689.42	59.91	-4.51	0.267
135.00	-6.85	-11.28	0.00	-145.91	0.00	145.91	1,372.75	686.38	1,309.76	655.86	62.78	-4.62	0.228
140.00	-6.36	-11.05	0.00	-89.51	0.00	89.51	1,315.24	657.62	1,201.77	601.78	67.68	-4.75	0.154
143.00	-3.93	-6.59	0.00	-56.36	0.00	56.36	1,280.74	640.37	1,139.20	570.45	70.68	-4.80	0.102
145.00	-3.78	-6.46	0.00	-43.18	0.00	43.18	1,257.74	628.87	1,098.42	550.03	72.70	-4.83	0.082
148.00	0.00	-6.11	0.00	-23.82	0.00	23.82	1,223.23	611.62	1,038.64	520.09	75.74	-4.86	0.046

Site Number: 302515

Site Name: SMFR - North, CT

Customer: SPRINT NEXTEL

Code: ANSI/TIA-222-G

Engineering Number: OAA733621_C3_01

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6/15/2018 2:38:33 PM

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

23 Iterations

Gust Response Factor : 1.10

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		59.2	0.0										
5.00		117.5	1,684.4					0.0	0.0	59.2	0.0	0.0	0.0
10.00		115.7	1,690.5					0.0	865.3	117.5	2,549.7	0.0	0.0
15.00		113.6	1,675.2					0.0	872.5	115.7	2,563.0	0.0	0.0
20.00		111.5	1,652.9					0.0	1,526.6	113.6	3,201.8	0.0	0.0
25.00		109.3	1,626.9					0.0	1,540.4	111.5	3,193.2	0.0	0.0
30.00		108.4	1,598.7					0.0	1,551.1	109.3	3,178.0	0.0	0.0
35.00		109.7	1,568.9					0.0	1,559.9	108.4	3,158.6	0.0	0.0
40.00		68.4	1,537.9					0.0	1,567.5	109.7	3,136.4	0.0	0.0
41.16	Bot - Section 2	56.9	354.1					0.0	1,574.1	68.4	3,112.0	0.0	0.0
45.00		65.0	1,904.4					0.0	367.1	56.9	721.2	0.0	0.0
46.83	Top - Section 1	57.7	897.4					0.0	1,212.9	65.0	3,117.3	0.0	0.0
50.00		94.7	850.7					0.0	579.6	57.7	1,477.0	0.0	0.0
55.00		116.3	1,316.2					0.0	1,005.7	94.7	1,856.4	0.0	0.0
60.00		116.5	1,286.5					0.0	1,590.2	116.3	2,906.4	0.0	0.0
65.00		116.4	1,256.4					0.0	1,594.7	116.5	2,881.2	0.0	0.0
70.00		116.0	1,225.9					0.0	1,598.8	116.4	2,855.2	0.0	0.0
75.00	Appurtenance(s)	115.3	1,195.0	48.6	0.0	0.0	225.5	0.0	1,602.7	116.0	2,828.6	0.0	0.0
80.00		76.0	1,163.9					0.0	1,606.4	164.0	3,026.9	0.0	0.0
81.62	Bot - Section 3	57.7	372.2					0.0	1,588.4	76.0	2,752.3	0.0	0.0
85.00		54.9	1,215.4					0.0	516.4	57.7	888.6	0.0	0.0
86.37	Top - Section 2	57.4	488.2					0.0	1,075.1	54.9	2,290.5	0.0	0.0
90.00		98.4	719.5					0.0	437.6	57.4	925.8	0.0	0.0
95.00		112.8	966.5					0.0	1,156.7	98.4	1,876.2	0.0	0.0
100.00	Appurtenance(s)	111.3	938.4	101.2	0.0	220.0	329.9	0.0	1,597.0	112.8	2,563.6	0.0	0.0
105.00		56.6	910.1					0.0	1,599.7	212.5	2,867.9	0.0	0.0
105.13	Reinf. Top	54.3	22.5					0.0	1,575.3	56.6	2,485.4	0.0	0.0
110.00		106.4	859.4					0.0	39.4	54.3	61.9	0.0	0.0
115.00		105.8	853.1					0.0	1,147.3	106.4	2,006.7	0.0	0.0
120.00	Appurtenance(s)	103.6	824.3	736.4	0.0	0.0	5,789.4	0.0	1,005.7	105.8	1,858.7	0.0	0.0
125.00		52.5	795.4					0.0	685.7	840.0	7,299.3	0.0	0.0
125.12	Bot - Section 4	39.6	19.4					0.0	582.5	52.5	1,377.9	0.0	0.0
128.87	Top - Section 3	49.8	883.9					0.0	14.4	39.6	33.8	0.0	0.0
130.00		31.5	152.6					0.0	437.6	49.8	1,321.5	0.0	0.0
132.00	Appurtenance(s)	49.9	267.4	542.5	0.0	0.0	3,660.5	0.0	131.6	31.5	284.2	0.0	0.0
135.00		78.4	392.9					0.0	233.7	592.3	4,161.6	0.0	0.0
140.00		77.2	632.4					0.0	312.7	78.4	705.6	0.0	0.0
143.00	Appurtenance(s)	47.3	368.5	1,076.1	0.0	0.0	7,488.0	0.0	522.0	77.2	1,154.4	0.0	0.0
145.00		46.5	241.0					0.0	313.6	1,123.4	8,170.2	0.0	0.0
148.00	Appurtenance(s)	27.8	353.2	1,299.7	0.0	3,325.2	11,950.9	0.0	160.0	46.5	401.0	0.0	0.0
								0.0	240.2	1,327.5	12,544.3	0.0	0.0
Totals:										7,068.21	103,794.	0.00	0.00

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:40 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

23 Iterations

Gust Response Factor : 1.10

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-104.56	-7.26	0.00	-880.04	0.00	880.04	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.152
5.00	-102.01	-7.23	0.00	-843.73	0.00	843.73	4,702.37	2,351.19	8,987.95	4,500.65	0.03	-0.05	0.150
10.00	-99.44	-7.19	0.00	-807.58	0.00	807.58	4,630.27	2,315.13	8,663.09	4,337.98	0.10	-0.09	0.148
15.00	-96.23	-7.15	0.00	-771.62	0.00	771.62	4,557.03	2,278.52	8,341.98	4,177.19	0.22	-0.14	0.146
20.00	-93.03	-7.11	0.00	-735.86	0.00	735.86	4,482.67	2,241.34	8,024.78	4,018.36	0.40	-0.19	0.143
25.00	-89.85	-7.07	0.00	-700.31	0.00	700.31	4,403.56	2,201.78	7,705.28	3,858.37	0.62	-0.24	0.140
30.00	-86.68	-7.02	0.00	-664.98	0.00	664.98	4,302.92	2,151.46	7,355.37	3,683.15	0.90	-0.29	0.138
35.00	-83.54	-6.96	0.00	-629.89	0.00	629.89	4,202.28	2,101.14	7,013.59	3,512.01	1.23	-0.34	0.136
40.00	-80.43	-6.92	0.00	-595.08	0.00	595.08	4,101.65	2,050.82	6,679.95	3,344.94	1.61	-0.39	0.134
41.16	-79.70	-6.89	0.00	-587.03	0.00	587.03	4,078.23	2,039.12	6,603.48	3,306.65	1.70	-0.40	0.133
45.00	-76.58	-6.84	0.00	-560.59	0.00	560.59	4,001.01	2,000.51	6,354.43	3,181.94	2.04	-0.44	0.129
46.83	-75.10	-6.81	0.00	-548.07	0.00	548.07	3,410.94	1,705.47	5,490.25	2,749.21	2.21	-0.46	0.141
50.00	-73.24	-6.75	0.00	-526.50	0.00	526.50	3,371.32	1,685.66	5,340.15	2,674.05	2.52	-0.49	0.138
55.00	-70.33	-6.67	0.00	-492.75	0.00	492.75	3,307.92	1,653.96	5,106.10	2,556.85	3.06	-0.54	0.134
60.00	-67.44	-6.59	0.00	-459.40	0.00	459.40	3,242.50	1,621.25	4,874.14	2,440.69	3.65	-0.59	0.129
65.00	-64.59	-6.50	0.00	-426.46	0.00	426.46	3,156.24	1,578.12	4,616.98	2,311.92	4.30	-0.64	0.125
70.00	-61.75	-6.40	0.00	-393.97	0.00	393.97	3,069.98	1,534.99	4,366.78	2,186.64	5.00	-0.70	0.120
75.00	-58.72	-6.25	0.00	-361.95	0.00	361.95	2,983.72	1,491.86	4,123.56	2,064.84	5.76	-0.75	0.115
80.00	-55.97	-6.17	0.00	-330.68	0.00	330.68	2,897.46	1,448.73	3,887.31	1,946.54	6.57	-0.80	0.110
81.62	-55.08	-6.13	0.00	-320.66	0.00	320.66	2,869.45	1,434.73	3,812.10	1,908.88	6.84	-0.81	0.108
85.00	-52.79	-6.06	0.00	-299.97	0.00	299.97	2,811.20	1,405.60	3,658.02	1,831.73	7.43	-0.84	0.103
86.37	-51.86	-6.01	0.00	-291.65	0.00	291.65	2,342.68	1,171.34	3,095.01	1,549.81	7.67	-0.86	0.112
90.00	-49.98	-5.92	0.00	-269.85	0.00	269.85	2,304.43	1,152.21	2,976.95	1,490.69	8.34	-0.89	0.107
95.00	-47.41	-5.80	0.00	-240.26	0.00	240.26	2,249.56	1,124.78	2,815.20	1,409.69	9.30	-0.94	0.099
100.00	-44.55	-5.58	0.00	-211.02	0.00	211.02	2,177.68	1,088.84	2,637.27	1,320.60	10.31	-0.99	0.091
105.00	-42.06	-5.49	0.00	-183.14	0.00	183.14	2,105.79	1,052.90	2,465.16	1,234.41	11.36	-1.03	0.083
105.13	-42.00	-5.45	0.00	-182.45	0.00	182.45	2,103.99	1,052.00	2,460.93	1,232.29	11.39	-1.03	0.083
105.13	-42.00	-5.45	0.00	-182.45	0.00	182.45	2,103.99	1,052.00	2,460.93	1,232.29	11.39	-1.03	0.168
110.00	-39.99	-5.35	0.00	-155.87	0.00	155.87	2,033.91	1,016.95	2,298.85	1,151.13	12.46	-1.07	0.155
115.00	-38.12	-5.26	0.00	-129.12	0.00	129.12	1,962.02	981.01	2,138.35	1,070.76	13.62	-1.14	0.140
120.00	-30.84	-4.30	0.00	-102.84	0.00	102.84	1,890.14	945.07	1,983.66	993.30	14.86	-1.21	0.120
125.00	-29.46	-4.24	0.00	-81.33	0.00	81.33	1,818.26	909.13	1,834.77	918.75	16.16	-1.28	0.105
125.12	-29.42	-4.21	0.00	-80.81	0.00	80.81	1,816.48	908.24	1,831.17	916.95	16.20	-1.28	0.104
128.87	-28.10	-4.14	0.00	-65.03	0.00	65.03	1,443.09	721.55	1,448.31	725.23	17.22	-1.32	0.109
130.00	-27.82	-4.11	0.00	-60.37	0.00	60.37	1,430.26	715.13	1,422.41	712.26	17.53	-1.33	0.104
132.00	-23.67	-3.43	0.00	-52.15	0.00	52.15	1,407.26	703.63	1,376.79	689.42	18.09	-1.35	0.092
135.00	-22.96	-3.35	0.00	-41.86	0.00	41.86	1,372.75	686.38	1,309.76	655.86	18.95	-1.38	0.081
140.00	-21.81	-3.25	0.00	-25.11	0.00	25.11	1,315.24	657.62	1,201.77	601.78	20.42	-1.42	0.058
143.00	-13.67	-1.93	0.00	-15.35	0.00	15.35	1,280.74	640.37	1,139.20	570.45	21.32	-1.44	0.038
145.00	-13.27	-1.87	0.00	-11.49	0.00	11.49	1,257.74	628.87	1,098.42	550.03	21.92	-1.44	0.031
148.00	0.00	-1.54	0.00	-5.86	0.00	5.86	1,223.23	611.62	1,038.64	520.09	22.83	-1.45	0.011

Site Number: 302515 Code: ANSI/TIA-222-G ©2007 - 2018 by ATC IP LLC. All rights reserved.
 Site Name: SMFR - North, CT Engineering Number: OAA733621_C3_01 6/15/2018 2:38:40 PM
 Customer: SPRINT NEXTEL

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		44.0	0.0					0.0	0.0	44.0	0.0	0.0	0.0
5.00		87.2	1,112.1					0.0	668.0	87.2	1,780.1	0.0	0.0
10.00		85.4	1,089.1					0.0	668.0	85.4	1,757.1	0.0	0.0
15.00		83.6	1,066.1					0.0	973.3	83.6	2,039.4	0.0	0.0
20.00		81.8	1,043.0					0.0	973.3	81.8	2,016.3	0.0	0.0
25.00		79.9	1,020.0					0.0	973.3	79.9	1,993.3	0.0	0.0
30.00		79.1	996.9					0.0	973.3	79.1	1,970.3	0.0	0.0
35.00		79.8	973.9					0.0	973.3	79.8	1,947.2	0.0	0.0
40.00		49.7	950.8					0.0	973.3	49.7	1,924.2	0.0	0.0
41.16	Bot - Section 2	41.3	217.9					0.0	226.5	41.3	444.4	0.0	0.0
45.00		47.1	1,330.9					0.0	746.9	47.1	2,077.8	0.0	0.0
46.83	Top - Section 1	41.8	625.9					0.0	356.2	41.8	982.2	0.0	0.0
50.00		68.4	499.8					0.0	617.1	68.4	1,116.9	0.0	0.0
55.00		83.9	772.2					0.0	973.3	83.9	1,745.5	0.0	0.0
60.00		83.8	752.4					0.0	973.3	83.8	1,725.8	0.0	0.0
65.00		83.4	732.7					0.0	973.3	83.4	1,706.0	0.0	0.0
70.00		82.9	712.9					0.0	973.3	82.9	1,686.3	0.0	0.0
75.00	Appurtenance(s)	82.2	693.2	46.4	0.0	0.0	150.6	0.0	973.3	128.6	1,817.1	0.0	0.0
80.00		54.1	673.4					0.0	972.6	54.1	1,646.0	0.0	0.0
81.62	Bot - Section 3	41.0	214.4					0.0	315.8	41.0	530.2	0.0	0.0
85.00		39.0	813.2					0.0	656.8	39.0	1,470.0	0.0	0.0
86.37	Top - Section 2	40.7	326.0					0.0	267.1	40.7	593.1	0.0	0.0
90.00		69.6	389.9					0.0	705.5	69.6	1,095.4	0.0	0.0
95.00		79.5	523.4					0.0	972.6	79.5	1,496.0	0.0	0.0
100.00	Appurtenance(s)	78.2	506.9	87.9	0.0	139.9	176.5	0.0	972.6	166.1	1,656.0	0.0	0.0
105.00		39.7	490.5					0.0	970.9	39.7	1,461.4	0.0	0.0
105.13	Reinf. Top	37.9	12.1					0.0	24.3	37.9	36.3	0.0	0.0
110.00		74.1	462.0					0.0	621.0	74.1	1,083.0	0.0	0.0
115.00		73.4	457.5					0.0	520.0	73.4	977.6	0.0	0.0
120.00	Appurtenance(s)	71.6	441.1	717.9	0.0	0.0	2,678.7	0.0	302.9	789.5	3,422.7	0.0	0.0
125.00		36.2	424.6					0.0	282.9	36.2	707.6	0.0	0.0
125.12	Bot - Section 4	27.2	10.3					0.0	7.0	27.2	17.2	0.0	0.0
128.87	Top - Section 3	34.2	558.9					0.0	212.2	34.2	771.1	0.0	0.0
130.00		21.6	74.1					0.0	63.8	21.6	137.9	0.0	0.0
132.00	Appurtenance(s)	34.1	130.0	532.2	0.0	0.0	1,716.3	0.0	113.2	566.3	1,959.4	0.0	0.0
135.00		53.4	191.0					0.0	138.0	53.4	329.0	0.0	0.0
140.00		52.3	307.8					0.0	230.0	52.3	537.8	0.0	0.0
143.00	Appurtenance(s)	32.0	178.3	1,073.3	0.0	0.0	2,783.4	0.0	138.0	1,105.3	3,099.7	0.0	0.0
145.00		31.3	116.3					0.0	67.1	31.3	183.4	0.0	0.0
148.00	Appurtenance(s)	18.6	170.4	1,357.1	0.0	3,623.0	4,275.3	0.0	100.7	1,375.8	4,546.4	0.0	0.0
Totals:										6,139.71	56,487.0	0.00	0.00

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Load Case: 1.0D + 1.0W

Serviceability 60 mph

22 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-56.73	-6.33	0.00	-760.85	0.00	760.85	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.126
5.00	-54.94	-6.28	0.00	-729.20	0.00	729.20	4,702.37	2,351.19	8,987.95	4,500.65	0.02	-0.04	0.124
10.00	-53.18	-6.23	0.00	-697.80	0.00	697.80	4,630.27	2,315.13	8,663.09	4,337.98	0.09	-0.08	0.123
15.00	-51.14	-6.18	0.00	-666.64	0.00	666.64	4,557.03	2,278.52	8,341.98	4,177.19	0.19	-0.12	0.121
20.00	-49.11	-6.13	0.00	-635.73	0.00	635.73	4,482.67	2,241.34	8,024.78	4,018.36	0.34	-0.16	0.118
25.00	-47.12	-6.08	0.00	-605.08	0.00	605.08	4,403.56	2,201.78	7,705.28	3,858.37	0.54	-0.21	0.116
30.00	-45.14	-6.03	0.00	-574.69	0.00	574.69	4,302.92	2,151.46	7,355.37	3,683.15	0.78	-0.25	0.114
35.00	-43.19	-5.97	0.00	-544.56	0.00	544.56	4,202.28	2,101.14	7,013.59	3,512.01	1.06	-0.29	0.112
40.00	-41.26	-5.93	0.00	-514.72	0.00	514.72	4,101.65	2,050.82	6,679.95	3,344.94	1.39	-0.33	0.110
41.16	-40.82	-5.90	0.00	-507.82	0.00	507.82	4,078.23	2,039.12	6,603.48	3,306.65	1.47	-0.34	0.110
45.00	-38.74	-5.86	0.00	-485.19	0.00	485.19	4,001.01	2,000.51	6,354.43	3,181.94	1.76	-0.38	0.107
46.83	-37.75	-5.82	0.00	-474.47	0.00	474.47	3,410.94	1,705.47	5,490.25	2,749.21	1.91	-0.39	0.117
50.00	-36.63	-5.77	0.00	-456.02	0.00	456.02	3,371.32	1,685.66	5,340.15	2,674.05	2.18	-0.42	0.114
55.00	-34.89	-5.70	0.00	-427.17	0.00	427.17	3,307.92	1,653.96	5,106.10	2,556.85	2.65	-0.47	0.111
60.00	-33.16	-5.63	0.00	-398.68	0.00	398.68	3,242.50	1,621.25	4,874.14	2,440.69	3.16	-0.51	0.107
65.00	-31.45	-5.55	0.00	-370.54	0.00	370.54	3,156.24	1,578.12	4,616.98	2,311.92	3.72	-0.56	0.103
70.00	-29.76	-5.48	0.00	-342.78	0.00	342.78	3,069.98	1,534.99	4,366.78	2,186.64	4.33	-0.60	0.099
75.00	-27.94	-5.35	0.00	-315.41	0.00	315.41	2,983.72	1,491.86	4,123.56	2,064.84	4.98	-0.65	0.095
80.00	-26.29	-5.29	0.00	-288.67	0.00	288.67	2,897.46	1,448.73	3,887.31	1,946.54	5.68	-0.69	0.091
81.62	-25.76	-5.25	0.00	-280.09	0.00	280.09	2,869.45	1,434.73	3,812.10	1,908.88	5.92	-0.70	0.090
85.00	-24.29	-5.20	0.00	-262.36	0.00	262.36	2,811.20	1,405.60	3,658.02	1,831.73	6.43	-0.73	0.085
86.37	-23.69	-5.16	0.00	-255.22	0.00	255.22	2,342.68	1,171.34	3,095.01	1,549.81	6.64	-0.74	0.092
90.00	-22.59	-5.09	0.00	-236.50	0.00	236.50	2,304.43	1,152.21	2,976.95	1,490.69	7.21	-0.77	0.088
95.00	-21.10	-5.01	0.00	-211.04	0.00	211.04	2,249.56	1,124.78	2,815.20	1,409.69	8.05	-0.82	0.081
100.00	-19.44	-4.83	0.00	-185.87	0.00	185.87	2,177.68	1,088.84	2,637.27	1,320.60	8.92	-0.86	0.075
105.00	-17.98	-4.77	0.00	-161.72	0.00	161.72	2,105.79	1,052.90	2,465.16	1,234.41	9.84	-0.89	0.068
105.13	-17.94	-4.74	0.00	-161.12	0.00	161.12	2,103.99	1,052.00	2,460.93	1,232.29	9.86	-0.89	0.068
105.13	-17.94	-4.74	0.00	-161.12	0.00	161.12	2,103.99	1,052.00	2,460.93	1,232.29	9.86	-0.89	0.139
110.00	-16.85	-4.66	0.00	-138.01	0.00	138.01	2,033.91	1,016.95	2,298.85	1,151.13	10.79	-0.93	0.128
115.00	-15.87	-4.59	0.00	-114.69	0.00	114.69	1,962.02	981.01	2,138.35	1,070.76	11.80	-1.00	0.115
120.00	-12.46	-3.75	0.00	-91.73	0.00	91.73	1,890.14	945.07	1,983.66	993.30	12.88	-1.06	0.099
125.00	-11.75	-3.71	0.00	-72.95	0.00	72.95	1,818.26	909.13	1,834.77	918.75	14.02	-1.11	0.086
125.12	-11.73	-3.69	0.00	-72.50	0.00	72.50	1,816.48	908.24	1,831.17	916.95	14.05	-1.12	0.086
128.87	-10.96	-3.64	0.00	-58.67	0.00	58.67	1,443.09	721.55	1,448.31	725.23	14.94	-1.15	0.089
130.00	-10.82	-3.62	0.00	-54.56	0.00	54.56	1,430.26	715.13	1,422.41	712.26	15.21	-1.16	0.084
132.00	-8.88	-3.02	0.00	-47.32	0.00	47.32	1,407.26	703.63	1,376.79	689.42	15.71	-1.18	0.075
135.00	-8.55	-2.96	0.00	-38.27	0.00	38.27	1,372.75	686.38	1,309.76	655.86	16.46	-1.21	0.065
140.00	-8.01	-2.90	0.00	-23.45	0.00	23.45	1,315.24	657.62	1,201.77	601.78	17.75	-1.24	0.045
143.00	-4.93	-1.73	0.00	-14.75	0.00	14.75	1,280.74	640.37	1,139.20	570.45	18.53	-1.26	0.030
145.00	-4.75	-1.70	0.00	-11.28	0.00	11.28	1,257.74	628.87	1,098.42	550.03	19.06	-1.27	0.024
148.00	0.00	-1.59	0.00	-6.20	0.00	6.20	1,223.23	611.62	1,038.64	520.09	19.86	-1.27	0.012

