



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

November 16, 2012

Jennifer Palumbo
Real Estate Consultant
48 Spruce Street
Oakland, NJ 07436

RE: **EM-SPRINT-135-121031** – Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 168 Catoona Lane, Stamford, Connecticut.

Dear Ms. Palumbo:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated September 19, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts
Executive Director

LR/CDM/jbw

c: The Honorable Michael A. Pavia, Mayor, City of Stamford
Norman Cole, Planning and Zoning Dir., City of Stamford
American Tower



EM-SPRINT-135-121031



Together with Nextel

48 Spruce Street
Oakland, NJ 07436
Phone: (845) 499-4712
Jennifer Palumbo

ORIGINAL

September 19, 2012

Hand Delivered

Ms. Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RECEIVED
OCT 31 2012
CONNECTICUT
SITING COUNCIL

RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 168 Catoona Lane, Stamford, CT 06901. Known to Sprint Spectrum L.P. as site CT03XC337.

Dear Ms. Roberts:

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

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

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

equipment and antennas in order to provide reliable wireless voice and data services. The proposed equipment will include multi-mode radios that will allow Sprint Nextel to transmit at different frequencies using different technologies, including LTE technology. Likewise, the proposed antennas are quad-pole multi-band high gain antennas that will allow Sprint to operate using its multiple frequency bands and technologies, including LTE technology. The proposed equipment and antennas will improve the reliability, coverage and capacity of Sprint Nextel's voice and data networks across Sprint Nextel's various FCC licensed frequency bands and significantly increase the data speeds of Sprint Nextel's network by utilizing the latest LTE technology. Without the proposed modifications Sprint Nextel will be unable to provide reliable wireless voice and data service using the latest technologies.

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

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

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

For the foregoing reasons Sprint Spectrum L.P. respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

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

Sincerely,

Jennifer Palumbo
Real Estate Consultant



EBI Consulting

environmental | engineering | due diligence

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

Sprint Existing Facility

Site ID: CT03XC337

ATC Tower
168 Katoona Lane
Stamford, CT 06902

August 26, 2012



EBI Consulting

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August 26, 2012

Sprint

Attn: RF Engineering Manager

1 International Boulevard, Suite 800

Mahwah, NJ 07495

Re: Emissions Values for Site **CT03XC337 – ATC Tower**

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 168 Katoona Lane, Stamford, CT, for the purpose of determining whether the emissions from the proposed Sprint equipment upgrades on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 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 public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is approximately $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band 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 upgrades to the existing Sprint Wireless antenna facility located at 168 Katoona Lane, Stamford, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario. Actual values seen from this site will be dramatically less than those shown in this report. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

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

- 1) 6 CDMA Carriers (1900 MHz) were considered for each sector of the proposed installation.
- 2) 1 CDMA Carrier (850 MHz) was considered for each sector of the proposed installation
- 3) 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.
- 4) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 5) The antenna used in this modeling is the RFS APXVSPP18-C-A20. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario.



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- 6) The antenna mounting height centerline of the proposed antennas is **154.5 feet** above ground level (AGL)
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

<table><tr><td>Site ID</td><td colspan="17">CT03XC337 - ATC Tower</td></tr><tr><td>Site Addresss</td><td colspan="17">168 Katoona Lane, Stamford, CT 06902</td></tr><tr><td>Site Type</td><td colspan="17">Self Support Tower</td></tr></table>																		Site ID	CT03XC337 - ATC Tower																	Site Addresss	168 Katoona Lane, Stamford, CT 06902																	Site Type	Self Support Tower																
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Sector 1																																																																							
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage																																																						
1a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	6	120	15.9	154.5	148.5	1/2 "	0.5	0	4160.8422	67.83195	6.78320%																																																						
1a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	154.5	148.5	1/2 "	0.5	0	389.96892	6.357452	1.12124%																																																						
Sector total Power Density Value:																7.904%																																																							
Sector 2																																																																							
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage																																																						
2a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	6	120	15.9	154.5	148.5	1/2 "	0.5	0	4160.8422	67.83195	6.78320%																																																						
2a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	154.5	148.5	1/2 "	0.5	0	389.96892	6.357452	1.12124%																																																						
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Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage																																																						
3a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	6	120	15.9	154.5	148.5	1/2 "	0.5	0	4160.8422	67.83195	6.78320%																																																						
3a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	154.5	148.5	1/2 "	0.5	0	389.96892	6.357452	1.12124%																																																						
Sector total Power Density Value:																7.904%																																																							

Site Composite MPE %	
Carrier	MPE %
Sprint	23.713%
XM	0.410%
CL&P	0.570%
Media Flow	4.200%
AT&T	10.700%
T-Mobile	0.950%
Nextel	1.500%
Marcus	4.420%
Clearwire	0.480%
SNET Paging	1.750%
Rescue 21	4.120%
MetroPCS	7.220%
Total Site MPE %	60.033%



Summary

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

The anticipated Maximum Composite contributions from the Sprint facility are **23.713% (7.904% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **60.033%** of the allowable FCC established general public 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

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

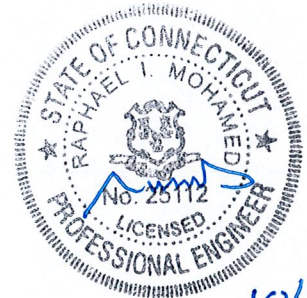


AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 300 ft Self Supported Tower
ATC Site Name : Stamford (Katoona), CT
ATC Site Number : 88018
Engineering Number : 49694023
Proposed Carrier : Sprint Nextel
Carrier Site Name : ATC Tower
Carrier Site Number : CT03XC337
Site Location : Intersection of Catoona Lane and Myano Lane
Stamford, CT 06902-4573
41.052825,-73.563047
County : Fairfield
Date : October 2, 2012
Max Usage : 99%
Result : Pass

Scott Wirgau
Senior Design Engineer



10/12/12



Eng. Number 49694023
October 2, 2012

Table of Contents

Introduction	1
Supporting Documents	1
Analysis.....	1
Conclusion	1
Existing and Reserved Equipment.....	2
Proposed Equipment.....	3
Structure Usages.....	4
Foundations	4
Standard Conditions	5
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 300 ft self supported tower to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	CSEI Analysis, ATC Eng. #73123451, dated September 29, 2005
Foundation Drawing	Rose, Chulkoff, and Rose Job #C67229, dated August 9, 1967
Geotechnical Report	Rose, Chulkoff, and Rose Job #C67229, dated August 9, 1967
Modifications	ATC Eng. #42439132, dated September 26, 2008 ATC Eng. #44209632, dated Decemver 2, 2009

Analysis

The tower was analyzed using Power Line Systems tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

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

Conclusion

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

If you have any questions or require additional information, please contact me via email at scott.wirgau@americantower.com or call 919-466-5086.



Existing and Reserved Equipment

Mount Elev. ¹ (ft)	Qty.	Antenna	Mount Type	Coax (in)	Carrier
311.0	1	4' Dish w/ Radome	Dish	(1) 1 1/4"	Marcus Comm.
	1	ODU		-	
303.0	1	AML PGLN1PR-MFF	Platform	-	Bell Industries
	1	Scala OGB9-900N/DT3		(1) 7/8"	
302.0	1	RFS 200		(1) 1 5/8"	Lojack
300.0	1	TX RX 101-68-10-X-03N		(1) 1 1/4"	Marcus Comm.
	1	15' Omni	Side Arm	-	-
	1	16' Omni w/ Reflectors		-	
	1	3' HP Dish		(1) 1/2"	
	3	DragonWave A-ANT-18G-2-C		(3) 1/2"	
	3	DragonWave Horizon Compact		-	
289.0	1	Dielectric TLP-08M-2E	Pipe	(1) 3 1/8"	Qualcomm
283.0	-	-	Catwalk	-	-
269.0	1	Rohde & Schwarz ADD090	Side Arm	(2) 7/8"	USCG
	1	TTA		(1) 1/4"	
262.5	1	Til Tek TA-2350-DAB	Side Arm	(1) EW20	XM Satellite
265.0	6	CCI DTMA-1819-DD-12	Sector Frame	-	T-Mobile
	7	RFS APX16DWV-16DWVS-E-A20		(24) 1 5/8"	
240.0	1	Sinclair SC381-HL	Side Arm	(1) 7/8"	USCG
	1	Sinclair SC281-L		(1) 7/8"	
235.0	1	Raycap FC12-PC6-10E	Sector Frame	(13) 1 5/8" (2) 0.74" (18.7mm) (1) 0.28" (7mm) (1) 2" Conduit	AT&T Mobility
	6	Powerwave LGP21903			
	6	Ericsson RRUS 11 (Band 12)			
	6	Powerwave 7770.00			
	3	Raycap DC2-48-60-0-9E			
	6	Powerwave LGP21401			
	3	KMW AM-X-CD-14-65-00T-RET			
224.0	12	Decibel DB844H90E-XY	Sector Frame	(15) 1 5/8"	Sprint Nextel
215.5	1	8' Omni	Side Arm	(1) 3/8"	Lojack
212.5	-	-	Platform	-	-
200.0	1	Sinclair SC281-L	Side Arm	(1) 7/8"	USCG
	2	TX RX 101-68-10-X-03N	Side Arm	(2) 1 1/4"	Marcus Comm.
189.0	1	36" x 60" Panel	Side Arm	-	Town of Stamford
178.0	3	Antel BCD-87010	Side Arm	(3) 7/8"	USA Mobility
167.0	3	Argus LLPX310R	Side Arm	(6) 5/16"	Clearwire
	3	NextNet BTS-2500		(2) 2" Conduit	

Existing and Reserved Equipment (continued)



Mount Elev. ¹ (ft)	Qty.	Antenna	Mount Type	Coax (in)	Carrier
160.0	6	Kathrein 800 10504	Sector Frame	(12) 1 5/8"	Metro PCS
	3	RCU		(1) 3/8"	
158.0	1	Channel Master Type 120	Dish	(1) 1/2"	USA Mobility
137.0	1	Antel BCD-87010_4	Side Arm	(1) 7/8"	Sensus Metering
100.0	1	TX RX 101-68-10-X-03N	Side Arm	(1) 1 1/4"	Marcus Comm.
	-	-	Platform	-	-
25.0	1	Til Tek TA-2324-LHCP	Dish	(1) 7/8"	XM Satellite
10.0	1	GPS Unit	Pipe	(1) 3/8"	Lojack
6	1	Channel Master Type 120	Dish	(1) 1/2"	USA Mobility
	1	Trimble Acutime 2000	Pipe	(1) 1/4"	

Proposed Equipment

Elevation ¹ (ft)		Qty.	Antenna	Mount Type	Coax (in)	Carrier
Mount	RAD					
150.0	150.0	3	Alcatel-Lucent 800MHz RRH	Sector Frame	(6) 1 5/8" (3) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS APXVSPP18-C-A20			
		3	Alcatel-Lucent 800MHz 2X50 RRH			
		6	Andrew DB980H90E-M			

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 in same location as existing.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	91%	Pass
Diagonals	99%	Pass
Horizontals	97%	Pass
Anchor Bolts	88%	Pass

Foundations

Reaction Component	Analysis Reactions
Uplift (Kips)	402.4
Axial (Kips)	501.7

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.



Standard Conditions

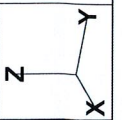
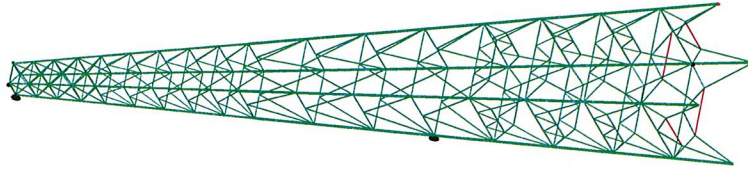
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

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

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



Project Name : 88018 Stamford (Katoona), CT
 Project Notes: 300' Type 'H' ATCT Tag Tower
 Project File : S:\12 - ATC\88018\12_10-Sprint Nextel 10-01-12\88018-L2-Sprint Nextel-10_01_12.tow
 Date run : 9:30:47 AM Tuesday, October 02, 2012
 by : Tower Version 12.10
 Licensed to : American Tower Corp.

Successfully performed nonlinear analysis

The model has 0 warnings.

Member check option: TIA/EIA 222-F
 Connection rupture check: Not Checked
 Crossing diagonal check: Fixed
 Included angle check: None
 Climbing load check: None
 Redundant members checked with: Actual Force
 Loads from file: s:\12 - atc\88018\12_10-sprint nextel 10-01-12\88018-loads-sprint nextel-10_01_12.eia

*** Analysis Results:

Maximum element usage is 99.44% for Angle "D 2X" in load case "W -90"

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. Force (kips)	Trans. Force (kips)	Vert. Force (kips)	Shear Force (kips)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Vert. Moment (ft-k)	Bending Moment (ft-k)	Found. Usage %
W 0	OP -44.65	-23.91	328.13	50.65	-0.40	-5.45	-2.22	5.47	0.00	
W 0	OX -42.94	24.67	322.63	48.52	0.06	-5.15	2.23	5.15	0.00	
W 0	OXY -36.11	-16.90	230.36	39.87	0.57	-5.60	2.05	5.63	0.00	
W 180	OP -37.47	16.09	231.94	40.78	-0.34	-5.91	2.02	5.92	0.00	
W 180	OX 36.13	15.90	229.43	40.77	-0.33	5.96	2.03	5.97	0.00	
W 180	OXY 36.16	-16.76	228.24	39.83	0.57	5.65	-2.06	5.68	0.00	
W 180	OP 42.95	24.53	319.71	49.47	0.06	5.20	-2.24	5.20	0.00	
W 180	OXY 42.98	-23.72	325.62	50.47	-0.41	5.50	2.23	5.51	0.00	
W 45	OP -52.89	-53.17	501.71	75.00	4.42	-4.35	-0.00	6.20	0.00	
W 45	OX -20.20	-12.84	43.04	23.94	4.77	-4.17	3.45	6.34	0.00	
W 45	OXY -46.21	-46.13	-402.35	65.29	4.94	-4.96	-0.01	7.00	0.00	
W 45	OP -12.39	-20.28	45.25	23.76	4.15	-4.70	-3.45	6.27	0.00	
W 45	OXY -21.51	13.27	48.96	25.28	-5.00	-4.39	-3.44	6.65	0.00	
W 45	OP -51.61	53.46	495.59	74.30	-4.63	-4.13	0.01	6.21	0.00	
W 45	OXY -11.56	19.66	45.31	22.81	-4.00	-4.49	3.47	6.01	0.00	
W 45	OP -47.07	45.47	-402.20	65.45	-4.78	-5.17	0.03	7.04	0.00	
W 90	OP -23.92	-44.97	329.84	50.94	5.50	0.43	2.21	5.52	0.00	
W 90	OX 16.13	-37.81	-233.74	41.11	5.96	0.31	2.02	5.97	0.00	
W 90	OXY -17.07	-36.14	-231.36	39.97	5.59	-0.59	-2.06	5.62	0.00	
W 90	OP 24.87	42.96	322.90	49.64	5.13	-0.03	-2.23	5.13	0.00	
W 90	OXY 15.93	37.77	-230.87	41.00	-5.99	0.31	-2.02	5.99	0.00	
W 90	OP -23.72	44.77	326.98	50.67	-5.53	0.44	2.23	5.53	0.00	
W 90	OXY 24.70	42.94	320.57	49.54	-5.18	-0.03	2.24	5.18	0.00	
W 90	OP -16.90	36.11	-229.02	39.87	-5.63	-0.59	2.06	5.66	0.00	
W 0 Ice	OP -41.50	-22.72	322.17	47.31	-1.52	-3.73	-1.97	4.03	0.00	
W 0 Ice	OX -39.80	23.45	315.33	46.19	1.16	-3.44	1.97	3.63	0.00	
W 0 Ice	OXY -32.02	-14.81	-190.15	35.28	1.66	-6.16	1.84	6.38	0.00	
W 180 Ice	OP -33.26	14.05	-190.86	36.11	-1.45	6.16	-1.81	6.62	0.00	
W 180 Ice	OX 33.32	13.78	-187.41	36.06	-1.44	6.52	-1.82	6.68	0.00	
W 180 Ice	OXY 39.82	23.25	312.40	46.11	1.17	6.23	-1.85	6.45	0.00	
W 180 Ice	OP 41.39	-22.46	318.73	47.09	-1.53	-3.51	-1.99	3.70	0.00	
W 45 Ice	OP -49.26	-49.49	480.72	69.83	2.85	-2.79	-0.00	3.99	0.00	
W 45 Ice	OX -19.10	-10.85	60.69	21.96	5.86	-2.64	3.16	6.08	0.00	
W 45 Ice	OXY -41.46	-41.39	-347.21	58.59	3.62	-3.64	-0.01	7.97	0.00	
W 45 Ice	OP -10.49	-19.14	62.28	21.83	-2.72	-3.42	-3.16	6.02	0.00	
W 45 Ice	OX -20.42	11.29	67.07	23.33	-3.08	-2.85	-3.15	6.39	0.00	
W 45 Ice	OXY -47.96	49.79	474.19	69.14	-3.08	-2.58	0.00	4.02	0.00	
W 45 Ice	OP -9.74	18.57	61.63	20.97	-2.49	-5.21	3.18	5.78	0.00	
W 90 Ice	OP -22.71	-41.79	322.55	46.72	-5.49	-5.85	0.03	8.02	0.00	
W 90 Ice	OX 14.06	-33.54	-192.15	36.56	3.78	1.55	1.96	4.08	0.00	
W 90 Ice	OXY -14.95	-32.04	-190.81	36.35	6.15	-1.68	-1.85	6.37	0.00	
W 90 Ice	OP 23.61	39.80	318.09	46.28	-3.42	-1.15	-1.98	3.61	0.00	
W 90 Ice	OXY 13.80	33.51	-188.57	36.24	-6.54	1.43	-1.81	6.70	0.00	
W 90 Ice	OP -22.45	41.58	319.57	47.26	-3.82	-1.55	-1.98	4.12	0.00	
W 90 Ice	OXY 23.39	36.80	313.06	46.16	-3.49	-1.15	1.99	3.67	0.00	
W 90 Ice	OP -14.73	32.03	-187.97	35.26	-6.21	-1.68	1.85	6.43	0.00	

