

# 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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

April 5, 2013

Brian Mckay  
Sprint  
48 Spruce Street  
Oakland, NJ 07436

RE: **EM-SPRINT-007-130314** – Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 260 Beckley Road, Kensington, Connecticut.

Dear Mr. McKay:

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;
- Within 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 March 1, 2013. 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/cm

c: The Honorable Adam P. Salina, Mayor, Town of Berlin  
Arthur Simonian, Town Engineer, Town of Berlin

EM-SPRINT-007-130314

260 Beckley Road

Berlin



**RECEIVED**  
JUL 10 2014

1 Robbins Road  
Westford, MA 01886

July 9, 2014

State of Connecticut  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

CONNECTICUT  
SITING COUNCIL

RE: Notification of Construction Completion on telecommunication facilities

To whom it may concern:

Alcatel Lucent hereby acknowledges that the list of attached sites have completed construction per the approval granted on the specified date. Please advise if further information is needed..

Very truly yours,

*Martha Powers*

Martha Powers  
Lead Development Manager  
Alcatel-Lucent  
Sprint Vision Project  
1 Robbins Road  
Westford, MA 01886

Cc: FST, Siterra

EM/TS #	Address	Town	Sprint ID	Decision Date
EM-SPRINT-062-130912	1065 Wintergreen Avenue	Hamden	CT03XC003	10/15/2013
EM-SPRINT-NEXTEL-060-130118	10 Tanner Marsh Road	Guilford	CT03XC022	2/14/2013
EM-SPRINT-004-130822	181 Montevideo Road	Avon	CT03XC053	9/6/2013
EM-SPRINT-NEXTEL-155-130214	1358 New Britain Ave.	West Hartford	CT03XC057	3/1/2013
EM-SPRINT-NEXTEL-164-130201	440 Hayden Station Road	Windsor	CT03XC065	3/8/2013
EM-SPRINT-NEXTEL-132-130201	59 McGuire Road	South Windsor	CT03XC066	3/1/2013
EM-SPRINT-NEXTEL-054-130201	299 Paxton Way	Glastonbury	CT03XC081	3/1/2013
EM-SPRINT-NEXTEL-094-130214	36 Prospect Street	Newington	CT03XC084	3/1/2013
EM-SPRINT-110-130725	10 Sparks Street	Plainville	CT03XC086	8/8/2013
EM-SPRINT-007-130314	260 Beckley Road	Kensington	CT03XC088	4/5/2013
EM-SPRINT-NEXTEL-155-130201	570 New Park Avenue	West Hartford	CT03XC091	3/1/2013
EM-SPRINT-NEXTEL-106-130201	430 Middlesex Turnpike	Old Saybrook	CT03XC102	3/1/2013
EM-SPRINT-NEXTEL-105-130201	30 Short Hills Road	Old Lyme	CT03XC104	3/1/2013
EM-SPRINT-NEXTEL-152-130201	41 Manitock Hill Road	Waterford	CT03XC105	3/1/2013
EM-SPRINT-NEXTEL-045-130201	93 Roxbury Road	East Lyme	CT03XC110	3/1/2013
EM-SPRINT-152-130114	45R Fargo Road	Waterford	CT03XC112	2/14/2013
EM-SPRINT-NEXTEL-027-130201	48 Cow Hill Road	Clinton	CT03XC156	3/1/2013
EM-SPRINT-NEXTEL-082-130201	238 Meridan Road	Middlefield	CT03XC160	3/8/2013
EM-SPRINT-047-130109	160 Plantation Road	East Windsor	CT03XC202	2/7/2013
EM-SPRINT-NEXTEL-077-130214	53 Slater Street	Manchester	CT03XC211	3/1/2013
EM-SPRINT-142-130109	497 Old Post Road	Tolland	CT03XC212	2/7/2013
EM-SPRINT-NEXTEL-042-130222	94 East High Street	East Hampton	CT03XC335	3/8/2013
EM-SPRINT-057-121226	Butternut Hollow Road	Greenwich	CT03XC343	1/11/2013
EM-SPRINT-158-130213	515 Boston Post Road	Westport	CT03XC355	3/1/2013
EM-SPRINT-046-130402	206 Everett Road	Easton	CT03XC362	4/19/2013
EM-SPRINT-085-130322	474 MAIN STREET	MONROE	CT03XC365	4/5/2013
EM-SPRINT-086-131011	57 Cook Drive	Montville	CT03XC365	10/25/2013
EM-SPRINT-118-130322	76 EAST RIDGE	RIDGEFIELD	CT03XC370	4/5/2013
EM-SPRINT-097-131230	20 Barnabas Road	Newtown	CT03XC383	1/21/2014
EM-SPRINT-051-130207	3965 Congress Street	Fairfield	CT03XC385	3/1/2013
EM-SPRINT-NEXTEL-094-130214	123 Costello Road	Newington	CT23XC555	3/1/2013
EM-SPRINT-119-131008	699 Old Main Street	Rocky Hill	CT23XC556	10/25/2013
EM-SPRINT-077-131008	60 Adams Street	Manchester	CT23XC557	10/25/2013
EM-SPRINT-NEXTEL-080-130123	462 West Main Street	Meriden	CT25XC840	2/14/2013
EM-SPRINT-096-130920	18 Hilltop View Lane	New Milford	CT33XC095	10/4/2013
EM-SPRINT-157-130213	237 Godfrey Road	Weston	CT33XC522	3/1/2013
EM-SPRINT-018-131008	20 Vale Road	Brookfield	CT33XC525	10/25/2013
EM-SPRINT-077-130528	595 Keeney Street	Manchester	CT33XC538	6/14/2013
EM-SPRINT-NEXTEL-129-130214	400 Main Street	Somers	CT33XC554	3/1/2013
EM-SPRINT-047-130322	15 CHAMBERLAIN	BROADBROOK	CT33XC565	4/5/2013
EM-SPRINT-004-130502	277 Huckleberry Road	Avon	CT33XC589	5/17/2013



EM-SPRINT-143-130604	218 Wheeler Road	Torrington	CT33XC592	6/28/2013
EM-SPRINT-140-130724	583 Chapel Street	Thomaston	CT33XC603	8/8/2013
EM-SPRINT-103-130920	Charles Marshall Drive	Norwalk	CT33XC802	10/4/2013
EM-SPRINT-NEXTEL-064-130214	439-455 Homestead Ave.	Hartford	CT43XC805	3/1/2013
EM-SPRINT-064-130311	99 Meadow Street	Hartford	CT43XC806	4/5/2013
EM-SPRINT-083-131127	290 Preston Ave.	Middletown	CT43XC816	12/16/2013
EM-SPRINT-128-130920	530 Bushy Hill Road	Simsbury	CT43XC825	10/4/2013
EM-SPRINT-164-130405A	340 Bloomfield Avenue	Windsor	CT43XC826	4/19/2013
EM-SPRINT-077-130109	239 Middle Turnpike	Manchester	CT43XC827	2/13/2013
EM-SPRINT-165-130118	2-4 Volunteer Drive	Windsor Locks	CT43XC828	2/14/2013
EM-SPRINT-NEXTEL-139-130214	44 Fyler Place	Suffield	CT43XC829	3/8/2013
EM-SPRINT-111-130712	171 Town Hill Road	Plymouth	CT54XC712	7/26/2013
EM-SPRINT-009-130322	38 Spring Hill Road	Bethel	CT54XC749	4/5/2013
EM-SPRINT-154-131011	315 Spencer Plains Road	Westbrook	CT54XC758	10/25/2013
EM-SPRINT-023-130405	14 Canton Springs Road	Canton	CT54XC760	4/19/2013
EM-SPRINT-104-130606	153 Old Salem Road	Norwich	CT54XC775	6/28/2013
EM-SPRINT-164-130405B	99 Day Hill Road	Windsor	CT54XC787	4/19/2013
EM-SPRINT-132-130920	300 Governor's Highway	South Windsor	CT60XC014	10/4/2013
EM-SPRINT-094-130108	605 Willard Avenue	Newington	CT60XC018	1/25/2013
EM-SPRINT-146-130506	197 South Street	Vernon	CT60XC935	5/24/2013
EM-SPRINT-146-130311	777 Talcottville Road	Vernon	CT70XC147	4/5/2013
EM-SPRINT-126-130531	62 Birdseye Road	Shelton	CT73XC004	6/21/2013



EM-SPRINT-007-130314



Together with Nextel

48 Spruce Street  
Oakland, NJ 07436  
Phone: (973)-652-6824  
Brian McKay  
Real Estate Consultant

March 1<sup>st</sup> 2013

**Hand Delivered**

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



RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 260 Beckley Road Kensington, CT. Known to Sprint Spectrum L.P. as site CT03XC088.

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 973-652-6824 or email [Bmckay@Transcendwireless.com](mailto:Bmckay@Transcendwireless.com) with questions concerning this matter. Thank you for your consideration.

Sincerely,

Brian Mckay  
Real Estate Consultant

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

**Sprint Existing Facility**

**Site ID: CT03XC088**

**SNET Tower  
260 Beckley Road  
Berlin, CT 06037**

**March 6, 2013**



March 6, 2013

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

Re: Emissions Values for Site: **CT03XC088 – SNET Tower**

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 260 Beckley Road, Berlin, 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 260 Beckley Road, Berlin, 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) 5 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 APXVSP18-C-A20 and the RFS APXV9ERR18-C-A20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXV9ERR18-C-A20 has a 14.9 dBd gain value at its main lobe at 1900 MHz and 11.9 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.



- 6) The antenna mounting height centerline of the proposed antennas is **127 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



## 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 **28.364% (7.959 % from sector 1 and 10.203% from sectors 2 and 3 each)** 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 **84.024%** 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

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## Structural Analysis Report

**Structure** : 150 ft Monopole  
**ATC Site Name** : Brln - Berlin, CT  
**ATC Site Number** : 302483  
**Engineering Number** : 51589821  
**Proposed Carrier** : Sprint Nextel  
**Carrier Site Name** : N/A  
**Carrier Site Number** : CT03XC088  
**Site Location** : 260 Beckley Road  
Kensington, CT 06037-2419  
41.631722,-72.729900  
**County** : Hartford  
**Date** : December 12, 2012  
**Max Usage** : 100%  
**Result** : Pass

Esha Modi  
Project Engineer

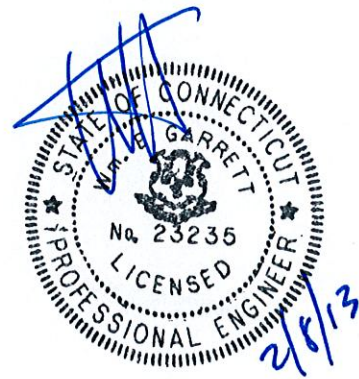
*Esha Modi*





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### Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft monopole to reflect the change in loading by Sprint Nextel.

### Supporting Documents

<b>Tower Drawings</b>	ITT Meyer Type "B", dated July 21, 2001 Smith Cullum Mapping Acq. #CT-0019, dated July 21, 2001
<b>Geotechnical Report</b>	Daniel G. Loucks Project #CT-0019, dated 21 December 2001
<b>Modifications</b>	Scientel Project Berlin-CT0019, dated July 30 2002

### Analysis

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

<b>Basic Wind Speed:</b>	80 mph (Fastest Mile)
<b>Basic Wind Speed w/ Ice:</b>	69 mph (Fastest Mile)w/ 1/2" radial ice concurrent
<b>Code:</b>	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (4) & 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 [esha.modi@americantower.com](mailto:esha.modi@americantower.com) or call 919-466-5017.



**Existing and Reserved Equipment**

Mount Elev. <sup>1</sup> (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
163.0	6	Andrew ETW200VA12UB	Conceal Canister	(12) 1 5/8" Coax	T-Mobile
	3	RFS APX16DWV-16DWV-S-E-ACU			
152.0	3	Powerwave 7770.00	Platform w/ Handrails	(12) 1 1/4" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Cable (1) 3" conduit	AT&T Mobility
	6	KMW AM-X-CD-16-65-00T-RET			
	1	Raycap DC6-48-60-18-8F			
	6	Ericsson RRUS 11 (Band 12)			
	6	Powerwave LGP21401			
142.0	3	RFS APXV18-206517LS-C	Flush	(6) 1 5/8" Coax	Metro PCS
116.0	1	RFS APX75-866514-CTO	Low Profile Platform	(19) 1 5/8" Coax	Verizon Wireless
	6	Antel LPA-80063-6CF-EDIN-X			
	1	RFS DB-T1-6Z-8AB-0Z			
	3	Alcatel-Lucent RRH2x40-AWS			
	6	Antel LPA-171063-12CF-EDIN-X			
	2	Andrew LNX-6514DS-T4M			
106.0	3	48" x 6" Panel	Flush	(6) 1 1/4" Coax	AT&T Mobility
96.0	12	Decibel 844G65VTZASX	Low Profile Platform	(15) 1 5/8" Coax	Sprint Nextel

**Proposed Equipment**

Elevation <sup>1</sup> (ft)		Qty.	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
127.0	127.0	3	Powerwave 7184.14 / M-1900-90-16.5I-2-D	Low Profile Platform	(6) 1 5/8" Coax (3) 1 1/4" Hybriflex	Sprint Nextel
		1	RFS APXV9ERR18-C-A20			
		2	RFS APXVSP18-C-A20			
		3	Alcatel-Lucent 800 MHz 2X50W RRH w/ Filter			
		6	Alcatel-Lucent 4x40W RRH			
		3	RFS IBC1900BB-1			
		3	RFS IBC1900HG-2A			

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

Install proposed (3) 1 /4" coax outside the pole shaft. Stacking coax is not allowed. Install (6) 1 5/8" coax inside the pole.





**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	64%	Fail
Shaft	100%	Pass
Base Plate	70%	Fail

**Foundations**

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	3767.0
Axial (Kips)	62.1
Shear (Kips)	38.0

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Deflection and Sway\***

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
127.0	1.502	-1.289

\*Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.



## **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:

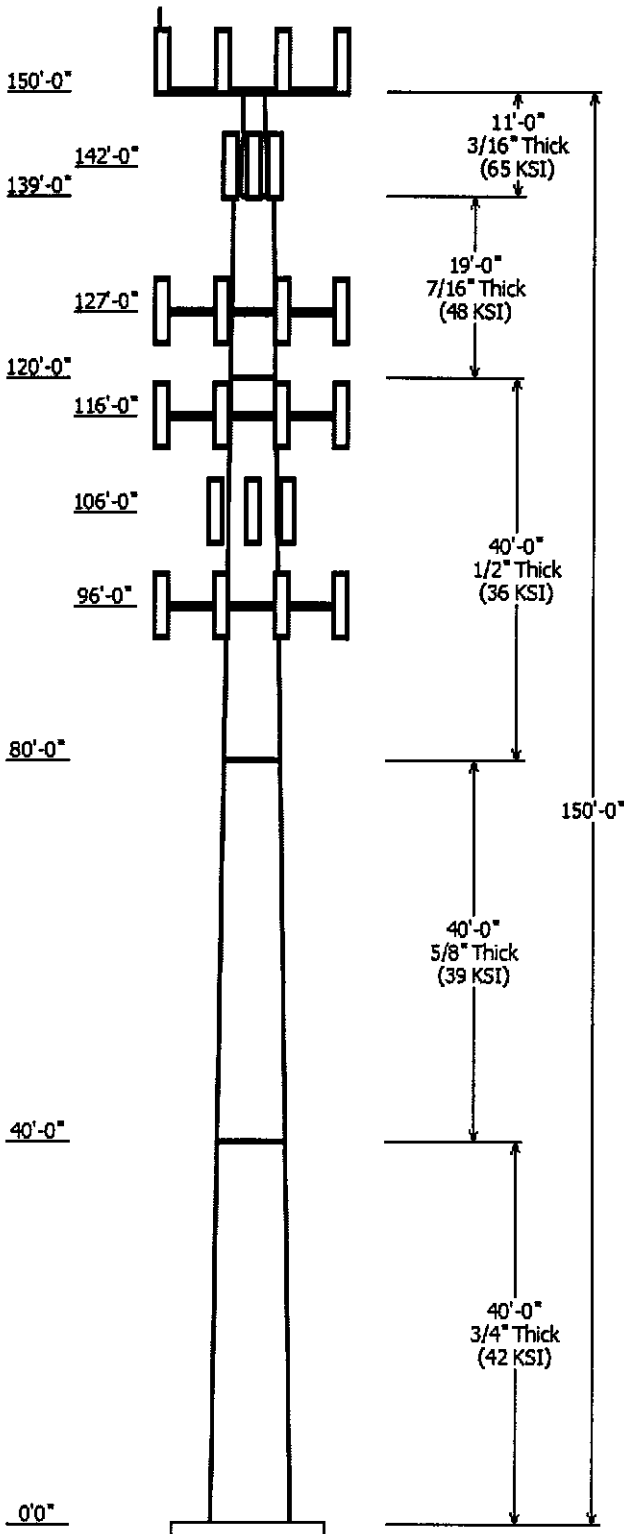
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements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

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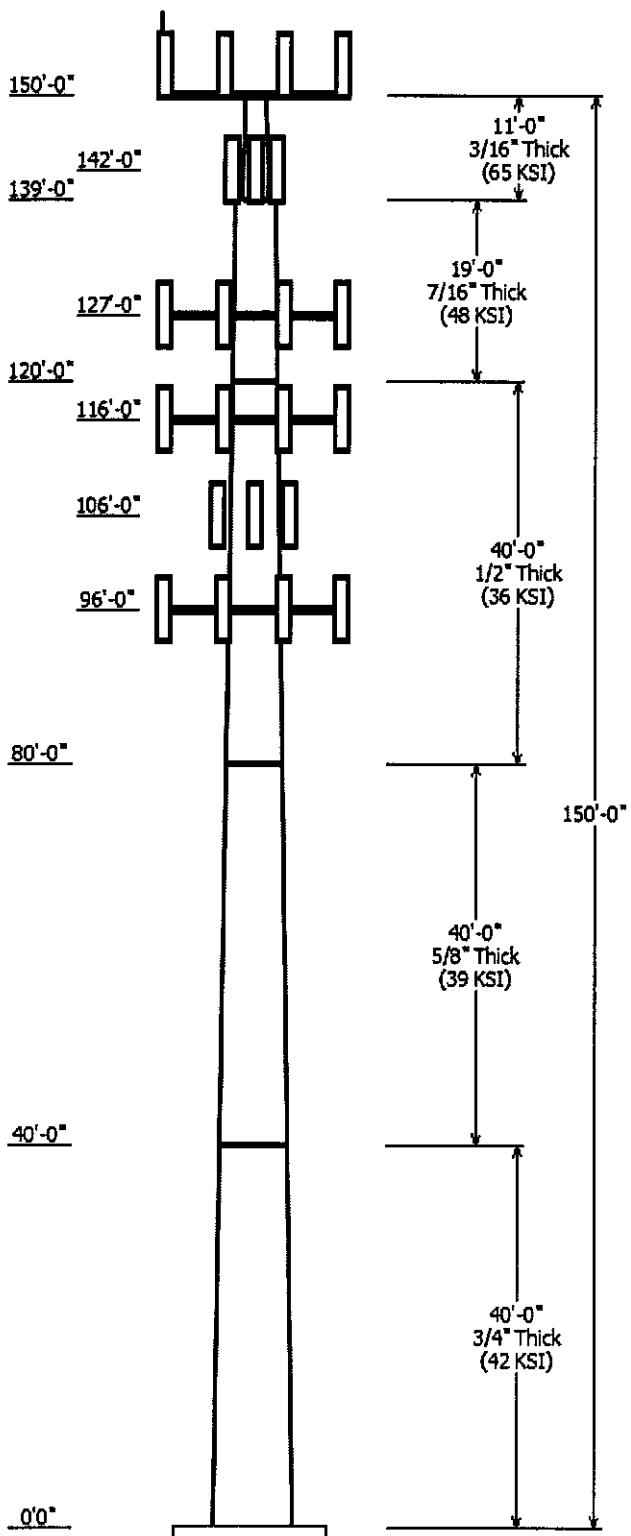
Job Information	
Pole :	302483
Code :	TIA/EA-222 Rev F
Description :	150 ft ITT Meyer Monopole
Client :	Sprint Nextel
Location :	Brin - Berlin, CT
Shape :	12 Sides
Height :	150.00 (ft)
Base Elev (ft):	0.00
Taper:	0.18970 (in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
		Accross Top	Flats Bottom					
1	40.000	43.71	51.30	0.750		0.000	0.189701	42
2	40.000	36.09	43.68	0.625	Butt Joint	0.000	0.189701	39
3	40.000	28.50	36.09	0.500	Butt Joint	0.000	0.189701	36
4	19.000	24.90	28.50	0.438	Butt Joint	0.000	0.189701	48
5	11.000	15.00	16.72	0.188	Butt Joint	0.000	0.156364	65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	152.000	6	KMW AM-X-CD-16-65-00T-RET
150.000	152.000	6	Ericsson RRUS 11
150.000	152.000	1	Raycap DC6-48-60-18-8F
150.000	163.000	3	RFS APX16DWV-16DWV-S-E
150.000	163.000	6	Andrew ETW200VS12UB
150.000	152.000	6	Powerwave LGP21401
150.000	152.000	3	Powerwave 7770.00
150.000	150.000	1	Flat Platform w/ Handrails
150.000	156.500	1	Concealment Canister
142.000	142.000	3	RFS APXV18-206517LS-C
127.000	127.000	1	Flat Low Profile Platform
127.000	127.000	1	RFS APXV9ERR18-C-A20
127.000	127.000	2	RFS APXVSP18-C-A20
127.000	127.000	6	Alcatel-Lucent 4X40W RRH
127.000	127.000	3	Alcatel-Lucent 800 MHz 2X50W
127.000	127.000	3	RFS IBC1900BB-1
127.000	127.000	3	RFS IBC1900HG-2A
127.000	127.000	3	Allgon 7184
116.000	116.000	3	Alcatel-Lucent RRH2x40-AWS
116.000	116.000	1	RFS DB-T1-6Z-8AB-0Z
116.000	116.000	6	Antel LPA-80063-6CF-EDIN-X
116.000	116.000	1	RFS APX75-866514-CT0
116.000	116.000	2	Andrew LNX-6514DS-T4M
116.000	116.000	6	Antel LPA-171063-12CF-EDIN-X
116.000	116.000	1	Round Low Profile Platform
106.000	106.000	3	72" x 12" Panel
96.000	96.000	1	Flat Low Profile Platform
96.000	96.000	12	Decibel 844G65VTASX