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period (S_s):	0.25
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.27
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.51
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	56.73 k
Seismic Base Shear (E):	2.21 k

Load Case $(1.2 + 0.2S_{ds}) * DL + E$ ELFM

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	146.50	271	5,819	0.013	28	340
38	144.00	183	3,803	0.008	18	230
37	141.50	316	6,334	0.014	31	396
36	137.50	538	10,167	0.022	49	674
35	133.50	329	5,863	0.013	29	412
34	131.00	243	4,172	0.009	20	305
33	129.44	138	2,310	0.005	11	173
32	127.00	771	12,437	0.027	60	966
31	125.06	17	270	0.001	1	22
30	122.50	708	10,618	0.023	52	887
29	117.50	744	10,272	0.023	50	932
28	112.50	978	12,373	0.027	60	1,225
27	107.56	1,083	12,530	0.028	61	1,357
26	105.06	36	401	0.001	2	46
25	102.50	1,461	15,354	0.034	75	1,831
24	97.50	1,480	14,065	0.031	68	1,854
23	92.50	1,496	12,800	0.028	62	1,875
22	88.19	1,095	8,519	0.019	41	1,373
21	85.69	593	4,355	0.010	21	743
20	83.31	1,470	10,203	0.022	50	1,842
19	80.81	530	3,462	0.008	17	664
18	77.50	1,646	9,886	0.022	48	2,063
17	72.50	1,667	8,760	0.019	43	2,088

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

16	67.50	1,686	7,683	0.017	37	2,113
15	62.50	1,706	6,664	0.015	32	2,138
14	57.50	1,726	5,706	0.013	28	2,163
13	52.50	1,746	4,811	0.011	23	2,187
12	48.42	1,117	2,618	0.006	13	1,400
11	45.92	982	2,071	0.005	10	1,231
10	43.08	2,078	3,856	0.008	19	2,604
9	40.58	444	732	0.002	4	557
8	37.50	1,924	2,706	0.006	13	2,411
7	32.50	1,947	2,057	0.005	10	2,440
6	27.50	1,970	1,490	0.003	7	2,469
5	22.50	1,993	1,009	0.002	5	2,498
4	17.50	2,016	618	0.001	3	2,527
3	12.50	2,039	319	0.001	2	2,556
2	7.50	1,757	99	0.000	0	2,202
1	2.50	1,780	11	0.000	0	2,231
Commscope ATSBT-TOP-	160.00	5	138	0.000	1	7
Andrew E15S09P94	160.00	44	1,121	0.002	5	55
RFS ATMAP1412D-1A20	160.00	39	998	0.002	5	49
Andrew SBNHH-1D65B	160.00	152	3,894	0.009	19	191
Kaelus DBC0061F1V51-	148.00	153	3,351	0.007	16	192
Powerwave Allgon LGP	148.00	85	1,853	0.004	9	106
Raycap DC6-48-60-18-	148.00	20	438	0.001	2	25
Raycap DC6-48-60-18-	148.00	20	438	0.001	2	25
Raycap DC6-48-60-0-8	148.00	33	718	0.002	3	41
Ericsson RRUS 4478 B	148.00	180	3,936	0.009	19	225
Ericsson RRUS 11 (Ba	148.00	165	3,614	0.008	18	207
Ericsson RRUS 32	148.00	152	3,338	0.007	16	191
Ericsson RRUS 32 B2	148.00	159	3,483	0.008	17	199
Ericsson RRUS 32 B66	148.00	159	3,483	0.008	17	199
Powerwave Allgon 777	148.00	105	2,300	0.005	11	132
Pipe Mount	148.00	200	4,381	0.010	21	251
Quintel QS66512-2	148.00	333	7,294	0.016	35	417
CCI OPA-65R-LCUU-H6	148.00	219	4,797	0.011	23	274
Kathrein 80010965	148.00	293	6,413	0.014	31	367
Flat Platform w/ Han	148.00	2,000	43,808	0.096	213	2,506
RFS FD9R6004	143.00	19	380	0.001	2	23
Alcatel-Lucent RRH2X	143.00	172	3,517	0.008	17	216
Alcatel-Lucent RRH2x	143.00	227	4,638	0.010	23	284
Alcatel-Lucent RRH4x	143.00	253	5,178	0.011	25	317
RFS DB-T1-6Z-8AB-0Z	143.00	88	1,800	0.004	9	110
Antel BXA-80063-6BF-	143.00	19	393	0.001	2	24
Antel BXA-70063/6CF	143.00	34	695	0.002	3	43
Antel BXA-80080/6CF	143.00	22	450	0.001	2	28
Commscope SBNHH-1D65	143.00	203	4,147	0.009	20	254
Commscope SBNHH-1D45	143.00	247	5,047	0.011	25	309
Flat Low Profile Pla	143.00	1,500	30,674	0.067	149	1,880
KMW KMDAPS2040000 (E	132.00	48	831	0.002	4	60
KMW AM-X-WM-17-65-00	132.00	43	742	0.002	4	53
Decibel DB844H90E-XY	132.00	126	2,195	0.005	11	158
Flat Low Profile Pla	132.00	1,500	26,136	0.057	127	1,880
Alcatel-Lucent RRH2x	120.00	159	2,285	0.005	11	199
Alcatel-Lucent 800 M	120.00	192	2,765	0.006	13	241
Alcatel-Lucent 4x40W	120.00	273	3,931	0.009	19	342
TD-RRH8x20-25 w/ Sol	120.00	210	3,024	0.007	15	263
RFS APXVSPP18-C-A20	120.00	171	2,462	0.005	12	214
Commscope DT465B-2XR	120.00	174	2,506	0.006	12	218
Flat Low Profile Pla	120.00	1,500	21,600	0.047	105	1,880
Antel BCD-87010 ____	100.00	26	265	0.001	1	33
Flat Side Arm	100.00	150	1,500	0.003	7	188
PCTEL GPS-TMG-HR-26N	75.00	1	3	0.000	0	1
Round Side Arm	75.00	150	844	0.002	4	188
		56,727	455,026	1.000	2,212	71,086

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:47 PM

Customer: SPRINT NEXTEL

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

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	146.50	271	5,819	0.013	28	230
38	144.00	183	3,803	0.008	18	155
37	141.50	316	6,334	0.014	31	268
36	137.50	538	10,167	0.022	49	455
35	133.50	329	5,863	0.013	29	279
34	131.00	243	4,172	0.009	20	206
33	129.44	138	2,310	0.005	11	117
32	127.00	771	12,437	0.027	60	653
31	125.06	17	270	0.001	1	15
30	122.50	708	10,618	0.023	52	599
29	117.50	744	10,272	0.023	50	630
28	112.50	978	12,373	0.027	60	828
27	107.56	1,083	12,530	0.028	61	917
26	105.06	36	401	0.001	2	31
25	102.50	1,461	15,354	0.034	75	1,238
24	97.50	1,480	14,065	0.031	68	1,253
23	92.50	1,496	12,800	0.028	62	1,267
22	88.19	1,095	8,519	0.019	41	928
21	85.69	593	4,355	0.010	21	502
20	83.31	1,470	10,203	0.022	50	1,245
19	80.81	530	3,462	0.008	17	449
18	77.50	1,646	9,886	0.022	48	1,394
17	72.50	1,667	8,760	0.019	43	1,411
16	67.50	1,686	7,683	0.017	37	1,428
15	62.50	1,706	6,664	0.015	32	1,445
14	57.50	1,726	5,706	0.013	28	1,462
13	52.50	1,746	4,811	0.011	23	1,478
12	48.42	1,117	2,618	0.006	13	946
11	45.92	982	2,071	0.005	10	832
10	43.08	2,078	3,856	0.008	19	1,760
9	40.58	444	732	0.002	4	376
8	37.50	1,924	2,706	0.006	13	1,630
7	32.50	1,947	2,057	0.005	10	1,649
6	27.50	1,970	1,490	0.003	7	1,669
5	22.50	1,993	1,009	0.002	5	1,688
4	17.50	2,016	618	0.001	3	1,708
3	12.50	2,039	319	0.001	2	1,727
2	7.50	1,757	99	0.000	0	1,488
1	2.50	1,780	11	0.000	0	1,508
Commscope ATSBT-TOP-	160.00	5	138	0.000	1	5
Andrew E15S09P94	160.00	44	1,121	0.002	5	37
RFS ATMAP1412D-1A20	160.00	39	998	0.002	5	33
Andrew SBNHH-1D65B	160.00	152	3,894	0.009	19	129
Kaelus DBC0061F1V51-	148.00	153	3,351	0.007	16	130
Powerwave Allgon LGP	148.00	85	1,853	0.004	9	72
Raycap DC6-48-60-18-	148.00	20	438	0.001	2	17
Raycap DC6-48-60-18-	148.00	20	438	0.001	2	17
Raycap DC6-48-60-0-8	148.00	33	718	0.002	3	28
Ericsson RRUS 4478 B	148.00	180	3,936	0.009	19	152
Ericsson RRUS 11 (Ba	148.00	165	3,614	0.008	18	140
Ericsson RRUS 32	148.00	152	3,338	0.007	16	129
Ericsson RRUS 32 B2	148.00	159	3,483	0.008	17	135
Ericsson RRUS 32 B66	148.00	159	3,483	0.008	17	135
Powerwave Allgon 777	148.00	105	2,300	0.005	11	89
Pipe Mount	148.00	200	4,381	0.010	21	169
Quintel QS66512-2	148.00	333	7,294	0.016	35	282
CCI OPA-65R-LCUU-H6	148.00	219	4,797	0.011	23	185

Site Number: 302515

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Engineering Number: OAA733621_C3_01

6/15/2018 2:38:47 PM

Customer: SPRINT NEXTEL

Kathrein 80010965	148.00	293	6,413	0.014	31	248
Flat Platform w/ Han	148.00	2,000	43,808	0.096	213	1,694
RFS FD9R6004	143.00	19	380	0.001	2	16
Alcatel-Lucent RRH2X	143.00	172	3,517	0.008	17	146
Alcatel-Lucent RRH2x	143.00	227	4,638	0.010	23	192
Alcatel-Lucent RRH4x	143.00	253	5,178	0.011	25	214
RFS DB-T1-6Z-8AB-0Z	143.00	88	1,800	0.004	9	75
Antel BXA-80063-6BF-	143.00	19	393	0.001	2	16
Antel BXA-70063/6CF	143.00	34	695	0.002	3	29
Antel BXA-80080/6CF	143.00	22	450	0.001	2	19
Commscope SBNHH-1D65	143.00	203	4,147	0.009	20	172
Commscope SBNHH-1D45	143.00	247	5,047	0.011	25	209
Flat Low Profile Pla	143.00	1,500	30,674	0.067	149	1,270
KMW KMDAPS2040000 (E	132.00	48	831	0.002	4	40
KMW AM-X-WM-17-65-00	132.00	43	742	0.002	4	36
Decibel DB844H90E-XY	132.00	126	2,195	0.005	11	107
Flat Low Profile Pla	132.00	1,500	26,136	0.057	127	1,270
Alcatel-Lucent RRH2x	120.00	159	2,285	0.005	11	134
Alcatel-Lucent 800 M	120.00	192	2,765	0.006	13	163
Alcatel-Lucent 4x40W	120.00	273	3,931	0.009	19	231
TD-RRH8x20-25 w/ Sol	120.00	210	3,024	0.007	15	178
RFS APXVSPP18-C-A20	120.00	171	2,462	0.005	12	145
Commscope DT465B-2XR	120.00	174	2,506	0.006	12	147
Flat Low Profile Pla	120.00	1,500	21,600	0.047	105	1,270
Antel BCD-87010 ____	100.00	26	265	0.001	1	22
Flat Side Arm	100.00	150	1,500	0.003	7	127
PCTEL GPS-TMG-HR-26N	75.00	1	3	0.000	0	1
Round Side Arm	75.00	150	844	0.002	4	127
		56,727	455,026	1.000	2,212	48,041

Site Number: 302515

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:47 PM

Customer: SPRINT NEXTEL

Load Case (1.2 + 0.2Sds) * DL + E ELFM

Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-68.55	-2.19	0.00	-269.32	0.00	269.32	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.053
5.00	-66.35	-2.21	0.00	-258.37	0.00	258.37	4,702.37	2,351.19	8,987.95	4,500.65	0.01	-0.01	0.052
10.00	-63.80	-2.22	0.00	-247.34	0.00	247.34	4,630.27	2,315.13	8,663.09	4,337.98	0.03	-0.03	0.051
15.00	-61.27	-2.23	0.00	-236.24	0.00	236.24	4,557.03	2,278.52	8,341.98	4,177.19	0.07	-0.04	0.050
20.00	-58.77	-2.24	0.00	-225.09	0.00	225.09	4,482.67	2,241.34	8,024.78	4,018.36	0.12	-0.06	0.049
25.00	-56.30	-2.24	0.00	-213.90	0.00	213.90	4,403.56	2,201.78	7,705.28	3,858.37	0.19	-0.07	0.048
30.00	-53.86	-2.24	0.00	-202.68	0.00	202.68	4,302.92	2,151.46	7,355.37	3,683.15	0.28	-0.09	0.047
35.00	-51.45	-2.24	0.00	-191.46	0.00	191.46	4,202.28	2,101.14	7,013.59	3,512.01	0.38	-0.10	0.046
40.00	-50.89	-2.24	0.00	-180.26	0.00	180.26	4,101.65	2,050.82	6,679.95	3,344.94	0.49	-0.12	0.045
41.16	-48.29	-2.23	0.00	-177.65	0.00	177.65	4,078.23	2,039.12	6,603.48	3,306.65	0.52	-0.12	0.045
45.00	-47.06	-2.22	0.00	-169.11	0.00	169.11	4,001.01	2,000.51	6,354.43	3,181.94	0.62	-0.13	0.043
46.83	-45.66	-2.21	0.00	-165.04	0.00	165.04	3,410.94	1,705.47	5,490.25	2,749.21	0.68	-0.14	0.047
50.00	-43.47	-2.19	0.00	-158.04	0.00	158.04	3,371.32	1,685.66	5,340.15	2,674.05	0.77	-0.15	0.046
55.00	-41.30	-2.17	0.00	-147.08	0.00	147.08	3,307.92	1,653.96	5,106.10	2,556.85	0.93	-0.16	0.044
60.00	-39.17	-2.14	0.00	-136.24	0.00	136.24	3,242.50	1,621.25	4,874.14	2,440.69	1.12	-0.18	0.042
65.00	-37.05	-2.11	0.00	-125.53	0.00	125.53	3,156.24	1,578.12	4,616.98	2,311.92	1.31	-0.19	0.041
70.00	-34.96	-2.07	0.00	-115.00	0.00	115.00	3,069.98	1,534.99	4,366.78	2,186.64	1.52	-0.21	0.039
75.00	-32.71	-2.01	0.00	-104.68	0.00	104.68	2,983.72	1,491.86	4,123.56	2,064.84	1.75	-0.22	0.037
80.00	-32.05	-2.00	0.00	-94.61	0.00	94.61	2,897.46	1,448.73	3,887.31	1,946.54	2.00	-0.24	0.035
81.62	-30.21	-1.95	0.00	-91.37	0.00	91.37	2,869.45	1,434.73	3,812.10	1,908.88	2.08	-0.24	0.034
85.00	-29.46	-1.92	0.00	-84.80	0.00	84.80	2,811.20	1,405.60	3,658.02	1,831.73	2.25	-0.25	0.033
86.37	-28.09	-1.88	0.00	-82.16	0.00	82.16	2,342.68	1,171.34	3,095.01	1,549.81	2.33	-0.26	0.035
90.00	-26.22	-1.81	0.00	-75.34	0.00	75.34	2,304.43	1,152.21	2,976.95	1,490.69	2.53	-0.27	0.033
95.00	-24.36	-1.74	0.00	-66.27	0.00	66.27	2,249.56	1,124.78	2,815.20	1,409.69	2.81	-0.28	0.030
100.00	-22.31	-1.65	0.00	-57.56	0.00	57.56	2,177.68	1,088.84	2,637.27	1,320.60	3.11	-0.29	0.028
105.00	-22.26	-1.65	0.00	-49.29	0.00	49.29	2,105.79	1,052.90	2,465.16	1,234.41	3.42	-0.30	0.025
105.13	-20.91	-1.59	0.00	-49.08	0.00	49.08	2,103.99	1,052.00	2,460.93	1,232.29	3.43	-0.30	0.025
105.13	-20.91	-1.59	0.00	-49.08	0.00	49.08	2,103.99	1,052.00	2,460.93	1,232.29	3.43	-0.30	0.050
110.00	-19.68	-1.53	0.00	-41.34	0.00	41.34	2,033.91	1,016.95	2,298.85	1,151.13	3.75	-0.31	0.046
115.00	-18.75	-1.48	0.00	-33.71	0.00	33.71	1,962.02	981.01	2,138.35	1,070.76	4.09	-0.33	0.041
120.00	-14.51	-1.22	0.00	-26.32	0.00	26.32	1,890.14	945.07	1,983.66	993.30	4.45	-0.35	0.034
125.00	-14.48	-1.22	0.00	-20.24	0.00	20.24	1,818.26	909.13	1,834.77	918.75	4.83	-0.37	0.030
125.12	-13.52	-1.15	0.00	-20.09	0.00	20.09	1,816.48	908.24	1,831.17	916.95	4.84	-0.37	0.029
128.87	-13.35	-1.14	0.00	-15.77	0.00	15.77	1,443.09	721.55	1,448.31	725.23	5.13	-0.38	0.031
130.00	-13.04	-1.12	0.00	-14.48	0.00	14.48	1,430.26	715.13	1,422.41	712.26	5.22	-0.38	0.029
132.00	-10.48	-0.93	0.00	-12.24	0.00	12.24	1,407.26	703.63	1,376.79	689.42	5.38	-0.39	0.025
135.00	-9.81	-0.88	0.00	-9.45	0.00	9.45	1,372.75	686.38	1,309.76	655.86	5.63	-0.39	0.022
140.00	-9.41	-0.84	0.00	-5.06	0.00	5.06	1,315.24	657.62	1,201.77	601.78	6.04	-0.40	0.016
143.00	-5.69	-0.52	0.00	-2.53	0.00	2.53	1,280.74	640.37	1,139.20	570.45	6.30	-0.40	0.009
145.00	-5.35	-0.49	0.00	-1.48	0.00	1.48	1,257.74	628.87	1,098.42	550.03	6.47	-0.41	0.007
148.00	0.00	-0.46	0.00	0.00	0.00	0.00	1,223.23	611.62	1,038.64	520.09	6.72	-0.41	0.000