Summary of Joint Support Reactions For All Load Cases in Direction of Leg:

Horiz 17	C8x11.5	CHN	C8x11.5	36.0	1.31	Comp	0.55	H 34P	0.536	W 0 Ice	73.008	0.000	0.000	0.000	9.000	0.000	0
LD 1	B/B L3"x2"x0.25"	DAL	3X2X0.25	36.0	98.39	Comp	34.56	LD 2Y	23.665	W -45 Ic	51.408	0.000	0.000	0.000	12.834	0.000	0
LD 2	B/B L4"x3"x0.25"	DAL	4X3X0.25	36.0	86.08	Comp	46.79	LD 3P	47.496	W -90	73.008	0.000	0.000	0.000	12.834	0.000	0
LD 4	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	95.70	Comp	41.20	LD 8Y	25.272	W -45	46.008	0.000	0.000	0.000	11.516	0.000	0
LD 5	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	97.78	Comp	50.52	LD 9P	30.992	W -90	46.008	0.000	0.000	0.000	8.184	0.000	0
LD 6	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	80.53	Comp	47.07	LD 11X	39.040	W -90	62.208	0.000	0.000	0.000	9.679	0.000	0
LD 7	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	70.83	Comp	30.73	LD 14Y	25.485	W -45	62.208	0.000	0.000	0.000	10.941	0.000	0
LD 8	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	95.46	Comp	51.04	LD 15P	31.310	W -90	46.008	0.000	0.000	0.000	8.040	0.000	0
LD 9	B/B L3"x3"x0.25"	DAL	3X3X0.25	36.0	96.91	Comp	56.08	LD 17X	38.437	W -90	51.408	0.000	0.000	0.000	9.334	0.000	0
LD 10	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	66.48	Comp	30.91	LD 20Y	25.638	W -45	62.208	0.000	0.000	0.000	10.386	0.000	0
LD 11	B/B L2.5"x2"x0.25"	DAE	2.5X2X0.25	36.0	79.41	Comp	50.84	LD 21P	31.186	W -90	46.008	0.000	0.000	0.000	7.905	0.000	0
LD 12	B/B L2.5"x3"x0.375"	DAE	2.5X2.5X0.38	36.0	53.10	Comp	37.84	LD 23X	37.811	W -90	74.952	0.000	0.000	0.000	21.458	0.000	0
LH 1	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	65.14	Comp	17.27	LH 2X	13.082	W 90 Ice	56.808	0.000	0.000	0.000	10.806	0.000	0
LH 2	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	85.31	Comp	37.26	LH 4Y	28.222	W -45	56.808	0.000	0.000	0.000	10.003	0.000	0
LH 3	B/B L2.5"x3"x0.375"	DAS	3X2.5X0.38	36.0	76.10	Comp	25.05	LH 6Y	27.698	W -45	82.944	0.000	0.000	0.000	9.200	0.000	0
LH 4	B/B L3.5"x3.5"x0.25"	DAE	3.5X3.5X0.25	36.0	0.00	Comp	27.52	LH 8Y	26.785	W -45	73.008	0.000	0.000	0.000	19.445	0.000	0
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	36.0	0.00	Comp	0.00	BR 11X	1.112	W -45	0.216	0.000	0.000	0.000	0.000	0.000	0

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case	Maximum Element Usage %	Element Label	Element Type
W 0	98.36	D 1P	Angle
W 180	98.87	D 1Y	Angle
W 45	96.01	LD 1P	Angle
W -45	98.39	LD 1X	Angle
W 90	99.27	D 2P	Angle
W -90	99.44	D 2X	Angle
W 0 Ice	91.51	D 3P	Angle
W 180 Ice	92.20	D 3Y	Angle
W 45 Ice	88.82	H 2XY	Angle
W -45 Ice	91.99	H 2Y	Angle
W 90 Ice	92.38	D 4P	Angle
W -90 Ice	92.76	D 4X	Angle

*** Weight of structure (lbs):
 Weight of Angles*Section DLF: 119944.4
 Weight of Equipment: 570.0
 Total: 120514.4

*** End of Report

Site #: 88018
Name: Stamford (Katoona), CT

Engineer: SAW
Date: 10/01/12

Windspeed: No Ice: 85 mph Ice: 74 mph
Carrier Sprint Nextel

Taper: -0.123333
FW @ Base: 46 ft
Taper Change: 300 ft
FW @ Top: 9 ft

Joint Label		Symmetry Code	X Coord. (ft)	Y Coord. (ft)	Z Coord. (ft)	X Disp. Rest.	Y Disp. Rest.	Z Disp. Rest.	X Rot. Rest.	Y Rot. Rest.	Z Rot. Rest.	Sub-Brace (Y or Blank)	# Vert	Drop (ft)	Height (ft)	Type	Count	Z-Elev. (ft)	FW (ft)	# Sub-Brace	7/27/2012		
0		XY-Symmetry	23	23	0	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed				7.03	25	1	0	46	3			
1		XY-Symmetry	21.45833333	21.45833333	25	Free	Free	Free	Free	Free	Free				7.03	25	2	25	42.91666667	3			
2		XY-Symmetry	19.91666667	19.91666667	50	Free	Free	Free	Free	Free	Free				7.03	25	3	50	39.83333333	3			
3		XY-Symmetry	18.375	18.375	75	Free	Free	Free	Free	Free	Free				7.03	25	4	75	36.75	3			
4		XY-Symmetry	16.83333333	16.83333333	100	Free	Free	Free	Free	Free	Free					25	2	4	33.66666667	2			
5		XY-Symmetry	15.29166667	15.29166667	125	Free	Free	Free	Free	Free	Free					25	A	5	100	30.58333333	2		
6		XY-Symmetry	13.75	13.75	150	Free	Free	Free	Free	Free	Free					25	A	6	125	27.5	2		
7		XY-Symmetry	12.20833333	12.20833333	175	Free	Free	Free	Free	Free	Free					25	A	7	150	24.16666667	2		
8		XY-Symmetry	10.66666667	10.66666667	200	Free	Free	Free	Free	Free	Free					25	A	8	175	21.33333333	2		
9		XY-Symmetry	9.895833333	9.895833333	212.5	Free	Free	Free	Free	Free	Free					12.5	A	9	200	19.79166667	1		
10		XY-Symmetry	9.125	9.125	225	Free	Free	Free	Free	Free	Free					12.5	A	10	212.5	18.25	1		
11		XY-Symmetry	8.354166667	8.354166667	237.5	Free	Free	Free	Free	Free	Free					12.5	A	11	225	16.70833333	1		
12		XY-Symmetry	7.583333333	7.583333333	250	Free	Free	Free	Free	Free	Free					12.5	A	12	237.5	15.16666667	1		
13		XY-Symmetry	6.8125	6.8125	262.5	Free	Free	Free	Free	Free	Free					10.17	X	13	250	13.625	1		
14		XY-Symmetry	6.18535	6.18535	272.67	Free	Free	Free	Free	Free	Free					10.17	X	14	262.5	12.3707	1		
15		XY-Symmetry	5.5582	5.5582	282.84	Free	Free	Free	Free	Free	Free					8.58	X	15	272.67	11.1164	1		
16		XY-Symmetry	5.0291	5.0291	291.42	Free	Free	Free	Free	Free	Free					8.58	X	16	282.84	10.0582	1		
17		XY-Symmetry	4.5	4.5	300	Free	Free	Free	Free	Free	Free						X	17	291.42	9			
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NOTES:
1: Built up Horiz. w/ A
2: Built up Horiz. w/ M
A: Typical A brace
X: Typical X brace

Drop: Use only for types 1 & 2

Sections: 17

Legs

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter or Length (in)	Thickness ^[2] (in)	F _y (ksi)
1	0.000-25.00	L	8	1.125	36
2	25.00-50.00	L	8	1.125	36
3	50.00-75.00	L	8	1.125	36
4	75.00-100.0	L	8	1	36
5	100.0-125.0	L	8	0.875	36
6	125.0-150.0	L	8	0.875	36
7	150.0-175.0	L	8	0.75	36
8	175.0-200.0	L	8	0.625	36
9	200.0-212.5	L	6	0.75	36
10	212.5-225.0	L	6	0.75	36
11	225.0-237.5	L	6	0.5625	36
12	237.5-250.0	L	6	0.5625	36
13	250.0-262.5	L	6	0.4375	36
14	262.5-272.7	L	5	0.4375	36
15	272.7-282.8	L	5	0.4375	36
16	282.8-291.4	L	5	0.3125	36
17	291.4-300.0	L	5	0.3125	36

Notes:

^[1] Type of Leg Shape: R = Round or P = Bent Plate or S = Schifflerized Angle. L = Even Leg

^[2] For Solid Round Leg Shapes Thickness Equals Zero.

^[3] Adjust for Bent Plate Leg Shapes.

Diagonals

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Diag. Tension Only? (Y/N)
1	0.000-25.00	2L		3	4	0.3125	36	
2	25.00-50.00	2L		3	3.5	0.25	36	
3	50.00-75.00	2L		2.5	3.5	0.25	36	
4	75.00-100.0	2L		2.5	3.5	0.25	36	
5	100.0-125.0	2L		3	4	0.25	36	
6	125.0-150.0	2L		3	4	0.25	36	
7	150.0-175.0	2L		3	4	0.25	36	
8	175.0-200.0	2L		3.5	3.5	0.25	36	
9	200.0-212.5	2L		2.5	2.5	0.25	36	
10	212.5-225.0	2L		2.5	2.5	0.25	36	
11	225.0-237.5	2L		2.5	2	0.25	36	
12	237.5-250.0	2L		2.5	2	0.25	36	
13	250.0-262.5	2L		2.5	2	0.25	36	
14	262.5-272.7	L		3.5	3.5	0.25	36	
15	272.7-282.8	L		3.5	3.5	0.25	36	
16	282.8-291.4	L		3	3	0.25	36	
17	291.4-300.0	L		3	3	0.25	36	

Notes:

^[1] Type of Diagonal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Horizontals

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	
1	0.000-25.00	2L		3.5	2.5	0.25	36	
2	25.00-50.00	2L		3.5	2.5	0.25	36	
3	50.00-75.00	2L		3.5	2.5	0.25	36	
4	75.00-100.0	2L		3	2.5	0.25	36	
5	100.0-125.0	2L		3	2.5	0.25	36	
6	125.0-150.0	2L		3	2.5	0.25	36	
7	150.0-175.0	2L		2.5	2.5	0.25	36	
8	175.0-200.0	2L		2.5	2.5	0.25	36	
9	200.0-212.5	2L		2.5	2.5	0.25	36	
10	212.5-225.0	2L		2.5	2.5	0.25	36	
11	225.0-237.5	2L		2.5	2.5	0.25	36	
12	237.5-250.0	2L		2.5	2.5	0.25	36	
13	250.0-262.5	2L		2.5	2.5	0.25	36	
14	262.5-272.7	L		3	2.5	0.25	36	
15	272.7-282.8	2L		3	2.5	0.25	36	
16	282.8-291.4	L		3	2.5	0.25	36	
17	291.4-300.0	C		8	11.5		36	

Notes:

^[1] Type of Horizontal Shape: **R** = Round, **L** = Single-Angle, **2L** = Double-Angle, **C** = Channel, **W** = W Shape

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Built-up Diagonals

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

When inputting thickness values, include all decimal places.
Input diags. from left to center & from base section upward.

Tower Built-up Diag. #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)
1	0.000-25.00	2L		3	2	0.25	36
2	0.000-25.00	2L		4	3	0.25	36
3	25.00-50.00	2L		2.5	2	0.25	36
4	25.00-50.00	2L		2.5	2	0.25	36
5	25.00-50.00	2L		3	3	0.25	36
6	50.00-75.00	2L		3	3	0.25	36
7	50.00-75.00	2L		2.5	2	0.25	36
8	50.00-75.00	2L		3	2	0.25	36
9	75.00-100.0	2L		3	3	0.25	36
10	75.00-100.0	2L		2.5	2	0.25	36
11	75.00-100.0	2L		2.5	2.5	0.375	36

Notes:

^[1] Type of Diagonal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Built-up Horizontals

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Horiz. Tension Only? (Y/N)
1	0.000-25.00	2L		2.5	3	0.25	36	Y
2	25.00-50.00	2L		2.5	3	0.25	36	
3	50.00-75.00	2L		2.5	3	0.375	36	
4	75.00-100.0	2L		3.5	3.5	0.25	36	

Notes:

^[1] Type of Horizontal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Coax & Dishes

S	Dish Types		Joint Orientation	
	Standard	XY	0°	Y
R	Standard w/ Radome			
H	High Performance		90°	
G	Grid			

Dish Elevation (ft)	Dish Dia. (ft)	Dish Angle (deg)	Dish Type	Joint Orientation
311	4	90	R	X
25	2	180	R	P
158	4	90	S	X
300	2	90	H	XY
300	2	0	H	Y
300	2	270	H	X
300	3	180	H	P
6	4	180	S	P

Description	From (ft)	To (ft)	Quantity	Shape	Width or Diameter (in)	Perimeter (in)	Unit Weight (lb/ft)	Part of Face Solidity Ratio (Yes/No)	Include in Wind Load (Yes/No)
Marcus-311	265	300	1	Round	1.55	4.87	0.66	No	No
Bell-303	265	300	1	Round	1.11	3.49	0.33	No	No
Lojack-302	265	300	1	Round	1.98	6.22	0.82	No	No
Marcus-300	265	300	1	Round	1.55	4.87	0.66	No	No
Qualcomm-289	265	289	1	Round	4	12.57	5.39	No	No
USCG-271	265	269	2	Round	1.11	3.49	0.33	No	No
XM-263	265	262.5	1	Round	5.02	15.77	5.39	No	No
Weight-265	5	265	20	Round	1.98	6.22	0.82	No	No
T-Mobile-266	5	265	12	Round	1.98	6.22	2.16	Yes	Yes
USCG-240	5	240	2	Round	1.11	3.49	0.33	No	No
AT&T-235	5	235	13	Round	1.98	6.22	0.82	No	No
AT&T-235B	5	235	1	Round	0.28	0.88	0.03	No	No
AT&T-235C	5	235	2	Round	0.74	2.32	0.49	No	No
Sprint-224	5	224	15	Round	1.98	6.22	0.82	Yes	Yes
Lojack-216	5	216	1	Round	0.44	1.38	0.08	No	No
USCG-200	5	200	1	Round	1.11	3.49	0.33	No	No
Marcus-200	5	200	2	Round	1.55	4.87	0.66	No	No
USA Mob-178	5	178	3	Round	1.11	3.49	0.33	No	No
Metro-160	5	160	12	Round	1.98	6.22	0.82	No	No
MetroB-160	5	160	3	Round	0.44	1.38	0.08	No	No
Sprint-148	5	150	6	Round	1.98	6.22	0.82	No	No
Sprint-148B	5	150	3	Round	1.55	4.87	0.66	No	No
Sensus-137	5	137	1	Round	1.11	3.49	0.33	No	No
Marcus-100	5	100	1	Round	1.55	4.87	0.66	No	No
XM-25	5	25	1	Round	1.11	3.49	0.33	No	No
Lojack-10	5	10	1	Round	0.44	1.38	0.08	No	No
USA Mob-158	5	158	1	Round	0.63	1.98	0.14	No	No
USA Mob-6	5	6	1	Round	0.3	0.94	0.06	No	No
Metro-160B	5	160	1	Round	0.44	1.38	0.08	No	No
Clearwire-167	5	167	2	Round	2.375	7.46	3.65	No	No
Clearwire-300	5	300	3	Round	0.63	1.98	0.14	Yes	Yes
Unk-300	5	300	1	Round	0.63	1.98	0.14	No	No
AT&T-235D	5	235	1	Round	2.38	7.48	3.65	No	No
USA Mob-6	3	6	1	Round	0.63	1.98	0.14	No	No
USA Mob-6B	3	6	1	Round	0.3	0.94	0.06	No	No

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle (deg)
4' RAD 1 @ 311'	17X	4 ft RAD Dish	90
2' RAD 2 @ 25'	1P	2 ft RAD Dish	180
4' STD 3 @ 158'	6X	4 ft STD Dish	90
2' HP 4 @ 300'	17XY	2 ft HP Dish	90
2' HP 6 @ 300'	17Y	2 ft HP Dish	0
2' HP 7 @ 300'	17X	2 ft HP Dish	270
3' HP 8 @ 300'	17P	3 ft HP Dish	180
4' STD 9 @ 6'	0P	4 ft STD Dish	180

Coax	Dia. (in)	Weight (lb/ft)
1/4"	0.3	0.064
3/8"	0.44	0.084
1/2"	0.63	0.144
7/8"	1.09	0.33
1"	1.11	0.33
EW90	1.32	0.32
1-1/4"	1.55	0.664
1-5/8"	1.98	0.82
EW63	2.01	0.51
EW52	2.25	0.59
Ladder	3	6