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
142.0	150.0	1 5/8" Coax	Yes
127.0	142.0	1 5/8" Coax	Yes
0.000	150.0	1 5/8" Coax	No
0.000	152.0	1 1/4" Coax	No
0.000	152.0	10 mm Cable	No
0.000	152.0	19.7 mm Cable	No
0.000	152.0	3" Conduit	No





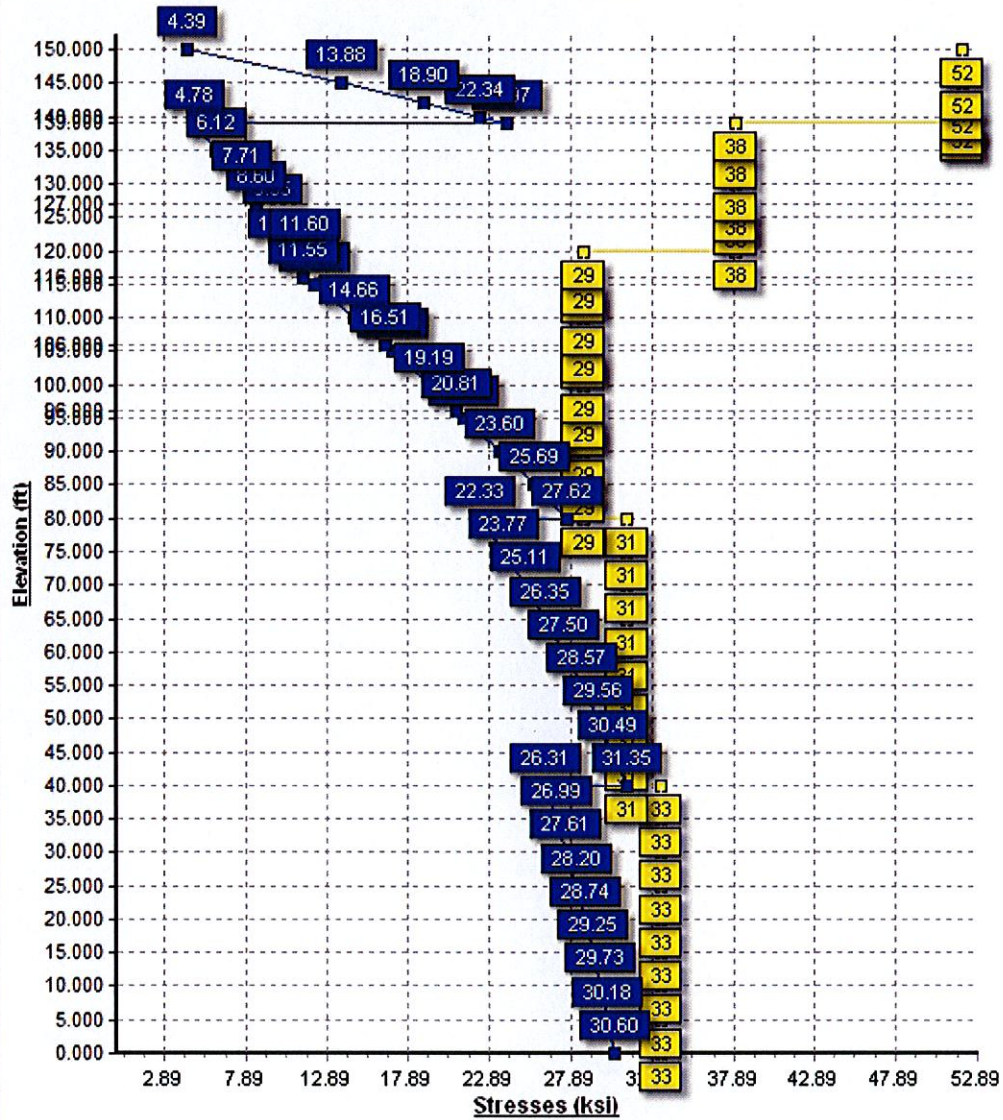
0.000	96.000	1 5/8" Coax	Yes
0.000	96.000	1 5/8" Coax	No
0.000	106.0	1 1/4" Coax	No
0.000	116.0	1 5/8" Coax	Yes
0.000	121.0	7/8" Coax	Yes
0.000	127.0	1 1/4" Hybriflex	Yes
0.000	127.0	1 5/8" Coax	No
0.000	142.0	1 5/8" Coax	Yes

Load Cases	
No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	3766.99	38.02	52.36
Ice	3173.30	31.37	62.05
Twist/Sway	1472.09	14.85	52.40

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

**Load Case : No Ice**  
**Max Stress 100.0% at 40.0ft**



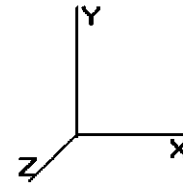
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Shaft Section Properties**

Sect Info	Length (ft)	Thick (In)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top							
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)	
1-12	40.000	0.7500	42		0.00	15,369	51.30	0.00	122.08	39816.6	16.18	68.40	43.71	40.00	103.75	24442.9	13.47	58.28	0.189701	
2-12	40.000	0.6250	39	Butt	0.00	10,755	43.68	40.00	86.65	20501.8	16.58	69.89	36.09	80.00	71.38	11460.3	13.33	57.75	0.189701	
3-12	40.000	0.5000	36	Butt	0.00	6,968	36.09	80.00	57.30	9265.7	17.20	72.18	28.50	120.00	45.09	4513.2	13.13	57.01	0.189701	
4-12	19.000	0.4375	48	Butt	0.00	2,392	28.50	120.00	39.54	3975.5	15.31	65.15	24.90	139.00	34.46	2632.2	13.11	56.91	0.189701	
5-12	11.000	0.1875	65	Butt	0.00	354	16.72	139.00	9.98	348.2	21.75	89.17	15.00	150.00	8.94	250.4	19.29	80.00	0.156364	
Shaft Weight						35,838														

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
150.00	Andrew ETW200VS12UB	6	11.00	0.000	0.00	14.52	0.000	0.00	0.000	13.000
150.00	Concealment Canister	1	200.00	15.000	1.00	300.00	20.000	1.00	0.000	6.500
150.00	Ericsson RRUS 11	6	55.00	2.940	0.67	74.30	3.290	0.67	0.000	2.000
150.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	2,450.00	48.400	1.00	0.000	0.000
150.00	KMW AM-X-CD-16-65-00T-	6	48.50	8.260	0.78	95.00	9.080	0.78	0.000	2.000
150.00	Powerwave 7770.00	3	35.00	5.880	0.75	67.75	6.530	0.76	0.000	2.000
150.00	Powerwave LGP21401	6	14.10	1.290	0.50	21.26	1.530	0.50	0.000	2.000
150.00	Raycap DC6-48-60-18-8F	1	20.00	1.260	1.00	35.10	1.460	1.00	0.000	2.000
150.00	RFS APX16DWV-16DWV-S-E-	3	39.60	0.000	0.00	69.38	0.000	0.00	0.000	13.000
142.00	RFS APXV18-206517LS-C	3	22.00	5.020	0.80	48.13	5.700	0.82	0.000	0.000
127.00	Alcatel-Lucent 4X40W RRH	6	59.50	2.710	0.67	82.60	3.070	0.67	0.000	0.000
127.00	Alcatel-Lucent 800 MHz	3	64.00	2.400	0.67	86.10	2.720	0.67	0.000	0.000
127.00	Allgon 7184	3	11.20	2.680	0.75	27.10	3.280	0.75	0.000	0.000
127.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
127.00	RFS APXV9ERR18-C-A20	1	62.00	8.020	0.85	113.90	9.080	0.85	0.000	0.000
127.00	RFS APXVSP18-C-A20	2	57.00	8.020	0.82	106.50	9.080	0.82	0.000	0.000
127.00	RFS IBC1900BB-1	3	22.00	1.130	0.50	59.80	1.360	0.50	0.000	0.000
127.00	RFS IBC1900HG-2A	3	22.00	1.130	0.50	59.80	1.360	0.50	0.000	0.000
116.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.520	0.67	61.40	2.870	0.67	0.000	0.000
116.00	Andrew LNX-6514DS-T4M	2	38.40	8.170	0.82	88.90	9.240	0.82	0.000	0.000
116.00	Antel LPA-171063-12CF-EDIN-	6	11.50	6.050	1.00	0.00	6.690	1.00	0.000	0.000
116.00	Antel LPA-80063-6CF-EDIN-X	6	27.00	9.730	0.93	101.90	11.350	0.93	0.000	0.000
116.00	RFS APX75-866514-CT0	1	30.80	9.760	0.74	81.10	10.690	0.74	0.000	0.000
116.00	RFS DB-T1-6Z-8AB-0Z	1	110.00	4.800	0.67	144.50	6.080	0.67	0.000	0.000
116.00	Round Low Profile Platform	1	1500.00	21.700	1.00	1,700.00	27.200	1.00	0.000	0.000
106.00	72" x 12" Panel	3	45.00	8.400	0.67	92.28	9.230	0.67	0.000	0.000
96.00	Decibel 844G65VTZASX	12	16.00	5.890	0.71	55.00	6.500	0.71	0.000	0.000
96.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
Totals		94	9579.60			13,328.07			Number of Loadings :	28

**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	152.00	(12) 1 1/4" Coax	7.56	0.00	0.00	0.00	N
0.00	152.00	(1) 10 mm Cable	0.07	0.00	0.00	0.00	N
0.00	152.00	(2) 19.7 mm Cable	1.18	0.00	0.00	0.00	N
0.00	152.00	(1) 3" Conduit	7.58	0.00	0.00	0.00	N
0.00	150.00	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
142.00	150.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y

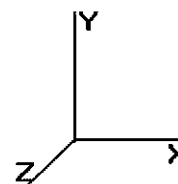
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

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Base Elev : 0.000 (ft)



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0.00	142.00	(6) 1 5/8" Coax	4.92	0.00	9.46	0.00	Y
127.00	142.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
0.00	127.00	(3) 1 1/4" Hybriflex	1.89	0.16	3.77	0.21	Y
0.00	127.00	(6) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	121.00	(1) 7/8" Coax	0.33	0.00	0.50	0.00	Y
0.00	116.00	(19) 1 5/8" Coax	9.84	0.59	18.93	0.64	Y
0.00	106.00	(6) 1 1/4" Coax	0.63	0.00	0.00	0.00	N
0.00	96.00	(6) 1 5/8" Coax	4.92	0.39	9.46	0.44	Y
0.00	96.00	(9) 1 5/8" Coax	7.38	0.00	0.00	0.00	N
<b>Total Weight</b>			<b>7,022.48 (lb)</b>		<b>5,204.23 (lb)</b>		



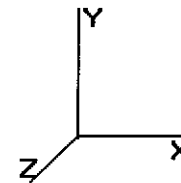
Pole : 302483  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> No Ice	80.00 mph Wind with No Ice	22 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Shaft Segment Forces**

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 16.384	27.68 341.99	1.030	0.000	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 16.384	27.68 335.67	1.030	0.000	5.00	21.177	21.81	604.0	0.0	2,018.6	2,018.6
10.00		0.00	1.00 16.384	27.68 329.35	1.030	0.000	5.00	20.782	21.41	592.7	0.0	1,979.6	1,979.6
15.00		0.00	1.00 16.384	27.68 323.02	1.030	0.000	5.00	20.387	21.00	581.4	0.0	1,940.6	1,940.6
20.00		0.00	1.00 16.384	27.68 316.70	1.030	0.000	5.00	19.992	20.59	570.2	0.0	1,901.6	1,901.6
25.00		0.00	1.00 16.384	27.68 310.38	1.030	0.000	5.00	19.597	20.18	558.9	0.0	1,862.7	1,862.7
30.00		0.00	1.00 16.384	27.68 304.05	1.030	0.000	5.00	19.201	19.78	547.6	0.0	1,823.7	1,823.7
35.00		0.00	1.01 16.662	28.15 300.24	1.030	0.000	5.00	18.806	19.37	545.4	0.0	1,784.7	1,784.7
40.00	Top - Section 1	0.00	1.05 17.310	29.25 299.53	1.030	0.000	5.00	18.411	18.96	554.7	0.0	1,745.7	1,745.7
45.00		0.00	1.09 17.902	30.25 297.78	1.030	0.000	5.00	18.002	18.54	561.0	0.0	1,706.7	1,706.7
50.00		0.00	1.12 18.449	31.17 295.58	1.030	0.000	5.00	17.607	18.14	565.4	0.0	1,667.7	1,667.7
55.00		0.00	1.15 18.959	32.04 292.83	1.030	0.000	5.00	17.212	17.73	568.0	0.0	1,628.7	1,628.7
60.00		0.00	1.18 19.436	32.84 289.61	1.030	0.000	5.00	16.817	17.32	568.9	0.0	1,589.7	1,589.7
65.00		0.00	1.21 19.885	33.60 285.97	1.030	0.000	5.00	16.422	16.91	568.4	0.0	1,550.7	1,550.7
70.00		0.00	1.24 20.311	34.32 281.98	1.030	0.000	5.00	16.026	16.51	566.6	0.0	1,511.7	1,511.7
75.00		0.00	1.26 20.715	35.00 277.66	1.030	0.000	5.00	15.631	16.10	563.6	0.0	1,472.7	1,472.7
80.00	Top - Section 2	0.00	1.28 21.101	35.66 273.06	1.030	0.000	5.00	15.236	15.69	559.6	0.0	1,433.7	1,433.7
85.00		0.00	1.31 21.469	36.28 268.19	1.030	0.000	5.00	14.841	15.29	554.6	0.0	1,394.7	1,394.7
90.00		0.00	1.33 21.823	36.88 263.10	1.030	0.000	5.00	14.446	14.88	548.7	0.0	1,355.7	1,355.7
95.00		0.00	1.35 22.163	37.45 257.78	1.030	0.000	5.00	14.050	14.47	542.0	0.0	1,316.7	1,316.7
96.00	Appertunance(s)	0.00	1.35 22.229	37.56 256.69	1.030	0.000	1.00	2.763	2.85	106.9	0.0	178.9	178.9
100.00		0.00	1.37 22.490	38.00 252.27	1.030	0.000	4.00	10.893	11.22	426.4	0.0	705.1	705.1
105.00		0.00	1.39 22.806	38.54 246.57	1.030	0.000	5.00	13.260	13.66	526.4	0.0	858.0	858.0
106.00	Appertunance(s)	0.00	1.39 22.867	38.64 245.41	1.030	0.000	1.00	2.605	2.68	103.7	0.0	168.5	168.5
110.00		0.00	1.41 23.111	39.05 240.71	1.030	0.000	4.00	10.260	10.57	412.8	0.0	663.6	663.6
115.00		0.00	1.42 23.406	39.55 234.68	1.030	0.000	5.00	12.470	12.84	508.0	0.0	806.1	806.1
116.00	Appertunance(s)	0.00	1.43 23.464	39.65 233.46	1.030	0.000	1.00	2.446	2.52	99.9	0.0	158.1	158.1
120.00	Top - Section 3	0.00	1.44 23.692	40.04 228.51	1.030	0.000	4.00	9.628	9.92	397.1	0.0	622.0	622.0
125.00		0.00	1.46 23.970	40.51 222.20	1.030	0.000	5.00	11.679	12.03	487.3	0.0	661.3	661.3
127.00	Appertunance(s)	0.00	1.47 24.079	40.69 219.63	1.030	0.000	2.00	4.561	4.70	191.2	0.0	258.2	258.2
130.00		0.00	1.48 24.241	40.96 215.75	1.030	0.000	3.00	6.723	6.92	283.7	0.0	380.4	380.4
135.00		0.00	1.49 24.503	41.41 209.19	1.030	0.000	5.00	10.889	11.22	464.4	0.0	615.9	615.9
139.00	Top - Section 4	0.00	1.50 24.709	41.75 203.85	1.030	0.000	4.00	8.426	8.68	362.4	0.0	476.3	476.3
140.00		0.00	1.51 24.759	41.84 135.74	1.030	0.000	1.00	1.387	1.43	59.8	0.0	33.8	33.8
142.00	Appertunance(s)	0.00	1.51 24.860	42.01 133.45	1.030	0.000	2.00	2.735	2.82	118.3	0.0	66.6	66.6
145.00		0.00	1.52 25.009	42.26 129.98	1.030	0.000	3.00	4.004	4.12	174.3	0.0	97.6	97.6
150.00	Appertunance(s)	0.00	1.54 25.252	42.67 124.14	1.030	0.000	5.00	6.413	6.61	281.9	0.0	156.2	156.2
<b>Totals:</b>								150.00			15,726.6	0.0	35,838.1

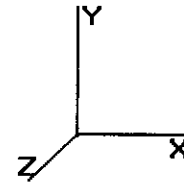
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
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Base Elev : 0.000 (ft)