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Customer: SPRINT NEXTEL

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.33	-2.19	0.00	-264.56	0.00	264.56	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.048
5.00	-44.84	-2.20	0.00	-253.63	0.00	253.63	4,702.37	2,351.19	8,987.95	4,500.65	0.01	-0.01	0.047
10.00	-43.11	-2.21	0.00	-242.64	0.00	242.64	4,630.27	2,315.13	8,663.09	4,337.98	0.03	-0.03	0.047
15.00	-41.41	-2.21	0.00	-231.61	0.00	231.61	4,557.03	2,278.52	8,341.98	4,177.19	0.07	-0.04	0.046
20.00	-39.72	-2.22	0.00	-220.54	0.00	220.54	4,482.67	2,241.34	8,024.78	4,018.36	0.12	-0.06	0.045
25.00	-38.05	-2.22	0.00	-209.46	0.00	209.46	4,403.56	2,201.78	7,705.28	3,858.37	0.19	-0.07	0.044
30.00	-36.40	-2.21	0.00	-198.38	0.00	198.38	4,302.92	2,151.46	7,355.37	3,683.15	0.27	-0.09	0.043
35.00	-34.77	-2.21	0.00	-187.31	0.00	187.31	4,202.28	2,101.14	7,013.59	3,512.01	0.37	-0.10	0.042
40.00	-34.39	-2.21	0.00	-176.28	0.00	176.28	4,101.65	2,050.82	6,679.95	3,344.94	0.48	-0.12	0.041
41.16	-32.63	-2.19	0.00	-173.71	0.00	173.71	4,078.23	2,039.12	6,603.48	3,306.65	0.51	-0.12	0.041
45.00	-31.80	-2.18	0.00	-165.31	0.00	165.31	4,001.01	2,000.51	6,354.43	3,181.94	0.61	-0.13	0.040
46.83	-30.85	-2.17	0.00	-161.31	0.00	161.31	3,410.94	1,705.47	5,490.25	2,749.21	0.66	-0.14	0.043
50.00	-29.37	-2.15	0.00	-154.43	0.00	154.43	3,371.32	1,685.66	5,340.15	2,674.05	0.76	-0.15	0.042
55.00	-27.91	-2.13	0.00	-143.67	0.00	143.67	3,307.92	1,653.96	5,106.10	2,556.85	0.92	-0.16	0.041
60.00	-26.47	-2.10	0.00	-133.04	0.00	133.04	3,242.50	1,621.25	4,874.14	2,440.69	1.09	-0.18	0.039
65.00	-25.04	-2.06	0.00	-122.55	0.00	122.55	3,156.24	1,578.12	4,616.98	2,311.92	1.29	-0.19	0.037
70.00	-23.63	-2.02	0.00	-112.24	0.00	112.24	3,069.98	1,534.99	4,366.78	2,186.64	1.49	-0.21	0.036
75.00	-22.11	-1.97	0.00	-102.14	0.00	102.14	2,983.23	1,491.86	4,123.56	2,064.84	1.72	-0.22	0.034
80.00	-21.66	-1.95	0.00	-92.30	0.00	92.30	2,897.46	1,448.73	3,887.31	1,946.54	1.95	-0.23	0.032
81.62	-20.41	-1.90	0.00	-89.13	0.00	89.13	2,869.45	1,434.73	3,812.10	1,908.88	2.03	-0.24	0.031
85.00	-19.91	-1.88	0.00	-82.71	0.00	82.71	2,811.20	1,405.60	3,658.02	1,831.73	2.21	-0.25	0.030
86.37	-18.98	-1.84	0.00	-80.13	0.00	80.13	2,342.68	1,171.34	3,095.01	1,549.81	2.28	-0.25	0.032
90.00	-17.71	-1.77	0.00	-73.47	0.00	73.47	2,304.43	1,152.21	2,976.95	1,490.69	2.47	-0.26	0.030
95.00	-16.46	-1.70	0.00	-64.61	0.00	64.61	2,249.56	1,124.78	2,815.20	1,409.69	2.75	-0.27	0.028
100.00	-15.07	-1.61	0.00	-56.10	0.00	56.10	2,177.68	1,088.84	2,637.27	1,320.60	3.05	-0.29	0.025
105.00	-15.04	-1.61	0.00	-48.03	0.00	48.03	2,105.79	1,052.90	2,465.16	1,234.41	3.35	-0.30	0.023
105.13	-14.13	-1.55	0.00	-47.83	0.00	47.83	2,103.99	1,052.00	2,460.93	1,232.29	3.36	-0.30	0.023
105.13	-14.13	-1.55	0.00	-47.83	0.00	47.83	2,103.99	1,052.00	2,460.93	1,232.29	3.36	-0.30	0.046
110.00	-13.30	-1.49	0.00	-40.27	0.00	40.27	2,033.91	1,016.95	2,298.85	1,151.13	3.67	-0.31	0.042
115.00	-12.67	-1.44	0.00	-32.83	0.00	32.83	1,962.02	981.01	2,138.35	1,070.76	4.00	-0.33	0.037
120.00	-9.80	-1.19	0.00	-25.64	0.00	25.64	1,890.14	945.07	1,983.66	993.30	4.35	-0.34	0.031
125.00	-9.79	-1.19	0.00	-19.71	0.00	19.71	1,818.26	909.13	1,834.77	918.75	4.72	-0.36	0.027
125.12	-9.13	-1.12	0.00	-19.56	0.00	19.56	1,816.48	908.24	1,831.17	916.95	4.73	-0.36	0.026
128.87	-9.02	-1.11	0.00	-15.35	0.00	15.35	1,443.09	721.55	1,448.31	725.23	5.02	-0.37	0.027
130.00	-8.81	-1.09	0.00	-14.10	0.00	14.10	1,430.26	715.13	1,422.41	712.26	5.11	-0.37	0.026
132.00	-7.08	-0.91	0.00	-11.92	0.00	11.92	1,407.26	703.63	1,376.79	689.42	5.26	-0.38	0.022
135.00	-6.63	-0.85	0.00	-9.20	0.00	9.20	1,372.75	686.38	1,309.76	655.86	5.50	-0.38	0.019
140.00	-6.36	-0.82	0.00	-4.93	0.00	4.93	1,315.24	657.62	1,201.77	601.78	5.91	-0.39	0.013
143.00	-3.85	-0.51	0.00	-2.46	0.00	2.46	1,280.74	640.37	1,139.20	570.45	6.16	-0.40	0.007
145.00	-3.62	-0.48	0.00	-1.44	0.00	1.44	1,257.74	628.87	1,098.42	550.03	6.32	-0.40	0.005
148.00	0.00	-0.46	0.00	0.00	0.00	0.00	1,223.23	611.62	1,038.64	520.09	6.57	-0.40	0.000

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 Customer: SPRINT NEXTEL

Equivalent Modal Forces Analysis

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

Spectral Response Acceleration for Short Period (S_s): 0.25
 Spectral Response Acceleration at 1.0 Second Period (S_1): 0.07
 Importance Factor (I_E): 1.00
 Site Coefficient F_a : 1.60
 Site Coefficient F_v : 2.40
 Response Modification Coefficient (R): 1.50
 Design Spectral Response Acceleration at Short Period (S_{ds}): 0.27
 Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}): 0.11
 Period Based on Rayleigh Method (sec): 2.51
 Redundancy Factor (p): 1.30

Load Case $(1.2 + 0.2S_{ds}) * DL + E$ EMAM

Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
39	146.50	271	1.852	1.785	1.069	0.466	109	340
38	144.00	183	1.789	1.490	0.959	0.412	65	230
37	141.50	316	1.728	1.230	0.858	0.361	99	396
36	137.50	538	1.631	0.879	0.713	0.285	133	674
35	133.50	329	1.538	0.599	0.589	0.217	62	412
34	131.00	243	1.481	0.455	0.520	0.178	37	305
33	129.44	138	1.446	0.376	0.480	0.155	19	173
32	127.00	771	1.392	0.268	0.423	0.121	81	966
31	125.06	17	1.350	0.195	0.382	0.096	1	22
30	122.50	708	1.295	0.113	0.332	0.066	40	887
29	117.50	744	1.191	-0.003	0.248	0.015	10	932
28	112.50	978	1.092	-0.074	0.182	-0.026	-22	1,225
27	107.56	1,083	0.998	-0.110	0.131	-0.055	-52	1,357
26	105.06	36	0.952	-0.119	0.109	-0.067	-2	46
25	102.50	1,461	0.907	-0.122	0.090	-0.075	-95	1,831
24	97.50	1,480	0.820	-0.115	0.060	-0.084	-107	1,854
23	92.50	1,496	0.738	-0.098	0.038	-0.081	-105	1,875
22	88.19	1,095	0.671	-0.078	0.025	-0.069	-66	1,373
21	85.69	593	0.634	-0.065	0.019	-0.059	-30	743
20	83.31	1,470	0.599	-0.053	0.014	-0.047	-60	1,842
19	80.81	530	0.563	-0.040	0.011	-0.033	-15	664
18	77.50	1,646	0.518	-0.023	0.008	-0.012	-17	2,063
17	72.50	1,667	0.454	0.000	0.006	0.019	27	2,088
16	67.50	1,686	0.393	0.020	0.007	0.045	65	2,113
15	62.50	1,706	0.337	0.036	0.009	0.063	93	2,138
14	57.50	1,726	0.285	0.048	0.014	0.074	111	2,163
13	52.50	1,746	0.238	0.057	0.018	0.079	120	2,187
12	48.42	1,117	0.202	0.062	0.023	0.081	78	1,400
11	45.92	982	0.182	0.065	0.026	0.081	69	1,231
10	43.08	2,078	0.160	0.067	0.029	0.080	144	2,604
9	40.58	444	0.142	0.069	0.031	0.079	31	557
8	37.50	1,924	0.121	0.070	0.034	0.078	131	2,411
7	32.50	1,947	0.091	0.071	0.038	0.076	129	2,440
6	27.50	1,970	0.065	0.072	0.041	0.075	127	2,469

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Site Name: SMFR - North, CT

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5	22.50	1,993	0.044	0.071	0.042	0.073	125	2,498
4	17.50	2,016	0.026	0.067	0.040	0.069	121	2,527
3	12.50	2,039	0.013	0.059	0.035	0.063	112	2,556
2	7.50	1,757	0.005	0.044	0.025	0.051	78	2,202
1	2.50	1,780	0.001	0.018	0.010	0.025	39	2,231
Commscope ATSBT-	160.00	5	2.209	4.120	1.851	0.810	4	7
Andrew E15S09P94	160.00	44	2.209	4.120	1.851	0.810	31	55
RFS ATMAP1412D-1A20	160.00	39	2.209	4.120	1.851	0.810	27	49
Andrew SBNHH-1D65B	160.00	152	2.209	4.120	1.851	0.810	107	191
Kaelus DBC0061F1V51-	148.00	153	1.890	1.980	1.140	0.499	66	192
Powerwave Allgon LGP	148.00	85	1.890	1.980	1.140	0.499	37	106
Raycap DC6-48-60-18-	148.00	20	1.890	1.980	1.140	0.499	9	25
Raycap DC6-48-60-18-	148.00	20	1.890	1.980	1.140	0.499	9	25
Raycap DC6-48-60-0-8	148.00	33	1.890	1.980	1.140	0.499	14	41
Ericsson RRUS 4478 B	148.00	180	1.890	1.980	1.140	0.499	78	225
Ericsson RRUS 11 (Ba	148.00	165	1.890	1.980	1.140	0.499	71	207
Ericsson RRUS 32	148.00	152	1.890	1.980	1.140	0.499	66	191
Ericsson RRUS 32 B2	148.00	159	1.890	1.980	1.140	0.499	69	199
Ericsson RRUS 32 B66	148.00	159	1.890	1.980	1.140	0.499	69	199
Powerwave Allgon 777	148.00	105	1.890	1.980	1.140	0.499	45	132
Pipe Mount	148.00	200	1.890	1.980	1.140	0.499	87	251
Quintel QS66512-2	148.00	333	1.890	1.980	1.140	0.499	144	417
CCI OPA-65R-LCUU-H6	148.00	219	1.890	1.980	1.140	0.499	95	274
Kathrein 80010965	148.00	293	1.890	1.980	1.140	0.499	127	367
Flat Platform w/ Han	148.00	2,000	1.890	1.980	1.140	0.499	866	2,506
RFS FD9R6004	143.00	19	1.764	1.382	0.917	0.391	6	23
Alcatel-Lucent RRH2X	143.00	172	1.764	1.382	0.917	0.391	58	216
Alcatel-Lucent RRH2x	143.00	227	1.764	1.382	0.917	0.391	77	284
Alcatel-Lucent RRH4x	143.00	253	1.764	1.382	0.917	0.391	86	317
RFS DB-T1-6Z-8AB-0Z	143.00	88	1.764	1.382	0.917	0.391	30	110
Antel BXA-80063-6BF-	143.00	19	1.764	1.382	0.917	0.391	7	24
Antel BXA-70063/6CF	143.00	34	1.764	1.382	0.917	0.391	12	43
Antel BXA-80080/6CF	143.00	22	1.764	1.382	0.917	0.391	7	28
Commscope SBNHH-	143.00	203	1.764	1.382	0.917	0.391	69	254
Commscope SBNHH-	143.00	247	1.764	1.382	0.917	0.391	84	309
Flat Low Profile Pla	143.00	1,500	1.764	1.382	0.917	0.391	508	1,880
KMW KMDAPS2040000	132.00	48	1.503	0.510	0.547	0.193	8	60
KMW AM-X-WM-17-65-	132.00	43	1.503	0.510	0.547	0.193	7	53
Decibel DB844H90E-XY	132.00	126	1.503	0.510	0.547	0.193	21	158
Flat Low Profile Pla	132.00	1,500	1.503	0.510	0.547	0.193	251	1,880
Alcatel-Lucent RRH2x	120.00	159	1.243	0.049	0.288	0.039	5	199
Alcatel-Lucent 800 M	120.00	192	1.243	0.049	0.288	0.039	7	241
Alcatel-Lucent 4x40W	120.00	273	1.243	0.049	0.288	0.039	9	342
TD-RRH8x20-25 w/ Sol	120.00	210	1.243	0.049	0.288	0.039	7	263
RFS APXVSP18-C-A20	120.00	171	1.243	0.049	0.288	0.039	6	214
Commscope DT465B-	120.00	174	1.243	0.049	0.288	0.039	6	218
Flat Low Profile Pla	120.00	1,500	1.243	0.049	0.288	0.039	51	1,880
Antel BCD-87010 ____	100.00	26	0.863	-0.120	0.074	-0.081	-2	33
Flat Side Arm	100.00	150	0.863	-0.120	0.074	-0.081	-10	188
PCTEL GPS-TMG-HR-	75.00	1	0.485	-0.011	0.007	0.004	0	1
Round Side Arm	75.00	150	0.485	-0.011	0.007	0.004	0	188
		56,727	103.837	72.865	47.783	19.298	5,014	71,086

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
39	146.50	271	1.852	1.785	1.069	0.466	109	230
38	144.00	183	1.789	1.490	0.959	0.412	65	155

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37	141.50	316	1.728	1.230	0.858	0.361	99	268
36	137.50	538	1.631	0.879	0.713	0.285	133	455
35	133.50	329	1.538	0.599	0.589	0.217	62	279
34	131.00	243	1.481	0.455	0.520	0.178	37	206
33	129.44	138	1.446	0.376	0.480	0.155	19	117
32	127.00	771	1.392	0.268	0.423	0.121	81	653
31	125.06	17	1.350	0.195	0.382	0.096	1	15
30	122.50	708	1.295	0.113	0.332	0.066	40	599
29	117.50	744	1.191	-0.003	0.248	0.015	10	630
28	112.50	978	1.092	-0.074	0.182	-0.026	-22	828
27	107.56	1,083	0.998	-0.110	0.131	-0.055	-52	917
26	105.06	36	0.952	-0.119	0.109	-0.067	-2	31
25	102.50	1,461	0.907	-0.122	0.090	-0.075	-95	1,238
24	97.50	1,480	0.820	-0.115	0.060	-0.084	-107	1,253
23	92.50	1,496	0.738	-0.098	0.038	-0.081	-105	1,267
22	88.19	1,095	0.671	-0.078	0.025	-0.069	-66	928
21	85.69	593	0.634	-0.065	0.019	-0.059	-30	502
20	83.31	1,470	0.599	-0.053	0.014	-0.047	-60	1,245
19	80.81	530	0.563	-0.040	0.011	-0.033	-15	449
18	77.50	1,646	0.518	-0.023	0.008	-0.012	-17	1,394
17	72.50	1,667	0.454	0.000	0.006	0.019	27	1,411
16	67.50	1,686	0.393	0.020	0.007	0.045	65	1,428
15	62.50	1,706	0.337	0.036	0.009	0.063	93	1,445
14	57.50	1,726	0.285	0.048	0.014	0.074	111	1,462
13	52.50	1,746	0.238	0.057	0.018	0.079	120	1,478
12	48.42	1,117	0.202	0.062	0.023	0.081	78	946
11	45.92	982	0.182	0.065	0.026	0.081	69	832
10	43.08	2,078	0.160	0.067	0.029	0.080	144	1,760
9	40.58	444	0.142	0.069	0.031	0.079	31	376
8	37.50	1,924	0.121	0.070	0.034	0.078	131	1,630
7	32.50	1,947	0.091	0.071	0.038	0.076	129	1,649
6	27.50	1,970	0.065	0.072	0.041	0.075	127	1,669
5	22.50	1,993	0.044	0.071	0.042	0.073	125	1,688
4	17.50	2,016	0.026	0.067	0.040	0.069	121	1,708
3	12.50	2,039	0.013	0.059	0.035	0.063	112	1,727
2	7.50	1,757	0.005	0.044	0.025	0.051	78	1,488
1	2.50	1,780	0.001	0.018	0.010	0.025	39	1,508
Commscope ATSBT-	160.00	5	2.209	4.120	1.851	0.810	4	5
Andrew E15S09P94	160.00	44	2.209	4.120	1.851	0.810	31	37
RFS ATMAP1412D-1A20	160.00	39	2.209	4.120	1.851	0.810	27	33
Andrew SBNHH-1D65B	160.00	152	2.209	4.120	1.851	0.810	107	129
Kaelus DBC0061F1V51-	148.00	153	1.890	1.980	1.140	0.499	66	130
Powerwave Allgon LGP	148.00	85	1.890	1.980	1.140	0.499	37	72
Raycap DC6-48-60-18-	148.00	20	1.890	1.980	1.140	0.499	9	17
Raycap DC6-48-60-18-	148.00	20	1.890	1.980	1.140	0.499	9	17
Raycap DC6-48-60-0-8	148.00	33	1.890	1.980	1.140	0.499	14	28
Ericsson RRUS 4478 B	148.00	180	1.890	1.980	1.140	0.499	78	152
Ericsson RRUS 11 (Ba	148.00	165	1.890	1.980	1.140	0.499	71	140
Ericsson RRUS 32	148.00	152	1.890	1.980	1.140	0.499	66	129
Ericsson RRUS 32 B2	148.00	159	1.890	1.980	1.140	0.499	69	135
Ericsson RRUS 32 B66	148.00	159	1.890	1.980	1.140	0.499	69	135
Powerwave Allgon 777	148.00	105	1.890	1.980	1.140	0.499	45	89
Pipe Mount	148.00	200	1.890	1.980	1.140	0.499	87	169
Quintel QS66512-2	148.00	333	1.890	1.980	1.140	0.499	144	282
CCI OPA-65R-LCUU-H6	148.00	219	1.890	1.980	1.140	0.499	95	185
Kathrein 80010965	148.00	293	1.890	1.980	1.140	0.499	127	248
Flat Platform w/ Han	148.00	2,000	1.890	1.980	1.140	0.499	866	1,694
RFS FD9R6004	143.00	19	1.764	1.382	0.917	0.391	6	16
Alcatel-Lucent RRH2X	143.00	172	1.764	1.382	0.917	0.391	58	146
Alcatel-Lucent RRH2x	143.00	227	1.764	1.382	0.917	0.391	77	192
Alcatel-Lucent RRH4x	143.00	253	1.764	1.382	0.917	0.391	86	214
RFS DB-T1-6Z-8AB-0Z	143.00	88	1.764	1.382	0.917	0.391	30	75
Antel BXA-80063-6BF-	143.00	19	1.764	1.382	0.917	0.391	7	16
Antel BXA-70063/6CF	143.00	34	1.764	1.382	0.917	0.391	12	29