Site No.: 88018
Engineer: SAW
Date: 10/01/12
Carrier: Sprint Nextel

Site #: 88018
Name: Sprint Nextel

Engineer: SAW
Date: 10/01/12

Section Label	Section Color	Joint Defining Bottom Section	Dead Load Adj. Factor						Adj. Factor Flat	Adj. Factor Round	Area Multiplier	Weight Multiplier
0.000-25.00		0P	1.252247635						1.252247635	1.252247635	1	1
25.00-50.00		1P	1.234111691						1.234111691	1.234111691	1	1
50.00-75.00		2P	1.229416005						1.229416005	1.229416005	1	1
75.00-100.0		3P	1.223885326						1.223885326	1.223885326	1	1
100.0-125.0		4P	1.27902213						1.27902213	1.27902213	1	1
125.0-150.0		5P	1.265796191						1.265796191	1.265796191	1	1
150.0-175.0		6P	1.257221541						1.257221541	1.257221541	1	1
175.0-200.0		7P	1.232462312						1.232462312	1.232462312	1	1
200.0-212.5		8P	1.224988662						1.224988662	1.224988662	1	1
212.5-225.0		9P	1.219135835						1.219135835	1.219135835	1	1
225.0-237.5		10P	1.213172057						1.213172057	1.213172057	1	1
237.5-250.0		11P	1.20711155						1.20711155	1.20711155	1	1
250.0-262.5		12P	1.200971445						1.200971445	1.200971445	1	1
262.5-272.7		13P	1.203142146						1.203142146	1.203142146	1	1
272.7-282.8		14P	1.196497816						1.196497816	1.196497816	1	1
282.8-291.4		15P	1.214686271						1.214686271	1.214686271	1	1
291.4-300.0		16P	1.167358428						1.167358428	1.167358428	1	1

Site #:	88018
Name:	Sprint Nextel

Engineer:	SAW
Date:	10/01/12

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S2	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S3	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S4	L 8" x 8" x 1"	SAE	8X8X1	A 36	Beam	Leg	None
Leg S5	L 8" x 8" x 0.875"	SAE	8X8X0.88	A 36	Beam	Leg	None
Leg S6	L 8" x 8" x 0.875"	SAE	8X8X0.88	A 36	Beam	Leg	None
Leg S7	L 8" x 8" x 0.75"	SAE	8X8X0.75	A 36	Beam	Leg	None
Leg S8	L 8" x 8" x 0.625"	SAE	8X8X0.63	A 36	Beam	Leg	None
Leg S9	L 6" x 6" x 0.75"	SAE	6X6X0.75	A 36	Beam	Leg	None
Leg S10	L 6" x 6" x 0.75"	SAE	6X6X0.75	A 36	Beam	Leg	None
Leg S11	L 6" x 6" x 0.5625"	SAE	6X6X0.56	A 36	Beam	Leg	None
Leg S12	L 6" x 6" x 0.5625"	SAE	6X6X0.56	A 36	Beam	Leg	None
Leg S13	L 6" x 6" x 0.4375"	SAE	6X6X0.44	A 36	Beam	Leg	None
Leg S14	L 5" x 5" x 0.4375"	SAE	5X5X0.44	A 36	Beam	Leg	None
Leg S15	L 5" x 5" x 0.4375"	SAE	5X5X0.44	A 36	Beam	Leg	None
Leg S16	L 5" x 5" x 0.3125"	SAE	5X5X0.31	A 36	Beam	Leg	None
Leg S17	L 5" x 5" x 0.3125"	SAE	5X5X0.31	A 36	Beam	Leg	None
Diag S1	B/B L3"x4"x0.3125"	DAS	4X3X0.31	A 36	Beam	Other	None
Diag S2	B/B L3"x3.5"x0.25"	DAS	3.5X3X0.25	A 36	Beam	Other	None
Diag S3	B/B L2.5"x3.5"x0.25"	DAS	3.5X2.5X0.25	A 36	Beam	Other	None
Diag S4	B/B L2.5"x3.5"x0.25"	DAS	3.5X2.5X0.25	A 36	Beam	Other	None
Diag S5	B/B L3"x4"x0.25"	DAS	4X3X0.25	A 36	Beam	Other	None
Diag S6	B/B L3"x4"x0.25"	DAS	4X3X0.25	A 36	Beam	Other	None
Diag S7	B/B L3"x4"x0.25"	DAS	4X3X0.25	A 36	Beam	Other	None
Diag S8	B/B L3.5"x3.5"x0.25"	DAE	3.5X3.5X0.25	A 36	Beam	Other	None
Diag S9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Diag S10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Diag S11	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S12	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S13	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S14	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A 36	Beam	Other	None
Diag S15	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A 36	Beam	Other	None
Diag S16	L 3" x 3" x 0.25"	SAE	3X3X0.25	A 36	Beam	Other	None
Diag S17	L 3" x 3" x 0.25"	SAE	3X3X0.25	A 36	Beam	Other	None
Horiz 1	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 2	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 3	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 4	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 5	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 6	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 7	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 11	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 12	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 13	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 14	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	A 36	Beam	Other	None
Horiz 15	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 16	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	A 36	Beam	Other	None
Horiz 17	C8x11.5	CHN	C8x11.5	A 36	Beam	Other	None
LD 1	B/B L3"x2"x0.25"	DAL	3X2X0.25	A 36	Beam	Other	None
LD 2	B/B L4"x3"x0.25"	DAL	4X3X0.25	A 36	Beam	Other	None
LD 4	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 5	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 6	B/B L3"x3"x0.25"	DAE	3X3X0.25	A 36	Beam	Other	None
LD 7	B/B L3"x3"x0.25"	DAE	3X3X0.25	A 36	Beam	Other	None
LD 8	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 9	B/B L3"x2"x0.25"	DAL	3X2X0.25	A 36	Beam	Other	None
LD 10	B/B L3"x3"x0.25"	DAE	3X3X0.25	A 36	Beam	Other	None
LD 11	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 12	B/B L2.5"x2.5"x0.375"	DAE	2.5X2.5X0.38	A 36	Beam	Other	None
LH 1	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	T-Only	Other	None
LH 2	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
LH 3	B/B L2.5"x3"x0.375"	DAS	3X2.5X0.38	A 36	Beam	Other	None
LH 4	B/B L3.5"x3.5"x0.25"	DAE	3.5X3.5X0.25	A 36	Beam	Other	None
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	A 36	Beam	Fictitious	None

Site #:	88018
Name:	Sprint Nextel

Engineer:	SAW
Date:	10/01/12

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
L 1	Leg S1		XY-Symmetry	0P	1P					
L 2	Leg S2		XY-Symmetry	1P	2P	1	4	0.2812	0.2812	0.2812
L 3	Leg S3		XY-Symmetry	2P	3P	1	4	0.2812	0.2812	0.2812
L 4	Leg S4		XY-Symmetry	3P	4P	1	4	0.2812	0.2812	0.2812
L 5	Leg S5		XY-Symmetry	4P	5P	1	4	0.2812	0.2812	0.2812
L 6	Leg S6		XY-Symmetry	5P	6P	1	4	0.33333333	0.33333333	0.33333333
L 7	Leg S7		XY-Symmetry	6P	7P	1	4	0.33333333	0.33333333	0.33333333
L 8	Leg S8		XY-Symmetry	7P	8P	1	4	0.33333333	0.33333333	0.33333333
L 9	Leg S9		XY-Symmetry	8P	9P	1	4	0.33333333	0.33333333	0.33333333
L 10	Leg S10		XY-Symmetry	9P	10P	1	4	0.5	0.5	0.5
L 11	Leg S11		XY-Symmetry	10P	11P	1	4	0.5	0.5	0.5
L 12	Leg S12		XY-Symmetry	11P	12P	1	4	0.5	0.5	0.5
L 13	Leg S13		XY-Symmetry	12P	13P	1	4	0.5	0.5	0.5
L 14	Leg S14		XY-Symmetry	13P	14P	1	4	0.5	0.5	0.5
L 15	Leg S15		XY-Symmetry	14P	15P	1	4	0.5	0.5	0.5
L 16	Leg S16		XY-Symmetry	15P	16P	1	4	0.5	0.5	0.5
L 17	Leg S17		XY-Symmetry	16P	17P	1	4	0.5	0.5	0.5
D 1	Diag S1		XY-Symmetry	0P	H2P	1	5	0.33333333	1	0.33333333
D 2	Diag S1		XY-Symmetry	0P	H1P	1	5	0.33333333	1	0.33333333
D 3	Diag S2		XY-Symmetry	1P	H6P	1	5	0.33333333	0.667	0.33333333
D 4	Diag S2		XY-Symmetry	1P	H5P	1	5	0.33333333	0.667	0.33333333
D 5	Diag S3		XY-Symmetry	2P	H10P	1	5	0.33333333	0.667	0.33333333
D 6	Diag S3		XY-Symmetry	2P	H9P	1	5	0.33333333	0.667	0.33333333
D 7	Diag S4		XY-Symmetry	3P	H14P	1	5	0.33333333	0.667	0.33333333
D 8	Diag S4		XY-Symmetry	3P	H13P	1	5	0.33333333	0.667	0.33333333
D 9	Diag S5		XY-Symmetry	4P	A9P	1	5	0.33333333	0.667	0.33333333
D 10	Diag S5		XY-Symmetry	4P	A10P	1	6	0.33333333	0.66666667	0.33333333
D 11	Diag S6		XY-Symmetry	5P	A11P	1	6	0.33333333	0.66666667	0.33333333
D 12	Diag S6		XY-Symmetry	5P	A12P	1	6	0.33333333	0.66666667	0.33333333
D 13	Diag S7		XY-Symmetry	6P	A13P	1	6	0.33333333	0.66666667	0.33333333
D 14	Diag S7		XY-Symmetry	6P	A14P	1	6	0.33333333	0.66666667	0.33333333
D 15	Diag S8		XY-Symmetry	7P	A15P	1	6	0.33333333	0.66666667	0.33333333
D 16	Diag S8		XY-Symmetry	7P	A16P	1	6	0.32	0.59	0.32
D 17	Diag S9		XY-Symmetry	8P	A17P	1	6	0.32	0.59	0.32
D 18	Diag S9		XY-Symmetry	8P	A18P	1	6	0.5	1	0.5
D 19	Diag S10		XY-Symmetry	9P	A19P	1	6	0.5	1	0.5
D 20	Diag S10		XY-Symmetry	9P	A20P	1	6	0.5	1	0.5
D 21	Diag S11		XY-Symmetry	10P	A21P	1	6	0.5	1	0.5
D 22	Diag S11		XY-Symmetry	10P	A22P	1	6	0.5	1	0.5
D 23	Diag S12		XY-Symmetry	11P	A23P	1	6	0.5	1	0.5
D 24	Diag S12		XY-Symmetry	11P	A24P	1	6	0.5	1	0.5
D 25	Diag S13		XY-Symmetry	12P	A25P	1	6	0.5	1	0.5
D 26	Diag S13		XY-Symmetry	12P	A26P	1	6	0.5	1	0.5
D 27	Diag S14		XY-Symmetry	13P	14Y	1	5	0.52	0.75	0.52
D 28	Diag S14		XY-Symmetry	13P	14X	1	5	0.52	0.75	0.52
D 29	Diag S15		XY-Symmetry	14P	15Y	1	5	0.52	0.75	0.52
D 30	Diag S15		XY-Symmetry	14P	15X	1	5	0.52	0.75	0.52
D 31	Diag S16		XY-Symmetry	15P	16Y	1	5	0.52	0.75	0.52
D 32	Diag S16		XY-Symmetry	15P	16X	1	5	0.52	0.75	0.52
D 33	Diag S17		XY-Symmetry	16P	17Y	1	5	0.52	0.75	0.52
D 34	Diag S17		XY-Symmetry	16P	17X	1	5	0.52	0.75	0.52
H 1	Horiz 1		XY-Symmetry	1P	A1P	1	6	0.49	0.49	0.49
H 2	Horiz 1		XY-Symmetry	1P	A2P	1	6	0.49	0.49	0.49
H 3	Horiz 2		XY-Symmetry	2P	A3P	1	6	0.5	0.5	0.5
H 4	Horiz 2		XY-Symmetry	2P	A4P	1	6	0.5	0.5	0.5
H 5	Horiz 3		XY-Symmetry	3P	A5P	1	6	0.5	0.5	0.5
H 6	Horiz 3		XY-Symmetry	3P	A6P	1	6	0.5	0.5	0.5
H 7	Horiz 4		XY-Symmetry	4P	A7P	1	6	0.5	1	0.5
H 8	Horiz 4		XY-Symmetry	4P	A8P	1	6	0.5	1	0.5
H 9	Horiz 5		XY-Symmetry	5P	A9P	1	6	1	1	1
H 10	Horiz 5		XY-Symmetry	5P	A10P	1	6	1	1	1
H 11	Horiz 6		XY-Symmetry	6P	A11P	1	6	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
H 12	Horiz 6		XY-Symmetry	6P	A12P		1 6	1	1	1
H 13	Horiz 7		XY-Symmetry	7P	A13P		1 6	1	1	1
H 14	Horiz 7		XY-Symmetry	7P	A14P		1 6	1	1	1
H 15	Horiz 8		XY-Symmetry	8P	A15P		1 6	1	1	1
H 16	Horiz 8		XY-Symmetry	8P	A16P		1 6	1	1	1
H 17	Horiz 9		XY-Symmetry	9P	A17P		1 6	1	1	1
H 18	Horiz 9		XY-Symmetry	9P	A18P		1 6	1	1	1
H 19	Horiz 10		XY-Symmetry	10P	A19P		1 6	1	1	1
H 20	Horiz 10		XY-Symmetry	10P	A20P		1 6	1	1	1
H 21	Horiz 11		XY-Symmetry	11P	A21P		1 6	1	1	1
H 22	Horiz 11		XY-Symmetry	11P	A22P		1 6	1	1	1
H 23	Horiz 12		XY-Symmetry	12P	A23P		1 6	1	1	1
H 24	Horiz 12		XY-Symmetry	12P	A24P		1 6	1	1	1
H 25	Horiz 13		XY-Symmetry	13P	A25P		1 6	1	1	1
H 26	Horiz 13		XY-Symmetry	13P	A26P		1 6	1	1	1
H 27	Horiz 14		Y-Symmetry	14P	14X		1 6	0.5	1	0.5
H 28	Horiz 14		X-Symmetry	14P	14Y		1 6	0.5	1	0.5
H 29	Horiz 15		Y-Symmetry	15P	15X		1 6	0.5	1	0.5
H 30	Horiz 15		X-Symmetry	15P	15Y		1 6	0.5	1	0.5
H 31	Horiz 16		Y-Symmetry	16P	16X		1 6	0.5	1	0.5
H 32	Horiz 16		X-Symmetry	16P	16Y		1 6	0.5	1	0.5
H 33	Horiz 17		Y-Symmetry	17P	17X		1 6	0.5	1	0.5
H 34	Horiz 17		X-Symmetry	17P	17Y		1 6	0.5	1	0.5
H 37	Horiz 2		Y-Symmetry	A3P	A3X		1 5	1	1	1
H 38	Horiz 2		X-Symmetry	A4P	A4Y		1 5	1	1	1
H 39	Horiz 3		Y-Symmetry	A5P	A5X		1 5	1	1	1
H 40	Horiz 3		X-Symmetry	A6P	A6Y		1 5	1	1	1
H 41	Horiz 4		Y-Symmetry	A7P	A7X		1 5	1	1	1
H 42	Horiz 4		X-Symmetry	A8P	A8Y		1 5	1	1	1
LH 1	LH 1		Y-Symmetry	H1P	H1X		1 6	0.5	1	0.5
LH 2	LH 1		X-Symmetry	H2P	H2Y		1 6	0.5	1	0.5
LH 3	LH 2		XY-Symmetry	H5P	H7P		1 6	1	2	1
LH 4	LH 2		XY-Symmetry	H6P	H8P		1 6	1	2	1
LH 5	LH 3		XY-Symmetry	H9P	H11P		1 6	1	2	1
LH 6	LH 3		XY-Symmetry	H10P	H12P		1 6	1	2	1
LH 7	LH 4		XY-Symmetry	H13P	H15P		1 6	0.998	1.995	0.998
LH 8	LH 4		XY-Symmetry	H14P	H16P		1 6	0.998	1.995	0.998
LD 1	LD 1		XY-Symmetry	H1P	1P		1 6	0.88	0.88	0.88
LD 2	LD 1		XY-Symmetry	H2P	1P		1 6	0.88	0.88	0.88
LD 3	LD 2		XY-Symmetry	H1P	A1P		1 6	0.82	0.82	0.82
LD 4	LD 2		XY-Symmetry	H2P	A2P		1 6	0.82	0.82	0.82
LD 7	LD 4		XY-Symmetry	H5P	2P		1 6	0.87	0.87	0.87
LD 8	LD 4		XY-Symmetry	H6P	2P		1 6	0.87	0.87	0.87
LD 9	LD 5		XY-Symmetry	H5P	A3P		1 6	0.83	0.83	0.83
LD 10	LD 5		XY-Symmetry	H6P	A4P		1 6	0.83	0.83	0.83
LD 11	LD 6		XY-Symmetry	A3P	H7P		1 6	0.84	0.84	0.84
LD 12	LD 6		XY-Symmetry	A4P	H8P		1 6	0.84	0.84	0.84
LD 13	LD 7		XY-Symmetry	H9P	3P		1 6	0.865	0.865	0.865
LD 14	LD 7		XY-Symmetry	H10P	3P		1 6	0.865	0.865	0.865
LD 15	LD 8		XY-Symmetry	H9P	A5P		1 6	0.83	0.83	0.83
LD 16	LD 8		XY-Symmetry	H10P	A6P		1 6	0.83	0.83	0.83
LD 17	LD 9		XY-Symmetry	A5P	H11P		1 6	0.84	0.84	0.84
LD 18	LD 9		XY-Symmetry	A6P	H12P		1 6	0.84	0.84	0.84
LD 19	LD 10		XY-Symmetry	H13P	4P		1 6	0.86	0.86	0.86
LD 20	LD 10		XY-Symmetry	H14P	4P		1 6	0.86	0.86	0.86
LD 21	LD 11		XY-Symmetry	H13P	A7P		1 6	0.84	0.84	0.84
LD 22	LD 11		XY-Symmetry	H14P	A8P		1 6	0.84	0.84	0.84
LD 23	LD 12		XY-Symmetry	A7P	H15P		1 6	0.85	0.85	0.85
LD 24	LD 12		XY-Symmetry	A8P	H16P		1 6	0.85	0.85	0.85
BR 1	DUM 1		XY-Symmetry	A1P	A2P		1 4	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
BR 3	DUM 1		XY-Symmetry	A3P	A4P	1	4	1	1	1
BR 4	DUM 1		XY-Symmetry	A3P	A4XY	1	4	1	1	1
BR 5	DUM 1		XY-Symmetry	A5P	A6P	1	4	1	1	1
BR 6	DUM 1		XY-Symmetry	A5P	A6XY	1	4	1	1	1
BR 7	DUM 1		XY-Symmetry	A7P	A8P	1	4	1	1	1
BR 8	DUM 1		XY-Symmetry	A7P	A8XY	1	4	1	1	1
BR 9	DUM 1		XY-Symmetry	A9P	A10P	1	4	1	1	1
BR 11	DUM 1		XY-Symmetry	A11P	A12P	1	4	1	1	1
BR 13	DUM 1		XY-Symmetry	A13P	A14P	1	4	1	1	1
BR 15	DUM 1		XY-Symmetry	A15P	A16P	1	4	1	1	1
BR 17	DUM 1		XY-Symmetry	A17P	A18P	1	4	1	1	1
BR 19	DUM 1		XY-Symmetry	A19P	A20P	1	4	1	1	1
BR 21	DUM 1		XY-Symmetry	A21P	A22P	1	4	1	1	1
BR 23	DUM 1		XY-Symmetry	A23P	A24P	1	4	1	1	1
BR 25	DUM 1		XY-Symmetry	A25P	A26P	1	4	1	1	1
BR 61	DUM 1		XY-Symmetry	H1P	H2P	1	4	1	1	1
BR 62	DUM 1		XY-Symmetry	H1P	H2XY	1	4	1	1	1
BR 64	DUM 1		XY-Symmetry	H5P	H6P	1	4	1	1	1
BR 65	DUM 1		XY-Symmetry	H5P	H6XY	1	4	1	1	1
BR 66	DUM 1		XY-Symmetry	H7P	H8P	1	4	1	1	1
BR 67	DUM 1		XY-Symmetry	H9P	H10P	1	4	1	1	1
BR 68	DUM 1		XY-Symmetry	H9P	H10XY	1	4	1	1	1
BR 69	DUM 1		XY-Symmetry	H11P	H12P	1	4	1	1	1
BR 70	DUM 1		XY-Symmetry	H13P	H14P	1	4	1	1	1
BR 71	DUM 1		XY-Symmetry	H13P	H14XY	1	4	1	1	1
BR 72	DUM 1		XY-Symmetry	H15P	H16P	1	4	1	1	1