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**Load Case:** No Ice

80.00 mph Wind with No Ice

22 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Discrete Appurtenance Segment Forces**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	22.229	37.567	0.71	50.18	0.000	0.000	1,885.23	0.00	0.00	192.00
96.00	Flat Low Profile Pla	1	22.229	37.567	1.00	26.10	0.000	0.000	980.50	0.00	0.00	1,500.00
106.0	72" x 12" Panel	3	22.867	38.646	0.67	16.88	0.000	0.000	652.50	0.00	0.00	135.00
116.0	Alcatel-Lucent RRH2x	3	23.464	39.654	0.67	5.07	0.000	0.000	200.86	0.00	0.00	132.00
116.0	Andrew LNX-6514DS-	2	23.464	39.654	0.82	13.40	0.000	0.000	531.32	0.00	0.00	76.80
116.0	Antel LPA-171063-12C	6	23.464	39.654	1.00	36.30	0.000	0.000	1,439.45	0.00	0.00	69.00
116.0	Antel LPA-80063-6CF-	6	23.464	39.654	0.93	54.29	0.000	0.000	2,152.97	0.00	0.00	162.00
116.0	RFS APX75-866514-	1	23.464	39.654	0.74	7.22	0.000	0.000	286.40	0.00	0.00	30.80
116.0	RFS DB-T1-6Z-8AB-0Z	1	23.464	39.654	0.67	3.22	0.000	0.000	127.53	0.00	0.00	110.00
116.0	Round Low Profile PI	1	23.464	39.654	1.00	21.70	0.000	0.000	860.50	0.00	0.00	1,500.00
127.0	Alcatel-Lucent 4X40W	6	24.079	40.694	0.67	10.89	0.000	0.000	443.33	0.00	0.00	357.00
127.0	Alcatel-Lucent 800 M	3	24.079	40.694	0.67	4.82	0.000	0.000	196.31	0.00	0.00	192.00
127.0	Allgon 7184	3	24.079	40.694	0.75	6.03	0.000	0.000	245.39	0.00	0.00	33.60
127.0	Flat Low Profile Pla	1	24.079	40.694	1.00	26.10	0.000	0.000	1,062.12	0.00	0.00	1,500.00
127.0	RFS APXV9ERR18-C-	1	24.079	40.694	0.85	6.82	0.000	0.000	277.41	0.00	0.00	62.00
127.0	RFS APXVSP18-C-	2	24.079	40.694	0.82	13.15	0.000	0.000	535.24	0.00	0.00	114.00
127.0	RFS IBC1900BB-1	3	24.079	40.694	0.50	1.69	0.000	0.000	68.98	0.00	0.00	66.00
127.0	RFS IBC1900HG-2A	3	24.079	40.694	0.50	1.69	0.000	0.000	68.98	0.00	0.00	66.00
142.0	RFS APXV18-	3	24.860	42.013	0.80	12.05	0.000	0.000	506.17	0.00	0.00	66.00
150.0	Andrew	6	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
150.0	Concealment Canister	1	25.560	43.197	1.00	15.00	0.000	6.500	647.95	0.00	4,211.67	200.00
150.0	Ericsson RRUS 11	6	25.348	42.838	0.67	11.82	0.000	2.000	506.29	0.00	1,012.59	330.00
150.0	Flat Platform w/ Han	1	25.252	42.676	1.00	42.40	0.000	0.000	1,809.47	0.00	0.00	2,000.00
150.0	KMW AM-X-CD-16-65-	6	25.348	42.838	0.78	38.66	0.000	2.000	1,655.98	0.00	3,311.96	291.00
150.0	Powerwave 7770.00	3	25.348	42.838	0.75	13.23	0.000	2.000	566.75	0.00	1,133.49	105.00
150.0	Powerwave LGP21401	6	25.348	42.838	0.50	3.87	0.000	2.000	165.78	0.00	331.57	84.60
150.0	Raycap DC6-48-60-18-	1	25.348	42.838	1.00	1.26	0.000	2.000	53.98	0.00	107.95	20.00
150.0	RFS APX16DWWV-	3	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	118.80
									17,927.37			9,579.60

Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

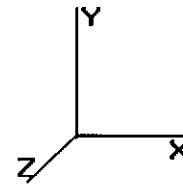
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Base Elev : 0.000 (ft)

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**Load Case:** No Ice                      80.00 mph Wind with No Ice                      22 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Linear Appurtenance Segment Forces**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
5.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
5.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
10.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
10.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
15.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
15.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
20.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
20.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
25.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
25.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.384	0.00	24.60
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.384	22.15	9.45
30.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
30.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.384	81.68	49.20
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	16.662	0.00	24.60
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	16.662	22.53	9.45
35.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.662	0.00	1.65
35.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	16.662	83.07	49.20
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.662	54.91	24.60
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	17.310	0.00	24.60
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	17.310	23.40	9.45
40.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	17.310	0.00	1.65
40.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	17.310	86.30	49.20
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	17.310	57.04	24.60
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	17.902	0.00	24.60
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	17.902	24.20	9.45
45.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	17.902	0.00	1.65
45.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	17.902	89.25	49.20
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	17.902	59.00	24.60
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	18.449	0.00	24.60
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	18.449	24.94	9.45
50.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	18.449	0.00	1.65
50.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	18.449	91.98	49.20
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	18.449	60.80	24.60
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	18.959	0.00	24.60



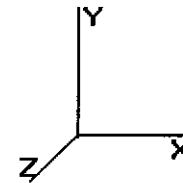
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Load Case:** No Ice                      80.00 mph Wind with No Ice                      22 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

55.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	18.959	25.63	9.45
55.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	18.959	0.00	1.65
55.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	18.959	94.52	49.20
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	18.959	62.48	24.60
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	19.436	0.00	24.60
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	19.436	26.28	9.45
60.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	19.436	0.00	1.65
60.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	19.436	96.90	49.20
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	19.436	64.05	24.60
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	19.885	0.00	24.60
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	19.885	26.89	9.45
65.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	19.885	0.00	1.65
65.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	19.885	99.14	49.20
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	19.885	65.53	24.60
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	20.311	0.00	24.60
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	20.311	27.46	9.45
70.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	20.311	0.00	1.65
70.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	20.311	101.26	49.20
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	20.311	66.93	24.60
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	20.715	0.00	24.60
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	20.715	28.01	9.45
75.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	20.715	0.00	1.65
75.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	20.715	103.28	49.20
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	20.715	68.27	24.60
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	21.101	0.00	24.60
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	21.101	28.53	9.45
80.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.101	0.00	1.65
80.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	21.101	105.20	49.20
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.101	69.54	24.60
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	21.469	0.00	24.60
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	21.469	29.03	9.45
85.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.469	0.00	1.65
85.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	21.469	107.04	49.20
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.469	70.75	24.60
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	21.823	0.00	24.60
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	21.823	29.50	9.45
90.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.823	0.00	1.65
90.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	21.823	108.80	49.20
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.823	71.92	24.60
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	22.163	0.00	24.60
95.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	22.163	29.96	9.45
95.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	22.163	0.00	1.65
95.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	22.163	110.49	49.20
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	22.163	73.04	24.60
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	22.229	0.00	4.92
96.00	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	22.229	6.01	1.89
96.00	(1) 7/8" Coax	Yes	1.00	0.33	0.00	22.229	0.00	0.33
96.00	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	22.229	22.16	9.84
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.39	22.229	14.65	4.92
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	22.490	0.00	19.68
100.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	22.490	24.33	7.56
100.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	22.490	0.00	1.32
100.0	(19) 1 5/8" Coax	Yes	4.00	9.84	0.59	22.490	89.70	39.36
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	22.806	0.00	24.60
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	22.806	30.83	9.45
105.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	22.806	0.00	1.65
105.0	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	22.806	113.70	49.20

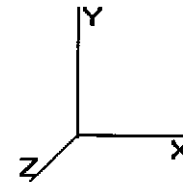
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Load Case:** No Ice                      80.00 mph Wind with No Ice                      22 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	22.867	0.00	4.92
106.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	22.867	6.18	1.89
106.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	22.867	0.00	0.33
106.0	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	22.867	22.80	9.84
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	23.111	0.00	19.68
110.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	23.111	25.00	7.56
110.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	23.111	0.00	1.32
110.0	(19) 1 5/8" Coax	Yes	4.00	9.84	0.59	23.111	92.17	39.36
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	23.406	0.00	24.60
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	23.406	31.65	9.45
115.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	23.406	0.00	1.65
115.0	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	23.406	116.69	49.20
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	23.464	0.00	4.92
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	23.464	6.34	1.89
116.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	23.464	0.00	0.33
116.0	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	23.464	23.40	9.84
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	23.692	0.00	19.68
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	23.692	25.63	7.56
120.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	23.692	0.00	1.32
125.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	23.970	0.00	24.60
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	23.970	32.41	9.45
125.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	23.970	0.00	0.33
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.00	24.079	0.00	9.84
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	1.89	0.16	24.079	13.02	3.78
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.00	24.241	0.00	14.76
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	24.241	24.58	14.76
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	24.503	0.00	24.60
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	24.503	41.41	24.60
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	24.709	0.00	19.68
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	24.709	33.41	19.68
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	24.759	0.00	4.92
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	24.759	8.37	4.92
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.00	24.860	0.00	9.84
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.860	16.81	9.84
145.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	25.009	25.36	14.76
150.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	25.252	42.68	24.60
<b>Totals:</b>							<b>4,304.07</b>	<b>2,705.52</b>

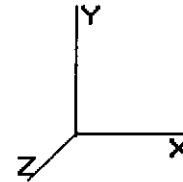
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

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Base Elev : 0.000 (ft)

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**Load Case:** No Ice                      80.00 mph Wind with No Ice                      22 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	761.80	2,325.94	0.00	0.00
10.00	750.53	2,286.96	0.00	0.00
15.00	739.25	2,247.99	0.00	0.00
20.00	727.98	2,209.02	0.00	0.00
25.00	716.71	2,170.04	0.00	0.00
30.00	705.44	2,131.07	0.00	0.00
35.00	705.94	2,092.10	0.00	0.00
40.00	721.48	2,053.13	0.00	0.00
45.00	733.45	1,726.38	0.00	0.00
50.00	743.17	1,693.91	0.00	0.00
55.00	750.64	1,661.43	0.00	0.00
60.00	756.17	1,628.95	0.00	0.00
65.00	759.98	1,596.48	0.00	0.00
70.00	762.27	1,564.00	0.00	0.00
75.00	763.19	1,531.52	0.00	0.00
80.00	762.88	1,499.04	0.00	0.00
85.00	761.44	1,230.36	0.00	0.00
90.00	758.97	1,204.38	0.00	0.00
95.00	755.54	1,178.40	0.00	0.00
96.00	3,015.46	1,924.56	0.00	0.00
100.0	540.45	870.66	0.00	0.00
105.0	670.92	1,064.94	0.00	0.00
106.0	785.16	344.87	0.00	0.00
110.0	529.93	826.57	0.00	0.00
115.0	656.38	1,009.82	0.00	0.00
116.0	5,728.69	2,279.45	0.00	0.00
120.0	422.69	745.63	0.00	0.00
125.0	519.72	814.57	0.00	0.00
127.0	3,101.95	2,709.93	0.00	0.00
130.0	308.26	473.89	0.00	0.00
135.0	505.85	771.62	0.00	0.00
139.0	395.83	600.93	0.00	0.00
140.0	68.14	64.95	0.00	0.00
142.0	641.31	194.94	0.00	0.00
145.0	199.67	176.25	0.00	0.00
150.0	5,730.76	3,502.72	0.00	10,109.23
<b>Totals:</b>	<b>37,957.99</b>	<b>52,407.41</b>	<b>0.00</b>	<b>10,109.23</b>

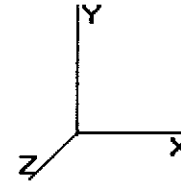
Pole : 302483  
 Location : BrIn - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> No Ice	80.00 mph Wind with No Ice	22 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Calculated Shaft Forces and Deflections**

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-38.019	-52.363	0.000	0.000	0.000	-3,766.988	0.000	0.000	0.000	0.000
5.00	-37.369	-49.952	0.000	0.000	0.000	-3,576.895	-0.071	0.000	0.071	-0.131
10.00	-36.721	-47.583	0.000	0.000	0.000	-3,390.051	-0.279	0.000	0.279	-0.263
15.00	-36.073	-45.256	0.000	0.000	0.000	-3,206.450	-0.625	0.000	0.625	-0.395
20.00	-35.427	-42.971	0.000	0.000	0.000	-3,026.087	-1.110	0.000	1.110	-0.528
25.00	-34.782	-40.729	0.000	0.000	0.000	-2,848.955	-1.734	0.000	1.734	-0.660
30.00	-34.139	-38.528	0.000	0.000	0.000	-2,675.048	-2.497	0.000	2.497	-0.793
35.00	-33.485	-36.369	0.000	0.000	0.000	-2,504.356	-3.398	0.000	3.398	-0.925
40.00	-32.807	-34.254	0.000	0.000	0.000	-2,336.931	-4.438	0.000	4.438	-1.057
45.00	-32.122	-32.462	0.000	0.000	0.000	-2,172.897	-5.616	0.000	5.616	-1.188
50.00	-31.424	-30.700	0.000	0.000	0.000	-2,012.292	-6.944	0.000	6.944	-1.344
55.00	-30.710	-28.976	0.000	0.000	0.000	-1,855.174	-8.434	0.000	8.434	-1.497
60.00	-29.981	-27.290	0.000	0.000	0.000	-1,701.628	-10.084	0.000	10.084	-1.649
65.00	-29.239	-25.642	0.000	0.000	0.000	-1,551.727	-11.891	0.000	11.891	-1.798
70.00	-28.486	-24.032	0.000	0.000	0.000	-1,405.535	-13.852	0.000	13.852	-1.943
75.00	-27.724	-22.461	0.000	0.000	0.000	-1,263.105	-15.963	0.000	15.963	-2.085
80.00	-26.955	-20.929	0.000	0.000	0.000	-1,124.485	-18.221	0.000	18.221	-2.222
85.00	-26.194	-19.665	0.000	0.000	0.000	-989.713	-20.618	0.000	20.618	-2.353
90.00	-25.433	-18.428	0.000	0.000	0.000	-858.745	-23.166	0.000	23.166	-2.507
95.00	-24.650	-17.248	0.000	0.000	0.000	-731.584	-25.869	0.000	25.869	-2.651
96.00	-21.567	-15.440	0.000	0.000	0.000	-706.935	-26.427	0.000	26.427	-2.679
100.00	-21.015	-14.554	0.000	0.000	0.000	-620.668	-28.718	0.000	28.718	-2.786
105.00	-20.308	-13.499	0.000	0.000	0.000	-515.596	-31.701	0.000	31.701	-2.908
106.00	-19.520	-13.175	0.000	0.000	0.000	-495.288	-32.313	0.000	32.313	-2.932
110.00	-18.968	-12.346	0.000	0.000	0.000	-417.209	-34.807	0.000	34.807	-3.019
115.00	-18.269	-11.356	0.000	0.000	0.000	-322.372	-38.021	0.000	38.021	-3.115
116.00	-12.431	-9.383	0.000	0.000	0.000	-304.103	-38.675	0.000	38.675	-3.133
120.00	-11.979	-8.647	0.000	0.000	0.000	-254.378	-41.327	0.000	41.327	-3.198
125.00	-11.420	-7.854	0.000	0.000	0.000	-194.486	-44.714	0.000	44.714	-3.269
127.00	-8.171	-5.321	0.000	0.000	0.000	-171.645	-46.089	0.000	46.089	-3.298
130.00	-7.840	-4.859	0.000	0.000	0.000	-147.131	-48.174	0.000	48.174	-3.337
135.00	-7.293	-4.113	0.000	0.000	0.000	-107.929	-51.698	0.000	51.698	-3.394
139.00	-6.864	-3.534	0.000	0.000	0.000	-78.755	-54.556	0.000	54.556	-3.430
140.00	-6.796	-3.466	0.000	0.000	0.000	-71.892	-55.275	0.000	55.275	-3.439
142.00	-6.151	-3.297	0.000	0.000	0.000	-58.300	-56.740	0.000	56.740	-3.548
145.00	-5.948	-3.120	0.000	0.000	0.000	-39.848	-59.013	0.000	59.013	-3.679
150.00	-5.731	0.000	0.000	0.000	0.000	-10.109	-62.942	0.000	62.942	-3.801

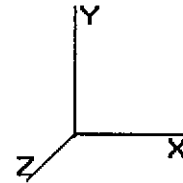
Pole : 302483  
 Location : Brln - Berlin, CT  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> No Ice	80.00 mph Wind with No Ice	22 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Calculated Stresses**

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.43	0.63	0.00	0.00	0.00	30.15	30.60	33.4	0.0	0.915
5.00	0.42	0.63	0.00	0.00	0.00	29.74	30.18	33.4	0.0	0.902
10.00	0.40	0.63	0.00	0.00	0.00	29.30	29.73	33.4	0.0	0.889
15.00	0.39	0.64	0.00	0.00	0.00	28.84	29.25	33.4	0.0	0.875
20.00	0.38	0.64	0.00	0.00	0.00	28.34	28.74	33.4	0.0	0.860
25.00	0.37	0.64	0.00	0.00	0.00	27.81	28.20	33.4	0.0	0.843
30.00	0.36	0.64	0.00	0.00	0.00	27.24	27.61	33.4	0.0	0.826
35.00	0.34	0.64	0.00	0.00	0.00	26.62	26.99	33.4	0.0	0.807
40.00	0.33	0.64	0.00	0.00	0.00	25.96	26.31	33.4	0.0	0.787
40.00	0.40	0.77	0.00	0.00	0.00	30.93	31.35	31.4	0.0	1.000
45.00	0.38	0.77	0.00	0.00	0.00	30.08	30.49	31.4	0.0	0.972
50.00	0.37	0.77	0.00	0.00	0.00	29.16	29.56	31.4	0.0	0.943
55.00	0.36	0.77	0.00	0.00	0.00	28.18	28.57	31.4	0.0	0.911
60.00	0.35	0.77	0.00	0.00	0.00	27.12	27.50	31.4	0.0	0.877
65.00	0.33	0.77	0.00	0.00	0.00	25.98	26.35	31.4	0.0	0.840
70.00	0.32	0.77	0.00	0.00	0.00	24.75	25.11	31.4	0.0	0.801
75.00	0.31	0.77	0.00	0.00	0.00	23.43	23.77	31.4	0.0	0.758
80.00	0.29	0.77	0.00	0.00	0.00	22.00	22.33	31.4	0.0	0.712
80.00	0.37	0.96	0.00	0.00	0.00	27.21	27.62	28.7	0.0	0.962
85.00	0.35	0.95	0.00	0.00	0.00	25.29	25.69	28.7	0.0	0.895
90.00	0.34	0.95	0.00	0.00	0.00	23.20	23.60	28.7	0.0	0.822
95.00	0.33	0.95	0.00	0.00	0.00	20.94	21.33	28.7	0.0	0.743
96.00	0.29	0.84	0.00	0.00	0.00	20.47	20.81	28.7	0.0	0.725
100.00	0.28	0.83	0.00	0.00	0.00	18.85	19.19	28.7	0.0	0.668
105.00	0.27	0.83	0.00	0.00	0.00	16.64	16.97	28.7	0.0	0.591
106.00	0.27	0.80	0.00	0.00	0.00	16.19	16.51	28.7	0.0	0.575
110.00	0.26	0.80	0.00	0.00	0.00	14.34	14.66	28.7	0.0	0.511
115.00	0.24	0.80	0.00	0.00	0.00	11.83	12.15	28.7	0.0	0.423
116.00	0.20	0.55	0.00	0.00	0.00	11.30	11.55	28.7	0.0	0.402
120.00	0.19	0.54	0.00	0.00	0.00	9.98	10.21	28.7	0.0	0.356
120.00	0.22	0.62	0.00	0.00	0.00	11.33	11.60	38.1	0.0	0.305
125.00	0.21	0.61	0.00	0.00	0.00	9.28	9.55	38.1	0.0	0.251
127.00	0.14	0.44	0.00	0.00	0.00	8.43	8.60	38.1	0.0	0.226
130.00	0.13	0.43	0.00	0.00	0.00	7.55	7.71	38.1	0.0	0.203
135.00	0.12	0.42	0.00	0.00	0.00	5.96	6.12	38.1	0.0	0.161
139.00	0.10	0.40	0.00	0.00	0.00	4.63	4.78	38.1	0.0	0.126
139.00	0.35	1.40	0.00	0.00	0.00	23.49	23.97	52.0	0.0	0.461
140.00	0.35	1.40	0.00	0.00	0.00	21.86	22.34	52.0	0.0	0.430
142.00	0.34	1.29	0.00	0.00	0.00	18.42	18.90	52.0	0.0	0.363
145.00	0.33	1.28	0.00	0.00	0.00	13.37	13.88	52.0	0.0	0.267
150.00	0.00	1.30	0.00	0.00	0.00	3.76	4.39	52.0	0.0	0.084