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Antel BXA-80080/6CF	143.00	22	1.764	1.382	0.917	0.391	7	19
Commscope SBNHH-	143.00	203	1.764	1.382	0.917	0.391	69	172
Commscope SBNHH-	143.00	247	1.764	1.382	0.917	0.391	84	209
Flat Low Profile Pla	143.00	1,500	1.764	1.382	0.917	0.391	508	1,270
KMW KMDAPS2040000	132.00	48	1.503	0.510	0.547	0.193	8	40
KMW AM-X-WM-17-65-	132.00	43	1.503	0.510	0.547	0.193	7	36
Decibel DB844H90E-XY	132.00	126	1.503	0.510	0.547	0.193	21	107
Flat Low Profile Pla	132.00	1,500	1.503	0.510	0.547	0.193	251	1,270
Alcatel-Lucent RRH2x	120.00	159	1.243	0.049	0.288	0.039	5	134
Alcatel-Lucent 800 M	120.00	192	1.243	0.049	0.288	0.039	7	163
Alcatel-Lucent 4x40W	120.00	273	1.243	0.049	0.288	0.039	9	231
TD-RRH8x20-25 w/ Sol	120.00	210	1.243	0.049	0.288	0.039	7	178
RFS APXVSP18-C-A20	120.00	171	1.243	0.049	0.288	0.039	6	145
Commscope DT465B-	120.00	174	1.243	0.049	0.288	0.039	6	147
Flat Low Profile Pla	120.00	1,500	1.243	0.049	0.288	0.039	51	1,270
Antel BCD-87010 ____	100.00	26	0.863	-0.120	0.074	-0.081	-2	22
Flat Side Arm	100.00	150	0.863	-0.120	0.074	-0.081	-10	127
PCTEL GPS-TMG-HR-	75.00	1	0.485	-0.011	0.007	0.004	0	1
Round Side Arm	75.00	150	0.485	-0.011	0.007	0.004	0	127
		56,727	103.837	72.865	47.783	19.298	5,014	48,041

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Site Name: SMFR - North, CT Engineering Number: OAA733621_C3_01 6/15/2018 2:38:47 PM
Customer: SPRINT NEXTEL

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-68.55	-4.82	0.00	-579.80	0.00	579.80	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.100
5.00	-66.35	-4.78	0.00	-555.67	0.00	555.67	4,702.37	2,351.19	8,987.95	4,500.65	0.02	-0.03	0.099
10.00	-63.79	-4.70	0.00	-531.77	0.00	531.77	4,630.27	2,315.13	8,663.09	4,337.98	0.07	-0.06	0.097
15.00	-61.26	-4.61	0.00	-508.26	0.00	508.26	4,557.03	2,278.52	8,341.98	4,177.19	0.15	-0.09	0.096
20.00	-58.76	-4.51	0.00	-485.20	0.00	485.20	4,482.67	2,241.34	8,024.78	4,018.36	0.26	-0.13	0.094
25.00	-56.29	-4.41	0.00	-462.64	0.00	462.64	4,403.56	2,201.78	7,705.28	3,858.37	0.41	-0.16	0.092
30.00	-53.85	-4.31	0.00	-440.58	0.00	440.58	4,302.92	2,151.46	7,355.37	3,683.15	0.59	-0.19	0.091
35.00	-51.43	-4.20	0.00	-419.05	0.00	419.05	4,202.28	2,101.14	7,013.59	3,512.01	0.81	-0.22	0.090
40.00	-50.88	-4.18	0.00	-398.06	0.00	398.06	4,101.65	2,050.82	6,679.95	3,344.94	1.06	-0.26	0.089
41.16	-48.27	-4.04	0.00	-393.20	0.00	393.20	4,078.23	2,039.12	6,603.48	3,306.65	1.12	-0.26	0.088
45.00	-47.04	-3.98	0.00	-377.70	0.00	377.70	4,001.01	2,000.51	6,354.43	3,181.94	1.34	-0.29	0.086
46.83	-45.64	-3.91	0.00	-370.41	0.00	370.41	3,410.94	1,705.47	5,490.25	2,749.21	1.46	-0.30	0.094
50.00	-43.45	-3.80	0.00	-358.02	0.00	358.02	3,371.32	1,685.66	5,340.15	2,674.05	1.67	-0.32	0.093
55.00	-41.29	-3.70	0.00	-339.02	0.00	339.02	3,307.92	1,653.96	5,106.10	2,556.85	2.02	-0.36	0.091
60.00	-39.15	-3.62	0.00	-320.51	0.00	320.51	3,242.50	1,621.25	4,874.14	2,440.69	2.42	-0.40	0.088
65.00	-37.03	-3.56	0.00	-302.41	0.00	302.41	3,156.24	1,578.12	4,616.98	2,311.92	2.85	-0.43	0.087
70.00	-34.94	-3.54	0.00	-284.60	0.00	284.60	3,069.98	1,534.99	4,366.78	2,186.64	3.32	-0.47	0.085
75.00	-32.69	-3.56	0.00	-266.89	0.00	266.89	2,983.72	1,491.86	4,123.56	2,064.84	3.84	-0.51	0.083
80.00	-32.02	-3.58	0.00	-249.08	0.00	249.08	2,897.46	1,448.73	3,887.31	1,946.54	4.38	-0.54	0.081
81.62	-30.18	-3.64	0.00	-243.26	0.00	243.26	2,869.45	1,434.73	3,812.10	1,908.88	4.57	-0.55	0.080
85.00	-29.43	-3.67	0.00	-230.99	0.00	230.99	2,811.20	1,405.60	3,658.02	1,831.73	4.97	-0.58	0.077
86.37	-28.06	-3.73	0.00	-225.95	0.00	225.95	2,342.68	1,171.34	3,095.01	1,549.81	5.14	-0.59	0.084
90.00	-26.18	-3.83	0.00	-212.43	0.00	212.43	2,304.43	1,152.21	2,976.95	1,490.69	5.60	-0.62	0.080
95.00	-24.32	-3.93	0.00	-193.29	0.00	193.29	2,249.56	1,124.78	2,815.20	1,409.69	6.27	-0.65	0.076
100.00	-22.27	-4.03	0.00	-173.64	0.00	173.64	2,177.68	1,088.84	2,637.27	1,320.60	6.97	-0.69	0.071
105.00	-22.22	-4.04	0.00	-153.50	0.00	153.50	2,105.79	1,052.90	2,465.16	1,234.41	7.72	-0.73	0.066
105.13	-20.86	-4.08	0.00	-152.99	0.00	152.99	2,103.99	1,052.00	2,460.93	1,232.29	7.74	-0.73	0.066
105.13	-20.86	-4.08	0.00	-152.99	0.00	152.99	2,103.99	1,052.00	2,460.93	1,232.29	7.74	-0.73	0.134
110.00	-19.63	-4.10	0.00	-133.11	0.00	133.11	2,033.91	1,016.95	2,298.85	1,151.13	8.50	-0.76	0.125
115.00	-18.70	-4.10	0.00	-112.61	0.00	112.61	1,962.02	981.01	2,138.35	1,070.76	9.33	-0.83	0.115
120.00	-14.45	-3.92	0.00	-92.12	0.00	92.12	1,890.14	945.07	1,983.66	993.30	10.23	-0.89	0.100
125.00	-14.43	-3.92	0.00	-72.52	0.00	72.52	1,818.26	909.13	1,834.77	918.75	11.19	-0.94	0.087
125.12	-13.46	-3.83	0.00	-72.04	0.00	72.04	1,816.48	908.24	1,831.17	916.95	11.22	-0.95	0.086
128.87	-13.29	-3.82	0.00	-57.67	0.00	57.67	1,443.09	721.55	1,448.31	725.23	11.97	-0.98	0.089
130.00	-12.98	-3.78	0.00	-53.37	0.00	53.37	1,430.26	715.13	1,422.41	712.26	12.21	-0.99	0.084
132.00	-10.43	-3.39	0.00	-45.82	0.00	45.82	1,407.26	703.63	1,376.79	689.42	12.63	-1.01	0.074
135.00	-9.75	-3.25	0.00	-35.66	0.00	35.66	1,372.75	686.38	1,309.76	655.86	13.27	-1.04	0.061
140.00	-9.36	-3.14	0.00	-19.42	0.00	19.42	1,315.24	657.62	1,201.77	601.78	14.38	-1.07	0.039
143.00	-5.66	-2.07	0.00	-9.99	0.00	9.99	1,280.74	640.37	1,139.20	570.45	15.05	-1.08	0.022
145.00	-5.32	-1.95	0.00	-5.86	0.00	5.86	1,257.74	628.87	1,098.42	550.03	15.51	-1.08	0.015
148.00	0.00	-1.85	0.00	0.00	0.00	0.00	1,223.23	611.62	1,038.64	520.09	16.19	-1.09	0.000

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

6/15/2018 2:38:47 PM

Customer: SPRINT NEXTEL

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.33	-4.82	0.00	-568.75	0.00	568.75	4,773.35	2,386.68	9,316.44	4,665.14	0.00	0.00	0.095
5.00	-44.84	-4.76	0.00	-544.66	0.00	544.66	4,702.37	2,351.19	8,987.95	4,500.65	0.02	-0.03	0.094
10.00	-43.11	-4.67	0.00	-520.85	0.00	520.85	4,630.27	2,315.13	8,663.09	4,337.98	0.06	-0.06	0.092
15.00	-41.40	-4.57	0.00	-497.48	0.00	497.48	4,557.03	2,278.52	8,341.98	4,177.19	0.14	-0.09	0.090
20.00	-39.71	-4.46	0.00	-474.63	0.00	474.63	4,482.67	2,241.34	8,024.78	4,018.36	0.26	-0.12	0.089
25.00	-38.04	-4.35	0.00	-452.30	0.00	452.30	4,403.56	2,201.78	7,705.28	3,858.37	0.40	-0.15	0.087
30.00	-36.39	-4.24	0.00	-430.53	0.00	430.53	4,302.92	2,151.46	7,355.37	3,683.15	0.58	-0.19	0.086
35.00	-34.76	-4.12	0.00	-409.33	0.00	409.33	4,202.28	2,101.14	7,013.59	3,512.01	0.79	-0.22	0.085
40.00	-34.38	-4.10	0.00	-388.71	0.00	388.71	4,101.65	2,050.82	6,679.95	3,344.94	1.04	-0.25	0.084
41.16	-32.62	-3.96	0.00	-383.94	0.00	383.94	4,078.23	2,039.12	6,603.48	3,306.65	1.10	-0.26	0.083
45.00	-31.79	-3.90	0.00	-368.74	0.00	368.74	4,001.01	2,000.51	6,354.43	3,181.94	1.32	-0.28	0.082
46.83	-30.84	-3.83	0.00	-361.60	0.00	361.60	3,410.94	1,705.47	5,490.25	2,749.21	1.43	-0.30	0.089
50.00	-29.36	-3.71	0.00	-349.48	0.00	349.48	3,371.32	1,685.66	5,340.15	2,674.05	1.63	-0.32	0.088
55.00	-27.90	-3.61	0.00	-330.92	0.00	330.92	3,307.92	1,653.96	5,106.10	2,556.85	1.98	-0.35	0.086
60.00	-26.45	-3.52	0.00	-312.87	0.00	312.87	3,242.50	1,621.25	4,874.14	2,440.69	2.37	-0.39	0.084
65.00	-25.02	-3.46	0.00	-295.25	0.00	295.25	3,156.24	1,578.12	4,616.98	2,311.92	2.79	-0.42	0.082
70.00	-23.61	-3.44	0.00	-277.93	0.00	277.93	3,069.98	1,534.99	4,366.78	2,186.64	3.25	-0.46	0.080
75.00	-22.08	-3.46	0.00	-260.72	0.00	260.72	2,983.72	1,491.86	4,123.56	2,064.84	3.75	-0.49	0.079
80.00	-21.63	-3.48	0.00	-243.43	0.00	243.43	2,897.46	1,448.73	3,887.31	1,946.54	4.29	-0.53	0.077
81.62	-20.39	-3.53	0.00	-237.78	0.00	237.78	2,869.45	1,434.73	3,812.10	1,908.88	4.47	-0.54	0.076
85.00	-19.88	-3.57	0.00	-225.84	0.00	225.84	2,811.20	1,405.60	3,658.02	1,831.73	4.86	-0.57	0.073
86.37	-18.95	-3.63	0.00	-220.95	0.00	220.95	2,342.68	1,171.34	3,095.01	1,549.81	5.03	-0.58	0.080
90.00	-17.68	-3.73	0.00	-207.79	0.00	207.79	2,304.43	1,152.21	2,976.95	1,490.69	5.48	-0.60	0.077
95.00	-16.43	-3.83	0.00	-189.14	0.00	189.14	2,249.56	1,124.78	2,815.20	1,409.69	6.13	-0.64	0.072
100.00	-15.04	-3.93	0.00	-169.98	0.00	169.98	2,177.68	1,088.84	2,637.27	1,320.60	6.82	-0.68	0.068
105.00	-15.00	-3.94	0.00	-150.31	0.00	150.31	2,105.79	1,052.90	2,465.16	1,234.41	7.54	-0.71	0.063
105.13	-14.08	-3.99	0.00	-149.82	0.00	149.82	2,103.99	1,052.00	2,460.93	1,232.29	7.56	-0.71	0.062
105.13	-14.08	-3.99	0.00	-149.82	0.00	149.82	2,103.99	1,052.00	2,460.93	1,232.29	7.56	-0.71	0.128
110.00	-13.25	-4.01	0.00	-130.39	0.00	130.39	2,033.91	1,016.95	2,298.85	1,151.13	8.31	-0.74	0.120
115.00	-12.62	-4.00	0.00	-110.35	0.00	110.35	1,962.02	981.01	2,138.35	1,070.76	9.12	-0.81	0.110
120.00	-9.75	-3.84	0.00	-90.33	0.00	90.33	1,890.14	945.07	1,983.66	993.30	10.00	-0.87	0.096
125.00	-9.73	-3.84	0.00	-71.13	0.00	71.13	1,818.26	909.13	1,834.77	918.75	10.94	-0.92	0.083
125.12	-9.08	-3.75	0.00	-70.66	0.00	70.66	1,816.48	908.24	1,831.17	916.95	10.97	-0.92	0.082
128.87	-8.96	-3.74	0.00	-56.58	0.00	56.58	1,443.09	721.55	1,448.31	725.23	11.71	-0.96	0.084
130.00	-8.76	-3.70	0.00	-52.36	0.00	52.36	1,430.26	715.13	1,422.41	712.26	11.94	-0.97	0.080
132.00	-7.03	-3.32	0.00	-44.97	0.00	44.97	1,407.26	703.63	1,376.79	689.42	12.35	-0.99	0.070
135.00	-6.57	-3.19	0.00	-35.00	0.00	35.00	1,372.75	686.38	1,309.76	655.86	12.98	-1.02	0.058
140.00	-6.31	-3.08	0.00	-19.07	0.00	19.07	1,315.24	657.62	1,201.77	601.78	14.06	-1.05	0.037
143.00	-3.81	-2.03	0.00	-9.81	0.00	9.81	1,280.74	640.37	1,139.20	570.45	14.72	-1.06	0.020
145.00	-3.59	-1.92	0.00	-5.75	0.00	5.75	1,257.74	628.87	1,098.42	550.03	15.17	-1.06	0.013
148.00	0.00	-1.85	0.00	0.00	0.00	0.00	1,223.23	611.62	1,038.64	520.09	15.83	-1.06	0.000

Site Number: 302515

Code: ANSI/TIA-222-G

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Site Name: SMFR - North, CT

Engineering Number: OAA733621_C3_01

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Customer: SPRINT NEXTEL

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	25.74	0.00	68.04	0.00	0.00	3077.31	105.13	0.53
0.9D + 1.6W	24.33	0.00	51.02	0.00	0.00	2908.20	105.13	0.51
1.2D + 1.0Di + 1.0Wi	7.26	0.00	104.56	0.00	0.00	880.04	105.13	0.17
(1.2 + 0.2Sds) * DL + E ELFM	2.19	0.00	68.55	0.00	0.00	269.32	0.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	4.82	0.00	68.55	0.00	0.00	579.80	105.13	0.13
(0.9 - 0.2Sds) * DL + E ELFM	2.19	0.00	46.33	0.00	0.00	264.56	0.00	0.05
(0.9 - 0.2Sds) * DL + E EMAM	4.82	0.00	46.33	0.00	0.00	568.75	105.13	0.13
1.0D + 1.0W	6.33	0.00	56.73	0.00	0.00	760.85	105.13	0.14

Additional Steel Summary

Elev From (ft) Elev To (ft) Member			Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
			VQ/I (lb/in)	Shear Applied (kips)	phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	105. (4)	SOL-#20 All Thre	275.7	8.3	16.8	110.6	12.0	10	24	0.0	12.0	0	0	193.2	330.5	0.585



Base Plate & Anchor Rod Analysis

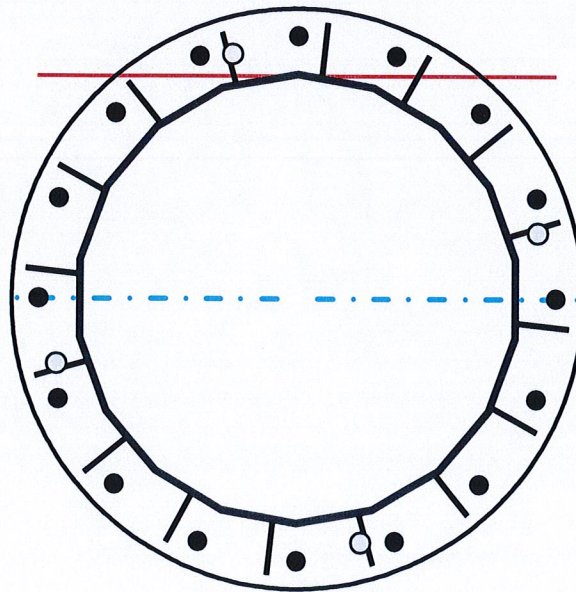
Pole Dimensions		
Number of Sides	18	-
Diameter	48.00	in
Thickness	0.438	in
Orientation Offset	10	°

Base Reactions		
Moment, Mu	3077.3	k-ft
Axial, Pu	68.0	k
Shear, Vu	25.7	k
Neutral Axis	0	°

Req
Component
Base Plate
Anchor Rods
Dwyidag

Base Plate		
Shape	Round	-
Diameter, ϕ	63	in
Thickness	2	in
Grade	A572-60	-
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	N/A	in
Orientation Offset	0	°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1044.3	k
Bending Stress, ϕM_n	2502.9	k

Dwyidag
Quantity
Bar Size
Diameter, ϕ
Bracket Type
Circle
Orientation Offset
Applied Force, Pu
Dwyidag Bar, ϕP_n



Original Anchor Rods		
Arrangement	Radial	-
Quantity	16	-
Diameter, ϕ	2 1/4	in
Bolt Circle	57	in
Grade	A615-75	-
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	11.2	in
Orientation Offset	0	°
Applied Force, Pu	118.5	k
Anchor Rods, ϕP_n	259.8	k

Stiffeners		
Arrangement	Radial	-
Quantity	16	-
Height	12	in
Width	6	in
Effective Width	6.000	in
Thickness	3/4	in



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu k	Moment Mu k-ft	Factor
Base Forces	25.7	2194.6	0.71
Anchor Rod Forces	25.7	2194.6	0.71
Additional Bolt (Grp1) Forces			
Additional Bolt (Grp2) Forces			
Dywidag Forces		882.8	0.29
Stiffener Forces	13.3	1137.4	0.37