Point Loads

Tower Height:	300	ft
Gh:	1.09	mph
Wind Speed:	85.00	mph
Wind Speed (Ice):	73.61	mph
Radial Ice Diameter:	0.5	in

Site No.:	88018
Engineer:	SAW
Date:	10/01/2012
Carrier:	Sprint Nextel

KS-15676 Horn Antennas: ~128 ft²

No.	Carrier	Elevation (ft)	Quantity	Number of Azimuths	Model	Height (in)	Width (in)	Depth (in)	Weight (lbs/ea)	Flat/Round (ft²/ft)	Reduction Factor	C _A C _e (ft²/ea)	Weight (lb/ea)	C _A	q _z (psf)	q _z (ice) (psf)
1		300	2	4	15' Omni & 16' Grid Omni Platform	186	4	4	50	R	1.000	55.00	4.00	1.20	34.75	26.06
2		283	1	4	Catwalk	0.01	0.01	0.01	0.01	R	0.001	1.000	0.01	1.00	0.80	34.18
3		212.5	1	3	Platform	0.01	0.01	0.01	0.01	R	0.001	1.000	0.01	1.00	0.80	31.49
4		100	1	3	Platform	0.01	0.01	0.01	0.01	R	0.001	1.000	0.01	1.00	0.80	25.39
5	Bell Industries	303	1	1	Scala OG89-900N/D13 + TTA Side Arm	116.6	2	2	15	R	1.500	50.00	3.00	58.30	1.20	34.85
6	Lojack	302	1	1	RFS 200 Side Arm	249.6	2.4	2.4	20	R	1.000	3.00	0.20	104.00	1.20	34.82
7	Marcus Comm.	300	1	1	TX RX 101-68-10-X-03N Side Arm	189.6	3.5	3.5	70	R	1.000	3.00	0.20	54.17	1.20	34.75
8	Marcus Comm.	300	1	1	ODU	16	12	8	30	F	0.500	1.000	0.00	1.33	1.40	34.75
9	Qualcomm	289	1	1	Dielectric TLP	0.01	0.01	0.01	0.01	R	0.001	22.75	0.23	1.00	0.80	34.38
10	USCG	269	1	1	Rohde & Schwarz ADD890	0.01	0.01	0.01	0.01	R	0.001	1.000	0.20	1.00	0.80	33.68
11	XM Satellite	262.5	1	1	Til Tek TA-2350-DAB Side Arm	70	2.3	2.3	15	R	1.000	20.76	0.20	30.43	1.20	33.45
12	T-Mobile	265	6	3	CCI DTMA-1819-DD-12 Sector Frame	13.2	5.5	3.2	14.3	F	0.670	15.00	0.40	2.40	1.40	33.54
13	T-Mobile	265	7	3	RFS APX160WV-16DWVS-E-A20 Same Mounts as Above	55.9	13.3	3.1	40.7	F	0.650	1.000	0.00	4.20	1.40	33.54
14	USCG	240	1	1	Sinclair SC381-HL Side Arm	148.3	4.5	4.5	47	R	1.000	3.00	0.20	32.96	1.20	32.60
15	USCG	240	1	1	Sinclair SC281-L Side Arm	251	5	5	79	R	1.000	3.00	0.20	50.20	1.20	32.60
16	AT&T Mobility	235	4	3	Dapa 58410 Sector Frame	53.3	6.3	2.7	11	F	0.770	15.00	0.40	8.46	1.45	32.41
17	AT&T Mobility	235	2	3	EMS RR90-17-04DP Same Mounts as Above	56	8	2.8	13.5	F	0.730	1.000	0.00	7.00	1.40	32.41
18	Sprint Nextel	224	12	3	Decibel D8844H90E-XY Sector Frame	48	8.5	6	10	F	0.860	15.00	0.40	5.65	1.40	31.97
19	Lojack	215.5	1	1	8' Omni Side Arm	96	3	3	30	R	1.000	3.00	0.20	32.00	1.20	31.62
20	USCG	200	1	1	Sinclair SC281-L Side Arm	251	5	5	79	R	1.000	3.00	0.20	50.20	1.20	30.95
21	Marcus Comm.	200	2	2	TX RX 101-68-10-X-03N Side Arm	189.6	3.5	3.5	70	R	1.000	3.00	0.20	54.17	1.20	30.95
22	USA Mobility	178	3	3	Antel BCD-87010 Side Arm	134	2.6	2.6	26.5	R	1.000	3.00	0.20	51.54	1.20	29.94
23	Metro PCS	160	6	3	Kathrein 800 10504 Sector Frame	54	6.1	2.7	17.6	F	0.780	15.00	0.40	8.85	1.46	29.04
24																
25	Sensus Metering	137	1	1	Antel BCD-87010_4 Side Arm	134	2.6	2.6	26.5	R	1.000	3.00	0.20	51.54	1.20	27.78
26	Marcus Comm.	100	1	1	TX RX 101-68-10-X-03N Side Arm	189.6	3.5	3.5	70	R	1.000	3.00	0.20	54.17	1.20	25.39
27	Lojack	10	1	1	GPS Unit	12	6	6	10	R	1.000	0.00	0.00	2.00	0.80	18.50
28	USCG	271	1	1	TTA	12	6	6	20	F	1.000	0.00	0.00	2.00	1.40	33.76
29	AT&T Mobility	235	6	3	Powerwave LGP21903 Sector Frame	4.4	6.3	3	25	F	0.670	15.00	0.40	0.70	1.40	32.41
30	AT&T Mobility	235	6	3	Ericsson RRUS 11 (Band 12)	17.8	17	7.2	55	F	0.670	1.000	2.46	1.05	1.40	32.41

No.	Elevation (ft)	C _A C _c (ft ²)	C _A C _c (Ice) (ft ²)	Force (k)	Force (Ice) (k)	Weight (k)	Weight (Ice) (k)	Σ Force (k)	Σ Force (Ice) (k)	Σ Weight (k)	Σ Weight (Ice) (k)
1	300	12.40	15.58	0.469	0.442	0.100	0.210	2.55	2.55	4.10	5.41
		55.00	74.25	2.079	2.105	4.000	5.200				
2	283	0.00	0.00	0.000	0.000	0.000	0.000	1.49	1.51	2.75	3.58
		40.00	54.00	1.487	1.505	2.750	3.575				
3	212.5	0.00	0.00	0.000	0.000	0.000	0.000	1.71	1.73	3.00	3.90
		50.00	67.50	1.713	1.734	3.000	3.900				
4	100	0.00	0.00	0.000	0.000	0.000	0.000	1.38	1.40	3.00	3.90
		50.00	67.50	1.381	1.398	3.000	3.900				
5	303	2.92	4.41	0.110	0.125	0.015	0.034	0.22	0.24	0.22	0.29
		3.00	4.05	0.114	0.115	0.200	0.260				
6	302	4.99	7.10	0.189	0.202	0.020	0.067	0.30	0.32	0.22	0.33
		3.00	4.05	0.114	0.115	0.200	0.260				
7	300	5.53	7.15	0.209	0.203	0.070	0.120	0.32	0.32	0.27	0.38
		3.00	4.05	0.113	0.113	0.200	0.260				
8	300	0.93	1.07	0.035	0.030	0.030	0.045	0.04	0.03	0.03	0.04
		0.00	0.00	0.000	0.000	0.000	0.000				
9	289	0.00	0.00	0.000	0.000	0.000	0.000	0.85	0.86	0.23	0.30
		22.75	30.71	0.851	0.861	0.230	0.299				
10	269	0.00	0.00	0.000	0.000	0.000	0.000	0.76	0.77	0.20	0.26
		20.76	28.03	0.761	0.770	0.200	0.260				
11	262.5	1.34	1.95	0.049	0.053	0.015	0.028	0.16	0.16	0.22	0.29
		3.00	4.05	0.109	0.111	0.200	0.260				
12	265	2.84	3.61	0.104	0.099	0.086	0.116	1.33	1.35	1.29	1.68
		33.75	45.56	1.231	1.247	1.200	1.560				
13	265	32.89	35.99	1.200	0.985	0.285	0.519	1.20	0.98	0.28	0.52
		0.00	0.00	0.000	0.000	0.000	0.000				
14	240	5.56	6.84	0.197	0.182	0.047	0.096	0.30	0.29	0.25	0.36
		3.00	4.05	0.106	0.108	0.200	0.260				
15	240	10.46	12.60	0.371	0.335	0.079	0.170	0.48	0.44	0.28	0.43
		3.00	4.05	0.106	0.108	0.200	0.260				
16	235	10.40	12.28	0.367	0.325	0.044	0.117	1.56	1.53	1.24	1.68
		33.75	45.56	1.190	1.205	1.200	1.560				
17	235	6.36	7.28	0.224	0.193	0.027	0.072	0.22	0.19	0.03	0.07
		0.00	0.00	0.000	0.000	0.000	0.000				
18	224	40.94	46.71	1.423	1.218	0.120	0.435	2.60	2.41	1.32	2.00
		33.75	45.56	1.174	1.188	1.200	1.560				
19	215.5	2.40	3.23	0.083	0.083	0.030	0.052	0.19	0.19	0.23	0.31
		3.00	4.05	0.103	0.104	0.200	0.260				
20	200	10.46	12.60	0.352	0.318	0.079	0.170	0.45	0.42	0.28	0.43
		3.00	4.05	0.101	0.102	0.200	0.260				
21	200	11.06	14.30	0.372	0.361	0.140	0.240	0.57	0.57	0.54	0.76
		6.00	8.10	0.202	0.205	0.400	0.520				
22	178	8.71	12.15	0.284	0.297	0.080	0.162	0.58	0.59	0.68	0.94
		9.00	12.15	0.283	0.297	0.600	0.780				
23	160	15.65	18.55	0.494	0.439	0.106	0.214	1.56	1.52	1.31	1.77
		33.75	45.56	1.066	1.079	1.200	1.560				
24											
25	137	2.90	4.05	0.088	0.092	0.027	0.054	0.18	0.18	0.23	0.31
		3.00	4.05	0.091	0.092	0.200	0.260				
26	100	5.53	7.15	0.153	0.148	0.070	0.120	0.24	0.23	0.27	0.38
		3.00	4.05	0.083	0.083	0.200	0.260				
27	10	0.40	0.51	0.008	0.008	0.010	0.017	0.01	0.01	0.01	0.02
		0.00	0.00	0.000	0.000	0.000	0.000				
28	271	0.70	0.88	0.026	0.024	0.020	0.027	0.03	0.02	0.02	0.03
		0.00	0.00	0.000	0.000	0.000	0.000				
29	235	1.08	1.54	0.038	0.041	0.150	0.164	1.23	1.25	1.35	1.72
		33.75	45.56	1.190	1.205	1.200	1.560				
30	235	11.83	13.23	0.417	0.350	0.030	0.446	0.50	0.44	0.36	0.48
		2.46	3.32	0.087	0.088	0.025	0.033				

Site: 88018
Carrier: Sprint Nextel

Engineer: SAW
Date: 10/01/12

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress inc. Factor	Basic Wind Speed	Wind Dir.	Ice Thick.	Ice Density	Temp.	Point Loads
W-0	1.1	1	1	1	1.333333333	85	0	0	56	50	
W-180	1.1	1	1	1	1.333333333	85	180	0	56	50	
W-45	1.1	1	1	1	1.333333333	85	45	0	56	50	
W-45	1.1	1	1	1	1.333333333	85	-45	0	56	50	
W-90	1.1	1	1	1	1.333333333	85	90	0	56	50	
W-90	1.1	1	1	1	1.333333333	85	-90	0	56	50	
W-0 ice	1.1	1	1	1	1.333333333	73.61	0	0.5	56	10	
W-180 ice	1.1	1	1	1	1.333333333	73.61	180	0.5	56	10	
W-45 ice	1.1	1	1	1	1.333333333	73.61	45	0.5	56	10	
W-45 ice	1.1	1	1	1	1.333333333	73.61	-45	0.5	56	10	
W-90 ice	1.1	1	1	1	1.333333333	73.61	90	0.5	56	10	
W-90 ice	1.1	1	1	1	1.333333333	73.61	-90	0.5	56	10	

Angle: 0

No Ice

Joint Label	Force X-Dir (lbs)	Force Y-Dir (lbs)	Force Vertical (lbs)	Moment X-Axis (ft-lbs)	Moment Y-Axis (ft-lbs)	Moment Z-Axis (ft-lbs)
17P	754.10	0.00	1050			
17X	754.10	0.00	1050			
17Y	519.74	0.00	1000			
17XY	519.74	0.00	1000			
15P	371.75	0.00	687.5025			
15X	371.75	0.00	687.5025			
15Y	371.75	0.00	687.5025			
15XY	371.75	0.00	687.5025			
9P	570.88	0.00	1000.003333			
9X	570.88	0.00	1000.003333			
9Y	570.88	0.00	1000.003333			
9XY	0.00	0.00	0			
4P	460.27	0.00	1000.003333			
4X	460.27	0.00	1000.003333			
4Y	460.27	0.00	1000.003333			
4XY	0.00	0.00	0			
17P	224.22	0.00	215			
17X	0.00	0.00	0			
17Y	0.00	0.00	0			
17XY	0.00	0.00	0			
17P	302.67	0.00	220			
17X	0.00	0.00	0			
17Y	0.00	0.00	0			
17XY	0.00	0.00	0			
17P	322.43	0.00	270			
17X	0.00	0.00	0			
17Y	0.00	0.00	0			
17XY	0.00	0.00	0			
17P	35.28	0.00	30			
17X	0.00	0.00	0			
17Y	0.00	0.00	0			
17XY	0.00	0.00	0			
16P	850.81	0.00	230.01			
16X	0.00	0.00	0			
16Y	0.00	0.00	0			
16XY	0.00	0.00	0			
14P	760.64	0.00	200.01			
14X	0.00	0.00	0			
14Y	0.00	0.00	0			
14XY	0.00	0.00	0			
13P	157.97	0.00	215			
13X	0.00	0.00	0			
13Y	0.00	0.00	0			
13XY	0.00	0.00	0			
13P	444.94	0.00	428.6			
13X	444.94	0.00	428.6			
13Y	444.94	0.00	428.6			
13XY	0.00	0.00	0			
13P	399.96	0.00	94.96666667			
13X	399.96	0.00	94.96666667			
13Y	399.96	0.00	94.96666667			
13XY	0.00	0.00	0			
11P	303.62	0.00	247			
11X	0.00	0.00	0			
11Y	0.00	0.00	0			
11XY	0.00	0.00	0			
11P	477.30	0.00	279			
11X	0.00	0.00	0			
11Y	0.00	0.00	0			
11XY	0.00	0.00	0			
11P	518.85	0.00	414.6666667			
11X	518.85	0.00	414.6666667			
11Y	518.85	0.00	414.6666667			
11XY	0.00	0.00	0			
11P	74.72	0.00	9			
11X	74.72	0.00	9			
11Y	74.72	0.00	9			
11XY	0.00	0.00	0			
10P	865.68	0.00	440			
10X	865.68	0.00	440			
10Y	865.68	0.00	440			
10XY	0.00	0.00	0			
9P	185.71	0.00	230			
9X	0.00	0.00	0			
9Y	0.00	0.00	0			
9XY	0.00	0.00	0			
8P	453.07	0.00	279			
8X	0.00	0.00	0			
8Y	0.00	0.00	0			
8XY	0.00	0.00	0			
8P	287.16	0.00	270			
8X	287.16	0.00	270			
8Y	0.00	0.00	0			
8XY	0.00	0.00	0			
7P	192.23	0.00	226.5			
7X	192.23	0.00	226.5			
7Y	192.23	0.00	226.5			
7XY	0.00	0.00	0			
6P	520.09	0.00	435.2			
6X	520.09	0.00	435.2			
6Y	520.09	0.00	435.2			
6XY	0.00	0.00	0			