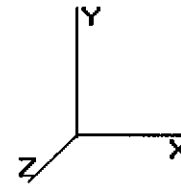
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> Ice	69.28 mph Wind with Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Shaft Segment Forces**

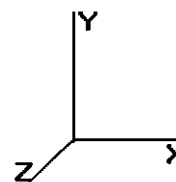
Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 12.287	20.76 296.17	1.030	0.500	0.00	0.000	0.00	0.0	0.0	0.0	0.0
5.00		0.00	1.00 12.287	20.76 290.69	1.030	0.500	5.00	21.594	22.24	461.9	159.2	2,216.7	
10.00		0.00	1.00 12.287	20.76 285.21	1.030	0.500	5.00	21.199	21.83	453.4	156.2	2,174.8	
15.00		0.00	1.00 12.287	20.76 279.74	1.030	0.500	5.00	20.804	21.43	445.0	153.3	2,132.8	
20.00		0.00	1.00 12.287	20.76 274.26	1.030	0.500	5.00	20.408	21.02	436.5	150.3	2,090.9	
25.00		0.00	1.00 12.287	20.76 268.79	1.030	0.500	5.00	20.013	20.61	428.1	147.3	2,049.0	
30.00		0.00	1.00 12.287	20.76 263.31	1.030	0.500	5.00	19.618	20.21	419.6	144.3	2,007.0	
35.00		0.00	1.01 12.496	21.11 260.01	1.030	0.500	5.00	19.223	19.80	418.1	141.4	1,965.1	
40.00	Top - Section 1	0.00	1.05 12.982	21.93 259.39	1.030	0.500	5.00	18.828	19.39	425.4	138.4	1,923.1	
45.00		0.00	1.09 13.426	22.69 257.88	1.030	0.500	5.00	18.419	18.97	430.5	135.3	1,593.3	
50.00		0.00	1.12 13.836	23.38 255.98	1.030	0.500	5.00	18.024	18.56	434.1	132.4	1,557.9	
55.00		0.00	1.15 14.218	24.02 253.59	1.030	0.500	5.00	17.629	18.16	436.3	129.4	1,522.4	
60.00		0.00	1.18 14.576	24.63 250.80	1.030	0.500	5.00	17.233	17.75	437.3	126.4	1,487.0	
65.00		0.00	1.21 14.913	25.20 247.65	1.030	0.500	5.00	16.838	17.34	437.1	123.5	1,451.5	
70.00		0.00	1.24 15.232	25.74 244.19	1.030	0.500	5.00	16.443	16.94	436.0	120.5	1,416.1	
75.00		0.00	1.26 15.536	26.25 240.45	1.030	0.500	5.00	16.048	16.53	434.0	117.5	1,380.6	
80.00	Top - Section 2	0.00	1.28 15.825	26.74 236.47	1.030	0.500	5.00	15.653	16.12	431.2	114.6	1,345.2	
85.00		0.00	1.31 16.101	27.21 232.26	1.030	0.500	5.00	15.257	15.72	427.6	111.6	1,073.5	
90.00		0.00	1.33 16.366	27.65 227.84	1.030	0.500	5.00	14.862	15.31	423.4	108.6	1,044.6	
95.00		0.00	1.35 16.621	28.09 223.24	1.030	0.500	5.00	14.467	14.90	418.6	105.6	1,015.6	
96.00	Appertunance(s)	0.00	1.35 16.671	28.17 222.30	1.030	0.500	1.00	2.846	2.93	82.6	21.0	199.9	
100.00		0.00	1.37 16.866	28.50 218.46	1.030	0.500	4.00	11.226	11.56	329.6	82.1	787.3	
105.00		0.00	1.39 17.103	28.90 213.53	1.030	0.500	5.00	13.677	14.09	407.2	99.7	957.7	
106.00	Appertunance(s)	0.00	1.39 17.150	28.98 212.53	1.030	0.500	1.00	2.688	2.77	80.2	19.8	188.3	
110.00		0.00	1.41 17.332	29.29 208.45	1.030	0.500	4.00	10.594	10.91	319.6	77.4	741.0	
115.00		0.00	1.42 17.554	29.66 203.23	1.030	0.500	5.00	12.886	13.27	393.7	93.8	899.8	
116.00	Appertunance(s)	0.00	1.43 17.597	29.73 202.18	1.030	0.500	1.00	2.530	2.61	77.5	18.6	176.7	
120.00	Top - Section 3	0.00	1.44 17.768	30.02 197.89	1.030	0.500	4.00	9.961	10.26	308.1	72.6	694.6	
125.00		0.00	1.46 17.977	30.38 192.42	1.030	0.500	5.00	12.096	12.46	378.5	87.8	749.2	
127.00	Appertunance(s)	0.00	1.47 18.058	30.51 190.20	1.030	0.500	2.00	4.728	4.87	148.6	34.7	292.8	
130.00		0.00	1.48 18.179	30.72 186.84	1.030	0.500	3.00	6.973	7.18	220.7	50.9	431.4	
135.00		0.00	1.49 18.376	31.05 181.16	1.030	0.500	5.00	11.305	11.64	361.6	81.9	697.8	
139.00	Top - Section 4	0.00	1.50 18.530	31.31 176.53	1.030	0.500	4.00	8.760	9.02	282.6	63.6	539.9	
140.00		0.00	1.51 18.568	31.38 177.55	1.030	0.500	1.00	1.470	1.51	47.5	10.7	44.5	
142.00	Appertunance(s)	0.00	1.51 18.644	31.50 115.56	1.030	0.500	2.00	2.901	2.99	94.2	21.0	87.6	
145.00		0.00	1.52 18.755	31.69 112.56	1.030	0.500	3.00	4.254	4.38	138.9	30.6	128.1	
150.00	Appertunance(s)	0.00	1.54 18.938	32.00 107.51	1.030	0.500	5.00	6.830	7.03	225.1	48.5	204.7	
<b>Totals:</b>								150.00			12,130.1	3,430.6	39,268.7

Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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<b>Load Case:</b> Ice	69.28 mph Wind with Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Discrete Appurtenance Segment Forces**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	16.671	28.174	0.71	55.38	0.000	0.000	1,560.26	0.00	0.00	660.00
96.00	Flat Low Profile Pla	1	16.671	28.174	1.00	31.60	0.000	0.000	890.29	0.00	0.00	1,700.00
106.0	72" x 12" Panel	3	17.150	28.983	0.67	18.55	0.000	0.000	537.70	0.00	0.00	276.84
116.0	Alcatel-Lucent RRH2x	3	17.597	29.739	0.67	5.77	0.000	0.000	171.56	0.00	0.00	184.20
116.0	Andrew LNX-6514DS-	2	17.597	29.739	0.82	15.15	0.000	0.000	450.65	0.00	0.00	177.80
116.0	Antel LPA-171063-12C	6	17.597	29.739	1.00	40.14	0.000	0.000	1,193.72	0.00	0.00	0.00
116.0	Antel LPA-80063-6CF-	6	17.597	29.739	0.93	63.33	0.000	0.000	1,883.46	0.00	0.00	611.40
116.0	RFS APX75-866514-	1	17.597	29.739	0.74	7.91	0.000	0.000	235.25	0.00	0.00	81.10
116.0	RFS DB-T1-6Z-8AB-0Z	1	17.597	29.739	0.67	4.07	0.000	0.000	121.14	0.00	0.00	144.50
116.0	Round Low Profile PI	1	17.597	29.739	1.00	27.20	0.000	0.000	808.90	0.00	0.00	1,700.00
127.0	Alcatel-Lucent 4X40W	6	18.058	30.519	0.67	12.34	0.000	0.000	376.65	0.00	0.00	495.60
127.0	Alcatel-Lucent 800 M	3	18.058	30.519	0.67	5.47	0.000	0.000	166.85	0.00	0.00	258.30
127.0	Allgon 7184	3	18.058	30.519	0.75	7.38	0.000	0.000	225.22	0.00	0.00	81.29
127.0	Flat Low Profile Pla	1	18.058	30.519	1.00	31.60	0.000	0.000	964.40	0.00	0.00	1,700.00
127.0	RFS APXV9ERR18-C-	1	18.058	30.519	0.85	7.72	0.000	0.000	235.54	0.00	0.00	113.90
127.0	RFS APXVSPP18-C-	2	18.058	30.519	0.82	14.89	0.000	0.000	454.46	0.00	0.00	213.00
127.0	RFS IBC1900BB-1	3	18.058	30.519	0.50	2.04	0.000	0.000	62.26	0.00	0.00	179.40
127.0	RFS IBC1900HG-2A	3	18.058	30.519	0.50	2.04	0.000	0.000	62.26	0.00	0.00	179.40
142.0	RFS APXV18-	3	18.644	31.508	0.82	14.02	0.000	0.000	441.81	0.00	0.00	144.39
150.0	Andrew	6	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	87.12
150.0	Concealment Canister	1	19.169	32.396	1.00	20.00	0.000	6.500	647.91	0.00	4,211.42	300.00
150.0	Ericsson RRUS 11	6	19.010	32.127	0.67	13.23	0.000	2.000	424.90	0.00	849.80	445.80
150.0	Flat Platform w/ Han	1	18.938	32.005	1.00	48.40	0.000	0.000	1,549.05	0.00	0.00	2,450.00
150.0	KMW AM-X-CD-16-65-	6	19.010	32.127	0.78	42.49	0.000	2.000	1,365.20	0.00	2,730.40	570.00
150.0	Powerwave 7770.00	3	19.010	32.127	0.76	14.89	0.000	2.000	478.31	0.00	956.63	203.24
150.0	Powerwave LGP21401	6	19.010	32.127	0.50	4.59	0.000	2.000	147.46	0.00	294.92	127.56
150.0	Raycap DC6-48-60-18-	1	19.010	32.127	1.00	1.46	0.000	2.000	46.90	0.00	93.81	35.10
150.0	RFS APX16DWV-	3	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	208.14
									15,502.13			13,328.07

Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

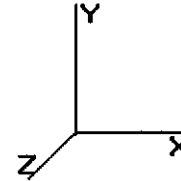
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Base Elev : 0.000 (ft)

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<b>Load Case:</b> Ice	69.28 mph Wind with Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Linear Appurtenance Segment Forces**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
5.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
5.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
10.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
10.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
15.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
15.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
20.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
20.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
25.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
25.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.287	0.00	47.30
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
30.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
30.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.287	66.45	94.65
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.287	45.68	47.30
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.496	0.00	47.30
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.496	22.17	18.85
35.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.496	0.00	2.50
35.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.496	67.58	94.65
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.496	46.46	47.30
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	12.982	0.00	47.30
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.982	23.04	18.85
40.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.982	0.00	2.50
40.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	12.982	70.20	94.65
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	12.982	48.27	47.30
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	13.426	0.00	47.30
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	13.426	23.82	18.85
45.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	13.426	0.00	2.50
45.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	13.426	72.61	94.65
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	13.426	49.92	47.30
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	13.836	0.00	47.30
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	13.836	24.55	18.85
50.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	13.836	0.00	2.50
50.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	13.836	74.83	94.65
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	13.836	51.44	47.30
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	14.218	0.00	47.30



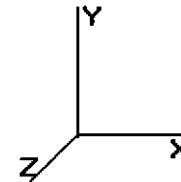
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev: 0.000 (ft)



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<b>Load Case:</b> Ice	69.28 mph Wind with Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

55.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	14.218	25.23	18.85
55.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.218	0.00	2.50
55.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	14.218	76.89	94.65
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	14.218	52.86	47.30
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	14.576	0.00	47.30
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	14.576	25.87	18.85
60.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.576	0.00	2.50
60.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	14.576	78.83	94.65
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	14.576	54.19	47.30
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	14.913	0.00	47.30
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	14.913	26.46	18.85
65.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.913	0.00	2.50
65.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	14.913	80.65	94.65
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	14.913	55.45	47.30
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	15.232	0.00	47.30
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	15.232	27.03	18.85
70.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.232	0.00	2.50
70.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	15.232	82.38	94.65
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	15.232	56.63	47.30
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	15.536	0.00	47.30
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	15.536	27.57	18.85
75.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.536	0.00	2.50
75.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	15.536	84.02	94.65
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	15.536	57.76	47.30
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	15.825	0.00	47.30
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	15.825	28.08	18.85
80.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.825	0.00	2.50
80.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	15.825	85.58	94.65
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	15.825	58.84	47.30
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	16.101	0.00	47.30
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	16.101	28.57	18.85
85.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.101	0.00	2.50
85.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	16.101	87.08	94.65
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	16.101	59.86	47.30
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	16.366	0.00	47.30
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	16.366	29.04	18.85
90.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.366	0.00	2.50
90.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	16.366	88.51	94.65
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	16.366	60.85	47.30
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	16.621	0.00	47.30
95.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	16.621	29.49	18.85
95.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.621	0.00	2.50
95.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	16.621	89.89	94.65
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	16.621	61.80	47.30
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.00	16.671	0.00	9.46
96.00	(3) 1 1/4" Hybriflex	Yes	1.00	3.77	0.21	16.671	5.92	3.77
96.00	(1) 7/8" Coax	Yes	1.00	0.50	0.00	16.671	0.00	0.50
96.00	(19) 1 5/8" Coax	Yes	1.00	18.93	0.64	16.671	18.03	18.93
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.44	16.671	12.40	9.46
100.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.00	16.866	0.00	37.84
100.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.77	0.21	16.866	23.94	15.08
100.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	16.866	0.00	2.00
100.0	(19) 1 5/8" Coax	Yes	4.00	18.93	0.64	16.866	72.97	75.72
105.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	17.103	0.00	47.30
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	17.103	30.35	18.85
105.0	(1) 7/8" Coax	Yes	5.00	0.50	0.00	17.103	0.00	2.50
105.0	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	17.103	92.49	94.65

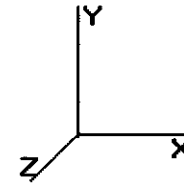
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
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 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev: 0.000 (ft)



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<b>Load Case:</b> Ice	69.28 mph Wind with Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

106.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.00	17.150	0.00	9.46	
106.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.77	0.21	17.150	6.09	3.77	
106.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.150	0.00	0.50	
106.0	(19) 1 5/8" Coax	Yes	1.00	18.93	0.64	17.150	18.55	18.93	
110.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.00	17.332	0.00	37.84	
110.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.77	0.21	17.332	24.60	15.08	
110.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	17.332	0.00	2.00	
110.0	(19) 1 5/8" Coax	Yes	4.00	18.93	0.64	17.332	74.99	75.72	
115.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	17.554	0.00	47.30	
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	17.554	31.15	18.85	
115.0	(1) 7/8" Coax	Yes	5.00	0.50	0.00	17.554	0.00	2.50	
115.0	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	17.554	94.93	94.65	
116.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.00	17.597	0.00	9.46	
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.77	0.21	17.597	6.25	3.77	
116.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.597	0.00	0.50	
116.0	(19) 1 5/8" Coax	Yes	1.00	18.93	0.64	17.597	19.03	18.93	
120.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.00	17.768	0.00	37.84	
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.77	0.21	17.768	25.22	15.08	
120.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	17.768	0.00	2.00	
125.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	17.977	0.00	47.30	
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	17.977	31.90	18.85	
125.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.977	0.00	0.50	
127.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.00	18.058	0.00	18.92	
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	3.77	0.21	18.058	12.82	7.54	
130.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.00	18.179	0.00	28.38	
130.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	18.179	23.04	28.38	
135.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.00	18.376	0.00	47.30	
135.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	18.376	38.82	47.30	
139.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.00	18.530	0.00	37.84	
139.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	18.530	31.32	37.84	
140.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.00	18.568	0.00	9.46	
140.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	18.568	7.85	9.46	
142.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.00	18.644	0.00	18.92	
142.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.644	15.75	18.92	
145.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	18.755	23.77	28.38	
150.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	18.938	40.01	47.30	
							<b>Totals:</b>	<b>3,680.09</b>	<b>5,204.23</b>

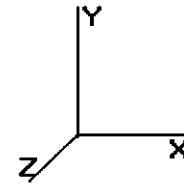
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Load Case: Ice**

69.28 mph Wind with Ice

21 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	595.80	2,586.23	0.00	0.00
10.00	587.35	2,544.29	0.00	0.00
15.00	578.89	2,502.34	0.00	0.00
20.00	570.44	2,460.40	0.00	0.00
25.00	561.99	2,418.46	0.00	0.00
30.00	553.54	2,376.52	0.00	0.00
35.00	554.32	2,334.58	0.00	0.00
40.00	566.95	2,292.63	0.00	0.00
45.00	576.81	1,962.82	0.00	0.00
50.00	584.92	1,927.38	0.00	0.00
55.00	591.28	1,891.93	0.00	0.00
60.00	596.14	1,856.48	0.00	0.00
65.00	599.67	1,821.04	0.00	0.00
70.00	602.02	1,785.59	0.00	0.00
75.00	603.32	1,750.14	0.00	0.00
80.00	603.66	1,714.70	0.00	0.00
85.00	603.14	1,443.05	0.00	0.00
90.00	601.81	1,414.10	0.00	0.00
95.00	599.74	1,385.15	0.00	0.00
96.00	2,569.48	2,633.79	0.00	0.00
100.0	426.50	1,015.52	0.00	0.00
105.0	530.02	1,243.04	0.00	0.00
106.0	642.57	522.21	0.00	0.00
110.0	419.20	966.68	0.00	0.00
115.0	519.82	1,181.99	0.00	0.00
116.0	4,967.46	3,132.16	0.00	0.00
120.0	333.32	844.63	0.00	0.00
125.0	410.40	934.67	0.00	0.00
127.0	2,709.07	3,587.72	0.00	0.00
130.0	243.70	552.04	0.00	0.00
135.0	400.45	898.91	0.00	0.00
139.0	313.87	700.86	0.00	0.00
140.0	55.36	84.72	0.00	0.00
142.0	551.71	312.47	0.00	0.00
145.0	162.66	220.45	0.00	0.00
150.0	4,924.89	4,785.50	0.00	9,136.99
<b>Totals:</b>	<b>31,312.28</b>	<b>62,085.20</b>	<b>0.00</b>	<b>9,136.99</b>

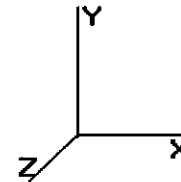
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Load Case:** Ice

69.28 mph Wind with Ice

21 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Calculated Shaft Forces and Deflections**