Geometric Properties

Section	Gross Area in ²	Net Area in ²	Individual Inertia in ⁴	Threads per Inch #
Pole	65.0407	3.6134	0.2316	
Bolt	3.9761	3.2477	0.8393	4.5
Bolt1				
Bolt2				
Dywidag	4.9087	4.9087	1.9175	
Stiffener	3.7500	3.3750	54.0000	

Base Plate		
Shape	Round	-
Diameter, D	63	in
Thickness, t	2	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	40.804	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

External Base Plate		
Chord Length AA	35.160	in
Additional AA	11.190	in
Section Modulus, Z	46.351	in ³
Applied Moment, Mu	1044.3	k-ft
Bending Capacity, ϕM_n	2502.9	k-ft
Capacity, Mu/ ϕM_n	0.417	OK

Chord Length AB	34.126	in
Additional AB	10.305	in
Section Modulus, Z	44.432	in ³
Applied Moment, Mu	919.2	k-ft
Bending Capacity, ϕM_n	2399.3	k-ft
Capacity, Mu/ ϕM_n	0.383	OK

Bend Line Length	35.251	in
Additional Bend Line	23.764	in
Section Modulus, Z	59.015	in ³
Applied Moment, Mu	1044.3	k-ft
Bending Capacity, ϕM_n	3186.8	k-ft
Capacity, Mu/ ϕM_n	0.328	OK

Anchor Rods		
Anchor Rod Quantity, N	16	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	57	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	118.5	k
Applied Shear, Vu	2.9	k
Compressive Capacity, ϕP_n	259.8	k
Tensile Capacity, ϕR_n	0.456	OK
Interaction Capacity	0.508	OK

Additional Bolt Group 1		
Bolt Quantity, N	0	-
Bolt Diameter, d	0	in
Bolt Circle, BC	0	in
Yield Strength, Fy	0	ksi
Tensile Strength, Fu	0	ksi
Applied Axial, Pu	0.0	k
Applied Shear, Vu	0.0	k
Compressive Capacity, ϕP_n	0.0	k
Compressive Capacity, ϕP_n		
Interaction Capacity		

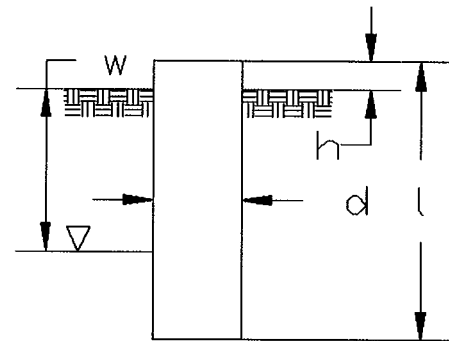
Additional Bolt Group 2		
Bolt Quantity, N	0	-
Bolt Diameter, d	0	in
Bolt Circle, BC	0	in
Yield Strength, Fy	0	ksi
Tensile Strength, Fu	0	ksi
Applied Axial, Pu	0.0	k
Applied Shear, Vu	0.0	k
Compressive Capacity, ϕP_n	0.0	k

Base Plate Stiffeners		
Applied Axial Force, Pu	6	
Applied Horizontal Force, Vu	0	
Vertical Weld		
Vert.-to-Stiffener $a=e_x/l$	0.	
Spacing Ratio, k	0.	
Weld Coefficient, C	3.	
Compressive Capacity, ϕP_n	15	
Vert.-to-Plate $a=e_x/l$	0.	
Spacing Ratio, k	0.	
Weld Coefficient, C	2.	
Shear Capacity, ϕV_n	15	
$P_u/\phi P_n + V_u/\phi V_n$	0.	

Horizontal Weld		
Horz.-to-Stiffener $a=e_x/l$	0.	
Spacing Ratio, k	0.	
Weld Coefficient, C	3.	
Effective Fillet	0.	
Compressive Capacity, ϕP_n	10	
Horz.-to-Pole $a=e_x/l$	0.	
Spacing Ratio, k	0.	
Weld Coefficient, C	3.	
Shear Capacity, ϕV_n	8	
$P_u/\phi P_n + V_u/\phi V_n$	0.	

Plate Tension		
Gross Cross Section	3.	
Net Cross Section	3.	
Tensile Capacity, ϕT_n	12	
Capacity, Tu/ ϕT_n	0.	

Program Last Updated: 5/13/2014
American Tower Corporation



Analyze or Design a Foundation?	Analyze
Foundation Mapped:	N
Moment (M):	3077.3 k-ft
Shear/Leg (V):	25.7 k
Axial Load (P):	68.0 k
Uplift/Leg (U):	0.0 k
Tower Type (GT / SST / MP):	MP
Diameter of Caisson (d):	
Caisson Embedment (L-h):	
Caisson Height Above Ground (h):	
Depth Below Ground Surface to Water Table (w):	
Unit Weight of Concrete:	
Unit Weight of Water:	
Tension Skin Friction/Compression Skin Friction:	
Pullout Angle:	

6.5 ft
24.0 ft
1.0 ft
22.0 ft
150.0 pcf
62.4 pcf
1.00
30.0 degrees

Depth (ft)		γ_{Soil}	Cohesion	ϕ	Ultimate Skin	Ultimate Bearing
Top	Bottom	(pcf)	(psf)	(degree)	Friction (psf)	Pressure (psf)
0.0	2.0	100	0	0	0	0
2.0	10.0	120	0	30	400	0
10.0	25.0	125	0	36	1400	40000

[illegible]

Required Embedment:	20.4 ft - OK, Caisson Embedment Satisfactory
Volume of Concrete:	829.6 ft ³ = 30.7 yd ³
Weight of Concrete (Buoyancy Effect Considered):	120.3 k
Average Soil Unit Weight:	114.0 pcf
Skin Friction Resistance:	465.6 k
Compressive Bearing Resistance:	1327.3 k
Pullout Weight (Minus Concrete Weight):	936.9 k
Nominal Uplift Capacity per Leg ($\phi_s T_n$):	439.4 k
Nominal Compressive Capacity per Leg ($\phi_s P_n$):	1344.7 k
P_u :	97.5 k
$T_u/\phi_s T_n$:	0.00 Result: OK
$P_u/\phi_s P_n$:	0.07 Result: OK
Total Lateral Resistance:	2023.1 k
Inflection Point (Below Ground Surface):	17.6 ft
Design Overturning Moment At Inflection Point (M_D):	3556.4 k-ft
Nominal Moment Capacity ($\phi_s M_n$):	6494.1 k-ft
$M_D/\phi_s M_n$:	0.55 Result: OK
ϕ_s :	0.75

Caisson Strength Capacity

Concrete Compressive Strength (f'_c):	4000 psi
Vertical Steel Rebar Size #:	11
Vertical Steel Rebar Area:	1.56 in ²
# of Vertical Steel Rebars:	21
Vertical Steel Rebar Yield Strength (F_y):	60 ksi
Horizontal Tie / Stirrup Size #:	5
Horizontal Tie / Stirrup Area:	0.31 in ²
Design Horizontal Tie / Stirrup Spacing:	12.0 in
Horizontal Tie / Stirrup Steel Yield Strength (F_y):	60 ksi
Rebar Cage Diameter:	70.0 in
Strength Bending/Tension Reduction Factor (ϕ_B):	0.90 ACI318-05 - 9.3.2.1
Strength Shear Reduction Factor (ϕ_V):	0.75 ACI318-05 - 9.3.2.3
Strength Compression Reduction Factor (ϕ_P):	0.65 ACI318-05 - 9.3.2.2
Steel Elastic Modulus:	29000 ksi
Design Moment (M_u):	3112.1 k-ft
Nominal Moment Capacity ($\phi_B M_n$):	4571.5 k-ft - ACI318-005 - 10.2
$M_u/\phi_B M_n$:	0.68 Result: OK
Design Shear (V_u):	334.0 k
Nominal Shear Capacity ($\phi_V V_n$):	456.5 k - ACI318-05 - 11.3.1.1 or 11.5.7.2
$V_u/\phi_V V_n$:	0.73 Result: OK
Design Tension (T_u):	0.0 k
Nominal Tension Capacity ($\phi_T T_n$):	1769.0 k - ACI318-05 - 10.2
$T_u/\phi_T T_n$:	0.00 Result: OK
Design Compression (P_u):	97.5 k
Nominal Compression Capacity ($\phi_P P_n$):	8390.2 k - ACI318-05 - 10.3.6.2
$P_u/\phi_P P_n$:	0.01 Result: OK
Bending Reinforcement Ratio:	0.007 ACI318-05 - 10.8.4 & 10.9.1
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.68 Result: OK

Sprint



PROJECT: DO MACRO UPGRADE
SITE NAME: TURN OF THE RIVER
SITE CASCADE: CT03XC345
SITE ADDRESS: 0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905
SITE TYPE: MONOPOLE TOWER
MARKET: NORTHERN CONNECTICUT

PLANS PREPARED FOR:

Sprint

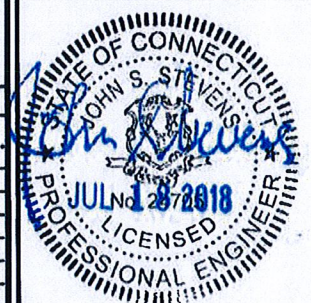
PLANS PREPARED BY:

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FROM ZERO TO INFINIGY
the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12203
Phone: 518-890-0790 | Fax: 518-890-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH
DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE: (518) 308-3740

ENGINEERING LICENSE:



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REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

TITLE SHEET
& PROJECT DATA

SHEET NUMBER:

T-1

SITE INFORMATION

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

LATITUDE (NAD83):
41° 6' 44.999" N
41.1125

LONGITUDE (NAD83):
73° 32' 18.599" W
-73.5385

COUNTY:
FAIRFIELD

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

ZONING DISTRICT:
R-10

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

AAV PROVIDER:
AT&T
(800) 248-2020

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
TERRI BURKHOLDER
(315) 719-2828
TBURKHOLDER@AIROSMITHDEVELOPMENT.COM

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) 2.5 GHz RRH'S BEHIND PROPOSED ANTENNAS
- INSTALL (3) 800 MHz RRH'S BEHIND EXISTING PIPE MOUNT
- INSTALL (48) JUMPER CABLES
- INSTALL (1) HYBRID CABLE
- INSTALL 2.5 EQUIPMENT INSIDE EXISTING N.V. MMBS CABINET

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

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE (2015 IBC)
2. TIA-222-G OR LATEST EDITION
3. NFPA 780 - LIGHTNING PROTECTION CODE
4. 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. CT BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES



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
 2. 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 (ASHTO)
 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. OFC: 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-0588, AND TS-0183
- 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:



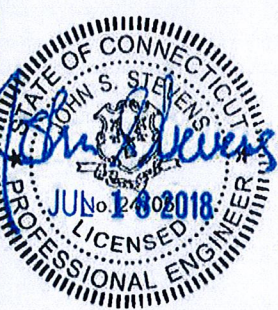
PLANS PREPARED BY:

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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:

AIRSMITH
DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12806
OFFICE: (518) 308-3740

ENGINEERING LICENSE:



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REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT		07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

**0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905**

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 ANTENNA 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. 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, AZIMUTH - UPLOAD REPORT FROM ANTENNA ALIGNMENT TOOL TO SITERA TASK 485. INSTALLED AZIMUTH, DOWNTILT, AND AZIMUTH 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 SITERA (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, AASHTO, AND OTHER METHODS IS NEEDED.
4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASHTO, 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 - ANTENNA ALIGNMENT TOOL (AAT)

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REVISIONS:	DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT		07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

**0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905**

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-2

CONTINUE FROM SP-2

7. VERIFICATION DOCUMENTED WITH THE ANTENNA CHECKLIST REPORT, BY A&E, SITE DEVELOPMENT REP, OR RF REP.
8. FINAL INSPECTION CHECKLIST AND HANDOFF WALK (HOC). SIGNED FORM SHOWING ACCEPTANCE BY FIELD OPS IS TO BE UPLOADED INTO SMS.
9. COAX SWEEP AND FIBER TESTING DOCUMENTS SUBMITTED VIA SMS FOR RF APPROVAL.
10. SCAN-ABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
11. ALL AVAILABLE JURISDICTIONAL INFORMATION
12. PDF SCAN OF REDLINES PRODUCED IN FIELD
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
- D. CONSTRUCTION INSPECTIONS AND CORRECTIVE MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR WITH WRITTEN REPORTS AND PHOTOGRAPHS. PHOTOGRAPHS MUST BE DIGITAL AND OF SUFFICIENT QUALITY TO CLEARLY SHOW THE SITE CONSTRUCTION. PHOTOGRAPHS MUST CLEARLY IDENTIFY THE PHOTOGRAPHED ITEM AND BE LABELED WITH THE SITE CASCADE NUMBER, SITE NAME, DESCRIPTION, AND DATE.
- 3.4 DELIVERABLES: TEST AND INSPECTION REPORTS AND CLOSEOUT DOCUMENTATION SHALL BE UPLOADED TO THE SMS AND/OR FORWARDED TO SPRINT FOR INCLUSION INTO THE PERMANENT SITE FILES.
 - A. THE FOLLOWING TEST AND INSPECTION REPORTS SHALL BE PROVIDED AS APPLICABLE.
 1. CONCRETE MIX AND CYLINDER BREAK REPORTS.
 2. STRUCTURAL BACKFILL COMPACTION REPORTS.
 3. SITE RESISTANCE TO EARTH TEST.
 4. ANTENNA AZIMUTH AND DOWN TILT VERIFICATION
 5. TOWER ERECTION INSPECTIONS AND MEASUREMENTS DOCUMENTING TOWER INSTALLED PER SUPPLIER'S REQUIREMENTS AND THE APPLICABLE SECTIONS HEREIN.
 6. COAX CABLE SWEEP TESTS PER COMPANY'S "ANTENNA LINE ACCEPTANCE STANDARDS".
 - B. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES THE FOLLOWING:
 1. TEST WELLS AND TRENCHES: PHOTOGRAPHS OF ALL TEST WELLS; PHOTOGRAPHS SHOWING ALL OPEN EXCAVATIONS AND TRENCHING PRIOR TO BACKFILLING SHOWING A TAPE MEASURE VISIBLE IN THE EXCAVATIONS INDICATING DEPTH.
 2. CONDUITS, CONDUCTORS AND GROUNDING: PHOTOGRAPHS SHOWING TYPICAL INSTALLATION OF CONDUCTORS AND CONNECTORS; PHOTOGRAPHS SHOWING TYPICAL BEND RADIUS OF INSTALLED GROUND WIRES AND GROUND ROD SPACING;
 3. CONCRETE FORMS AND REINFORCING: CONCRETE FORMING AT TOWER AND EQUIPMENT/SHELTER PAD/FOUNDATIONS - PHOTOGRAPHS SHOWING ALL REINFORCING STEEL, UTILITY AND CONDUIT STUB OUTS; PHOTOGRAPHS SHOWING CONCRETE POUR OF SHELTER SLAB/FOUNDATION, TOWER FOUNDATION AND GUY ANCHORS WITH VIBRATOR IN USE; PHOTOGRAPHS SHOWING EACH ANCHOR ON GUYED TOWERS, BEFORE CONCRETE POUR.
 4. TOWER, ANTENNAS AND MAINLINE: INSPECTION AND PHOTOGRAPHS OF SECTION STACKING; INSPECTION AND PHOTOGRAPHS OF PLATFORM COMPONENT ATTACHMENT POINTS; PHOTOGRAPHS OF TOWER TOP GROUNDING; PHOTOS OF TOWER COAX LINE COLOR CODING AT THE TOP AND AT GROUND LEVEL; INSPECTION AND PHOTOGRAPHS OF OPERATIONAL OF TOWER LIGHTING, AND PLACEMENT OF FAA REGISTRATION SIGN; PHOTOGRAPHS SHOWING ADDITIONAL GROUNDING POINTS FOR TOWERS GREATER THAN 200 FEET.; PHOTOS OF ANTENNA GROUND BAR, EQUIPMENT GROUND BAR, AND MASTER GROUND BAR; PHOTOS OF GPS ANTENNA(S); PHOTOS OF EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA; PHOTOS OF COAX WEATHERPROOFING - TOP AND BOTTOM; PHOTOS OF COAX GROUNDING--TOP AND BOTTOM; PHOTOS OF ANTENNA AND MAST GROUNDING; PHOTOS OF COAX CABLE ENTRY INTO SHELTER; PHOTOS OF PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
 5. ROOF TOPS: PRE-CONSTRUCTION AND POST-CONSTRUCTION VISUAL INSPECTION AND PHOTOGRAPHS OF THE ROOF AND INTERIOR TO DETERMINE AND DOCUMENT CONDITIONS; ROOF TOP CONSTRUCTION INSPECTIONS AS REQUIRED BY THE JURISDICTION; PHOTOGRAPHS OF CABLE TRAY AND/OR ICE BRIDGE; PHOTOGRAPHS OF DOGHOUSE/CABLE EXIT FROM ROOF;
 6. SITE LAYOUT - PHOTOGRAPHS OF THE OVERALL COMPOUND, INCLUDING EQUIPMENT PLATFORM FROM ALL FOUR CORNERS.
 7. FINISHED UTILITIES: CLOSE-UP PHOTOGRAPHS OF THE PPC BREAKER PANEL; CLOSE-UP PHOTOGRAPH OF THE INSIDE OF THE TELCO PANEL AND NIU; CLOSE-UP PHOTOGRAPH OF THE POWER METER AND DISCONNECT; PHOTOS OF POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE; PHOTOGRAPHS AT METER BOX AND/OR FACILITY DISTRIBUTION PANEL.
 8. REQUIRED MATERIALS CERTIFICATIONS: CONCRETE MIX DESIGNS; MILL CERTIFICATION FOR ALL REINFORCING AND STRUCTURAL STEEL; AND ASPHALT PAVING MIX DESIGN.
 9. ANY AND ALL SUBMITTALS BY THE JURISDICTION OR COMPANY.