With Ice

Joint Label	Force X-Dir (lbs)	Force Y-Dir (lbs)	Force Vertical (lbs)
17P	747.09	0.00	1405.060185
17X	747.09	0.00	1405.060185
17Y	526.21	0.00	1300
17XY	526.21	0.00	1300
15P	376.37	0.00	893.7608473
15X	376.37	0.00	893.7608473
15Y	376.37	0.00	893.7608473
15XY	376.37	0.00	893.7608473
9P	577.98	0.00	1300.014463
9X	577.98	0.00	1300.014463
9Y	577.98	0.00	1300.014463
9XY	0.00	0.00	0
4P	466.00	0.00	1300.014463
4X	466.00	0.00	1300.014463
4Y	466.00	0.00	1300.014463
4XY	0.00	0.00	0
17P	240.51	0.00	294.1851852
17X	0.00	0.00	0
17Y	0.00	0.00	0
17XY	0.00	0.00	0
17P	316.69	0.00	327.2901852
17X	0.00	0.00	0
17Y	0.00	0.00	0
17XY	0.00	0.00	0
17P	317.43	0.00	379.8118056
17X	0.00	0.00	0
17Y	0.00	0.00	0
17XY	0.00	0.00	0
17P	304.5	0.00	44.68055556
17X	0.00	0.00	0
17Y	0.00	0.00	0
17XY	0.00	0.00	0
16P	861.40	0.00	299.0433894
16X	0.00	0.00	0
16Y	0.00	0.00	0
16XY	0.00	0.00	0
14P	770.11	0.00	260.0433894
14X	0.00	0.00	0
14Y	0.00	0.00	0
14XY	0.00	0.00	0
13P	163.79	0.00	288.0566204
13X	0.00	0.00	0
13Y	0.00	0.00	0
13XY	0.00	0.00	0
13P	448.44	0.00	558.6683333
13X	448.44	0.00	558.6683333
13Y	448.44	0.00	558.6683333
13XY	0.00	0.00	0
13P	328.27	0.00	172.9500154
13X	328.27	0.00	172.9500154
13Y	328.27	0.00	172.9500154
13XY	0.00	0.00	0
11P	289.72	0.00	356.0405093
11X	0.00	0.00	0
11Y	0.00	0.00	0
11XY	0.00	0.00	0
11P	442.84	0.00	429.6435185
11X	0.00	0.00	0
11Y	0.00	0.00	0
11XY	0.00	0.00	0
11P	509.76	0.00	558.8646296
11X	509.76	0.00	558.8646296
11Y	509.76	0.00	558.8646296
11XY	0.00	0.00	0
11P	64.17	0.00	24.0154321
11X	64.17	0.00	24.0154321
11Y	64.17	0.00	24.0154321
11XY	0.00	0.00	0
10P	802.05	0.00	665.0648148
10X	802.05	0.00	665.0648148
10Y	802.05	0.00	665.0648148
10XY	0.00	0.00	0
9P	187.85	0.00	312.2962963
9X	0.00	0.00	0
9Y	0.00	0.00	0
9XY	0.00	0.00	0
8P	420.36	0.00	429.6435185
8X	0.00	0.00	0
8Y	0.00	0.00	0
8XY	0.00	0.00	0
8P	282.70	0.00	379.8118056
8X	282.70	0.00	379.8118056
8Y	0.00	0.00	0
8XY	0.00	0.00	0
7P	197.80	0.00	313.8440741
7X	197.80	0.00	313.8440741
7Y	197.80	0.00	313.8440741
7XY	0.00	0.00	0
6P	506.24	0.00	591.2026852
6X	506.24	0.00	591.2026852
6Y	506.24	0.00	591.2026852
6XY	0.00	0.00	0

6P	178.37	0.00	226.5
6X	0.00	0.00	0
6Y	0.00	0.00	0
6XY	0.00	0.00	0
4P	235.17	0.00	270
4X	0.00	0.00	0
4Y	0.00	0.00	0
4XY	0.00	0.00	0
0P	8.05	0.00	10
0X	0.00	0.00	0
0Y	0.00	0.00	0
0XY	0.00	0.00	0
14P	25.70	0.00	20
14X	0.00	0.00	0
14Y	0.00	0.00	0
14XY	0.00	0.00	0
11P	409.32	0.00	450
11X	409.32	0.00	450
11Y	409.32	0.00	450
11XY	0.00	0.00	0
11P	215.69	0.00	135
11X	138.97	0.00	110
11Y	138.97	0.00	110
11XY	0.00	0.00	0
6P	183.55	0.00	313.8440741
6X	0.00	0.00	0
6Y	0.00	0.00	0
6XY	0.00	0.00	0
4P	231.91	0.00	379.8118056
4X	0.00	0.00	0
4Y	0.00	0.00	0
4XY	0.00	0.00	0
0P	7.63	0.00	16.64351852
0X	0.00	0.00	0
0Y	0.00	0.00	0
0XY	0.00	0.00	0
14P	24.36	0.00	26.64351852
14X	0.00	0.00	0
14Y	0.00	0.00	0
14XY	0.00	0.00	0
11P	415.10	0.00	574.83
11X	415.10	0.00	574.83
11Y	415.10	0.00	574.83
11XY	0.00	0.00	0
11P	204.35	0.00	181.14
11X	116.55	0.00	148.64
11Y	116.55	0.00	148.64
11XY	0.00	0.00	0

Foundation

Design Loads (Unfactored)

Compression/Leg:	501.71	k
Uplift/Leg:	402.35	k

Face Width @ Top of Pier (d_1):	4.00	ft
Face Width @ Bottom of Pier (d_2):	8.00	ft
Total Length of Pier (l):	8.00	ft
Height of Pedestal Above Ground (h):	0.50	ft
Width of Pad (W):	18.00	ft
Length of Pad (L):	18.00	ft
Thickness of Pad (t):	3.00	ft
Water Table Depth (w):	99	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	100.0	pcf
Unit Weight of Soil (Below Water Table):	50.0	pcf
Friction Angle of Uplift (A):	20°	
Allowable Compressive Bearing Pressure:	20000	psf
Cohesion:	3000	

Volume Pier (Total):	298.67	ft ³
Volume Pad (Total):	972.00	ft ³
Volume Soil (Total):	2935.41	ft ³
Volume Pier (Buoyant):	0.00	ft ³
Volume Pad (Buoyant):	0.00	ft ³
Volume Soil (Buoyant):	0.00	ft ³
Weight Pier:	44.80	k
Weight Pad:	145.80	k
Weight Soil:	293.54	k

Uplift Check

TIA Case 1: $\frac{\text{Wt. Soil} + \text{Wt. Concrete}}{1.5}$

TIA Case 2: $\frac{\text{Wt. Soil} + \text{Wt. Concrete}}{2.0 \quad 1.25}$

	Allowable Uplift (k)	Ratio	Result
TIA Case 1:	432.11	0.93	OK
TIA Case 2:	408.60	0.98	OK

Axial Check

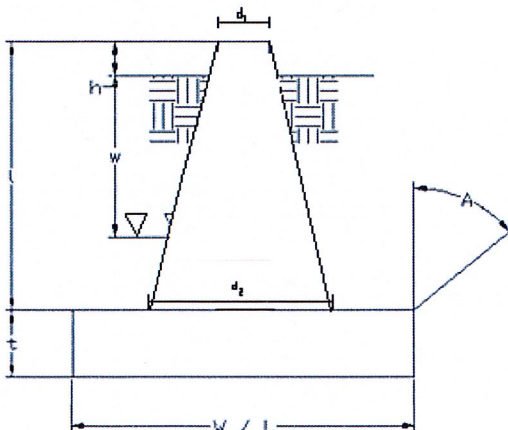
Allowable Axial: $\text{Allowable Bearing Pressure} * W * L$

	Allowable Axial (k)	Ratio	Result
	6480.00	0.08	OK

Anchor Bolt Check

Bolt Description	Allowable Uplift (k)	Ratio	Result
(6) 2 1/4" A36	456.61	0.88	OK

Site No.:	88018
Engineer:	SAW
Date:	10/01/12
Carrier:	Sprint Nextel





Know what's below.
Call before you dig.

APPROVALS

SPRINT REPRESENTATIVES	DATE	☐	☐	☐
SPRINT RF ENGINEER	DATE	☐	☐	☐
SITE OWNER	DATE	☐	☐	☐
	DATE	☐	☐	☐

Sprint[®]



SITE ID: CT03XC337
SITE NAME: ATC TOWER

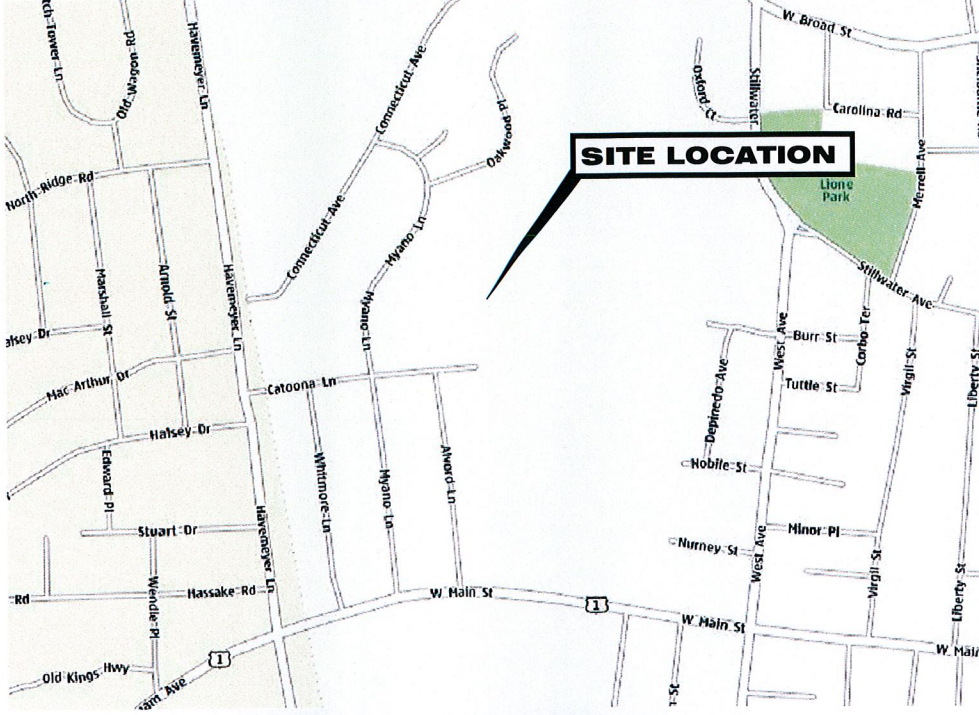
THE STRUCTURAL ENGINEERING CONCERNING THE STRUCTURAL STABILITY OF THE TOWER/POLE, FOUNDATION, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT IS BEING COMPLETED BY OTHERS. KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PERFORM ANY STRUCTURAL ANALYSIS SERVICES TO VERIFY THAT THE TOWER/POLE AND/OR FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT DEPICTED WITHIN THESE SIGNED AND SEALED DRAWINGS. FURTHERMORE KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PHYSICALLY CONFIRM THE EXISTING MOUNT CONFIGURATION AND PERFORM A STRUCTURAL ANALYSIS TO VERIFY THAT THE EXISTING, INTERIM AND PROPOSED ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT CAN BE SAFELY SUPPORTED. SIGNED AND SEALED DRAWINGS REVISED TO STATE "ISSUED FOR CONSTRUCTION" SHALL BE PROVIDED TO THE PROFESSIONAL ENGINEERS RESPONSIBLE FOR THE STRUCTURAL ANALYSIS OF THE TOWER/POLE, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT. KMB DESIGN GROUP, LLC SHALL BE NOTIFIED SHOULD THE STRUCTURAL ANALYSIS RESULT IN SOME ELEMENTS NOT BEING STRUCTURALLY CAPABLE OF SUPPORTING THE PROPOSED DESIGN DEPICTED. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION WITHOUT OBTAINING (A) A SIGNED AND SEALED COPY OF THE PLANS "ISSUED FOR CONSTRUCTION"; (B) STRUCTURAL ANALYSIS REPORT STATING THAT THE TOWER/POLE/FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED LOADING REFERENCING THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC; (C) SPRINT PLATFORM ANALYSIS STATING THAT THE SPRINT PLATFORM IS CAPABLE OF SUPPORTING THE PROPOSED DESIGN AS REFERENCED WITHIN THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC.



NETWORK VISION CONSTRUCTION DRAWINGS



AERIAL VIEW
SCALE: NTS



LOCATION MAP
SCALE: NTS

SITE INFORMATION

PARCEL: 000-0370

ZONING CLASSIFICATION: R5
ZONING JURISDICTION: CITY OF STAMFORD

PROJECT INFORMATION:

SITE ADDRESS:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

COORDINATES:
LATITUDE: N41° 3' 10.18"
LONGITUDE: W73° 33' 46.95"] DATUM : NAD 83

STRUCTURE HEIGHT:
±300'-0" (TOP OF EXISTING LATTICE TOWER)

PROJECT DIRECTORY:

PROPERTY OWNER:
AMERICAN TOWERS
PO BOX 723597
ATLANTA, GA 31139-1139

APPLICANT:
SPRINT-NEXTEL
6200 SPRINT PARKWAY
OVERLAND PARK, KS 66251

ENGINEER:
KMB DESIGN GROUP, LLC
1800 ROUTE 34, SUITE 209
WALL, NJ 07719
KEITH DRENNAN - PROJECT MANAGER
(732) 280-5623

POWER COMPANY:
CONNECTICUT LIGHT & POWER
P.O. BOX 270
HARTFORD, CT 06141-0270
(800) 286-2000

CONSTRUCTION MANAGER:
TODD AMANN
(914) 715-9363

DRAWING INDEX

DWG #	DRAWING TITLES
A01	COVER SHEET
C01	GENERAL NOTES 1 OF 2
C01A	GENERAL NOTES 2 OF 2
C02	COMPOUND PLAN
C02A	ELEVATION
C03	EQUIPMENT PLANS
C03A	EQUIPMENT & ANTENNA SPECIFICATIONS
C04	ANTENNA PLANS (SECTOR 1)
C04A	ANTENNA PLANS (SECTOR 2)
C04B	ANTENNA PLANS (SECTOR 3)
C04C	RRH PLANS (SECTORS 1 & 2)
C04D	RRH PLAN & MOUNT DETAILS (ALL SECTORS)
C05	SITE DETAILS
C06	RF SCHEDULE
C06A	RF DATA SHEET
C07	AAV DRAWINGS
C07A	AAV DRAWINGS
C07B	AAV DRAWINGS
C07C	AAV DRAWINGS
E01	ELECTRICAL NOTES
E02	ELECTRICAL & GROUNDING DETAILS

CODES & STANDARDS

These documents are in compliance & all construction to be in accordance with the following codes & standards as applicable:

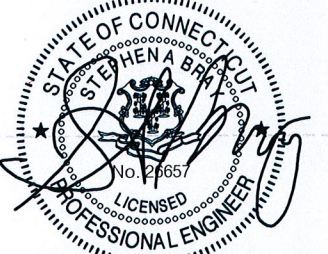
State Building Code: 2005 Connecticut Supplement which includes the 2009 Amendment (effective August 1, 2009) to the 2005 State Building Code.
2003 International Building Code
2003 International Residential Code
2003 International Existing Building Code
2003 International Mechanic Code
2003 International Plumbing Code
2006 International Energy Conservation Code (new edition adopted with changes-effective August 1, 2009)
2009 International Energy Conservation Code with Connecticut Amendments (effective October 7, 2011)
ICC/ANSI A117.1-2003 Accessible and Usable Buildings and Facilities
2005 National Electrical Code (NFPA-70)

DRIVING DIRECTIONS

- DEPART 1 INTERNATIONAL BLVD, MAHWAH, NJ 07495
- TAKE 3RD EXIT FROM ROUNDABOUT INTERNATIONAL BLVD ONTO LEISURE LN.
- TAKE RAMP ONTO STATE HIGHWAY 17 (RT-17 N).
- CONTINUE ON I-287 N. 18.6 MI/30.0 KMTAKE THE I-87 S/I-287/NEW YORK STATE THRUWAY SOUTH/TAPPAN ZEE BR/NEW YORK CITY EXIT ONTO NEW YORK STATE THRUWAY SOUTH (I-287 E, I-87 S) (PARTIAL TOLL ROAD).
- KEEP LEFT ONTO CROSS WESTCHESTER EXPY (I-287 E) AT EXIT #8 TOWARD WHITE PLAINS/RYE.
- TAKE RAMP ONTO NEW ENGLAND THWY (I-95 N).
- TAKE EXIT #6/HARVARD AVE.
- TURN LEFT ONTO HARVARD AVE.
- TURN LEFT ONTO W MAIN ST, BOSTON POST RD (US-1).
- TURN RIGHT ONTO ALVORD LN.
- TURN RIGHT ONTO CATOONA LN. YOUR DESTINATION ON CATOONA LN IS ON THE LEFT.



Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657 10/17/12

PROJECT NUMBER:
332.1620

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

CT03XC337

PROJECT TYPE:
NETWORK VISION

DRAWN BY: JLS CHECKED BY: DATE: 05-01-12

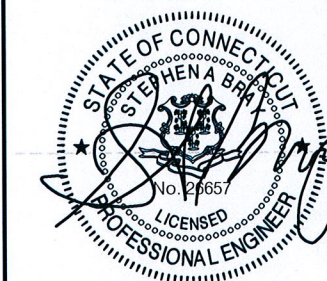
SHEET TITLE:
COVER SHEET

SHEET NUMBER: **A01** REV.: **0**

				
				
				
				
				
				
				
	10-17-12	ISSUED FOR CONSTRUCTION	JLS	H
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CH



Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657 10/17/12

PROJECT NUMBER: 332.1620

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

CT03XC337

PROJECT TYPE:
NETWORK VISION

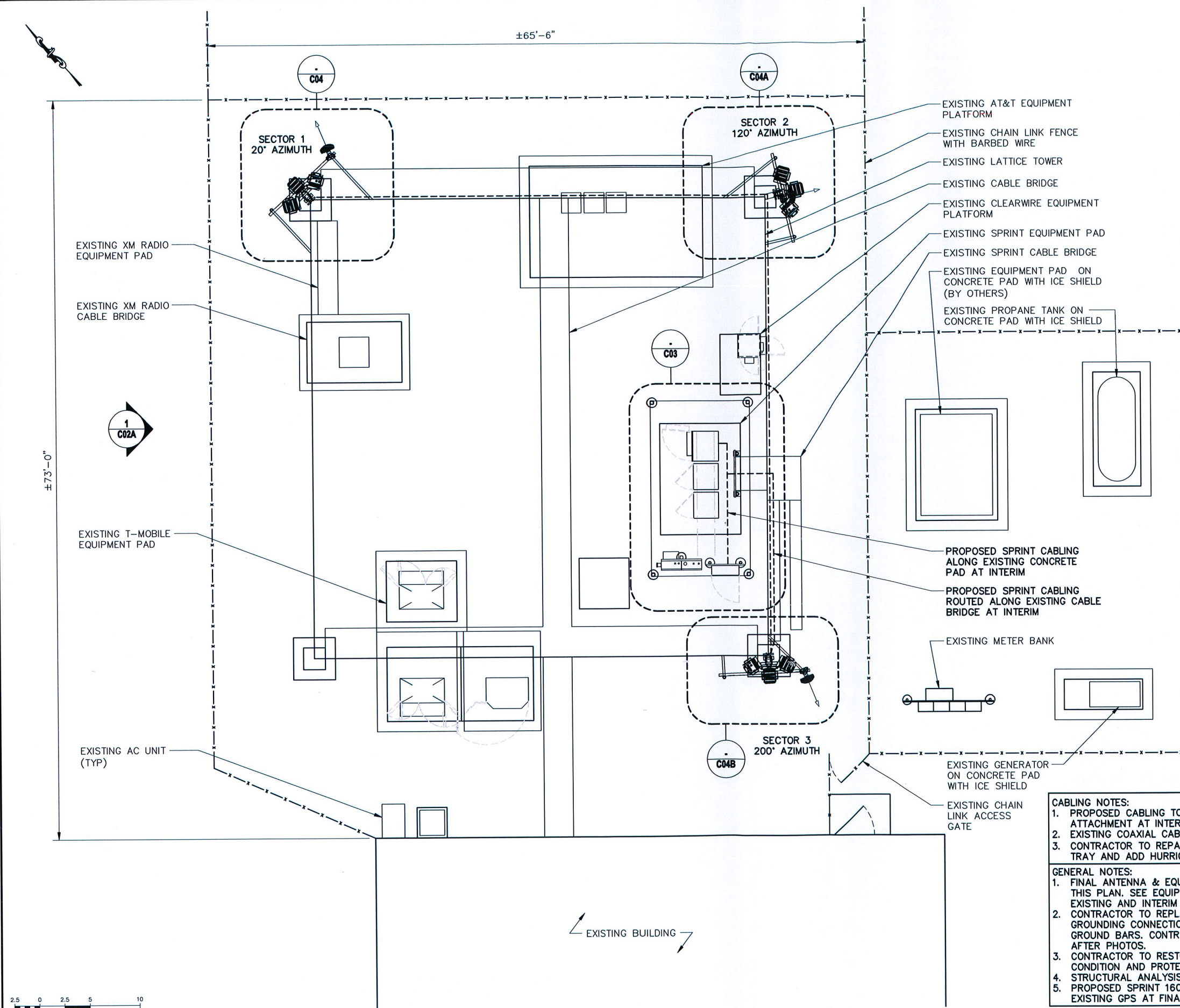
DRAWN BY: JLS	CHECKED BY:	DATE: 05-01-12
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SHEET TITLE:

COMPOUND
PLAN

SHEET NUMBER:	REV.:
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C02	0
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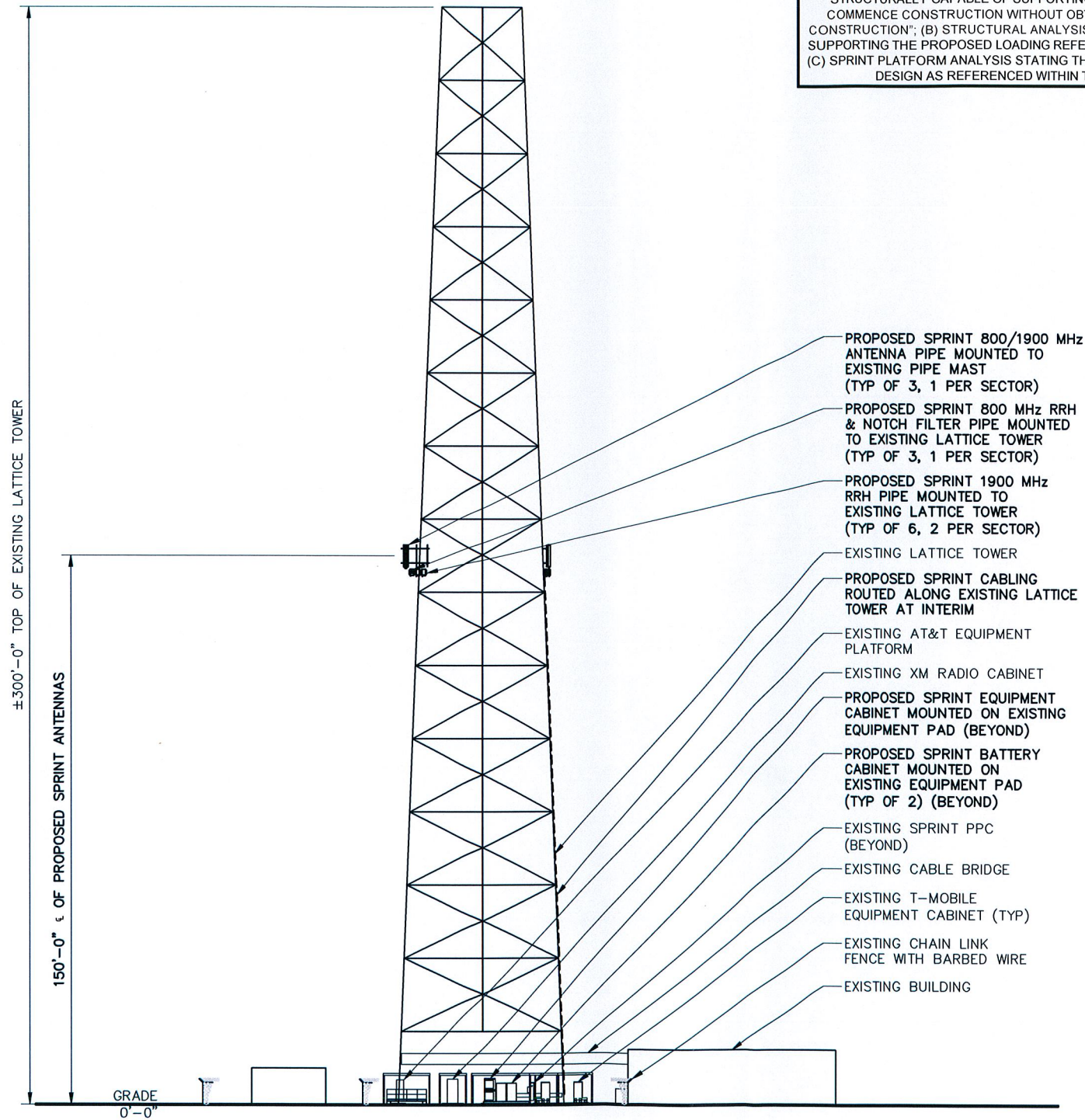
CABLING NOTES:

1. PROPOSED CABLING TO FOLLOW EXISTING ROUTE AND METHOD OF ATTACHMENT AT INTERIM.
2. EXISTING COAXIAL CABLES TO BE REMOVED AT FINAL.
3. CONTRACTOR TO REPAIR/REPLACE ANY MISSING/DAMAGED CABLE TRAY AND ADD HURRICANE STRAPS AS REQUIRED IF APPLICABLE.

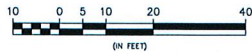
GENERAL NOTES: 1. FINAL ANTENNA & EQUIPMENT CONFIGURATION SHOWN ON THIS PLAN. SEE EQUIPMENT & ANTENNA PLAN SHEETS FOR EXISTING AND INTERIM CONFIGURATION. 2. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED WITH GALVANIZED GROUND BARS. CONTRACTOR SHALL PROVIDE BEFORE & AFTER PHOTOS. 3. CONTRACTOR TO RESTORE ANY RUST AREA TO ORIGINAL CONDITION AND PROTECTIVE COATING TO BE APPLIED. 4. STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER. 5. PROPOSED SPRINT 1600 MHz GPS UNIT TO REPLACE EXISTING GPS AT FINAL.

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THE STRUCTURAL ENGINEERING CONCERNING THE STRUCTURAL STABILITY OF THE TOWER/POLE, FOUNDATION, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT IS BEING COMPLETED BY OTHERS. KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PERFORM ANY STRUCTURAL ANALYSIS SERVICES TO VERIFY THAT THE TOWER/POLE AND/OR FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT DEPICTED WITHIN THESE SIGNED AND SEALED DRAWINGS. FURTHERMORE KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PHYSICALLY CONFIRM THE EXISTING MOUNT CONFIGURATION AND PERFORM A STRUCTURAL ANALYSIS TO VERIFY THAT THE EXISTING, INTERIM AND PROPOSED ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT CAN BE SAFELY SUPPORTED. SIGNED AND SEALED DRAWINGS REVISED TO STATE "ISSUED FOR CONSTRUCTION" SHALL BE PROVIDED TO THE PROFESSIONAL ENGINEERS RESPONSIBLE FOR THE STRUCTURAL ANALYSIS OF THE TOWER/POLE, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT. KMB DESIGN GROUP, LLC SHALL BE NOTIFIED SHOULD THE STRUCTURAL ANALYSIS RESULT IN SOME ELEMENTS NOT BEING STRUCTURALLY CAPABLE OF SUPPORTING THE PROPOSED DESIGN DEPICTED. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION WITHOUT OBTAINING (A) A SIGNED AND SEALED COPY OF THE PLANS "ISSUED FOR CONSTRUCTION"; (B) STRUCTURAL ANALYSIS REPORT STATING THAT THE TOWER/POLE/FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED LOADING REFERENCING THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC; (C) SPRINT PLATFORM ANALYSIS STATING THAT THE SPRINT PLATFORM IS CAPABLE OF SUPPORTING THE PROPOSED DESIGN AS REFERENCED WITHIN THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC.



NOTE:
1. EXISTING ANTENNAS BY OTHERS NOT SHOWN FOR CLARITY.



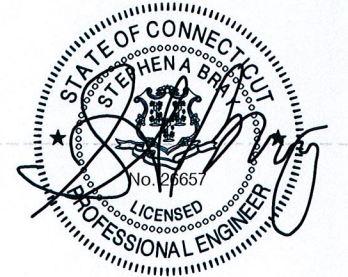
1 NORTHWEST ELEVATION
11x17 SCALE: 1" = 40'
24x36 SCALE: 1" = 20'



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△	10-17-12	ISSUED FOR CONSTRUCTION	JLS	KCD
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY



Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657 10/17/12

PROJECT NUMBER:
332.1620

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY
CT03XC337

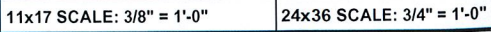
PROJECT TYPE:
NETWORK VISION

DRAWN BY: JLS CHECKED BY: DATE: 05-01-12

SHEET TITLE:
ELEVATION

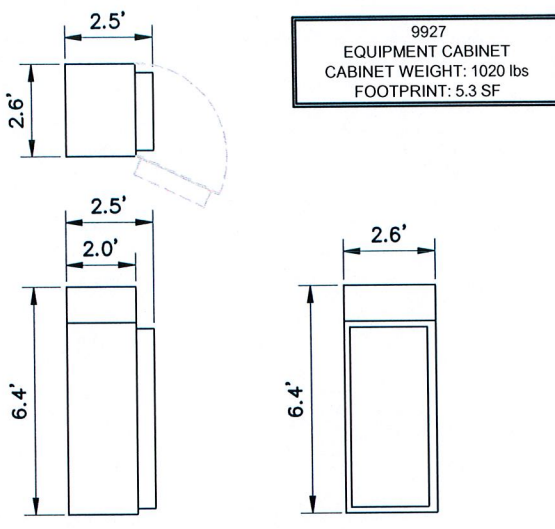
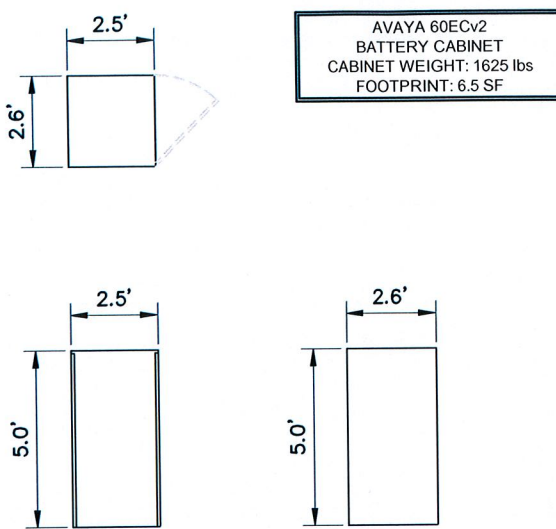
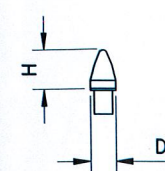
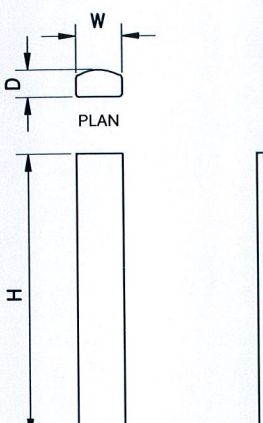
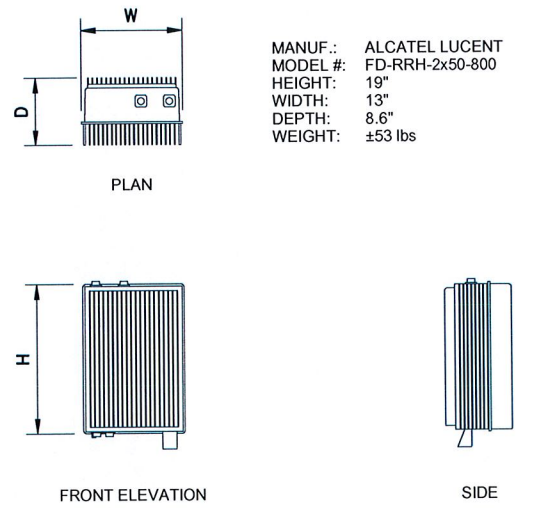
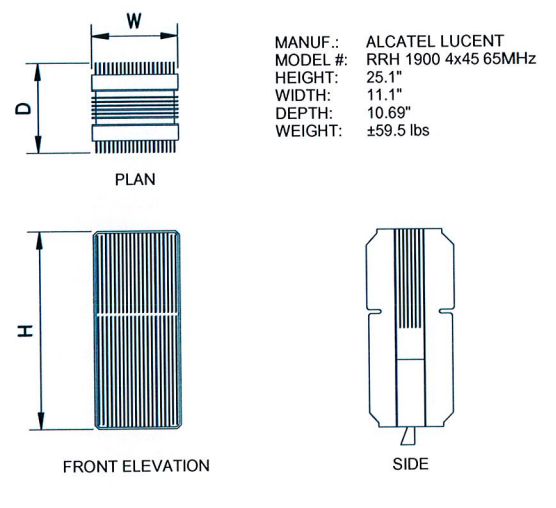
SHEET NUMBER: C02A REV.: 0

K:\332_Sprint\332.1000_Alcatel-Lucent\332.1620_CT03XC337_168 Catoona Lane\332.1620_CAD\332.1620_Construction\332.1620.C02A.dwg, 10/17/2012 9:34:16 AM, jspyniewski



SHEET NUMBER:	REV.:
C03	0

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 9927 EQUIPMENT CABINET CABINET WEIGHT: 1020 lbs FOOTPRINT: 5.3 SF		 AVAYA 60ECv2 BATTERY CABINET CABINET WEIGHT: 1625 lbs FOOTPRINT: 6.5 SF		 MANUF.: PCTEL MODEL #: GPS-TMG-HR-26NCM HEIGHT: 5.0" DIAMETER: 3.2" WEIGHT: 0.6 lbs		DETAIL NOT USED	
1EQUIPMENT CABINET SPECIFICATIONS		2BATTERY CABINET SPECIFICATION		3GPS UNIT SPECIFICATIONS		4	
11x17 SCALE: 3/16" = 1'-0"24x36 SCALE: 3/8" = 1'-0"		11x17 SCALE: 3/16" = 1'-0"24x36 SCALE: 3/8" = 1'-0"		11x17 SCALE: 1/4" = 1'-0"24x36 SCALE: 1/2" = 1'-0"			
DETAIL NOT USED		DETAIL NOT USED		 MANUF.: RFS MODEL: APXVSP18-C-A20 LENGTH: 72.0" WIDTH: 11.8" DEPTH: 7.0" WEIGHT: 64.5 lbs AREA: 5.9 SF		DETAIL NOT USED	
5		6		7ANTENNA SPECIFICATIONS - 800/1900 MHz		8	
				SCALE: NTS			
 MANUF.: ALCATEL LUCENT MODEL #: FD-RRH-2x50-800 HEIGHT: 19" WIDTH: 13" DEPTH: 8.6" WEIGHT: ±53 lbs		 MANUF.: ALCATEL LUCENT MODEL #: RRH 1900 4x45 65MHz HEIGHT: 25.1" WIDTH: 11.1" DEPTH: 10.69" WEIGHT: ±59.5 lbs		DETAIL NOT USED			
9RRH SPECIFICATIONS - 800 MHz		10RRH SPECIFICATIONS - 1900 MHz		11			
11x17 SCALE: 1/2" = 1'-0"24x36 SCALE: 1" = 1'-0"		11x17 SCALE: 1/2" = 1'-0"24x36 SCALE: 1" = 1'-0"					