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-31.372	-62.054	0.000	0.000	0.000	-3,173.303	0.000	0.000	0.000	0.000
5.00	-30.889	-59.409	0.000	0.000	0.000	-3,016.445	-0.059	0.000	0.059	-0.111
10.00	-30.405	-56.807	0.000	0.000	0.000	-2,862.002	-0.235	0.000	0.235	-0.222
15.00	-29.920	-54.249	0.000	0.000	0.000	-2,709.981	-0.527	0.000	0.527	-0.333
20.00	-29.434	-51.735	0.000	0.000	0.000	-2,560.385	-0.937	0.000	0.937	-0.445
25.00	-28.947	-49.265	0.000	0.000	0.000	-2,413.219	-1.463	0.000	1.463	-0.558
30.00	-28.460	-46.839	0.000	0.000	0.000	-2,268.485	-2.108	0.000	2.108	-0.670
35.00	-27.963	-44.457	0.000	0.000	0.000	-2,126.186	-2.870	0.000	2.870	-0.782
40.00	-27.445	-42.120	0.000	0.000	0.000	-1,986.372	-3.750	0.000	3.750	-0.894
45.00	-26.922	-40.109	0.000	0.000	0.000	-1,849.148	-4.747	0.000	4.747	-1.006
50.00	-26.388	-38.133	0.000	0.000	0.000	-1,714.543	-5.871	0.000	5.871	-1.138
55.00	-25.840	-36.195	0.000	0.000	0.000	-1,582.604	-7.134	0.000	7.134	-1.269
60.00	-25.277	-34.296	0.000	0.000	0.000	-1,453.408	-8.533	0.000	8.533	-1.398
65.00	-24.703	-32.437	0.000	0.000	0.000	-1,327.024	-10.066	0.000	10.066	-1.526
70.00	-24.117	-30.617	0.000	0.000	0.000	-1,203.513	-11.731	0.000	11.731	-1.650
75.00	-23.522	-28.837	0.000	0.000	0.000	-1,082.930	-13.525	0.000	13.525	-1.772
80.00	-22.918	-27.096	0.000	0.000	0.000	-965.322	-15.444	0.000	15.444	-1.889
85.00	-22.322	-25.627	0.000	0.000	0.000	-850.733	-17.484	0.000	17.484	-2.002
90.00	-21.723	-24.187	0.000	0.000	0.000	-739.127	-19.652	0.000	19.652	-2.134
95.00	-21.100	-22.799	0.000	0.000	0.000	-630.513	-21.955	0.000	21.955	-2.258
96.00	-18.449	-20.250	0.000	0.000	0.000	-609.413	-22.430	0.000	22.430	-2.283
100.0	-18.015	-19.222	0.000	0.000	0.000	-535.620	-24.382	0.000	24.382	-2.374
105.0	-17.452	-17.983	0.000	0.000	0.000	-445.548	-26.926	0.000	26.926	-2.480
106.0	-16.802	-17.475	0.000	0.000	0.000	-428.096	-27.448	0.000	27.448	-2.501
110.0	-16.364	-16.505	0.000	0.000	0.000	-360.888	-29.576	0.000	29.576	-2.576
115.0	-15.803	-15.335	0.000	0.000	0.000	-279.071	-32.320	0.000	32.320	-2.659
116.0	-10.703	-12.431	0.000	0.000	0.000	-263.268	-32.878	0.000	32.878	-2.675
120.0	-10.342	-11.592	0.000	0.000	0.000	-220.456	-35.143	0.000	35.143	-2.731
125.0	-9.895	-10.671	0.000	0.000	0.000	-168.745	-38.037	0.000	38.037	-2.792
127.0	-7.018	-7.217	0.000	0.000	0.000	-148.954	-39.212	0.000	39.212	-2.818
130.0	-6.752	-6.672	0.000	0.000	0.000	-127.901	-40.993	0.000	40.993	-2.852
135.0	-6.311	-5.790	0.000	0.000	0.000	-94.141	-44.006	0.000	44.006	-2.901
139.0	-5.964	-5.104	0.000	0.000	0.000	-68.897	-46.450	0.000	46.450	-2.933
140.0	-5.909	-5.017	0.000	0.000	0.000	-62.934	-47.065	0.000	47.065	-2.940
142.0	-5.351	-4.724	0.000	0.000	0.000	-51.116	-48.317	0.000	48.317	-3.036
145.0	-5.186	-4.502	0.000	0.000	0.000	-35.065	-50.264	0.000	50.264	-3.151
150.0	-4.925	0.000	0.000	0.000	0.000	-9.137	-53.632	0.000	53.632	-3.259

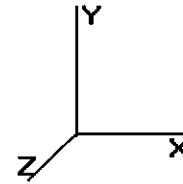
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev: 0.000 (ft)

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**Load Case: Ice**

69.28 mph Wind with Ice

21 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Calculated Stresses**

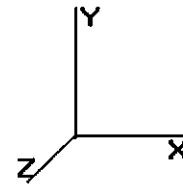
Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.51	0.52	0.00	0.00	0.00	25.40	25.92	33.4	0.0	0.775
5.00	0.50	0.52	0.00	0.00	0.00	25.08	25.59	33.4	0.0	0.765
10.00	0.48	0.53	0.00	0.00	0.00	24.74	25.24	33.4	0.0	0.755
15.00	0.47	0.53	0.00	0.00	0.00	24.37	24.86	33.4	0.0	0.743
20.00	0.46	0.53	0.00	0.00	0.00	23.98	24.46	33.4	0.0	0.731
25.00	0.45	0.53	0.00	0.00	0.00	23.56	24.02	33.4	0.0	0.718
30.00	0.43	0.53	0.00	0.00	0.00	23.10	23.55	33.4	0.0	0.704
35.00	0.42	0.54	0.00	0.00	0.00	22.60	23.04	33.4	0.0	0.689
40.00	0.41	0.54	0.00	0.00	0.00	22.07	22.49	33.4	0.0	0.673
40.00	0.49	0.64	0.00	0.00	0.00	26.29	26.80	31.4	0.0	0.855
45.00	0.47	0.65	0.00	0.00	0.00	25.60	26.09	31.4	0.0	0.832
50.00	0.46	0.65	0.00	0.00	0.00	24.85	25.33	31.4	0.0	0.808
55.00	0.45	0.65	0.00	0.00	0.00	24.04	24.51	31.4	0.0	0.782
60.00	0.43	0.65	0.00	0.00	0.00	23.16	23.62	31.4	0.0	0.753
65.00	0.42	0.65	0.00	0.00	0.00	22.22	22.67	31.4	0.0	0.723
70.00	0.41	0.65	0.00	0.00	0.00	21.20	21.63	31.4	0.0	0.690
75.00	0.39	0.65	0.00	0.00	0.00	20.09	20.51	31.4	0.0	0.654
80.00	0.38	0.65	0.00	0.00	0.00	18.88	19.30	31.4	0.0	0.615
80.00	0.47	0.81	0.00	0.00	0.00	23.36	23.87	28.7	0.0	0.831
85.00	0.46	0.81	0.00	0.00	0.00	21.74	22.24	28.7	0.0	0.774
90.00	0.45	0.81	0.00	0.00	0.00	19.97	20.46	28.7	0.0	0.713
95.00	0.43	0.81	0.00	0.00	0.00	18.04	18.53	28.7	0.0	0.645
96.00	0.39	0.72	0.00	0.00	0.00	17.65	18.07	28.7	0.0	0.629
100.00	0.38	0.71	0.00	0.00	0.00	16.26	16.69	28.7	0.0	0.581
105.00	0.36	0.71	0.00	0.00	0.00	14.38	14.79	28.7	0.0	0.515
106.00	0.35	0.69	0.00	0.00	0.00	13.99	14.39	28.7	0.0	0.501
110.00	0.34	0.69	0.00	0.00	0.00	12.40	12.80	28.7	0.0	0.446
115.00	0.33	0.69	0.00	0.00	0.00	10.24	10.63	28.7	0.0	0.370
116.00	0.27	0.47	0.00	0.00	0.00	9.79	10.09	28.7	0.0	0.351
120.00	0.26	0.47	0.00	0.00	0.00	8.65	8.94	28.7	0.0	0.311
120.00	0.29	0.53	0.00	0.00	0.00	9.82	10.15	38.1	0.0	0.267
125.00	0.28	0.53	0.00	0.00	0.00	8.05	8.38	38.1	0.0	0.220
127.00	0.19	0.38	0.00	0.00	0.00	7.31	7.54	38.1	0.0	0.198
130.00	0.18	0.37	0.00	0.00	0.00	6.56	6.77	38.1	0.0	0.178
135.00	0.16	0.36	0.00	0.00	0.00	5.20	5.40	38.1	0.0	0.142
139.00	0.15	0.35	0.00	0.00	0.00	4.05	4.24	38.1	0.0	0.111
139.00	0.51	1.21	0.00	0.00	0.00	20.55	21.17	52.0	0.0	0.407
140.00	0.51	1.21	0.00	0.00	0.00	19.13	19.75	52.0	0.0	0.380
142.00	0.49	1.12	0.00	0.00	0.00	16.15	16.75	52.0	0.0	0.322
145.00	0.48	1.12	0.00	0.00	0.00	11.76	12.39	52.0	0.0	0.238
150.00	0.00	1.12	0.00	0.00	0.00	3.40	3.91	52.0	0.0	0.075

Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev: 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	50.00 mph Wind with No Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Shaft Segment Forces**

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)	
0.00		0.00	1.00	6.400	10.81	213.75	1.030	0.000	0.00	0.000	0.00	0.0	0.0	
5.00		0.00	1.00	6.400	10.81	209.79	1.030	0.000	5.00	21.177	21.81	235.9	0.0	2,057.5
10.00		0.00	1.00	6.400	10.81	205.84	1.030	0.000	5.00	20.782	21.41	231.5	0.0	2,018.6
15.00		0.00	1.00	6.400	10.81	201.89	1.030	0.000	5.00	20.387	21.00	227.1	0.0	1,979.6
20.00		0.00	1.00	6.400	10.81	197.94	1.030	0.000	5.00	19.992	20.59	222.7	0.0	1,940.6
25.00		0.00	1.00	6.400	10.81	193.98	1.030	0.000	5.00	19.597	20.18	218.3	0.0	1,901.6
30.00		0.00	1.00	6.400	10.81	190.03	1.030	0.000	5.00	19.201	19.78	213.9	0.0	1,862.7
35.00		0.00	1.01	6.509	10.99	187.65	1.030	0.000	5.00	18.806	19.37	213.1	0.0	1,823.7
40.00	Top - Section 1	0.00	1.05	6.762	11.42	187.20	1.030	0.000	5.00	18.411	18.96	216.7	0.0	1,784.7
45.00		0.00	1.09	6.993	11.81	186.11	1.030	0.000	5.00	18.002	18.54	219.1	0.0	1,458.0
50.00		0.00	1.12	7.207	12.17	184.74	1.030	0.000	5.00	17.607	18.14	220.9	0.0	1,425.5
55.00		0.00	1.15	7.406	12.51	183.02	1.030	0.000	5.00	17.212	17.73	221.9	0.0	1,393.0
60.00		0.00	1.18	7.592	12.83	181.00	1.030	0.000	5.00	16.817	17.32	222.2	0.0	1,360.6
65.00		0.00	1.21	7.768	13.12	178.73	1.030	0.000	5.00	16.422	16.91	222.0	0.0	1,328.1
70.00		0.00	1.24	7.934	13.40	176.23	1.030	0.000	5.00	16.026	16.51	221.3	0.0	1,295.6
75.00		0.00	1.26	8.092	13.67	173.54	1.030	0.000	5.00	15.631	16.10	220.2	0.0	1,263.1
80.00	Top - Section 2	0.00	1.28	8.242	13.93	170.66	1.030	0.000	5.00	15.236	15.69	218.6	0.0	1,230.6
85.00		0.00	1.31	8.387	14.17	167.62	1.030	0.000	5.00	14.841	15.29	216.7	0.0	962.0
90.00		0.00	1.33	8.525	14.40	164.43	1.030	0.000	5.00	14.446	14.88	214.4	0.0	936.0
95.00		0.00	1.35	8.657	14.63	161.11	1.030	0.000	5.00	14.050	14.47	211.7	0.0	910.0
96.00	Appertunance(s)	0.00	1.35	8.683	14.67	160.43	1.030	0.000	1.00	2.763	2.85	41.8	0.0	178.9
100.00		0.00	1.37	8.785	14.84	157.67	1.030	0.000	4.00	10.893	11.22	166.6	0.0	705.1
105.00		0.00	1.39	8.908	15.05	154.11	1.030	0.000	5.00	13.260	13.66	205.6	0.0	858.0
106.00	Appertunance(s)	0.00	1.39	8.933	15.09	153.38	1.030	0.000	1.00	2.605	2.68	40.5	0.0	168.5
110.00		0.00	1.41	9.028	15.25	150.44	1.030	0.000	4.00	10.260	10.57	161.2	0.0	663.6
115.00		0.00	1.42	9.143	15.45	146.67	1.030	0.000	5.00	12.470	12.84	198.5	0.0	806.1
116.00	Appertunance(s)	0.00	1.43	9.166	15.49	145.91	1.030	0.000	1.00	2.446	2.52	39.0	0.0	158.1
120.00	Top - Section 3	0.00	1.44	9.255	15.64	142.82	1.030	0.000	4.00	9.628	9.92	155.1	0.0	622.0
125.00		0.00	1.46	9.363	15.82	138.87	1.030	0.000	5.00	11.679	12.03	190.4	0.0	661.3
127.00	Appertunance(s)	0.00	1.47	9.406	15.89	137.27	1.030	0.000	2.00	4.561	4.70	74.7	0.0	258.2
130.00		0.00	1.48	9.469	16.00	134.84	1.030	0.000	3.00	6.723	6.92	110.8	0.0	380.4
135.00		0.00	1.49	9.572	16.17	130.74	1.030	0.000	5.00	10.889	11.22	181.4	0.0	615.9
139.00	Top - Section 4	0.00	1.50	9.652	16.31	127.40	1.030	0.000	4.00	8.426	8.68	141.6	0.0	476.3
140.00		0.00	1.51	9.672	16.34	84.840	1.030	0.000	1.00	1.387	1.43	23.3	0.0	33.8
142.00	Appertunance(s)	0.00	1.51	9.711	16.41	83.407	1.030	0.000	2.00	2.735	2.82	46.2	0.0	66.6
145.00		0.00	1.52	9.769	16.51	81.242	1.030	0.000	3.00	4.004	4.12	68.1	0.0	97.6
150.00	Appertunance(s)	0.00	1.54	9.864	16.67	77.592	1.030	0.000	5.00	6.413	6.61	110.1	0.0	156.2
<b>Totals:</b>								150.00			6,143.2	0.0	35,838.1	

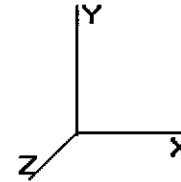
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	50.00 mph Wind with No Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Discrete Appurtenance Segment Forces**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	8.683	14.675	0.71	50.18	0.000	0.000	736.42	0.00	0.00	192.00
96.00	Flat Low Profile Pla	1	8.683	14.675	1.00	26.10	0.000	0.000	383.01	0.00	0.00	1,500.00
106.0	72" x 12" Panel	3	8.933	15.096	0.67	16.88	0.000	0.000	254.88	0.00	0.00	135.00
116.0	Alcatel-Lucent RRH2x	3	9.166	15.490	0.67	5.07	0.000	0.000	78.46	0.00	0.00	132.00
116.0	Andrew LNX-6514DS-	2	9.166	15.490	0.82	13.40	0.000	0.000	207.55	0.00	0.00	76.80
116.0	Antel LPA-171063-12C	6	9.166	15.490	1.00	36.30	0.000	0.000	562.29	0.00	0.00	69.00
116.0	Antel LPA-80063-6CF-	6	9.166	15.490	0.93	54.29	0.000	0.000	841.00	0.00	0.00	162.00
116.0	RFS APX75-866514-	1	9.166	15.490	0.74	7.22	0.000	0.000	111.87	0.00	0.00	30.80
116.0	RFS DB-T1-6Z-8AB-0Z	1	9.166	15.490	0.67	3.22	0.000	0.000	49.82	0.00	0.00	110.00
116.0	Round Low Profile PI	1	9.166	15.490	1.00	21.70	0.000	0.000	336.13	0.00	0.00	1,500.00
127.0	Alcatel-Lucent 4X40W	6	9.406	15.896	0.67	10.89	0.000	0.000	173.18	0.00	0.00	357.00
127.0	Alcatel-Lucent 800 M	3	9.406	15.896	0.67	4.82	0.000	0.000	76.68	0.00	0.00	192.00
127.0	Allgon 7184	3	9.406	15.896	0.75	6.03	0.000	0.000	95.85	0.00	0.00	33.60
127.0	Flat Low Profile Pla	1	9.406	15.896	1.00	26.10	0.000	0.000	414.89	0.00	0.00	1,500.00
127.0	RFS APXV9ERR18-C-	1	9.406	15.896	0.85	6.82	0.000	0.000	108.36	0.00	0.00	62.00
127.0	RFS APXVSP18-C-	2	9.406	15.896	0.82	13.15	0.000	0.000	209.08	0.00	0.00	114.00
127.0	RFS IBC1900BB-1	3	9.406	15.896	0.50	1.69	0.000	0.000	26.94	0.00	0.00	66.00
127.0	RFS IBC1900HG-2A	3	9.406	15.896	0.50	1.69	0.000	0.000	26.94	0.00	0.00	66.00
142.0	RFS APXV18-	3	9.711	16.411	0.80	12.05	0.000	0.000	197.72	0.00	0.00	66.00
150.0	Andrew	6	10.101	17.071	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
150.0	Concealment Canister	1	9.984	16.874	1.00	15.00	0.000	6.500	253.11	0.00	1,645.18	200.00
150.0	Ericsson RRUS 11	6	9.902	16.734	0.67	11.82	0.000	2.000	197.77	0.00	395.54	330.00
150.0	Flat Platform w/ Han	1	9.864	16.670	1.00	42.40	0.000	0.000	706.82	0.00	0.00	2,000.00
150.0	KMW AM-X-CD-16-65-	6	9.902	16.734	0.78	38.66	0.000	2.000	646.87	0.00	1,293.74	291.00
150.0	Powerwave 7770.00	3	9.902	16.734	0.75	13.23	0.000	2.000	221.39	0.00	442.77	105.00
150.0	Powerwave LGP21401	6	9.902	16.734	0.50	3.87	0.000	2.000	64.76	0.00	129.52	84.60
150.0	Raycap DC6-48-60-18-	1	9.902	16.734	1.00	1.26	0.000	2.000	21.08	0.00	42.17	20.00
150.0	RFS APX16DWV-	3	10.101	17.071	0.00	0.00	0.000	13.000	0.00	0.00	0.00	118.80
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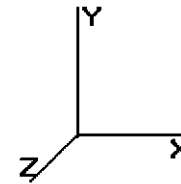
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	50.00 mph Wind with No Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Linear Appurtenance Segment Forces**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
5.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
5.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
10.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
10.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
15.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
15.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
20.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
20.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
25.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
25.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.400	0.00	24.60
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.400	8.65	9.45
30.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
30.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.400	31.91	49.20
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.509	0.00	24.60
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.509	8.80	9.45
35.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.509	0.00	1.65
35.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.509	32.45	49.20
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.509	21.45	24.60
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.762	0.00	24.60
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.762	9.14	9.45
40.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.762	0.00	1.65
40.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.762	33.71	49.20
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.762	22.28	24.60
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	6.993	0.00	24.60
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	6.993	9.45	9.45
45.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.993	0.00	1.65
45.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	6.993	34.86	49.20
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.993	23.05	24.60
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	7.207	0.00	24.60
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	7.207	9.74	9.45
50.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.207	0.00	1.65
50.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	7.207	35.93	49.20
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.207	23.75	24.60
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	7.406	0.00	24.60



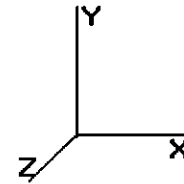
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
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Code : TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	<b>50.00 mph Wind with No Ice</b>	<b>21 Iterations</b>
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

55.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	7.406	10.01	9.45
55.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.406	0.00	1.65
55.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	7.406	36.92	49.20
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.406	24.41	24.60
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	7.592	0.00	24.60
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	7.592	10.26	9.45
60.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.592	0.00	1.65
60.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	7.592	37.85	49.20
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.592	25.02	24.60
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	7.768	0.00	24.60
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	7.768	10.50	9.45
65.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.768	0.00	1.65
65.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	7.768	38.73	49.20
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.768	25.60	24.60
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	7.934	0.00	24.60
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	7.934	10.73	9.45
70.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.934	0.00	1.65
70.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	7.934	39.55	49.20
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.934	26.15	24.60
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.092	0.00	24.60
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.092	10.94	9.45
75.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.092	0.00	1.65
75.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.092	40.34	49.20
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.092	26.67	24.60
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.242	0.00	24.60
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.242	11.14	9.45
80.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.242	0.00	1.65
80.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.242	41.09	49.20
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.242	27.16	24.60
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.387	0.00	24.60
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.387	11.34	9.45
85.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.387	0.00	1.65
85.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.387	41.81	49.20
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.387	27.64	24.60
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.525	0.00	24.60
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.525	11.53	9.45
90.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.525	0.00	1.65
90.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.525	42.50	49.20
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.525	28.09	24.60
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.657	0.00	24.60
95.00	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.657	11.70	9.45
95.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.657	0.00	1.65
95.00	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.657	43.16	49.20
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.657	28.53	24.60
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	8.683	0.00	4.92
96.00	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	8.683	2.35	1.89
96.00	(1) 7/8" Coax	Yes	1.00	0.33	0.00	8.683	0.00	0.33
96.00	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	8.683	8.66	9.84
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.39	8.683	5.72	4.92
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	8.785	0.00	19.68
100.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	8.785	9.50	7.56
100.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	8.785	0.00	1.32
100.0	(19) 1 5/8" Coax	Yes	4.00	9.84	0.59	8.785	35.04	39.36
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	8.908	0.00	24.60
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	8.908	12.04	9.45
105.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.908	0.00	1.65
105.0	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	8.908	44.41	49.20