SECTION 01 400 - SUBMITTALS & TESTS

PART 1 - GENERAL

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
 - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
 - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.1 WEEKLY REPORTS:
 - A. CONTRACTOR SHALL PROVIDE SPRINT WITH WEEKLY REPORTS SHOWING PROJECT STATUS. THIS STATUS REPORT FORMAT WILL BE PROVIDED TO THE CONTRACTOR BY SPRINT. THE REPORT WILL CONTAIN SITE ID NUMBER, THE MILESTONES FOR EACH SITE, INCLUDING THE BASELINE DATE, ESTIMATED COMPLETION DATE AND ACTUAL COMPLETION DATE.
 - B. REPORT INFORMATION WILL BE TRANSMITTED TO SPRINT VIA ELECTRONIC MEANS AS REQUIRED. THIS INFORMATION WILL PROVIDE A BASIS FOR PROGRESS MONITORING AND PAYMENT.
- 3.2 PROJECT CONFERENCE CALLS:
 - A. SPRINT MAY HOLD WEEKLY PROJECT CONFERENCE CALLS. CONTRACTOR WILL BE REQUIRED TO COMMUNICATE SITE STATUS, MILESTONE COMPLETIONS AND UPCOMING MILESTONE PROJECTIONS, AND ANSWER ANY OTHER SITE STATUS QUESTIONS AS NECESSARY.
- 3.3 PROJECT TRACKING IN SMS:
 - A. CONTRACTOR SHALL PROVIDE SCHEDULE UPDATES AND PROJECTIONS IN THE SMS SYSTEM ON A WEEKLY BASIS.
- 3.4 ADDITIONAL REPORTING:
 - A. ADDITIONAL OR ALTERNATE REPORTING REQUIREMENTS MAY BE ADDED TO THE REPORT AS DETERMINED TO BE REASONABLY NECESSARY BY COMPANY.
- 3.5 PROJECT PHOTOGRAPHS:
 - A. FILE DIGITAL PHOTOGRAPHS OF COMPLETED SITE IN JPEG FORMAT IN THE SMS PHOTO LIBRARY FOR THE RESPECTIVE SITE. PHOTOGRAPHS SHALL BE CLEARLY LABELED WITH SITE NUMBER, NAME AND DESCRIPTION, AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING AS APPLICABLE:
 1. SHELTER AND TOWER OVERVIEW.
 2. TOWER FOUNDATION(S) - FORMS AND STEEL BEFORE POUR (EACH ANCHOR ON GUYED TOWERS).
 3. TOWER FOUNDATION(S) POUR WITH VIBRATOR IN USE (EACH ANCHOR ON GUYED TOWERS).
 4. TOWER STEEL AS BEING INSTALLED INTO HOLE (SHOW ANCHOR STEEL ON GUYED TOWERS).
 5. PHOTOS OF TOWER SECTION STACKING.
 6. CONCRETE TESTING / SAMPLES.
 7. PLACING OF ANCHOR BOLTS IN TOWER FOUNDATION.
 8. BUILDING/WATER TANK FROM ROAD FOR TENANT IMPROVEMENTS OR COMMENTS.
 9. SHELTER FOUNDATION--FORMS AND STEEL BEFORE POURING.
 10. SHELTER FOUNDATION POUR WITH VIBRATOR IN USE.
 11. COAX CABLE ENTRY INTO SHELTER.
 12. PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
 13. ROOFTOP PRE AND POST CONSTRUCTION PHOTOS TO INCLUDE PENETRATIONS AND INTERIOR CEILING.
 14. PHOTOS OF TOWER TOP COAX LINE COLOR CODING AND COLOR CODING AT GROUND LEVEL.
 15. PHOTOS OF ALL APPROPRIATE COMPANY OR REGULATORY SIGNAGE.
 16. PHOTOS OF EQUIPMENT BOLT DOWN INSIDE SHELTER.
 17. POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE AND POWER AND TELCO SUPPLY LOCATIONS INCLUDING METER/DISCONNECT.
 18. ELECTRICAL TRENCH(S) WITH ELECTRICAL / CONDUIT BEFORE BACKFILL.
 19. ELECTRICAL TRENCH(S) WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
 20. TELCO TRENCH WITH TELEPHONE / CONDUIT BEFORE BACKFILL.
 21. TELCO TRENCH WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
 22. SHELTER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
 23. TOWER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

24. FENCE GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
 25. ALL BTS GROUND CONNECTIONS.
 26. ALL GROUND TEST WELLS.
 27. ANTENNA GROUND BAR AND EQUIPMENT GROUND BAR.
 28. ADDITIONAL GROUNDING POINTS ON TOWERS ABOVE 200'.
 29. HVAC UNITS INCLUDING CONDENSERS ON SPLIT SYSTEMS.
 30. GPS ANTENNAS.
 31. CABLE TRAY AND/OR WAVEGUIDE BRIDGE.
 32. DOGHOUSE/CABLE EXIT FROM ROOF.
 33. EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA.
 34. MASTER BUS BAR.
 35. TELCO BOARD AND NIU.
 36. ELECTRICAL DISTRIBUTION WALL.
 37. CABLE ENTRY WITH SURGE SUPPRESSION.
 38. ENTRANCE TO EQUIPMENT ROOM.
 39. COAX WEATHERPROOFING--TOP AND BOTTOM OF TOWER.
 40. COAX GROUNDING --TOP AND BOTTOM OF TOWER.
 41. ANTENNA AND MAST GROUNDING.
 42. LANDSCAPING - WHERE APPLICABLE.
- 3.6 FINAL PROJECT ACCEPTANCE: COMPLETE ALL REQUIRED REPORTING TASKS PER CONTRACT, CONTRACT DOCUMENTS OR THE SPRINT INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES AND UPLOAD INTO SITERRA.

PLANS PREPARED FOR:

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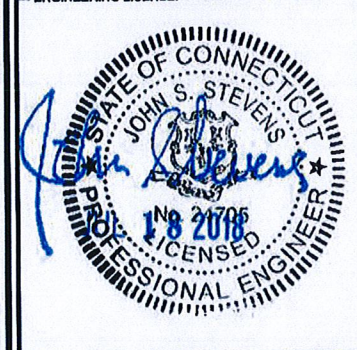
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REVISIONS:	DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT		07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

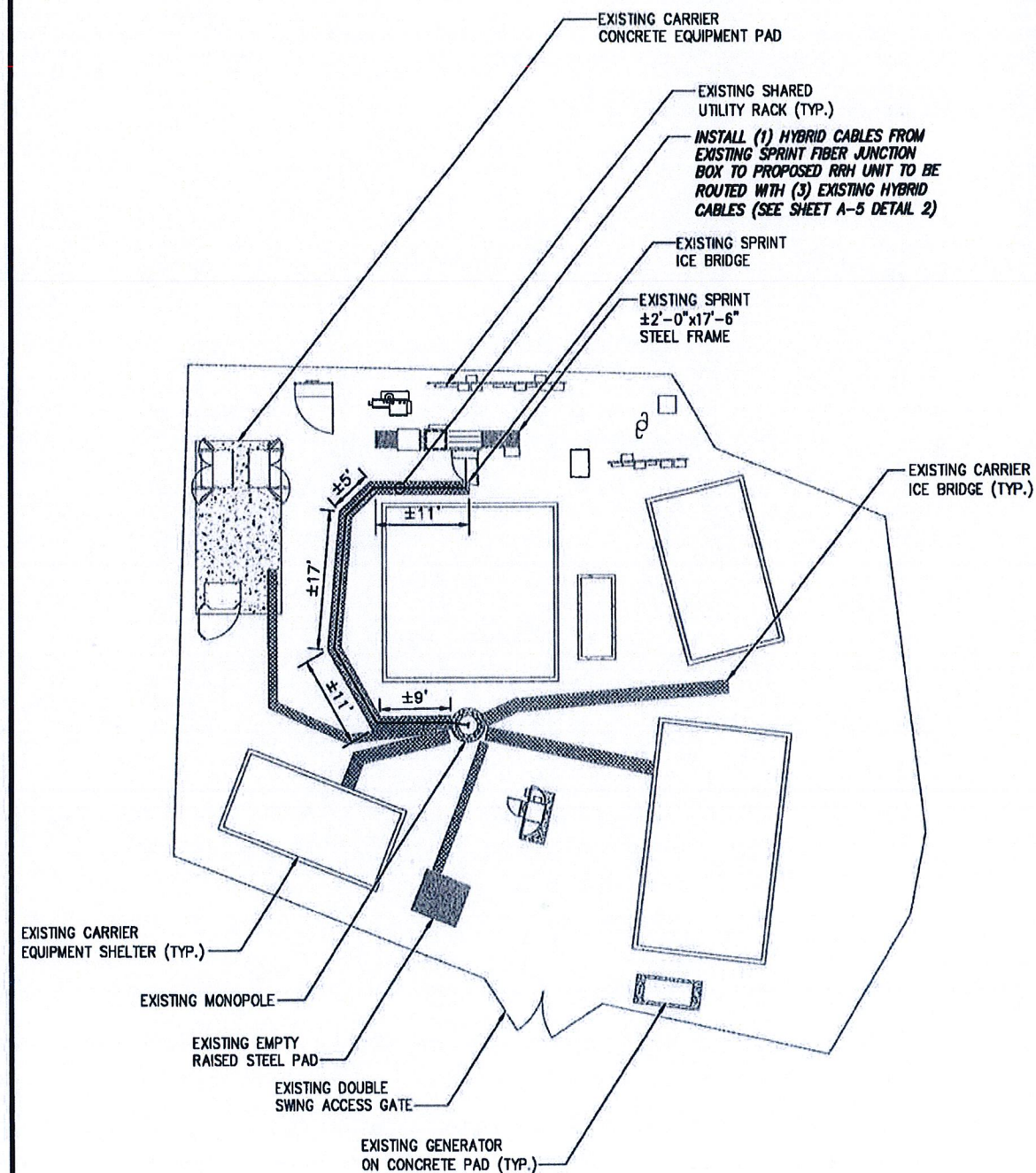
**0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905**

SHEET DESCRIPTION:

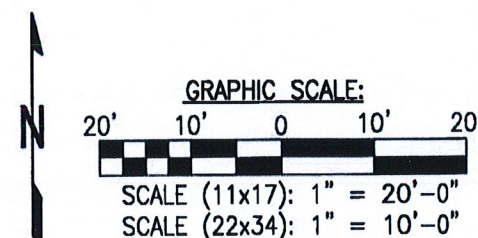
SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-3

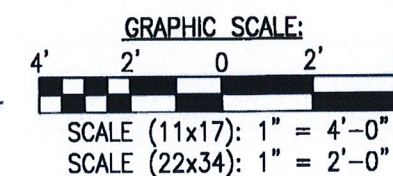
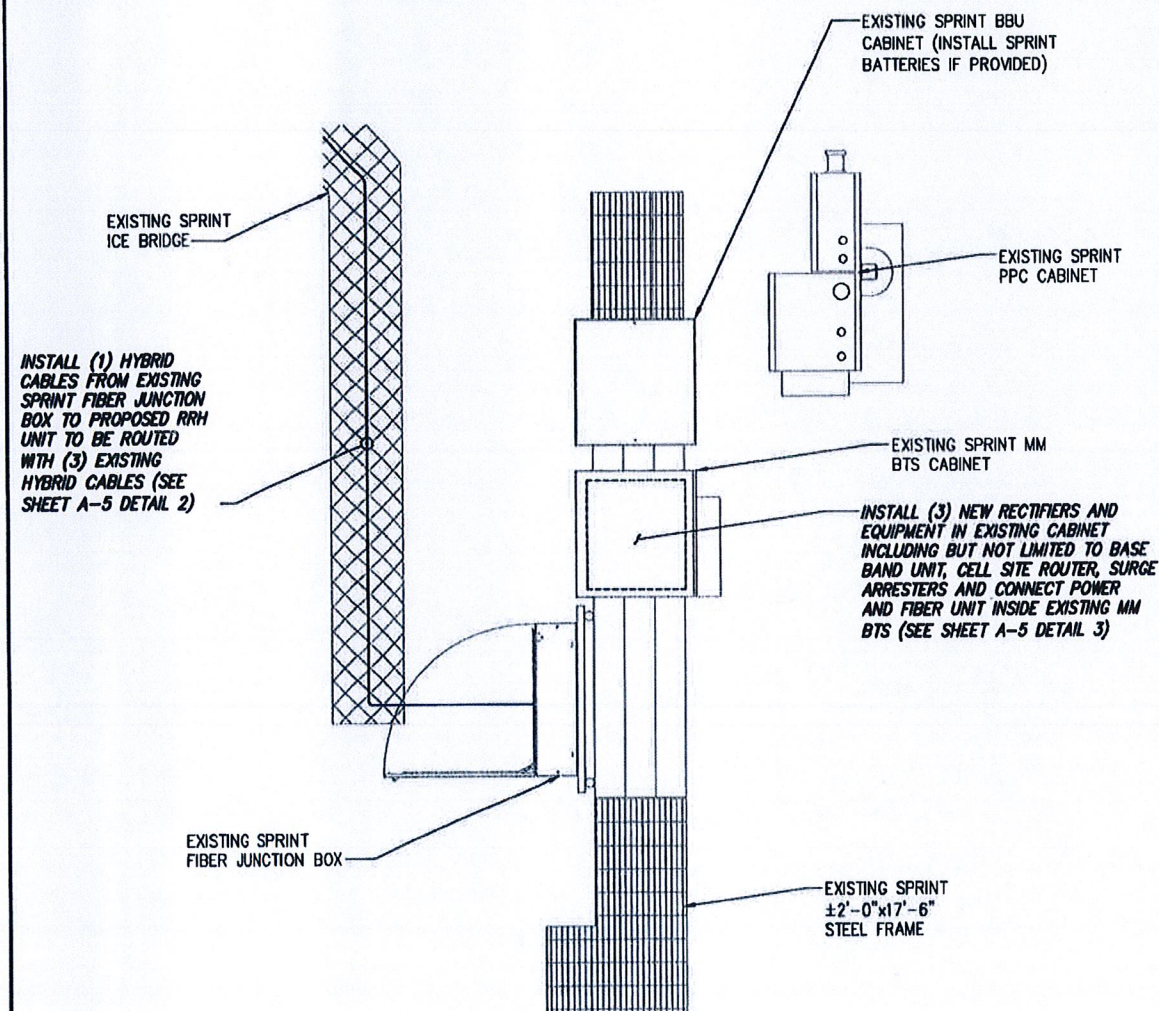


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OVERALL SITE PLAN

SCALE: AS NOTED 1



SPRINT EQUIPMENT PLAN

SCALE: AS NOTED 2

PLANS PREPARED FOR:

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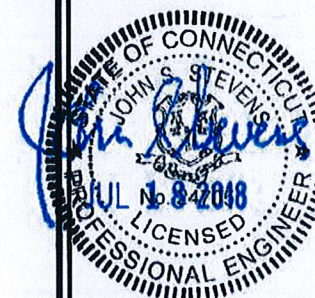
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JOB NUMBER 526-104

PROJECT MANAGER:

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

ENGINEERING LICENSE:



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REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT		07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

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

TOP OF TOWER
ELEV. = $\pm 150'-0"$ A.G.L.

OF EXISTING/TO BE
INSTALLED SPRINT ANTENNAS
ELEV. = $120'-0"$ A.G.L.

EXISTING (1) SPRINT 1900
MHz RRH MOUNTED TO
MONOPOLE EACH SECTOR

EXISTING (1) SPRINT 800
MHz RRH MOUNTED TO
MONOPOLE EACH SECTOR

INSTALL (1) SPRINT 800 MHz RRH
MOUNTED BEHIND PROPOSED
ANTENNA EACH SECTOR (SEE
SHEET A-4 DETAIL 4)

EXISTING (1) SPRINT
PANEL ANTENNA TO
REMAIN EACH SECTOR

EXISTING CARRIER
PANEL ANTENNA (TYP.)

INSTALL (1) SPRINT PANEL
ANTENNA TO REPLACE EXISTING
ANTENNA EACH SECTOR (SEE
SHEET A-4 DETAIL 3)

INSTALL (1) SPRINT 2.5 GHz RRH
MOUNTED BEHIND PROPOSED
ANTENNA EACH SECTOR (SEE
SHEET A-4 DETAIL 1)

EXISTING MONOPOLE TOWER

INSTALL (1) HYBRID CABLES FROM
EXISTING SPRINT FIBER JUNCTION
BOX TO PROPOSED RRH UNIT TO BE
ROUTED WITH (3) EXISTING HYBRID
CABLES (SEE SHEET A-5 DETAIL 2)

GROUND LEVEL

NOTE:

- STRUCTURAL ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "STRUCTURAL ANALYSIS REPORT" DATED: "JUNE 15, 2018". ACCORDING TO THE RESULTS OF REVIEW, THE EXISTING STRUCTURE IS CAPABLE OF SUPPORTING THE PROPOSED LOADING.
- ANTENNA AND RRH SUPPORT EVALUATION COMPLETED BY INFINIGY. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "SPRINT DO MACRO PROJECT MOUNT ANALYSIS", DATED: "JUNE 7 2018". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS ARE SUFFICIENT TO SUPPORT THE PROPOSED LOADING.

SITE LOADING CHART

SECTOR	EXISTING/ PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/ REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	PROPOSED	DT465B-2XR	COMMSCOPE	320°	1	---	(2) 800 MHz 2X50W RRH (1) TD-RRH8X20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1	$\pm 193'$	$\pm 120'$ AGL
	EXISTING	APXVSPP18-C-A20	RFS	320°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING HYBRID		
BETA	PROPOSED	DT465B-2XR	COMMSCOPE	60°	1	---	(2) 800 MHz 2X50W RRH (1) TD-RRH8X20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		$\pm 120'$ AGL
	EXISTING	APXVSPP18-C-A20	RFS	60°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING HYBRID		
GAMMA	PROPOSED	DT465B-2XR	COMMSCOPE	220°	1	---	(2) 800 MHz 2X50W RRH (1) TD-RRH8X20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		$\pm 120'$ AGL
	EXISTING	APXVSPP18-C-A20	RFS	220°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING HYBRID		

PROJECT SCOPE

INSTALL: (3) PANEL ANTENNAS AND (6) 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

TOWER ELEVATION

NO SCALE

1

DETAIL NOT USED

NO SCALE

3

PLANS PREPARED FOR:

Sprint

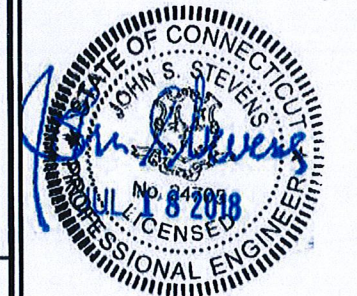
PLANS PREPARED BY:

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1033 Watervliet Shaker Rd | Albany, NY 12208
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 528-104

PROJECT MANAGER:

AIROSMITH
DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE: (518) 308-3740

ENGINEERING LICENSE:



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SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

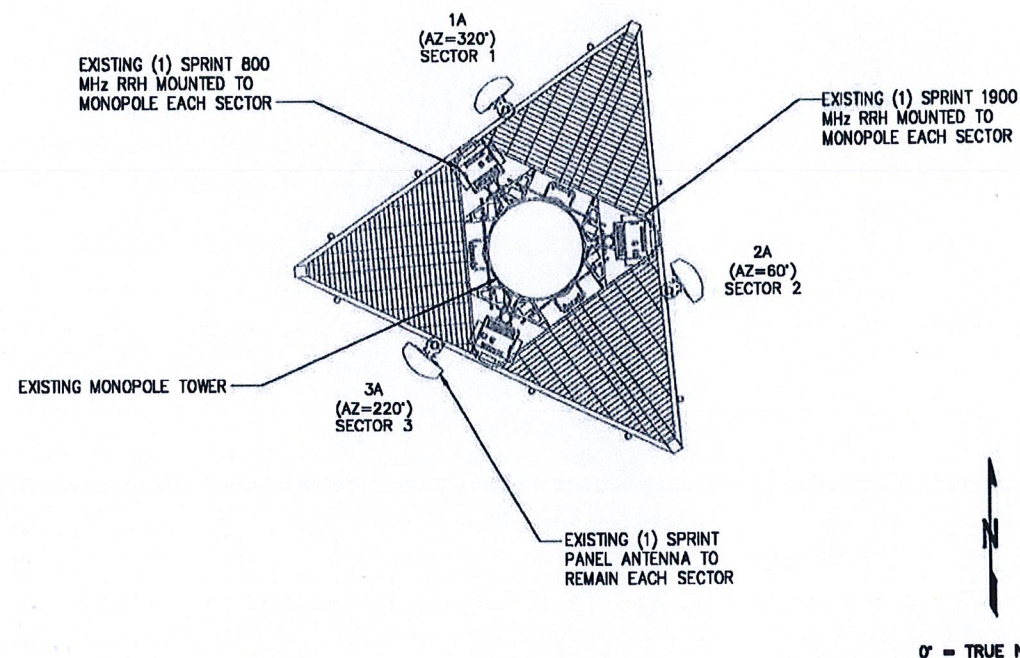
0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

TOWER ELEVATION

SHEET NUMBER:

A-2

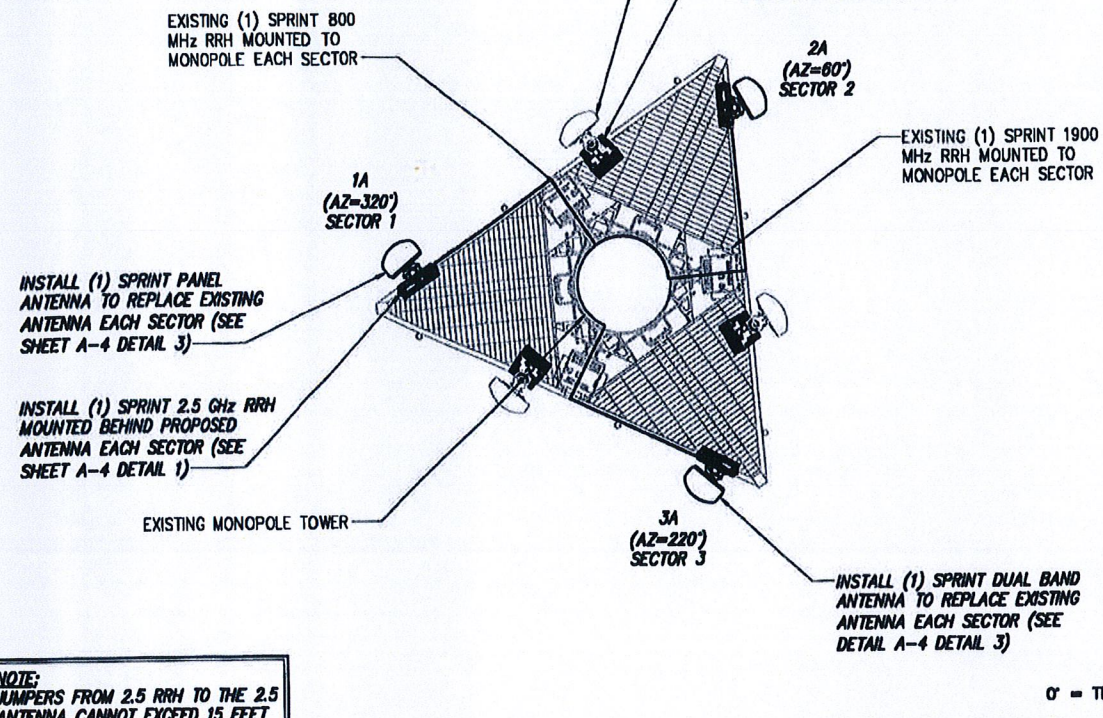


EXISTING ANTENNA & RRH LAYOUT

NO SCALE

1

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



FINAL ANTENNA & RRH LAYOUT

NO SCALE

2

PLANS PREPARED FOR:

Sprint

PLANS PREPARED BY:

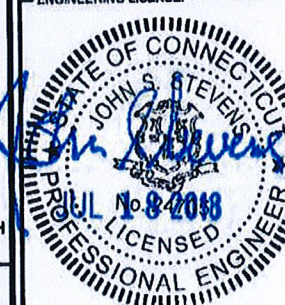
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www.infinigy.com
JOB NUMBER 525-104

PROJECT MANAGER:

AIROSMITH
DEVELOPMENT

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BARATOGA SPRINGS, NY 12888
OFFICE: (518) 306-3740

ENGINEERING LICENSE:



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REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT		07/09/18	WAF	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

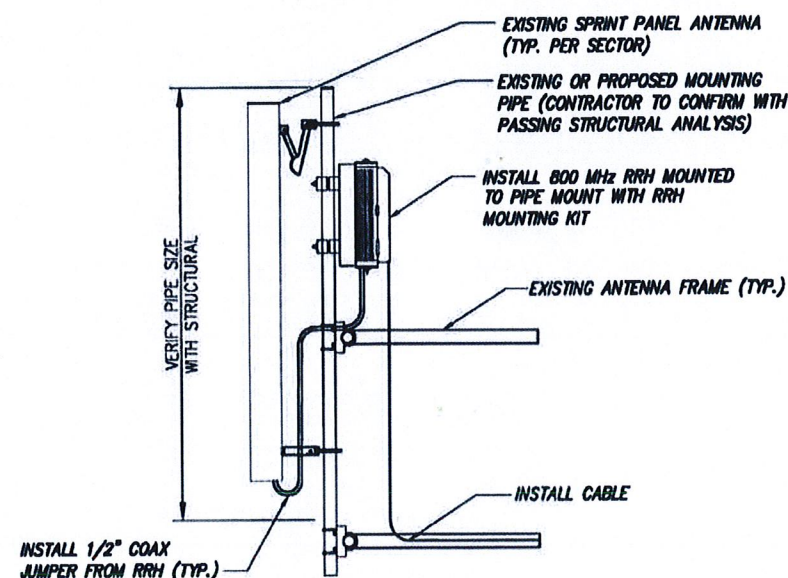
0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

ANTENNA LAYOUT
& MOUNTING DETAILS

SHEET NUMBER:

A-3



TYPICAL RRH MOUNTING DETAILS

NO SCALE

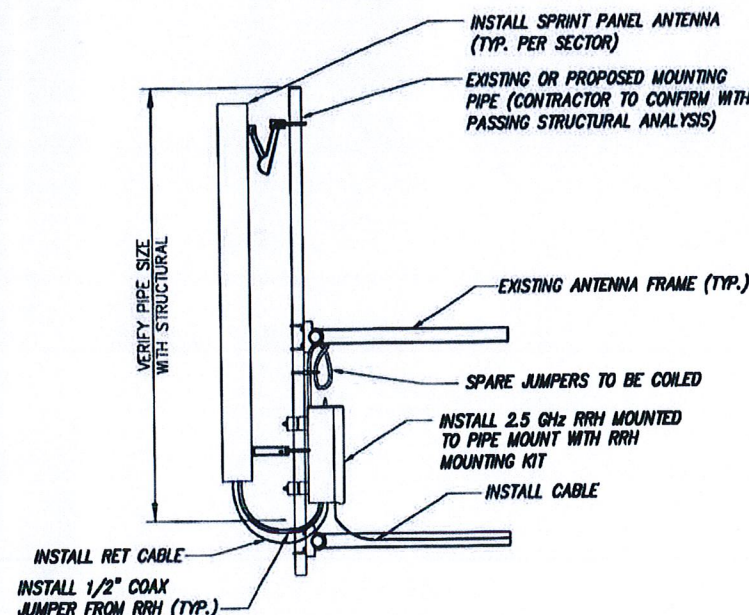
3

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 NOT EXCEED BEND RADIUS.



TYPICAL PANEL ANTENNA & RRH MOUNTING DETAILS

NO SCALE

4

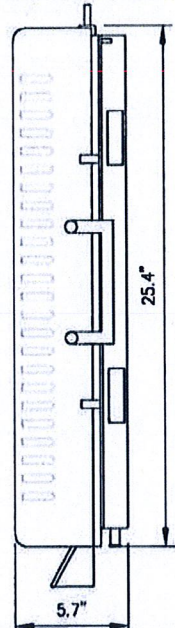
NOTE: CONTRACTOR TO POSITION RRH ON MOUNT BEHIND ANTENNA SUCH THAT THE RRH DOES NOT INTERFERE WITH THE EXISTING PLATFORM/T-ARM MOUNTING HARDWARE.

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

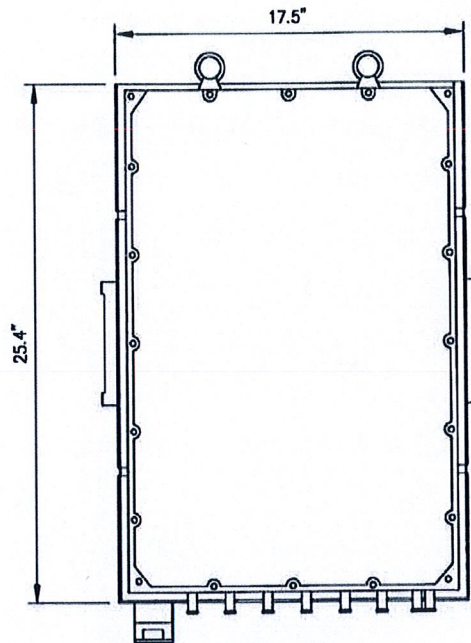
NOTES:

1. CUT DC CONDUCTORS TO LENGTH.
2. COIL FIBER CABLE AND SECURE AT SIDE OF RRH.
3. DO NOT EXCEED BEND RADIUS.

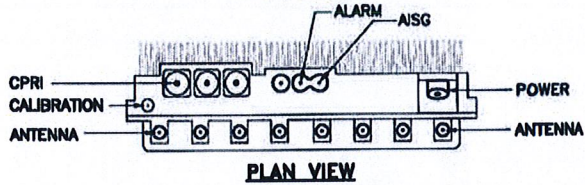
RRH: ALCATEL LUCENT TD-RRH8X20
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

NOTES

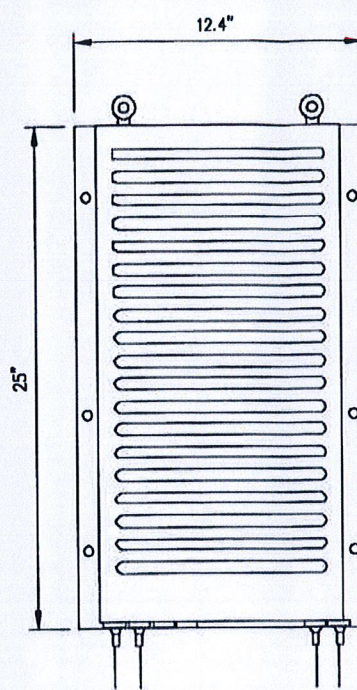
COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRH'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRH PACKAGES IN THE RAIN.

2.5 RRH'S

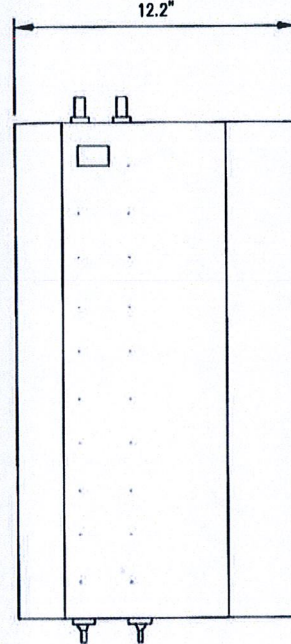
NO SCALE

1

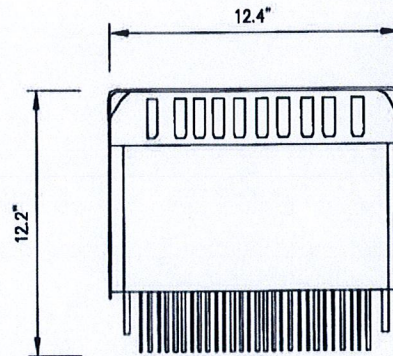
RRH: ALCATEL LUCENT 1900 MHz
COLOR: LIGHT GREY
WEIGHT: 70 LBS.
(INCLUDING OPTIONAL SOLAR SHIELD)



FRONT VIEW



SIDE VIEW



TOP VIEW

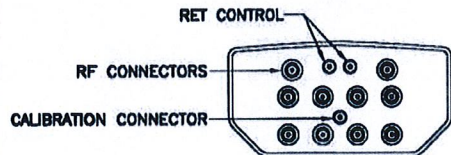
EXISTING 1900 MHz RRH

NO SCALE

2

ANTENNA COMMSCOPE DT465B-2XR

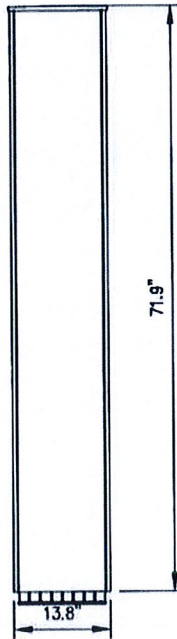
RADOME MATERIAL: FIBERGLASS
RADOME COLOR: LIGHT GREY
DIMENSIONS, HxWxD.in(m/m): 71.9"x13.8"x8.2" (1825x350x209mm)
WEIGHT: 58 lbs
CONNECTORS: (2) 7/16" DIN FEMALE
(8) 4.1/9.5 DIN FEMALE



PLAN VIEW



SIDE VIEW



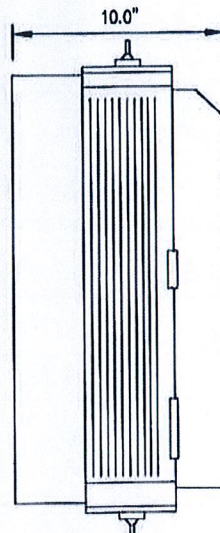
FRONT VIEW

DUALBAND ANTENNA

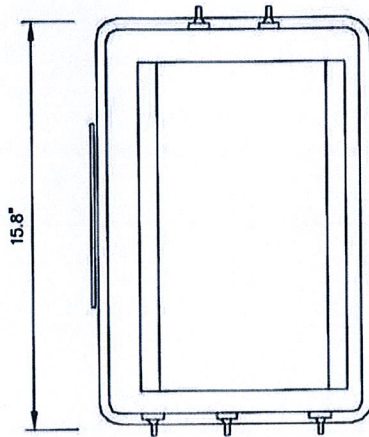
NO SCALE

3

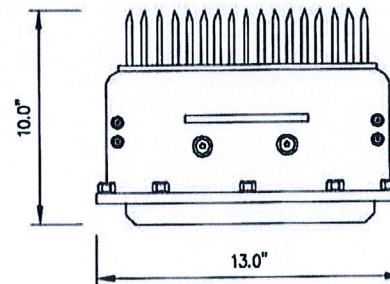
RRH: ALCATEL LUCENT RRH 800 MHz 2x50W
COLOR: LIGHT GREY
WEIGHT: 53 LBS.



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.

800 MHz RRH

NO SCALE

4

PLANS PREPARED FOR:

Sprint

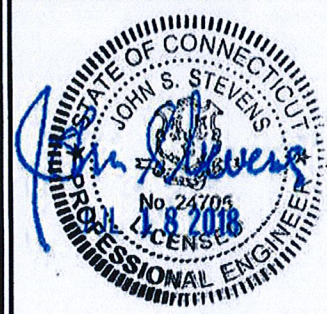
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www.infinigy.com
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PROJECT MANAGER:

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OFFICE: (518) 308-3740

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TURN OF THE RIVER

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CT03XC345

SITE ADDRESS:

0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

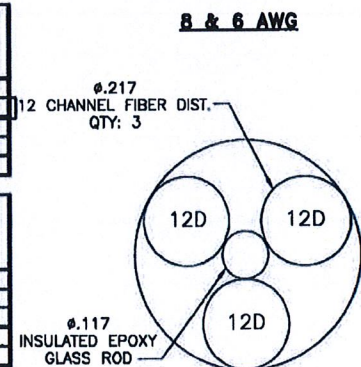
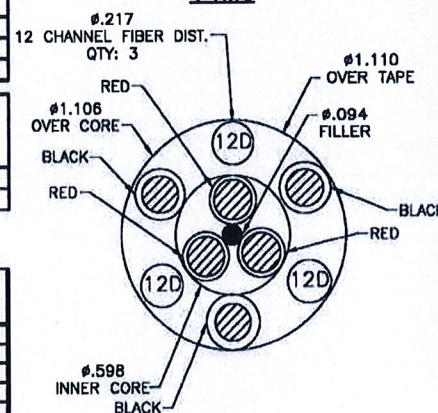
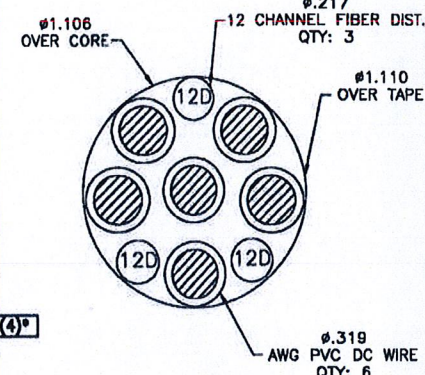
EQUIPMENT &
MOUNTING DETAILS

SHEET NUMBER:

A-4

RFS HYBRIFLEX RISER CABLE SCHEDULE

Fiber Only (Existing DC Power)	Hybrid cable MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	175 ft
8 AWG Power	MN: HB058-M12-200F	200 ft
	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
6 AWG Power	MN: HB114-08U3M12-175F	175 ft
	MN: HB114-08U3M12-200F	200 ft
	Hybrid cable MN: HB114-13U3M12-225F 3x 6 AWG power pairs, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 3/4 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 pairs, 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-SF1 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-SF1 5 ft, 3x 8 AWG power pairs, 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-SF1 5 ft, 3x 6 AWG power pairs, 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-SF1 5 ft, 3x 4 AWG power pairs, 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

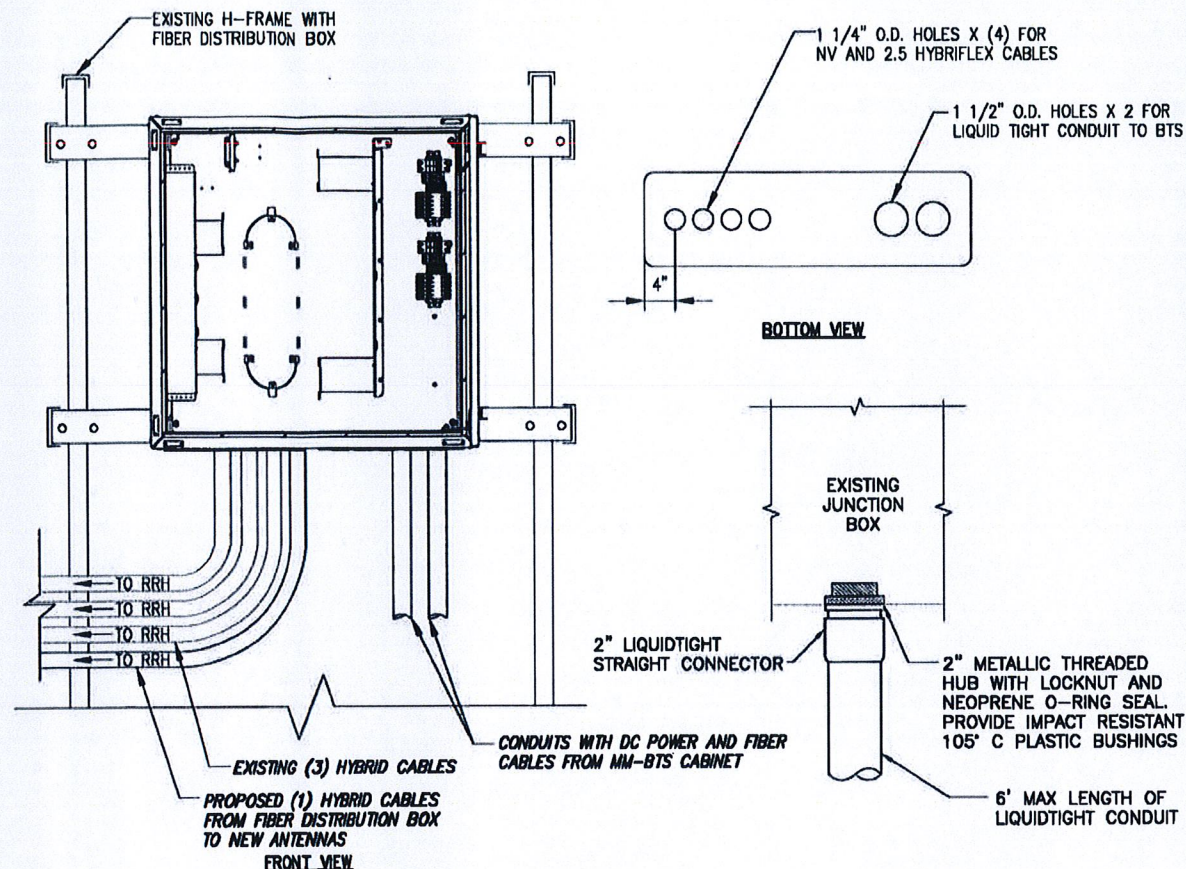
* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

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.