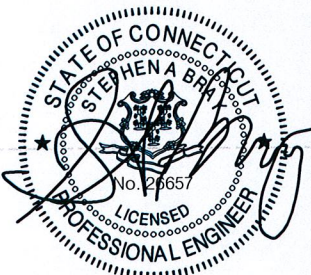


				
				
				
				
				
				
				
				
	10-17-12	ISSUED FOR CONSTRUCTION	JLS	KCD
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY



1800 ROUTE 34, SUITE 209
WALL, NJ 07719
(732) 280-5623

Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 2665710/17/12

PROJECT NUMBER:
332.1620

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

CT03XC337

PROJECT TYPE:
NETWORK VISION

DRAWN BY:
JLS

CHECKED BY:

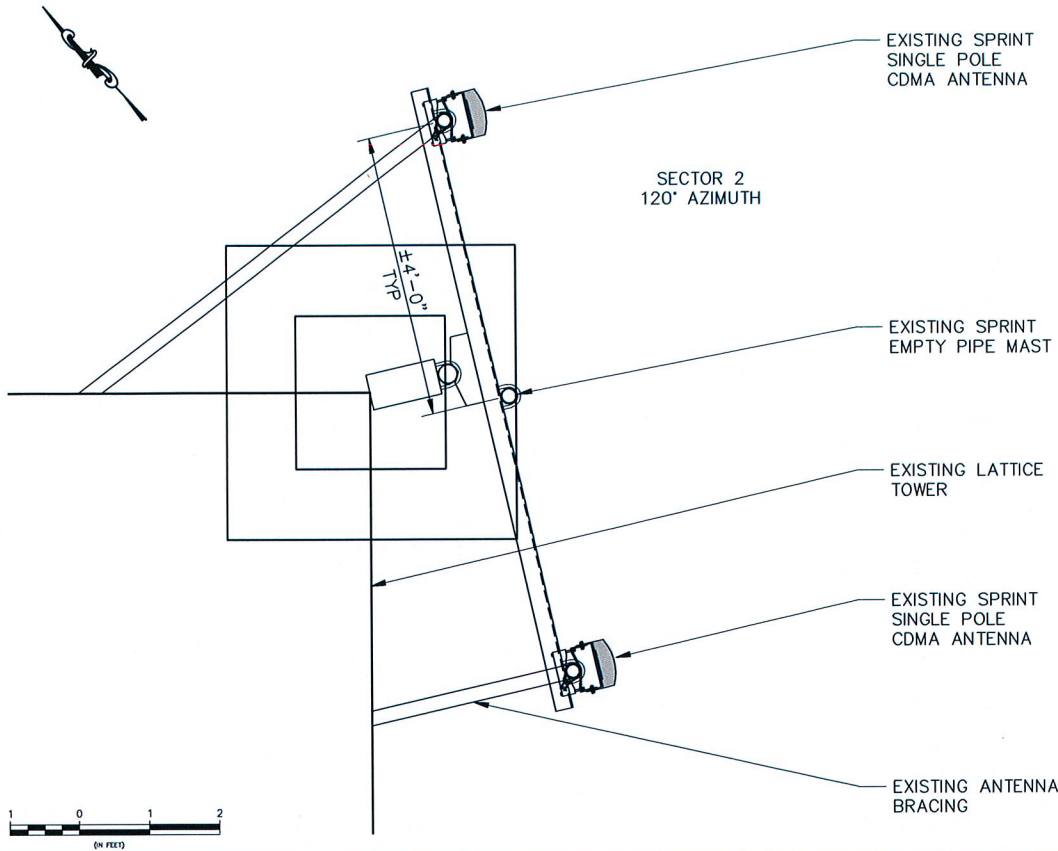
DATE:
05-01-12

SHEET TITLE:
EQUIPMENT & ANTENNA
SPECIFICATIONS

SHEET NUMBER:
C03A

REV.:
0

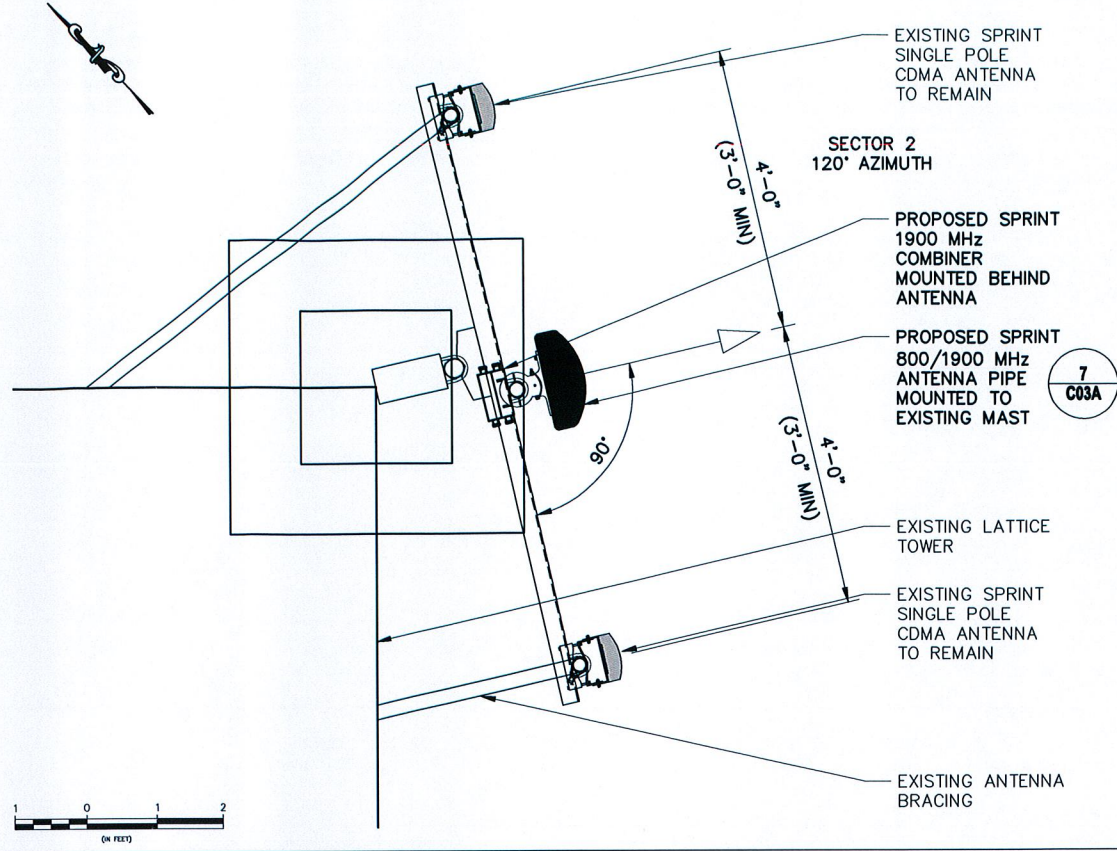
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1 EXISTING ANTENNA PLAN @ ±150'-0"AGL (SECTOR 2)

11x17 SCALE: 3/8" = 1'-0"

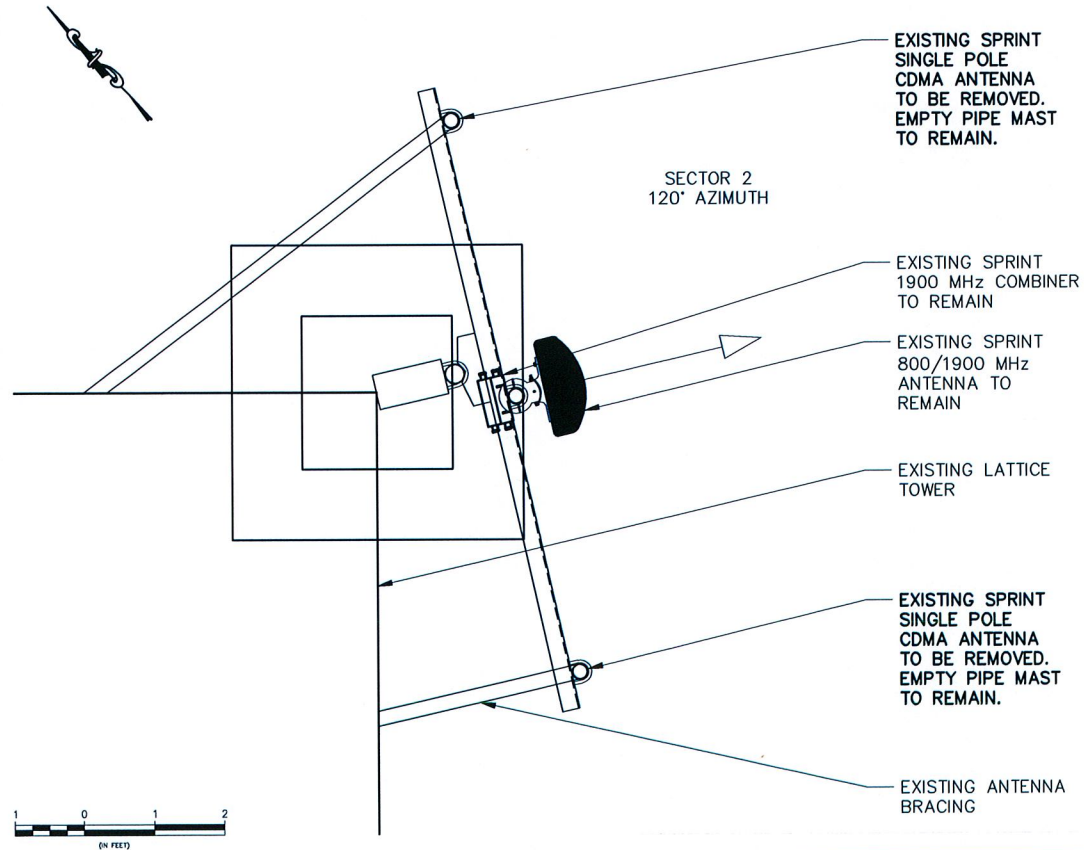
24x36 SCALE: 3/4" = 1'-0"



2 INTERIM ANTENNA PLAN @ ±150'-0"AGL (SECTOR 2)

11x17 SCALE: 3/8" = 1'-0"

24x36 SCALE: 3/4" = 1'-0"



3 FINAL ANTENNA PLAN @ ±150'-0"AGL (SECTOR 2)

11x17 SCALE: 3/8" = 1'-0"

24x36 SCALE: 3/4" = 1'-0"

THE STRUCTURAL ENGINEERING CONCERNING THE STRUCTURAL STABILITY OF THE TOWER/POLE, FOUNDATION, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT IS BEING COMPLETED BY OTHERS. KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PERFORM ANY STRUCTURAL ANALYSIS SERVICES TO VERIFY THAT THE TOWER/POLE AND/OR FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT DEPICTED WITHIN THESE SIGNED AND SEALED DRAWINGS. FURTHERMORE KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PHYSICALLY CONFIRM THE EXISTING MOUNT CONFIGURATION AND PERFORM A STRUCTURAL ANALYSIS TO VERIFY THAT THE EXISTING, INTERIM AND PROPOSED ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT CAN BE SAFELY SUPPORTED. SIGNED AND SEALED DRAWINGS REVISED TO STATE "ISSUED FOR CONSTRUCTION" SHALL BE PROVIDED TO THE PROFESSIONAL ENGINEERS RESPONSIBLE FOR THE STRUCTURAL ANALYSIS OF THE TOWER/POLE, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT. KMB DESIGN GROUP, LLC SHALL BE NOTIFIED SHOULD THE STRUCTURAL ANALYSIS RESULT IN SOME ELEMENTS NOT BEING STRUCTURALLY CAPABLE OF SUPPORTING THE PROPOSED DESIGN DEPICTED. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION WITHOUT OBTAINING (A) A SIGNED AND SEALED COPY OF THE PLANS "ISSUED FOR CONSTRUCTION"; (B) STRUCTURAL ANALYSIS REPORT STATING THAT THE TOWER/POLE/FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED LOADING REFERENCING THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC; (C) SPRINT PLATFORM ANALYSIS STATING THAT THE SPRINT PLATFORM IS CAPABLE OF SUPPORTING THE PROPOSED DESIGN AS REFERENCED WITHIN THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC.

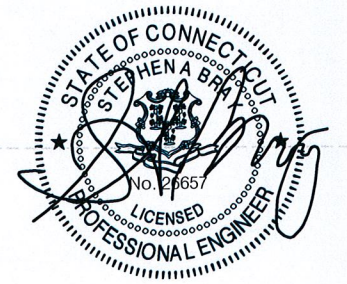
NOTE:
1. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED WITH GALVANIZED GROUND BARS. CONTRACTOR SHALL PROVIDE BEFORE & AFTER PHOTOS.



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△	10-17-12	ISSUED FOR CONSTRUCTION	JLS	KCD	
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY	



Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657		10/17/12
PROJECT NUMBER: 332.1620		
SITE INFORMATION: 168 CATOONA LANE STAMFORD, CT 06901 FAIRFIELD COUNTY CT03XC337		
PROJECT TYPE: NETWORK VISION		
DRAWN BY: JLS	CHECKED BY:	DATE: 05-01-12
SHEET TITLE: ANTENNA PLANS (SECTOR 2)		
SHEET NUMBER: C04A		REV.: 0

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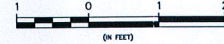


11x17 SCALE: 3/8" = 1'-0"

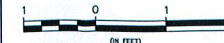


11x17 SCALE: 3/8" = 1'-0"

EXISTING SPRINT 800
MHz RRH & NOTCH
FILTER TO REMAIN

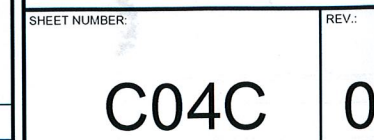


11x17 SCALE: 3/8" = 1'-0"

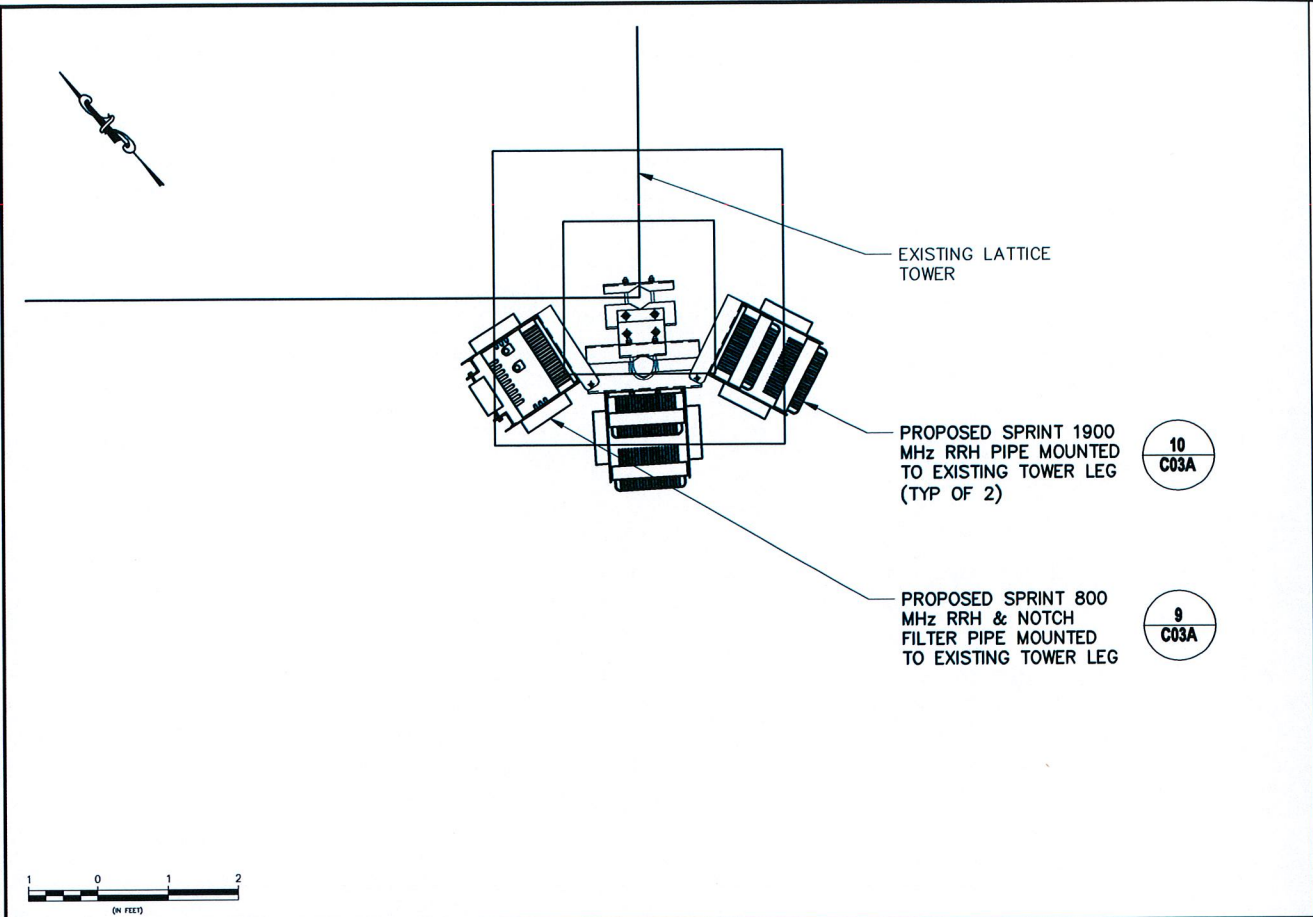


11x17 SCALE: 3/8" = 1'-0"