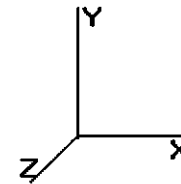
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

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**Load Case:** Twist/Sway                      50.00 mph Wind with No Ice                      21 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	8.933	0.00	4.92
106.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	8.933	2.42	1.89
106.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	8.933	0.00	0.33
106.0	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	8.933	8.91	9.84
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	9.028	0.00	19.68
110.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	9.028	9.76	7.56
110.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	9.028	0.00	1.32
110.0	(19) 1 5/8" Coax	Yes	4.00	9.84	0.59	9.028	36.01	39.36
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	9.143	0.00	24.60
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	9.143	12.36	9.45
115.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	9.143	0.00	1.65
115.0	(19) 1 5/8" Coax	Yes	5.00	9.84	0.59	9.143	45.58	49.20
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	9.166	0.00	4.92
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.89	0.16	9.166	2.48	1.89
116.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	9.166	0.00	0.33
116.0	(19) 1 5/8" Coax	Yes	1.00	9.84	0.59	9.166	9.14	9.84
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	9.255	0.00	19.68
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	1.89	0.16	9.255	10.01	7.56
120.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	9.255	0.00	1.32
125.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	9.363	0.00	24.60
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.89	0.16	9.363	12.66	9.45
125.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	9.363	0.00	0.33
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.00	9.406	0.00	9.84
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	1.89	0.16	9.406	5.09	3.78
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.00	9.469	0.00	14.76
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	9.469	9.60	14.76
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.00	9.572	0.00	24.60
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.572	16.18	24.60
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.00	9.652	0.00	19.68
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.652	13.05	19.68
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.00	9.672	0.00	4.92
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.672	3.27	4.92
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.00	9.711	0.00	9.84
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.711	6.56	9.84
145.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	9.769	9.91	14.76
150.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.864	16.67	24.60
<b>Totals:</b>							<b>1,681.28</b>	<b>2,705.52</b>

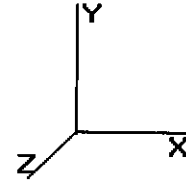
Pole : 302483  
 Location : Brln - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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**Load Case:** Twist/Sway

50.00 mph Wind with No Ice

21 Iterations

Gust Response Factor : 1.69  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	297.58	2,325.94	0.00	0.00
10.00	293.17	2,286.96	0.00	0.00
15.00	288.77	2,247.99	0.00	0.00
20.00	284.37	2,209.02	0.00	0.00
25.00	279.97	2,170.04	0.00	0.00
30.00	275.56	2,131.07	0.00	0.00
35.00	275.76	2,092.10	0.00	0.00
40.00	281.83	2,053.13	0.00	0.00
45.00	286.50	1,726.38	0.00	0.00
50.00	290.30	1,693.91	0.00	0.00
55.00	293.22	1,661.43	0.00	0.00
60.00	295.38	1,628.95	0.00	0.00
65.00	296.87	1,596.48	0.00	0.00
70.00	297.76	1,564.00	0.00	0.00
75.00	298.12	1,531.52	0.00	0.00
80.00	298.00	1,499.04	0.00	0.00
85.00	297.44	1,230.36	0.00	0.00
90.00	296.47	1,204.38	0.00	0.00
95.00	295.13	1,178.40	0.00	0.00
96.00	1,177.91	1,924.56	0.00	0.00
100.0	211.11	870.66	0.00	0.00
105.0	262.08	1,064.94	0.00	0.00
106.0	306.70	344.87	0.00	0.00
110.0	207.00	826.57	0.00	0.00
115.0	256.40	1,009.82	0.00	0.00
116.0	2,237.77	2,279.45	0.00	0.00
120.0	165.11	745.63	0.00	0.00
125.0	203.02	814.57	0.00	0.00
127.0	1,211.70	2,709.93	0.00	0.00
130.0	120.41	473.89	0.00	0.00
135.0	197.60	771.62	0.00	0.00
139.0	154.62	600.93	0.00	0.00
140.0	26.62	64.95	0.00	0.00
142.0	250.51	194.94	0.00	0.00
145.0	77.99	176.25	0.00	0.00
150.0	2,238.58	3,502.72	0.00	3,948.92
<b>Totals:</b>	<b>14,827.34</b>	<b>52,407.41</b>	<b>0.00</b>	<b>3,948.92</b>

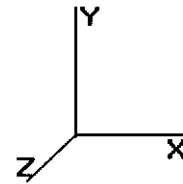
Pole : 302483  
 Location : BrIn - Berlin, CT  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	50.00 mph Wind with No Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Calculated Shaft Forces and Deflections**

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-14.851	-52.401	0.000	0.000	0.000	-1,472.094	0.000	0.000	0.000	0.000
5.00	-14.597	-50.062	0.000	0.000	0.000	-1,397.842	-0.028	0.000	0.028	-0.051
10.00	-14.344	-47.762	0.000	0.000	0.000	-1,324.857	-0.109	0.000	0.109	-0.103
15.00	-14.091	-45.502	0.000	0.000	0.000	-1,253.139	-0.244	0.000	0.244	-0.154
20.00	-13.839	-43.282	0.000	0.000	0.000	-1,182.685	-0.434	0.000	0.434	-0.206
25.00	-13.587	-41.100	0.000	0.000	0.000	-1,113.492	-0.678	0.000	0.678	-0.258
30.00	-13.336	-38.959	0.000	0.000	0.000	-1,045.557	-0.976	0.000	0.976	-0.310
35.00	-13.082	-36.856	0.000	0.000	0.000	-978.876	-1.328	0.000	1.328	-0.362
40.00	-12.817	-34.794	0.000	0.000	0.000	-913.469	-1.735	0.000	1.735	-0.413
45.00	-12.550	-33.057	0.000	0.000	0.000	-849.384	-2.195	0.000	2.195	-0.464
50.00	-12.278	-31.353	0.000	0.000	0.000	-786.637	-2.714	0.000	2.714	-0.525
55.00	-11.999	-29.682	0.000	0.000	0.000	-725.248	-3.297	0.000	3.297	-0.585
60.00	-11.715	-28.045	0.000	0.000	0.000	-665.252	-3.941	0.000	3.941	-0.644
65.00	-11.426	-26.440	0.000	0.000	0.000	-606.676	-4.648	0.000	4.648	-0.703
70.00	-11.133	-24.869	0.000	0.000	0.000	-549.545	-5.414	0.000	5.414	-0.760
75.00	-10.836	-23.332	0.000	0.000	0.000	-493.882	-6.240	0.000	6.240	-0.815
80.00	-10.536	-21.827	0.000	0.000	0.000	-439.702	-7.122	0.000	7.122	-0.868
85.00	-10.239	-20.592	0.000	0.000	0.000	-387.023	-8.060	0.000	8.060	-0.920
90.00	-9.943	-19.383	0.000	0.000	0.000	-335.826	-9.056	0.000	9.056	-0.980
95.00	-9.637	-18.204	0.000	0.000	0.000	-286.113	-10.113	0.000	10.113	-1.036
96.00	-8.432	-16.297	0.000	0.000	0.000	-276.476	-10.331	0.000	10.331	-1.047
100.00	-8.217	-15.424	0.000	0.000	0.000	-242.747	-11.227	0.000	11.227	-1.089
105.00	-7.941	-14.361	0.000	0.000	0.000	-201.661	-12.394	0.000	12.394	-1.137
106.00	-7.633	-14.019	0.000	0.000	0.000	-193.720	-12.633	0.000	12.633	-1.146
110.00	-7.418	-13.192	0.000	0.000	0.000	-163.187	-13.608	0.000	13.608	-1.180
115.00	-7.145	-12.185	0.000	0.000	0.000	-126.098	-14.865	0.000	14.865	-1.218
116.00	-4.862	-9.953	0.000	0.000	0.000	-118.953	-15.121	0.000	15.121	-1.225
120.00	-4.685	-9.209	0.000	0.000	0.000	-99.505	-16.159	0.000	16.159	-1.250
125.00	-4.467	-8.397	0.000	0.000	0.000	-76.079	-17.483	0.000	17.483	-1.278
127.00	-3.196	-5.714	0.000	0.000	0.000	-67.145	-18.021	0.000	18.021	-1.289
130.00	-3.067	-5.242	0.000	0.000	0.000	-57.556	-18.836	0.000	18.836	-1.305
135.00	-2.853	-4.475	0.000	0.000	0.000	-42.221	-20.215	0.000	20.215	-1.327
139.00	-2.685	-3.877	0.000	0.000	0.000	-30.809	-21.333	0.000	21.333	-1.341
140.00	-2.659	-3.812	0.000	0.000	0.000	-28.124	-21.614	0.000	21.614	-1.344
142.00	-2.407	-3.621	0.000	0.000	0.000	-22.806	-22.187	0.000	22.187	-1.387
145.00	-2.328	-3.444	0.000	0.000	0.000	-15.586	-23.076	0.000	23.076	-1.438
150.00	-2.239	0.000	0.000	0.000	0.000	-3.949	-24.613	0.000	24.613	-1.486

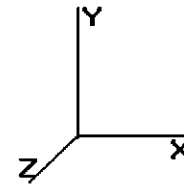
Pole : 302483  
 Location : Brln - Berlin, CT  
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Base Elev: 0.000 (ft)

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<b>Load Case:</b> Twist/Sway	50.00 mph Wind with No Ice	21 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Calculated Stresses**

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.43	0.25	0.00	0.00	0.00	11.78	12.22	33.4	0.0	0.365
5.00	0.42	0.25	0.00	0.00	0.00	11.62	12.05	33.4	0.0	0.360
10.00	0.41	0.25	0.00	0.00	0.00	11.45	11.87	33.4	0.0	0.355
15.00	0.39	0.25	0.00	0.00	0.00	11.27	11.67	33.4	0.0	0.349
20.00	0.38	0.25	0.00	0.00	0.00	11.08	11.47	33.4	0.0	0.343
25.00	0.37	0.25	0.00	0.00	0.00	10.87	11.25	33.4	0.0	0.336
30.00	0.36	0.25	0.00	0.00	0.00	10.65	11.01	33.4	0.0	0.329
35.00	0.35	0.25	0.00	0.00	0.00	10.41	10.76	33.4	0.0	0.322
40.00	0.34	0.25	0.00	0.00	0.00	10.15	10.49	33.4	0.0	0.314
40.00	0.40	0.30	0.00	0.00	0.00	12.09	12.50	31.4	0.0	0.399
45.00	0.39	0.30	0.00	0.00	0.00	11.76	12.16	31.4	0.0	0.388
50.00	0.38	0.30	0.00	0.00	0.00	11.40	11.79	31.4	0.0	0.376
55.00	0.37	0.30	0.00	0.00	0.00	11.02	11.39	31.4	0.0	0.363
60.00	0.35	0.30	0.00	0.00	0.00	10.60	10.97	31.4	0.0	0.350
65.00	0.34	0.30	0.00	0.00	0.00	10.16	10.51	31.4	0.0	0.335
70.00	0.33	0.30	0.00	0.00	0.00	9.68	10.02	31.4	0.0	0.320
75.00	0.32	0.30	0.00	0.00	0.00	9.16	9.49	31.4	0.0	0.303
80.00	0.31	0.30	0.00	0.00	0.00	8.60	8.92	31.4	0.0	0.285
80.00	0.38	0.37	0.00	0.00	0.00	10.64	11.04	28.7	0.0	0.384
85.00	0.37	0.37	0.00	0.00	0.00	9.89	10.28	28.7	0.0	0.358
90.00	0.36	0.37	0.00	0.00	0.00	9.07	9.45	28.7	0.0	0.329
95.00	0.35	0.37	0.00	0.00	0.00	8.19	8.56	28.7	0.0	0.298
96.00	0.31	0.33	0.00	0.00	0.00	8.01	8.34	28.7	0.0	0.290
100.00	0.30	0.33	0.00	0.00	0.00	7.37	7.69	28.7	0.0	0.268
105.00	0.29	0.32	0.00	0.00	0.00	6.51	6.82	28.7	0.0	0.238
106.00	0.28	0.31	0.00	0.00	0.00	6.33	6.64	28.7	0.0	0.231
110.00	0.27	0.31	0.00	0.00	0.00	5.61	5.91	28.7	0.0	0.206
115.00	0.26	0.31	0.00	0.00	0.00	4.63	4.92	28.7	0.0	0.171
116.00	0.21	0.21	0.00	0.00	0.00	4.42	4.65	28.7	0.0	0.162
120.00	0.20	0.21	0.00	0.00	0.00	3.90	4.12	28.7	0.0	0.144
120.00	0.23	0.24	0.00	0.00	0.00	4.43	4.68	38.1	0.0	0.123
125.00	0.22	0.24	0.00	0.00	0.00	3.63	3.87	38.1	0.0	0.102
127.00	0.15	0.17	0.00	0.00	0.00	3.30	3.46	38.1	0.0	0.091
130.00	0.14	0.17	0.00	0.00	0.00	2.95	3.11	38.1	0.0	0.082
135.00	0.13	0.16	0.00	0.00	0.00	2.33	2.47	38.1	0.0	0.065
139.00	0.11	0.16	0.00	0.00	0.00	1.81	1.94	38.1	0.0	0.051
139.00	0.39	0.55	0.00	0.00	0.00	9.19	9.62	52.0	0.0	0.185
140.00	0.39	0.55	0.00	0.00	0.00	8.55	8.99	52.0	0.0	0.173
142.00	0.37	0.50	0.00	0.00	0.00	7.21	7.63	52.0	0.0	0.147
145.00	0.37	0.50	0.00	0.00	0.00	5.23	5.66	52.0	0.0	0.109
150.00	0.00	0.51	0.00	0.00	0.00	1.47	1.71	52.0	0.0	0.033

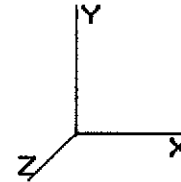
Pole : 302483  
 Location : BrIn - Berlin, CT  
 Height : 150.0 (ft)  
 Base Dia : 51.30 (in)  
 Top Dia : 15.00 (in)  
 Shape : 12 Sides  
 Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

12/12/2012 1:59:01 PM  
 Page: 28

Base Elev: 0.000 (ft)

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### Analysis Summary

Load Case	Reactions						Combined Stress (ksi)	Max Stresses		
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)		Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	38.0	0.00	52.36	0.00	0.00	3766.99	31.35	31.4	40.00	1.000
Ice	31.4	0.00	62.05	0.00	0.00	3173.30	26.80	31.4	40.00	0.855
Twist/Sway	14.9	0.00	52.40	0.00	0.00	1472.09	12.50	31.4	40.00	0.399

Base/Flange Plate	Plate Type	<b>Baseplate</b>
	Pole Diameter	37.38 in
	Pole Thickness	in
	Plate Length	62 in
	Plate Thickness	2 in
	Plate Fy	60 ksi
	Weld Length	0.25 in
	Allowable	664.01 k-in
	Applied	463.54 k-in
	#	0
Stiffeners		

Code Rev. **F**  
A.S.I. **1.33**  
Moment \* **2449.1 k-ft**  
Axial \* **34.4 k**

Date **12/12/2012**  
Engineer **EM**  
Site # **302483**  
Carrier **Sprint Nextel**

\* Factored by 0.65, see attached calcs

Bolts ●	#	<b>8</b>
	Bolt Circle (R)adial / (S)quare	44 in S
	Bolt Gap	6 in
	Diameter	2.25 in
	Hole Diameter	2.375 in
	Type	#18J
	Fy	75 ksi
	Fu	100 ksi
	Allowable	194.86 k
	Applied	123.78 k

Reinforcement ●	#	0
-----------------	---	---

Extra Bolts ○	#	<b>12</b>
	Bolt Circle (R)adial / (S)quare	55.5 in S
	Bolt Gap	6 in
	Offset Angle	30 °
	Diameter	1.75 in
	Type	R71
	Fu	390 ksi
	Allowable	412.75 k
Applied	110.24 k	

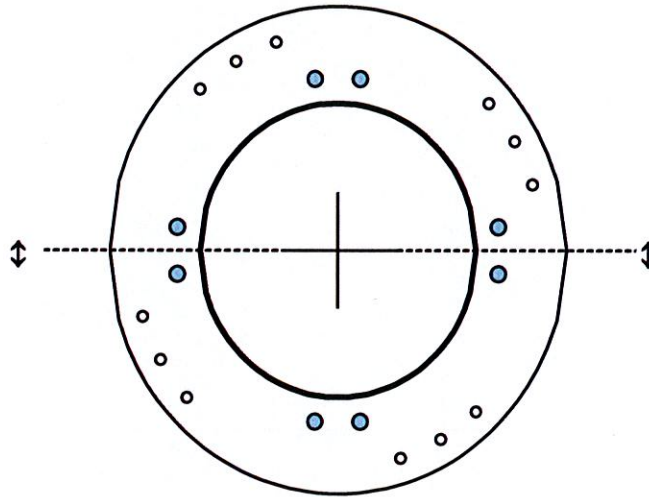


Plate Stress Ratio:  
**0.70** (Pass)

Bolt Stress Ratio:  
**0.64** (Pass)

Extra Bolt Stress Ratio:  
**0.27** (Pass)

12/12/2012

EM

#302483

Foundation Check:

M= 3767 K-ft

V= 38 k

P= 53 k

Sliding Factor of Safety

V = 38 k

Total weight = Wt. Of Concrete + Wt. Of Soil + P = 86.7 + 47.8 + 53 = 187.5k

Ultimate friction resistance =  $0.41 \times (\text{wt.}) = 0.41 \times 187.5 = 77 \text{ k}$

Ultimate passive sliding resistance =  $11' \times 2.58' \times 1.33 = 37.7\text{k}$

Factor of Safety =  $114.7/37.7 = 3$  Thus OK

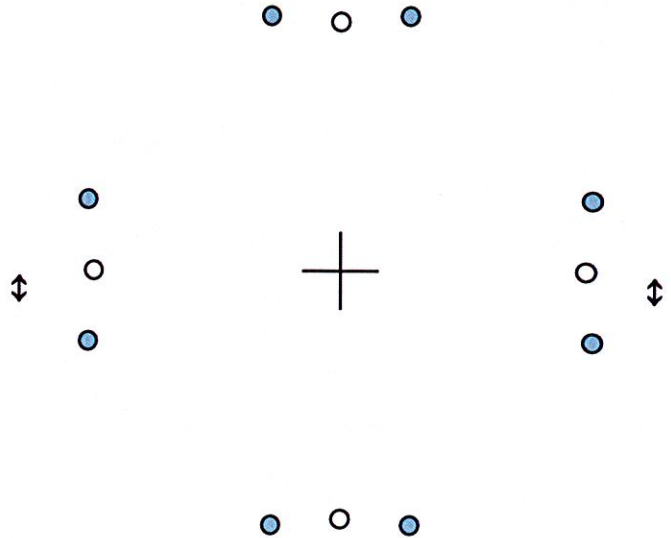
(12) R71 Williams 150 ksi rock anchor check (next page)



Code Rev. **F**  
 A.S.I. **1.33**  
 Moment **3767.9 k-ft**  
 Axial **53.0 k**

Date **12/12/2012**  
 Engineer **EM**  
 Site # **302483**  
 Carrier **Sprint Nextel**

<b>Bolts</b>	#	<b>8</b>
	Bolt Circle	44.25 in
	(R)adial / (S)quare	S
	Bolt Gap	12 in
	Diameter	1.75 in
	Hole Diameter	3.625 in
	Type	R71 William
	Fu	390 ksi
<b>Reinforcement</b>	#	<b>0</b>
<b>Extra Bolts O</b>	#	<b>4</b>
	Bolt Circle	41.63 in
	(R)adial / (S)quare	R
	Offset Angle	90°
	Diameter	1.75 in
	Type	R71 William
	Fu	390 ksi
Allowable	412.75 k	
Applied	328.47 k	

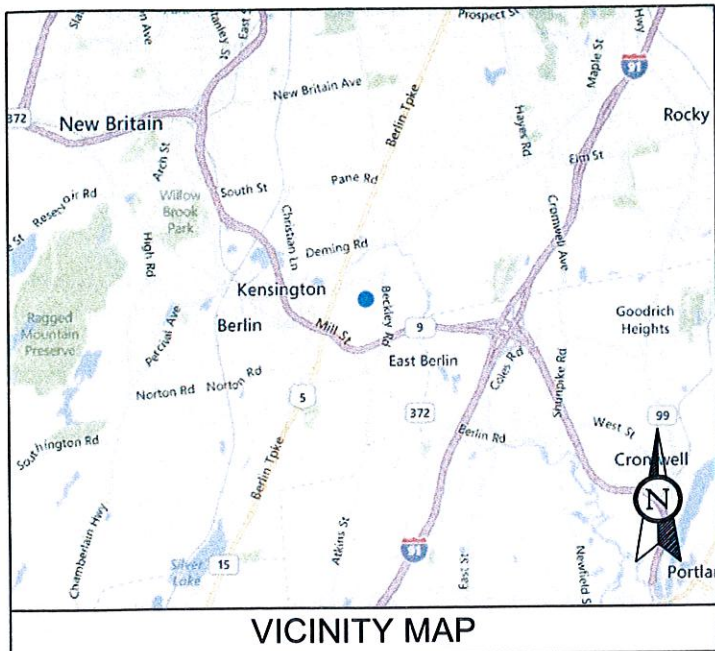


Bolt Stress Ratio:  
**0.77** (Pass)

Extra Bolt Stress Ratio:  
**0.80** (Pass)







VICINITY MAP



Know what's below.  
Call before you dig.

THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.



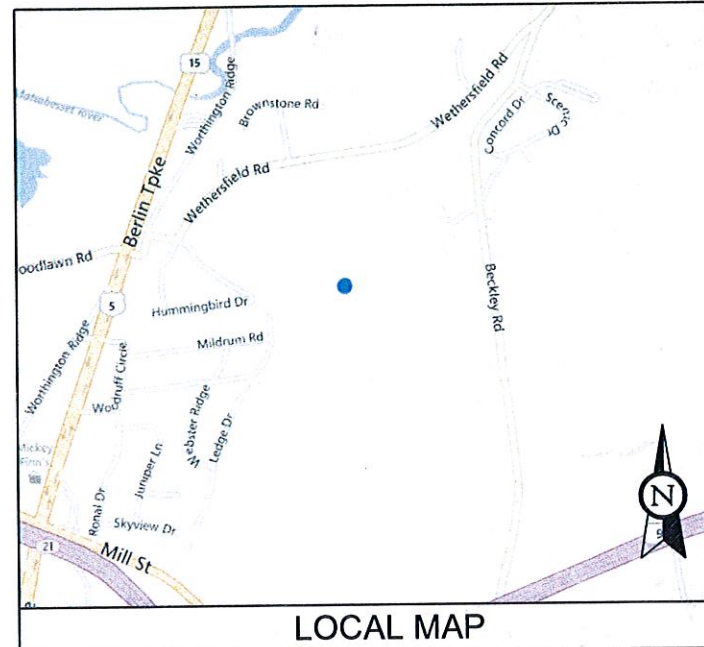
**SITE IDENTIFICATION:**

SPRINT CASCADE NUMBER: CT03XC088  
SPRINT SITE NAME: N/A  
SPRINT A\_LU VISION NORTHERN CONNECTICUT

SITE ADDRESS: 260 BECKLEY ROAD  
KINSINGTON, CT 06037

NETWORK VISION MMBTS LAUNCH

"EXISTING COLLOCATION ON AN EXISTING TELECOMMUNICATIONS TOWER"



LOCAL MAP

**APPROVALS**

APPROVAL	SIGNATURE	DATE
SITE OWNER:		
ALU RF:		
ALU LEASING/SITE ACQ.:		
IN MARKET CONSTRUCTION LEAD:		

**Sprint**  
VISION  
6391 SPRINT PKWY  
OVERLAND PARK, KS 66251

**Alcatel-Lucent**  
9305 GERWIG LANE  
COLUMBIA, MD 21046  
OFFICE: (410) 290-5509  
FAX: (410) 290-3362

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE ARE THE EXCLUSIVE PROPERTY OF ATC TOWER SERVICES, INC. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO ATC TOWER SERVICES, INC OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF ATC TOWER SERVICES, INC WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE ATC TOWER SERVICES, INC OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH ATC TOWER SERVICES, INC.

**AMERICAN TOWER®**  
ATC TOWER SERVICES, INC.  
8505 FREEPORT PARKWAY, SUITE 135  
IRVING, TX 75063  
PHONE: (972) 999-8900  
FAX: (972) 999-8940  
NYSE AMT

SPRINT CASCADE NUMBER:  
**CT03XC088**

SPRINT SITE NAME:  
**N/A**

ATC SITE NUMBER:  
**302483**



STAMP HERE:

DRAWN BY:	AD
CHECKED BY:	SAE
DATE DRAWN:	12-03-12
JOB NO:	515898K3

SHEET TITLE:  
**TITLE SHEET AND GENERAL INFORMATION**

SHEET NUMBER:	REV. #
<b>T-1</b>	<b>0</b>

PROJECT TEAM	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
<u>CUSTOMER:</u> SPRINT 6391 SPRINT PKWY OVERLAND PARK, KS 66251 <u>ALCATEL-LUCENT PROJECT TEAM:</u>  <u>ARCHITECT:</u> ATC TOWER SERVICES, INC. 1898 LELAND DRIVE SUITE A MARIETTA, GA 30067 TEL: (678) 265-6705 FAX: (678) 265-6781 CONTACT: JAMES JUSTICE - A & E MANAGER <u>TOWER OWNER/PROPERTY LESSEE:</u> AMERICAN TOWERS, LLC 10 PRESIDENTIAL WAY WOBURN, MA 01801 TEL: (781) 926-4500 FAX: (781) 926-4555 <u>ZONING AND BUILDING PERMIT:</u> CONTACT: BLAKE PAYNTER 10 PRESIDENTIAL WAY WOBURN, MA 01801 TEL: (781) 589-7046 <u>GROUND OWNER:</u> ELAINE ERWIN MATULIS JOHN C. MATULIS, JR. 260 BECKLEY RD. BERLIN, CT 06037  <u>UTILITIES:</u> POWER: C. L. & P. TEL: (800) 286-2000 TELCO: AT&T TEL: (800) 288-2020	<u>ATC SITE NUMBER AND NAME:</u> 302483 - BRLN - BERLIN  <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41° 37' 54.2" N LONGITUDE: 72° 43' 47.7" W GROUND ELEVATION: 185' AMSL  <u>ZONING:</u> JURISDICTION: CONNECTICUT SITTING COUNCIL  <u>STRUCTURE TYPE:</u> MONOPOLE  <u>CODE BLOCK:</u> WATER SUPPLY: NONE WASTE WATER: NONE USE GROUP: UTILITY SQUARE FOOTAGE: 135 SQ.FT.  <u>BUILDING CODE &amp; STANDARDS</u>  SUBCONTRACTORS WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE SITE LOCATION.  2003 INTERNATIONAL BUILDING CODE/2005 CT SUPPLEMENT & 2009 CT AMENDMENT  2008 (NEC) NATIONAL ELECTRIC CODE  <u>NOTE</u>  OWNER AND TENANT MAY, FROM TIME TO TIME, UPON WRITTEN AGREEMENT OF THE PARTIES, REPLACE THIS EXHIBIT WITH AN EXHIBIT SETTING FORTH THE LEGAL DESCRIPTION OF THE SITE, OR WITH AN ENGINEERED OR AS-BUILT DRAWING DEPICTING THE SITE OR ILLUSTRATING STRUCTURAL MODIFICATIONS OR CONSTRUCTION PLANS. ANY VISUAL OR TEXTUAL REPRESENTATION OF THE EQUIPMENT LOCATED WITHIN THE SITE CONTAINED IN THESE OTHER DOCUMENTS IS ILLUSTRATIVE ONLY, AND DOES NOT LIMIT THE RIGHTS OF SPRINT AS PROVIDED FOR IN THE AGREEMENT	THIS COLLOCATION PROJECT INCLUDES REMOVING AND REPLACING EXISTING ANTENNAS ON AN EXISTING TELECOMMUNICATIONS TOWER AND ADDING A PROPOSED GROUND CABINET WITHIN AN EXISTING LEASE AREA.  <u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED.  2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.  3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.  4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.  5. HANDICAP ACCESS IS NOT REQUIRED.	<b>SHT NO:</b>	<b>DESCRIPTION:</b>	<b>REV:</b>	<b>DATE:</b>	<b>BY:</b>
		T-1	TITLE SHEET AND GENERAL INFORMATION	0	12-03-2012	AD	
		GN-1	GENERAL NOTES	0	12-03-2012	AD	
A-1	SITE PLAN	0	12-03-2012	AD			
A-2	TOWER ELEVATION AND ANTENNA ORIENTATION	0	12-03-2013	AD			
A-3	EQUIPMENT LAYOUT	0	12-03-2012	AD			
A-4	EQUIPMENT DETAILS	0	12-03-2012	AD			
A-5	SPRINT RADIO FREQUENCY DATA SHEET	0	12-03-2012	AD			
A-6	MOUNTING DETAILS	0	12-03-2012	AD			
E-1	ELECTRICAL PLAN	0	12-03-2012	AD			
E-2	ONE-LINE DIAGRAM & PANEL SCHEDULE	0	12-03-2012	AD			
E-3	ANTENNA PLUMBING DIAGRAM	0	12-03-2012	AD			
G-1	GROUNDING PLAN	0	12-03-2012	AD			
G-2	GROUNDING SCHEMATIC DIAGRAM	0	12-03-2012	AD			
<u>PROJECT LOCATION DIRECTIONS</u>							
I-91 S VIA EXIT 52 TOWARD NEW HAVEN. 10.9 MIMAP AVOID 5: MERGE ONTO CT-9 N VIA EXIT 22N TOWARD NEW BRITAIN. 2.2 MIMAP AVOID 6: TAKE THE CT-372 E EXIT, EXIT 21, TOWARD EAST BERLIN. 0.3 MIMAP AVOID 7: TURN LEFT ONTO CT-372/MILL ST. 0.4 MIMAP AVOID 8: TURN LEFT ONTO BERLIN ST. 0.1 MIMAP AVOID 9: TURN LEFT ONTO BECKLEY RD. 1.1 MIMAP AVOID 10: END AT 261 BECKLEY RD BERLIN, CT 06037-2505 MAP ESTIMATED TIME: 20 MINUTES ESTIMATED DISTANCE: 16.12 MILES							
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1.0 GENERAL REQUIREMENTS (AS REQUIRED)

1) GENERAL SPECIFICATIONS

- a) ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED CUSTOMER OR ITS DESIGNATED REPRESENTATIVE
- b) WORK SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. ALL NECESSARY LICENSES, CERTIFICATES, PERMITS, ETC., REQUIRED BY AUTHORITY HAVING JURISDICTION SHALL BE PROCURED AND PAID FOR BY THE CONTRACTOR
- c) ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO DO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS AGREEMENT, THE CONTRACTOR ATTESTS THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY TO COMPLETE THE WORK, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK.
- d) THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS AND CONDITIONS AT THE JOB SITE WHICH COULD AFFECT THE WORK UNDER THIS CONTRACT. ALL MANUFACTURES RECOMMENDED SPECIFICATIONS, EXCEPT THOSE SPECIFICATIONS HEREIN, WHERE MOST STRINGENT SHALL BE COMPLIED WITH.
- e) DO NOT SCALE THE DRAWINGS. DIMENSIONS ARE EITHER TO THE FACE OF FINISHED ELEMENTS OR TO THE CENTER LINE OF ELEMENTS, UNLESS NOTED OTHERWISE. CRITICAL DIMENSIONS SHALL BE CONFIRMED WITH SITE MEASUREMENTS. VERIFY WITH ATC AS APPLICABLE.
- f) WHERE ONE DETAIL IS SHOWN FOR ONE CONDITION, UNLESS NOTED OTHERWISE, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, EVEN THOUGH NOT SPECIFICALLY MARKED ON THE DRAWINGS.
- g) DRAWINGS FORMING THIS SET ARE COMPLIMENTARY AND MUST BE READ AS ONE TOTAL DOCUMENT. DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF ATC. THESE DRAWINGS WERE PREPARED TO BE SUBMITTED TO GOVERNMENTAL BUILDING AUTHORITIES FOR REVIEW FOR COMPLIANCE WITH APPLICABLE CODES. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE CONSTRUCTION INDICATED HEREIN ACCORDING TO THE APPLICABLE BUILDING CODES.
- h) THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT DESCRIBED HEREIN.
- i) THE CONTRACTOR SHALL OBTAIN AUTHORIZATION FROM ATC TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.

2) MATERIALS

- a) WHERE PAVING, CONCRETE SIDEWALKS OR PATHS MEET EXISTING CONSTRUCTION, THE CONTRACTOR SHALL MATCH THE EXISTING PITCH, GRADE, AND ELEVATION SO THE ENTIRE STRUCTURE SHALL HAVE A SMOOTH TRANSITION.
- b) THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT AND MAINTAIN EXISTING CONDITIONS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGES THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY
- c) ALL MATERIALS FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM DEFECTS AND FAULTS AND IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION.
  - i) THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUANTITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED AND SHALL ONLY INSTALL SAID SUBSTITUTIONS AFTER APPROVAL BY THE OWNER OR THE OWNER'S ENGINEER.
  - ii) ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE NEW UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF (1) YEAR FOLLOWING SUBSEQUENT COMPLETION OF PROJECT OR AS SPECIFIED. THE CONTRACTOR SHALL REPAIR OR REPLACE AT HIS EXPENSE ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN THE WARRANTY PERIOD.
  - iii) THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR ARE TO BE RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND DIMENSIONS AND THE LOCATION OF BURIED UTILITIES AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF WORK.
  - iv) CONFLICTS AND OMISSIONS WHICH COULD HAVE BEEN DISCOVERED BY FILED VERIFICATION AND INSPECTION, WHETHER INDICATED ON THE CONTRACT DOCUMENT OR NOT, WILL NOT BE ENTERTAINED OR PAID.
- d) MINIMUM BEND RADIUS OF ANTENNAS CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURER RECOMMENDATIONS.
- e) CABLE ROUTING SHOWN IS DIAGRAMMATIC. ACTUAL ROUTE OF ANTENNA CABLES SHALL BE DETERMINED IN THE FIELD.

3) VERIFICATION

- a. THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST BETWEEN THE LOCATIONS OF ANY AND ALL MECHANICAL, ELECTRICAL, PLUMBING, OR STRUCTURAL ELEMENTS, AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE ARE MET. NOTIFY THE ATC OF ANY CONFLICTS, THE ATC HAS THE RIGHT TO MAKE MINOR MODIFICATIONS IN THE DESIGN OF THE CONTRACT WITHOUT THE CONTRACTOR GETTING ADDITIONAL COMPENSATION.
- b. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE ENGINEER.
- c. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE LOCAL POWER AND TELEPHONE UTILITIES AND THE CONSTRUCTION MANAGER TO CONFIRM THE SOURCE OF SERVICE PRIOR TO CONDUIT INSTALLATION. THE GENERAL CONTRACTOR SHALL OBTAIN WRITTEN CONFIRMATION OF EXPECTED DATE OF COMPLETION OF THE POWER CONNECTION FROM THE POWER COMPANY.

- d. ACCESS TO PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
- e. THE ENGINEER HAS NOT CONDUCTED, NOR DOES IT INTEND TO CONDUCT ANY INVESTIGATION TO DETERMINE THE PRESENCE OF ANY HAZARDOUS MATERIAL INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD PAINT, AND PCB'S WITHIN THE CONFINES OF THE PROJECT. THE ENGINEER WILL NOT ACCEPT ANY RESPONSIBILITY FOR THE ABATEMENT OR RESULTING CLAIMS FOR DAMAGES OR LOSSES AS RESULT OF THE PRESENCE OF HAZARDOUS MATERIALS. IF EVIDENCE OF HAZARDOUS MATERIAL IS DISCOVERED, SUSPEND WORK AS REQUIRED BY GOVERNING STATUES, AND NOTIFY ATC (AMERICAN TOWER CORPORATION). DO NOT PROCEED WITH WORK UNTIL INSTRUCTED BY ATC.

4) CLEAN-UP

- a) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEAN UP OF ALL TRADES AND REMOVE ALL DEBRIS FROM THE CONSTRUCTION SITE. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE BUILDING, SITE, AND ANY OTHER SURROUNDING AREAS TO A BETTER THAN NEW CONDITION WHILE MEETING THE APPROVAL OF ATC AND THE LANDLORD

5) SAFETY

- a) THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, ETC. ACCORDING TO APPLICABLE CODES, STANDARDS, AND PRACTICES. THIS INCLUDES, BUT IS NOT LIMITED TO THE ADDITION OF TEMPORARY BRACING, GUYS, OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- b) THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- c) THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE OSHA, LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
- d) THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR DAMAGES TO THE EXISTING FACILITY AND INSTALLATION RESULTING FROM CONSTRUCTION AND GENERAL NEGLIGENCE. REPAIR ALL DAMAGES AND RESTORE FACILITY AND INSTALLATIONS TO THE SATISFACTION OF ATC AND THE LANDLORD AT NO EXTRA CHARGE. NOTIFY ATC OF ANY SUCH DAMAGES PROMPTLY AND REPAIR TO 100% SATISFACTION IMMEDIATELY.
- e) CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA. ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

STRUCTURAL STEEL NOTES

6) STRUCTURAL STEEL SPECIFICATIONS

- a) THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST AISC SPECIFICATIONS.
- b) UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF ASTM A36. ALL BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 HIGH STRENGTH BOLTS.
- c) ALL WELDING SHALL BE IN ACCORDANCE WITH THE LATEST AWS STRUCTURAL WELDING CODE. ALL WELDERS SHALL PROVIDE PROPER CERTIFICATION OF QUALIFICATION TO THE LANDLORD OR ATC PRIOR TO COMMENCING WORK AT THE SITE.
- d) ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS.
- e) HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE ENGINEER.
- f) WELDS SHALL BE MADE WITH E-70XX ELECTRODES UNLESS NOTED OTHERWISE.
- g) HOT-DIP GALVANIZE ALL ITEMS AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING SHALL BE DONE IN ACCORDANCE WITH ASTM A123/A153A, A153M, A653A, A653M AND ASTM G90, AS APPLICABLE.
- h) REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO A TEMPERATURE SUFFICIENT TO MELT THE METALLIC IN STICK OR PASTE: SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF ANY EXCESS MATERIAL.
- i) A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
- j) ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
- k) ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. A BOLT THAT ENDS BELOW THE FACE OF THE NUT AFTER TIGHTENING WILL NOT BE PERMITTED.