800/1900/2500 CROSS SECTION DATA

NO SCALE

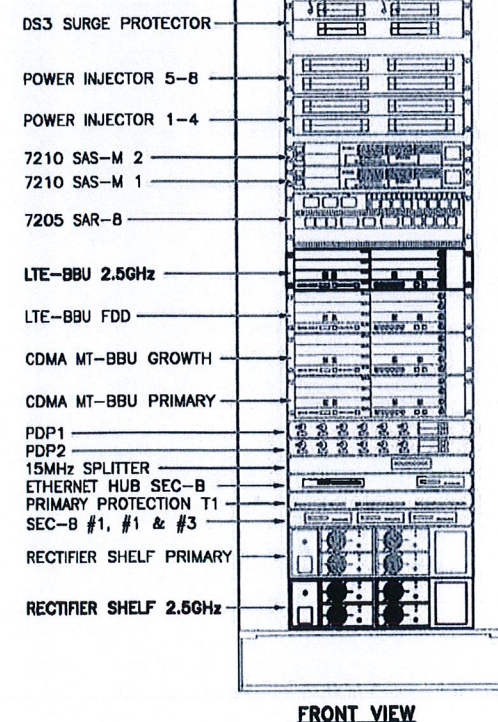
1



FIBER JUNCTION BOX & PENETRATION

NO SCALE

2



FRONT VIEW

NEW EQUIPMENT IN EXISTING CABINET

NO SCALE

3

PLANS PREPARED FOR:

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PLANS PREPARED BY:

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FROM ZERO TO INFINIGY
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www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH
DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12868
OFFICE: (518) 308-3740

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
18 2018
PROFESSIONAL ENGINEER

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TURN OF THE RIVER

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SITE ADDRESS:

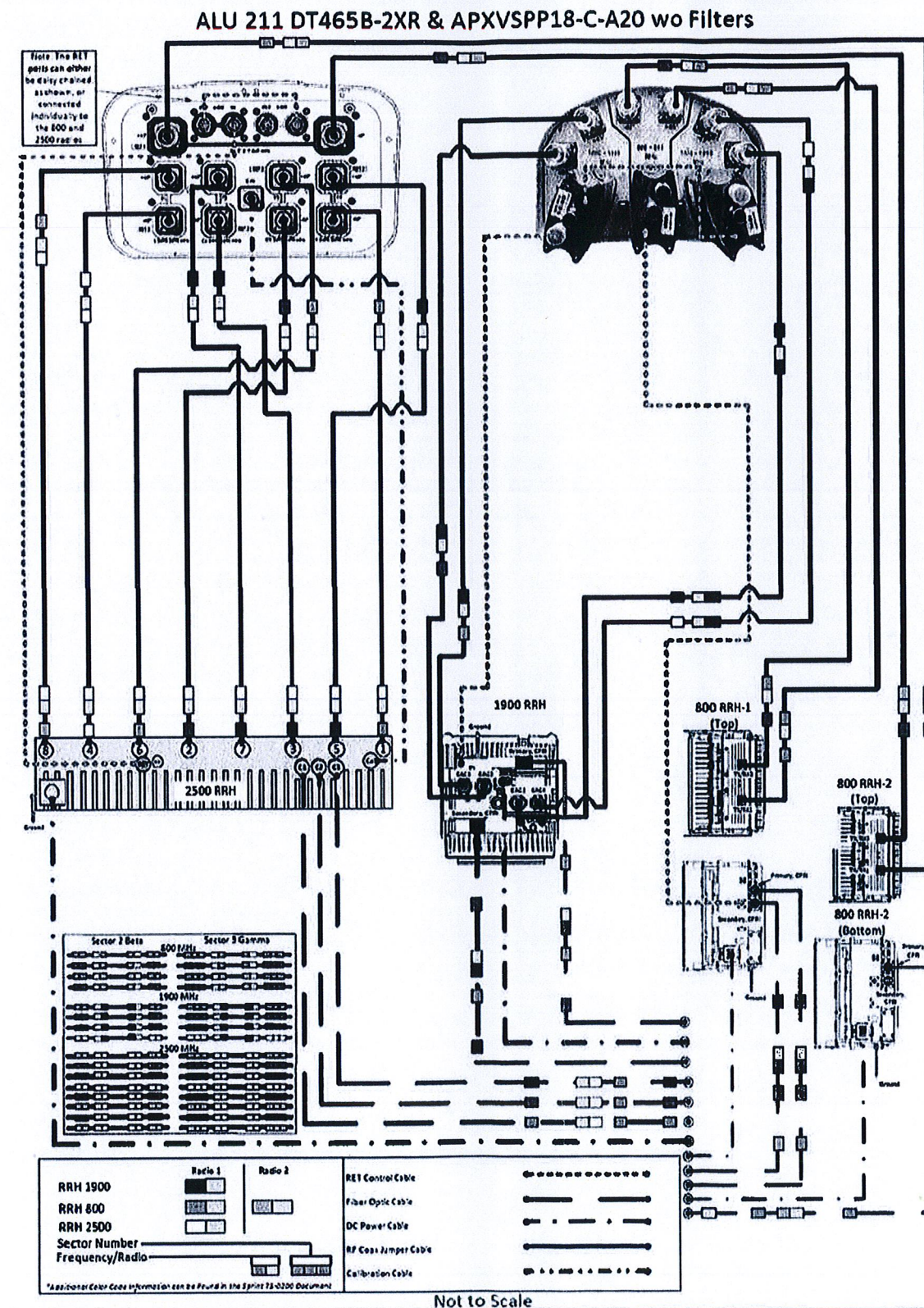
0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

CIVIL DETAILS

SHEET NUMBER:

A-5



PLUMBING DIAGRAM

NO SCALE

1

PLANS PREPARED FOR:

Sprint

PLANS PREPARED BY:

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Phone: 518-690-0790 | Fax: 518-690-0793
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BARATOGA SPRINGS, NY 12808
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STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
JUL 18 2018
PROFESSIONAL ENGINEER

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REVISIONS:

DESCRIPTION	DATE	BY	REV.

ISSUED FOR PERMIT

DATE	MAP	0
07/09/18		

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SITE NUMBER:

CT03XC345

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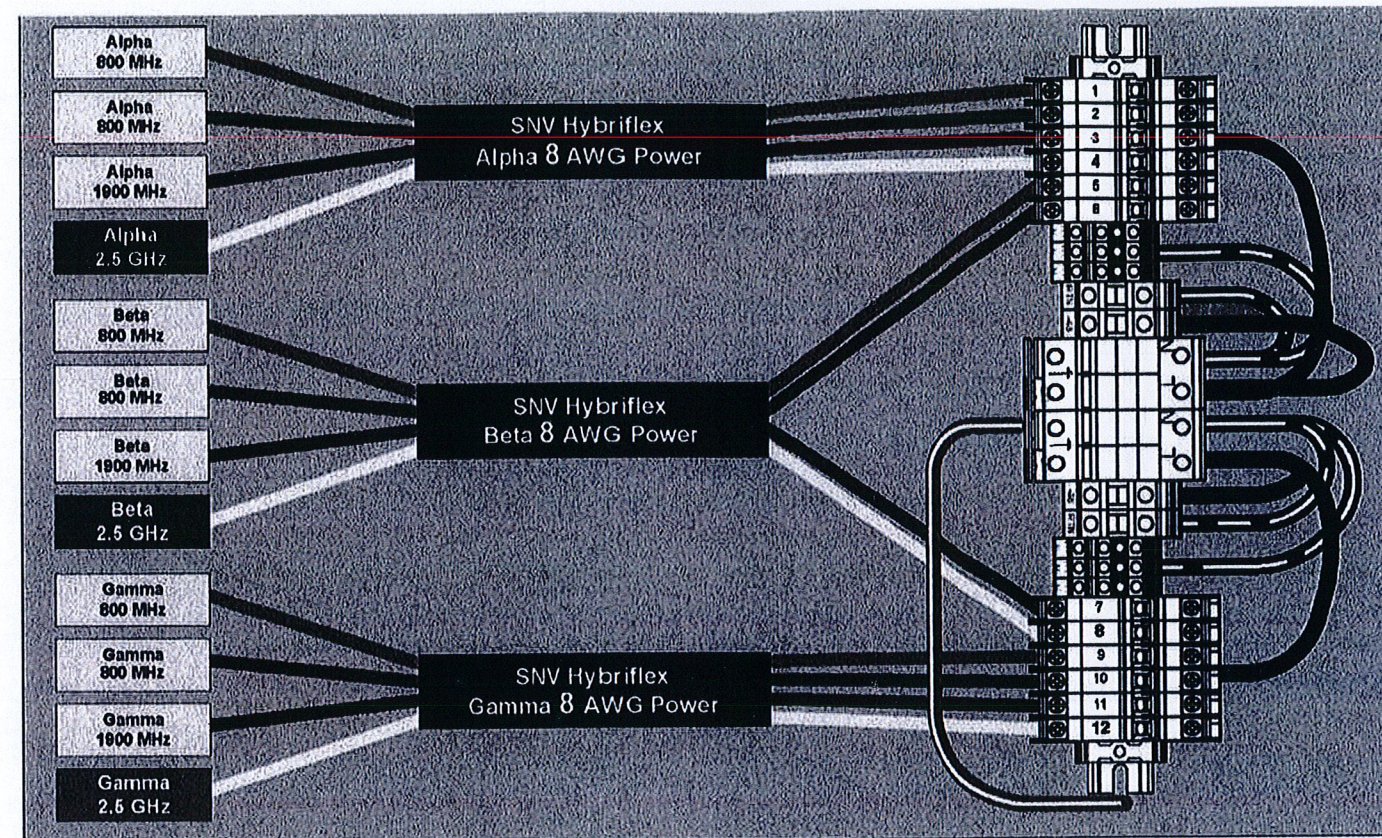
0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

SHEET DESCRIPTION:

PLUMBING DIAGRAM

SHEET NUMBER:

A-6



RRH TO DISTRIBUTION BOX POWER CONNECTIVITY

NO SCALE

1

LEGEND:

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

BOND INSTALL ANTENNA TO SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS



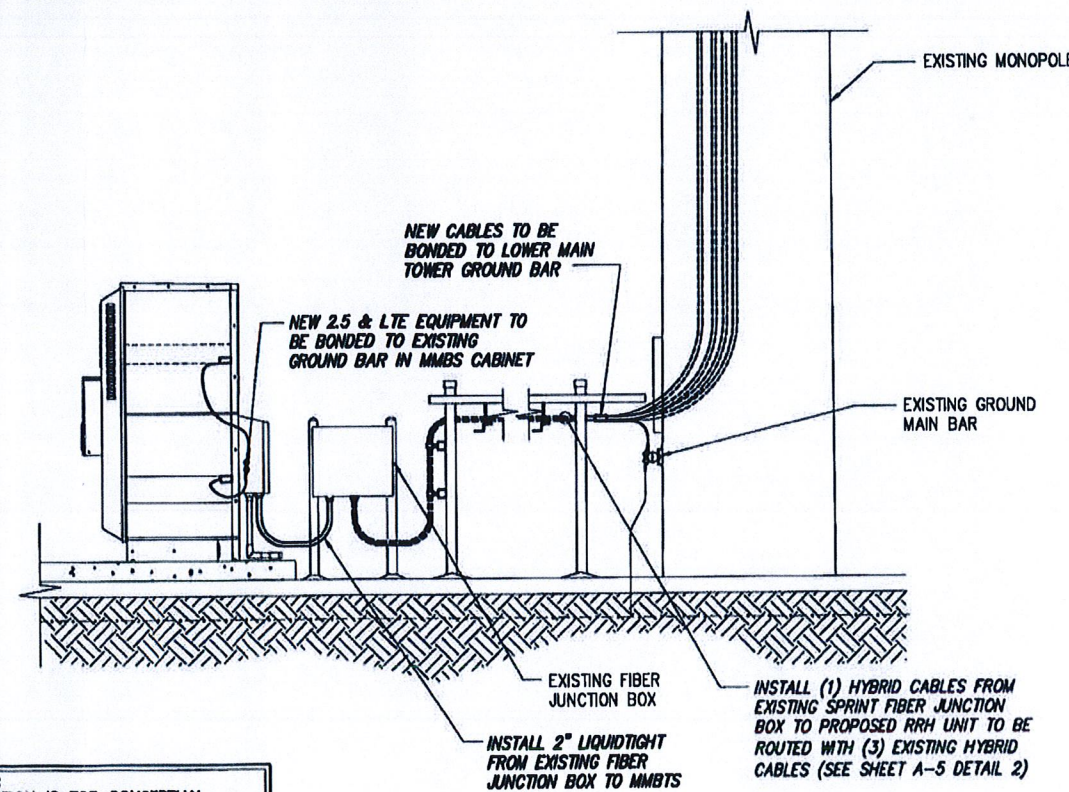
BOND RRH TO SECTOR BAR PER MANUFACTURER'S SPECIFICATIONS

EXISTING SPRINT TOWER GROUND BAR (CONTRACTOR TO VERIFY)

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:

Sprint

PLANS PREPARED BY:

INFINIGY
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1033 Watervliet Shaker Rd | Albany, NY 12208
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 12858
OFFICE: (518) 308-3740

ENGINEERING LICENSE:



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REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT		07/09/18	MAP	0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905

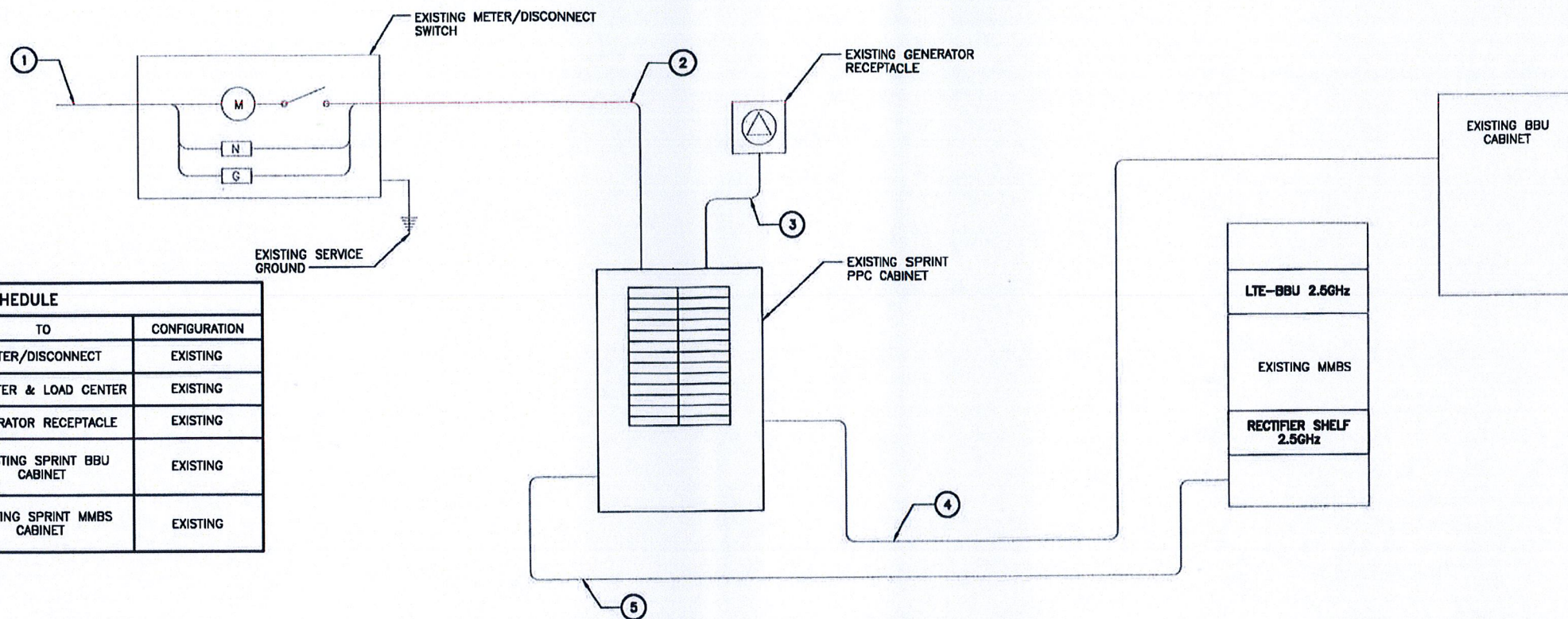
SHEET DESCRIPTION:

ELECTRICAL &
GROUNDING PLAN

SHEET NUMBER:

E-1

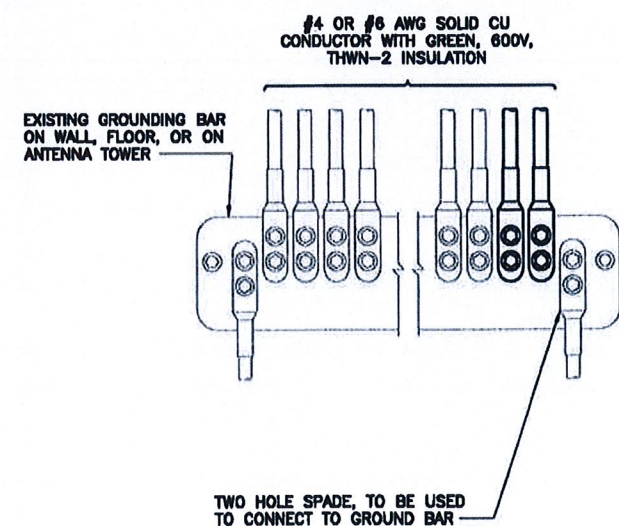
NOTES
CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.



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



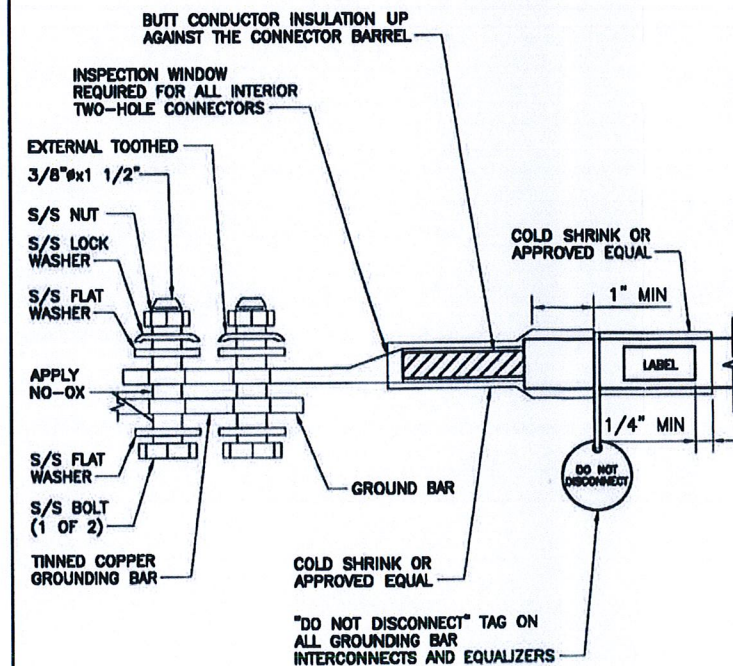
NOTES

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

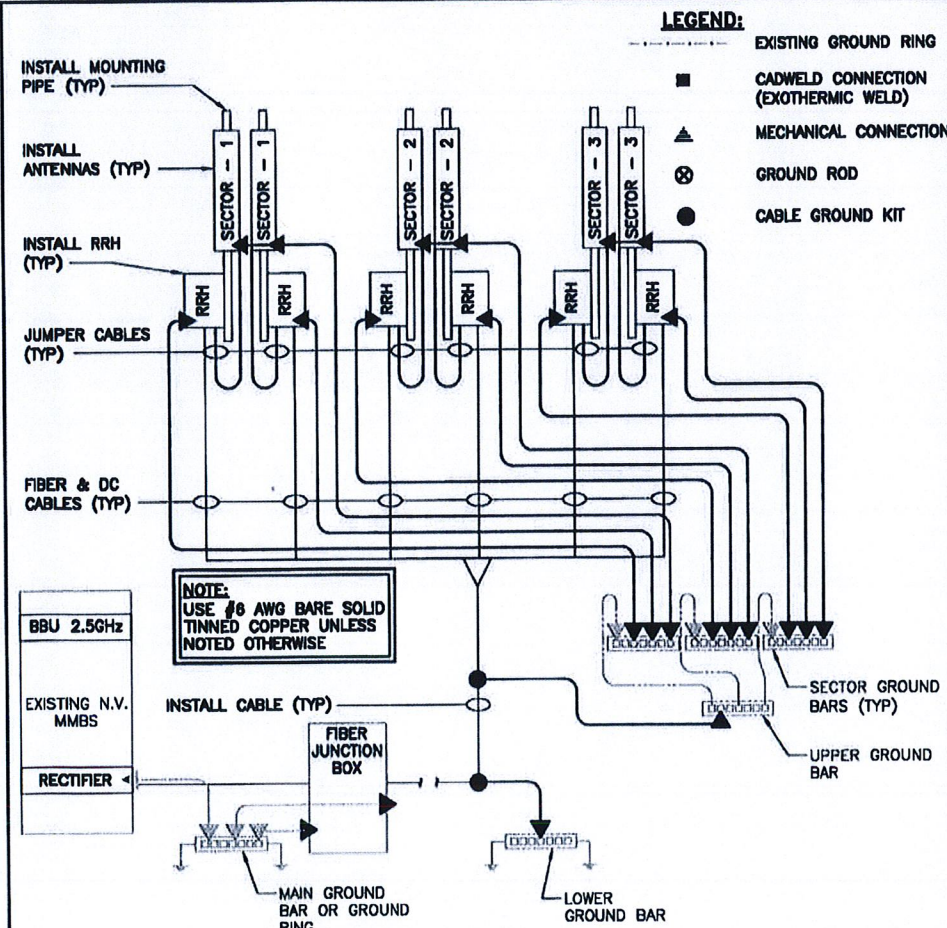
2



TWO HOLE LUG

NO SCALE

3



GROUNDING RISER DIAGRAM

NO SCALE

4

PLANS PREPARED FOR:

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ENGINEERING LICENSE:

JOHN S. STEVENSON
PROFESSIONAL ENGINEER
JUL 11 8 2018

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REVISIONS:	DESCRIPTION	DATE	BY	REV.

ISSUED FOR PERMIT: 07/09/18 MAP 0

SITE NAME:

TURN OF THE RIVER

SITE NUMBER:

CT03XC345

SITE ADDRESS:

**0 LOT4 EASTOVER ROAD
STAMFORD, CT 06905**

SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2