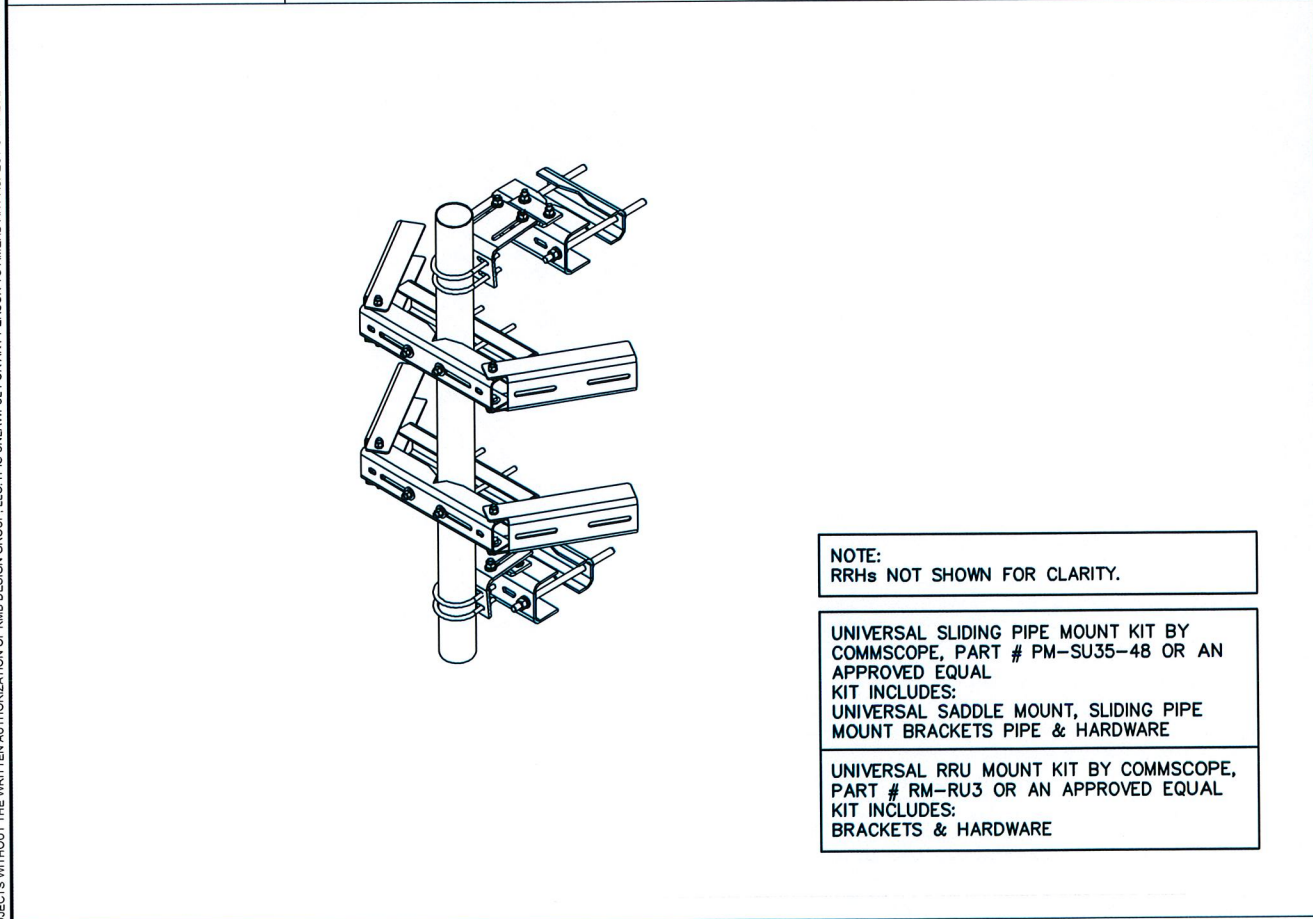
NOTE:
1. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED WITH GALVANIZED GROUND BARS. CONTRACTOR SHALL PROVIDE BEFORE & AFTER PHOTOS.



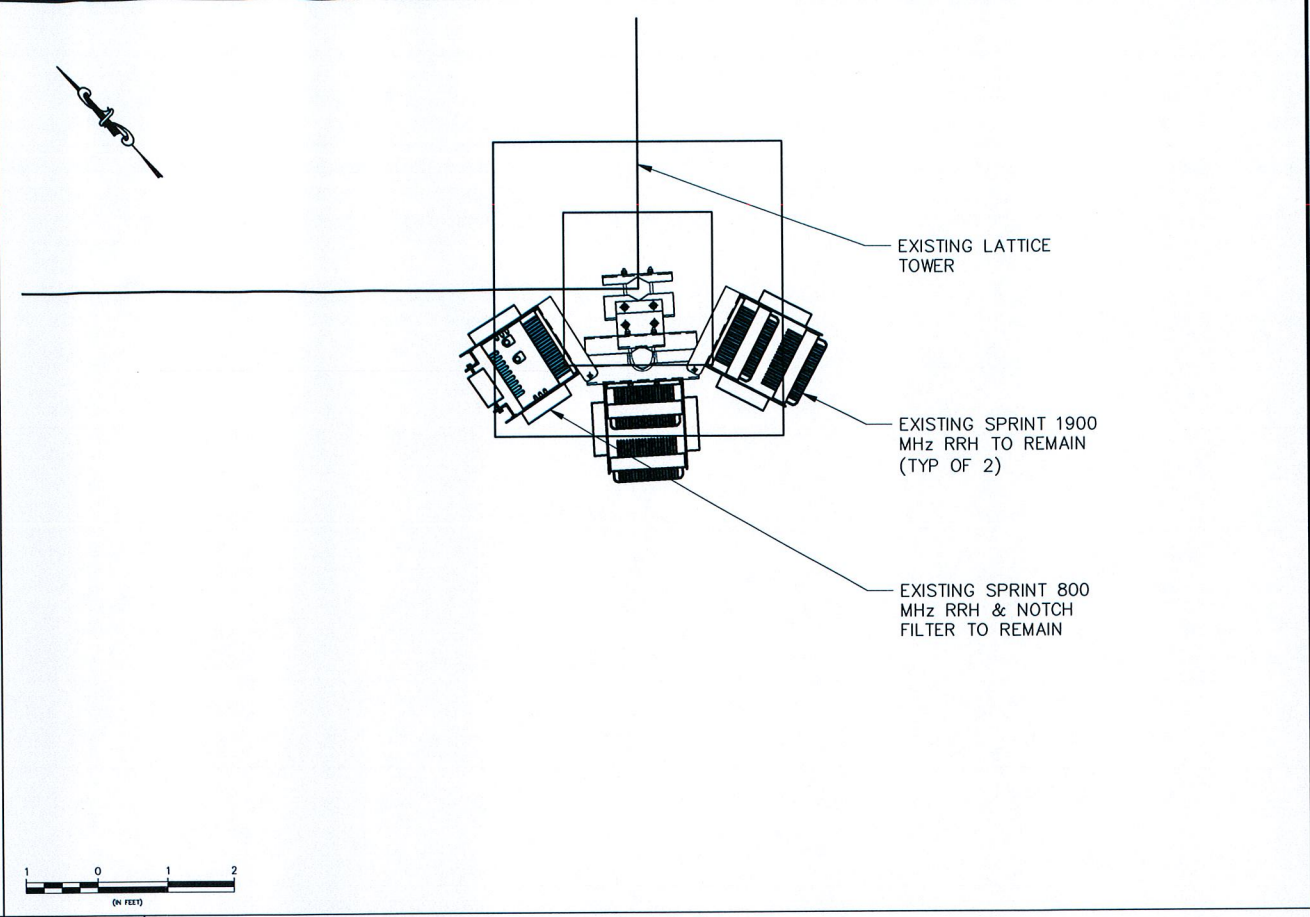
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1 **INTERIM RRH PLAN @ ±146'-6" AGL (SECTOR 3)**
11x17 SCALE: 3/8" = 1'-0" 24x36 SCALE: 3/4" = 1'-0"



3 **RRH MOUNT DETAIL**
SCALE: NTS



2 **FINAL RRH PLAN @ ±146'-6" AGL (SECTOR 3)**
11x17 SCALE: 3/8" = 1'-0" 24x36 SCALE: 3/4" = 1'-0"

THE STRUCTURAL ENGINEERING CONCERNING THE STRUCTURAL STABILITY OF THE TOWER/POLE, FOUNDATION, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT IS BEING COMPLETED BY OTHERS. KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PERFORM ANY STRUCTURAL ANALYSIS SERVICES TO VERIFY THAT THE TOWER/POLE AND/OR FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT DEPICTED WITHIN THESE SIGNED AND SEALED DRAWINGS. FURTHERMORE KMB DESIGN GROUP, LLC HAS NOT BEEN REQUESTED TO PHYSICALLY CONFIRM THE EXISTING MOUNT CONFIGURATION AND PERFORM A STRUCTURAL ANALYSIS TO VERIFY THAT THE EXISTING, INTERIM AND PROPOSED ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT CAN BE SAFELY SUPPORTED. SIGNED AND SEALED DRAWINGS REVISED TO STATE "ISSUED FOR CONSTRUCTION" SHALL BE PROVIDED TO THE PROFESSIONAL ENGINEERS RESPONSIBLE FOR THE STRUCTURAL ANALYSIS OF THE TOWER/POLE, ANTENNAS, MOUNTS AND ALL ASSOCIATED ANCILLARY RADIO EQUIPMENT. KMB DESIGN GROUP, LLC SHALL BE NOTIFIED SHOULD THE STRUCTURAL ANALYSIS RESULT IN SOME ELEMENTS NOT BEING STRUCTURALLY CAPABLE OF SUPPORTING THE PROPOSED DESIGN DEPICTED. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION WITHOUT OBTAINING (A) A SIGNED AND SEALED COPY OF THE PLANS "ISSUED FOR CONSTRUCTION"; (B) STRUCTURAL ANALYSIS REPORT STATING THAT THE TOWER/POLE/FOUNDATION IS CAPABLE OF SUPPORTING THE PROPOSED LOADING REFERENCING THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC; (C) SPRINT PLATFORM ANALYSIS STATING THAT THE SPRINT PLATFORM IS CAPABLE OF SUPPORTING THE PROPOSED DESIGN AS REFERENCED WITHIN THE SIGNED AND SEALED PLANS BY KMB DESIGN GROUP, LLC.

NOTE:
1. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED WITH GALVANIZED GROUND BARS. CONTRACTOR SHALL PROVIDE BEFORE & AFTER PHOTOS.

3 **RRH MOUNT DETAIL**
SCALE: NTS



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△	10-17-12	ISSUED FOR CONSTRUCTION	JLS	KCD
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY



1800 ROUTE 34, SUITE 209
WALL, NJ 07719
(732) 280-5623

Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657 10/17/12

PROJECT NUMBER: **332.1620**

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

CT03XC337

PROJECT TYPE: **NETWORK VISION**

DRAWN BY:	CHECKED BY:	DATE:
JLS		05-01-12

SHEET TITLE:
RRH PLAN & MOUNT DETAILS (ALL SECTORS)

SHEET NUMBER:	REV.:
C04D	0

K:\332_Sprint\332.1620_Alcatel-Lucent\332.1620_CAD\332.1620_CAD.dwg, 10/17/2012 9:35:16 AM, jspnievski

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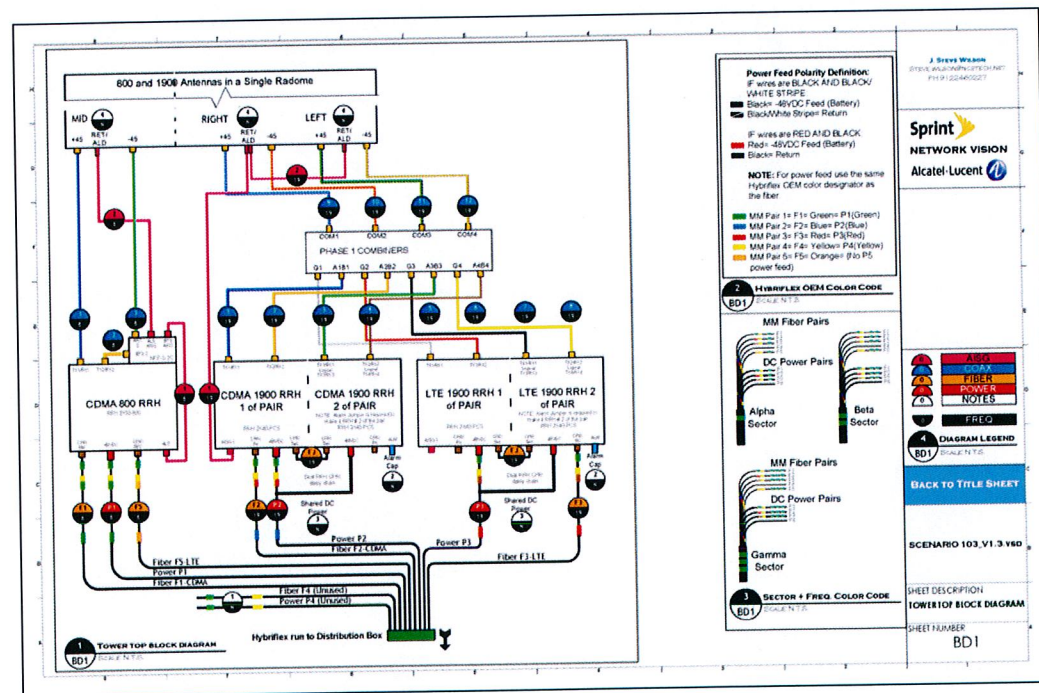
FINAL ANTENNA AND CABLE SCHEDULE

SECTOR	ANTENNA	AZIMUTH (DEGREES)	MECHANICAL DT (DEGREES)	ELECTRICAL DT (DEGREES)	RAD CENTER AGL (FT)	ANTENNA		RRH	TOP COAX JUMPER		COMBINER JUMPER		NOTCH FILTER JUMPER		HYBRIFLEX LENGTH (FT)
						MAKE	MODEL		QTY	LENGTH (FT)	QTY	LENGTH (FT)	QTY	LENGTH (FT)	
1	-														300
	-														
	800/1900	20	0	800 -8 1900 0	150.0	RFS	APXVSP18-C-A20		800 1 1900 2	6	10	8	6	1	3
2	-														240
	-														
	800/1900	120	0	800 -4 1900 -5	150.0	RFS	APXVSP18-C-A20		800 1 1900 2	6	10	8	6	1	3
3	-														210
	-														
	800/1900	200	0	800 0 1900 -1	150.0	RFS	APXVSP18-C-A20		800 1 1900 2	6	10	8	6	1	3

NOTES:

1. DUE TO FIELD MEASUREMENTS AND THE INSTALLATION OF NEW ANTENNAS THAT VARY IN SIZE FROM THE EXISTING ANTENNAS, THE ANTENNA RAD CENTER HAS CHANGED FROM WHAT IS ON RECORD. THE DATABASE MAY NEED TO BE UPDATED TO MATCH THESE PLANS.
2. SOME CABLING MAY CHANGE AT THE TIME OF CONSTRUCTION. CONTRACTOR TO CONFIRM ALL CABLE LENGTHS, TYPE, QUANTITIES, AND CONFIGURATION PRIOR TO CONSTRUCTION.
3. ALL UNUSED POWER AND FIBER MUST BE PROPERLY TERMINATED AND WEATHERPROOFED.

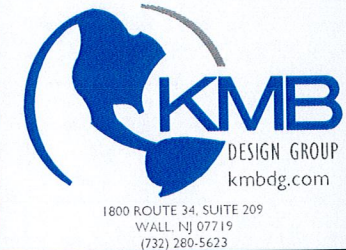
CONTRACTOR TO VERIFY & USE THE LATEST TOWER TOP SCENARIO AS PROVIDED BY ALCATEL-LUCENT CONSTRUCTION MANAGER



ALL SECTORS



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△	10-17-12	ISSUED FOR CONSTRUCTION	JLS	KCD
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY



Stephen A. Bray
PROFESSIONAL ENGINEER



CT LICENSE: 26657 10/17/12

PROJECT NUMBER: 332.1620

SITE INFORMATION:
168 CATOONA LANE
STAMFORD, CT 06901
FAIRFIELD COUNTY

CT03XC337

PROJECT TYPE: NETWORK VISION

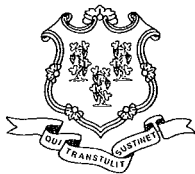
DRAWN BY: JLS CHECKED BY: DATE: 05-01-12

SHEET TITLE: RF SCHEDULE

SHEET NUMBER: REV.:

C06

0



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

November 1, 2012

The Honorable Michael A. Pavia
Mayor
City of Stamford
Stamford Government Center
888 Washington Boulevard
P. O. Box 10152
Stamford, CT 06904-2152

RE: **EM-SPRINT-135-121031** – Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 168 Catoona Lane, Stamford, Connecticut.

Dear Mayor Pavia:

The Connecticut Siting Council (Council) received a request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72. A copy of which has already been provided to you.

If you have any questions or comments regarding the proposal, please call me or inform the Council by November 15, 2012.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts
Executive Director

LR/jbw

c: Norman Cole, Planning and Zoning Dir., City of Stamford