6391 SPRINT PKWY  
OVERLAND PARK, KS 66251



9305 GERWIG LANE  
COLUMBIA, MD 21046  
OFFICE: (410) 290-5509  
FAX: (410) 290-3362

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8505 FREEPORT PARKWAY, SUITE 135  
IRVING, TX 75063  
PHONE: (972) 999-8900  
FAX: (972) 999-8940  
NYSE: AMT

SPRINT CASCADE NUMBER:  
**CT03XC088**

SPRINT SITE NAME:  
**N/A**

ATC SITE NUMBER:  
**302483**



STAMP HERE:

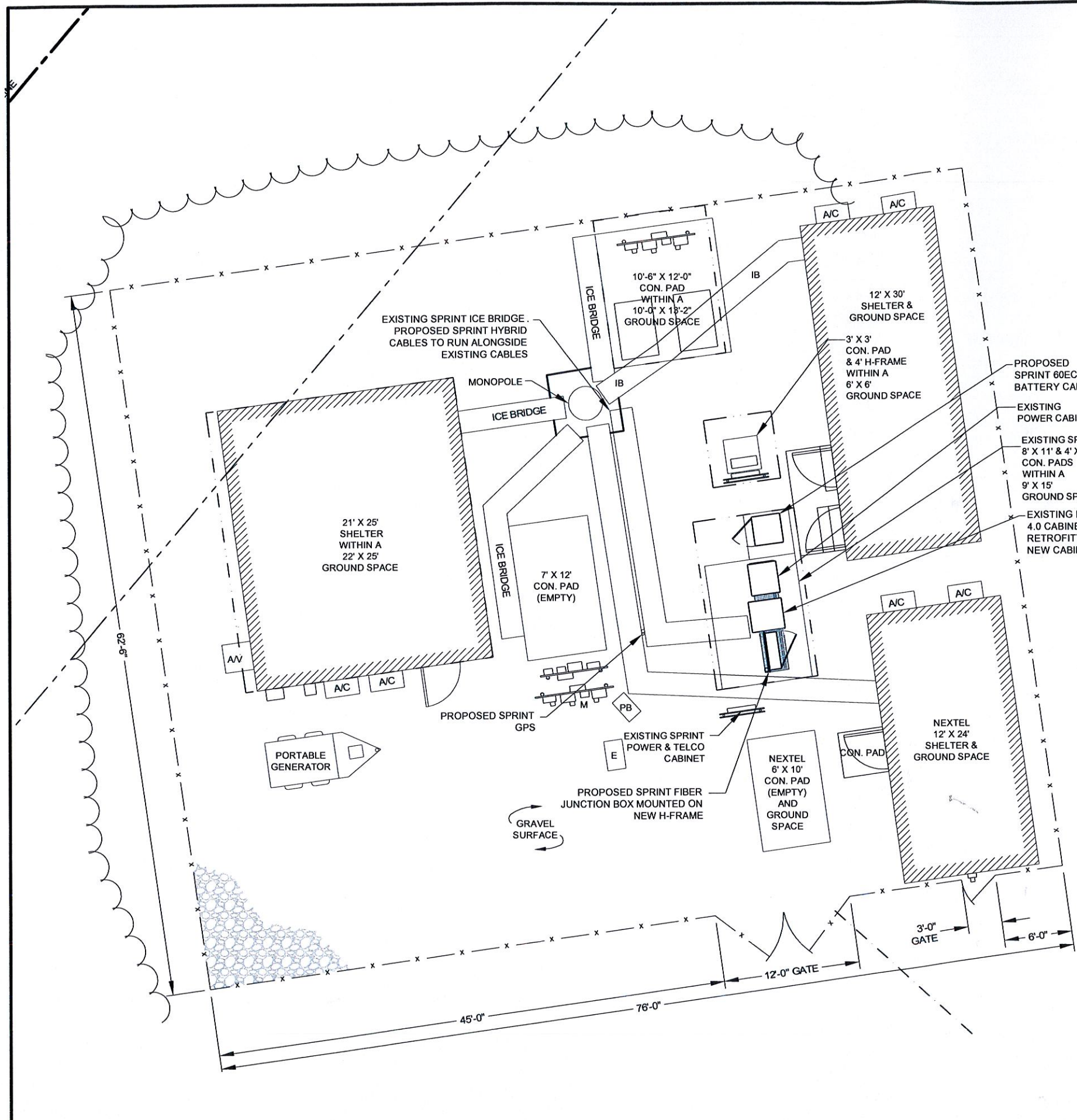
DRAWN BY:	AD
CHECKED BY:	SAE
DATE DRAWN:	12-03-12
JOB NO:	515898K3

SHEET TITLE:

**GENERAL NOTES**

SHEET NUMBER:	REV. #
<b>GN-1</b>	<b>0</b>





**LEGEND**

—X—X—	CHAIN LINK FENCE
----	PROPERTY LINE
- - - -	LEASE AREA
----	UTILITY EASEMENT
	GRAVEL
///////	BUILDING

**GENERAL NOTES:**

**LIGHTING:** EXISTING FACILITY WILL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.

**GRADE:** EXISTING GRADE WILL BE MAINTAINED FOR PROPOSED CONSTRUCTION.

**PARKING:** ONE PARKING SPACE IS REQUIRED, ONE EXISTING.

**SIGNAGE:** EXTERIOR SIGNS ARE NOT PROPOSED EXCEPT AS REQUIRED BY THE FCC.

**STORM WATER CONTROL:** THE PROPOSED FACILITY WILL RESULT IN AN INSIGNIFICANT INCREASE IN STORM WATER RUNOFF. CONSEQUENTLY, NO WATER QUALITY CONTROL DEVICES ARE PROPOSED.

**UTILITIES:** SANITARY SEWER SERVICE AND POTABLE WATER ARE NOT APPLICABLE PER THE USE. IF APPLICABLE, SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING.

**DRIVEWAY:** A DRIVEWAY PERMIT IS NOT REQUIRED FOR THIS PROJECT. THE PROJECT WILL NOT REQUIRE RIGHT-OF-WAY OR PROPERTY TO BE DEDICATED FOR PUBLIC USE.

**MISC:** NO NOISE, SMOKE, DUST, VAPORS OR ODOR WILL RESULT FROM THIS PROJECT.

**Sprint VISION**  
 6391 SPRINT PKWY  
 OVERLAND PARK, KS 66251

**Alcatel-Lucent**  
 9305 GERWIG LANE  
 COLUMBIA, MD 21046  
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 NYSE AMT

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**CT03XC088**

SPRINT SITE NAME:  
**N/A**

ATC SITE NUMBER:  
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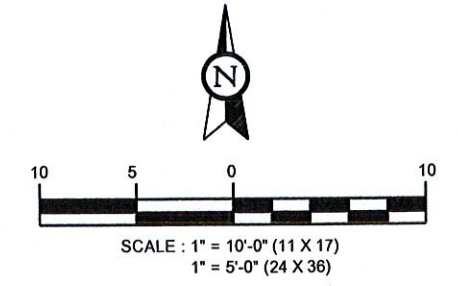


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CHECKED BY:	SAE
DATE DRAWN:	12-03-12
JOB NO:	515898K3

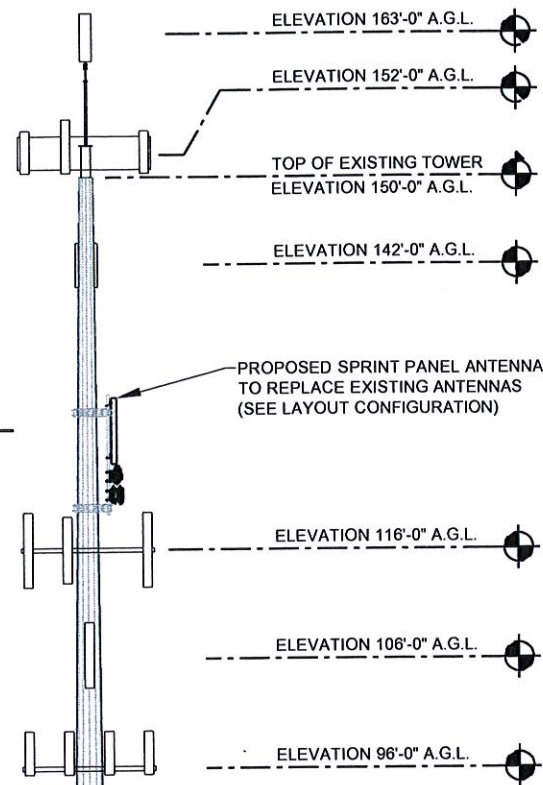
SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER: <b>A-1</b>	REV. # <b>0</b>
-----------------------------	--------------------



1 SITE PLAN



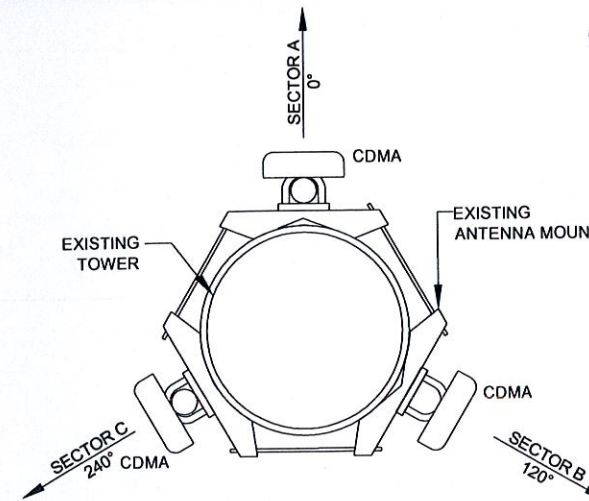


PROPOSED SPRINT PANEL ANTENNAS  
ELEVATION 127'-0" A.G.L.

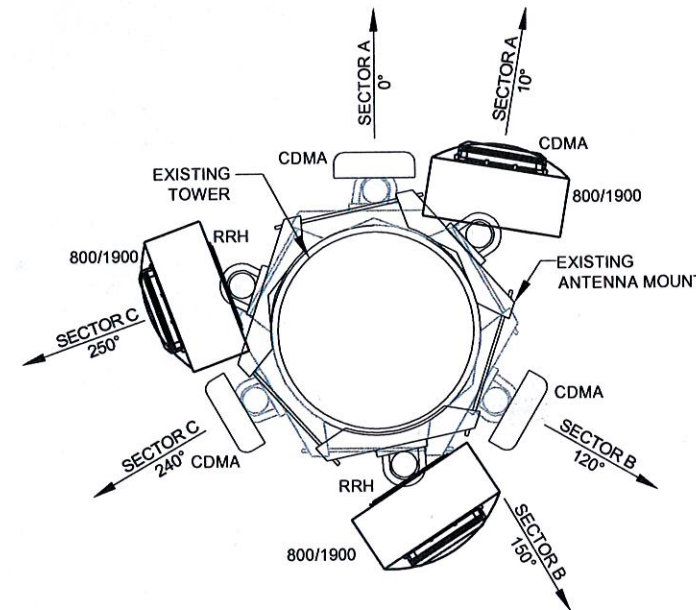
PROPOSED SPRINT PANEL ANTENNAS  
TO REPLACE EXISTING ANTENNAS  
(SEE LAYOUT CONFIGURATION)

- NOTE:
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH AMERICAN TOWER PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK.
  - ALL COAX, ANTENNAS AND MOUNTS TO BE INSTALLED PER THE LATEST INFORMATION ON FILE WITH THE AMERICAN TOWER ENGINEERING DEPARTMENT.

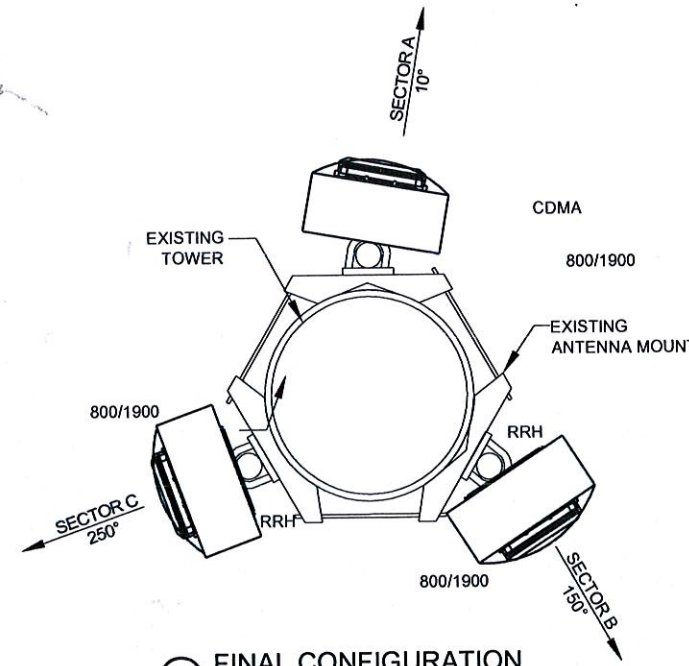
1 TOWER ELEVATION  
SCALE: NOT TO SCALE



2 EXISTING CONFIGURATION  
SCALE: NOT TO SCALE



3 INTERIM CONFIGURATION  
SCALE: NOT TO SCALE



4 FINAL CONFIGURATION  
SCALE: NOT TO SCALE



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NYSE AMT

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**CT03XC088**

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**N/A**

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**302483**



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DRAWN BY: AD  
CHECKED BY: SAE  
DATE DRAWN: 12-03-12  
JOB NO: 515898K3  
SHEET TITLE:

**TOWER ELEVATION  
AND ANTENNA  
ORIENTATION**

SHEET NUMBER: **A-2**      REV. # **0**



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SPRINT CASCADE NUMBER:  
**CT03XC088**

SPRINT SITE NAME:  
**N/A**

ATC SITE NUMBER:  
**302483**



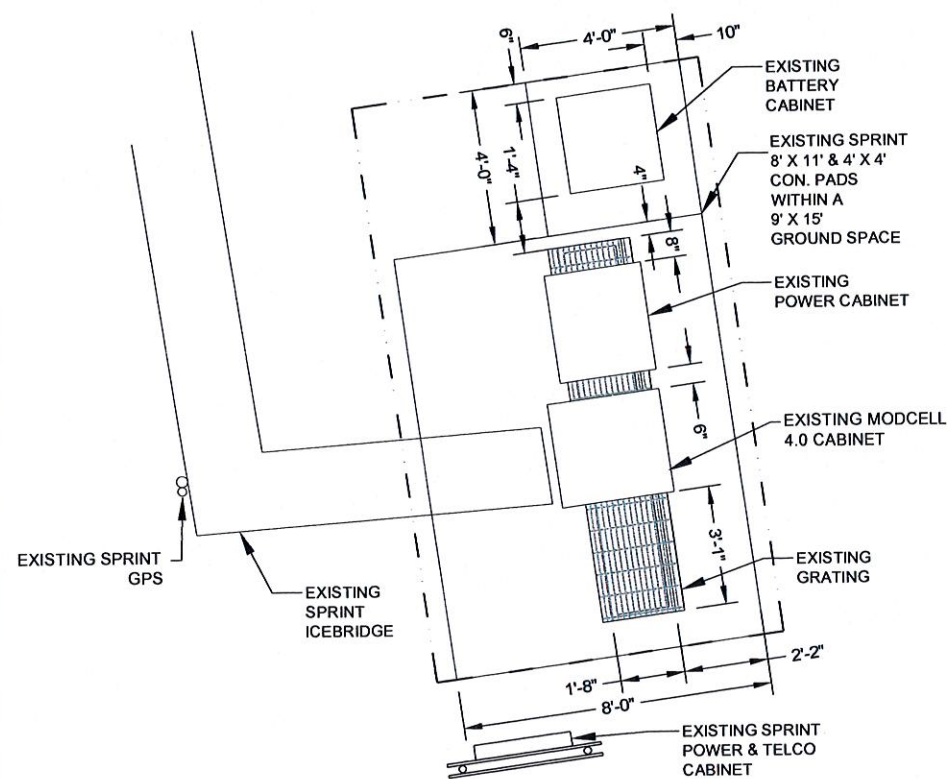
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DRAWN BY:	AD
CHECKED BY:	SAE
DATE DRAWN:	12-03-12
JOB NO:	515898K3

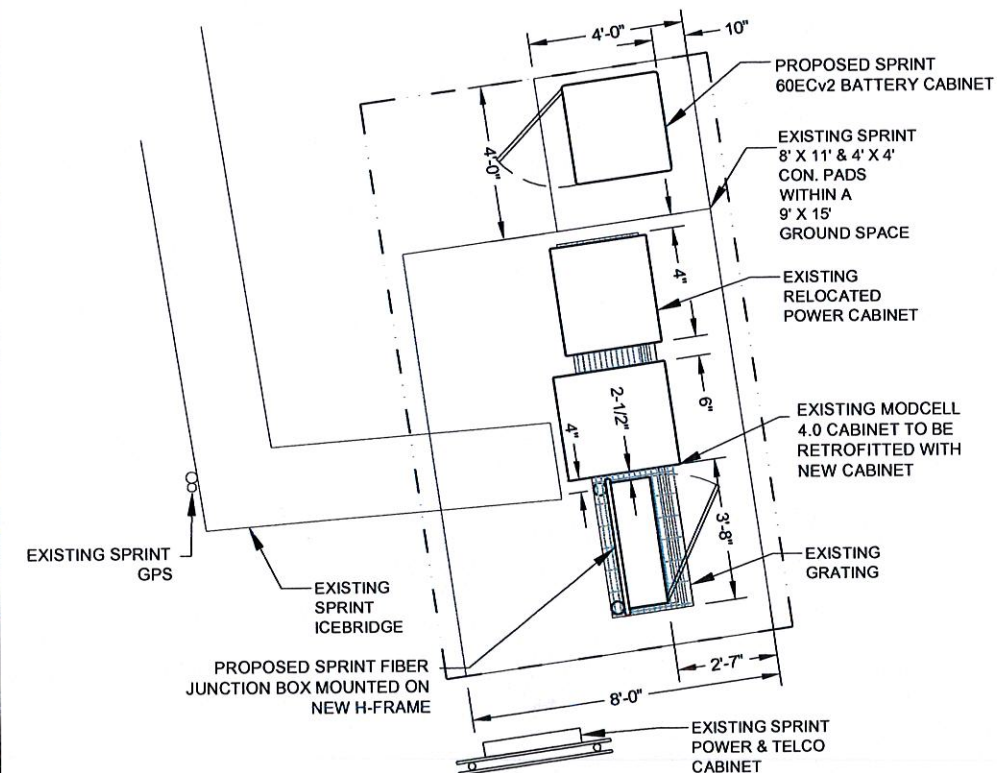
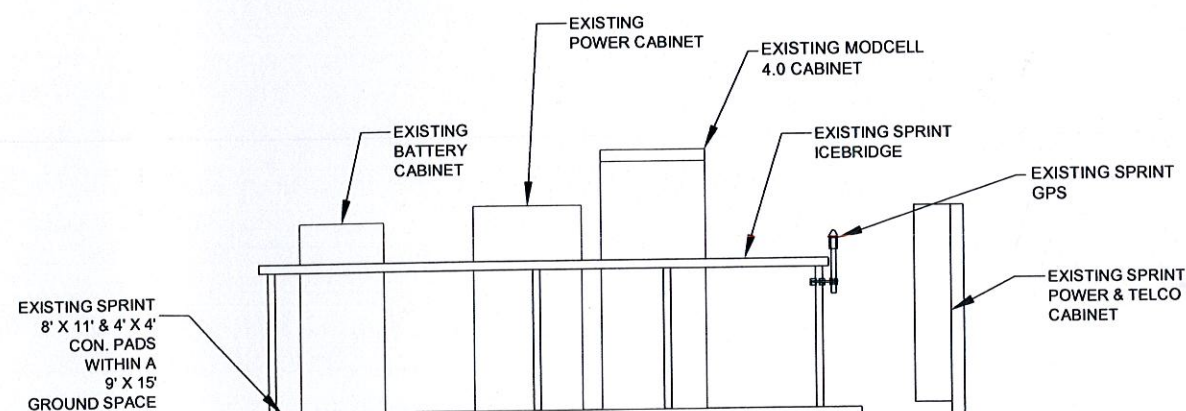
SHEET TITLE:

**EQUIPMENT LAYOUT**

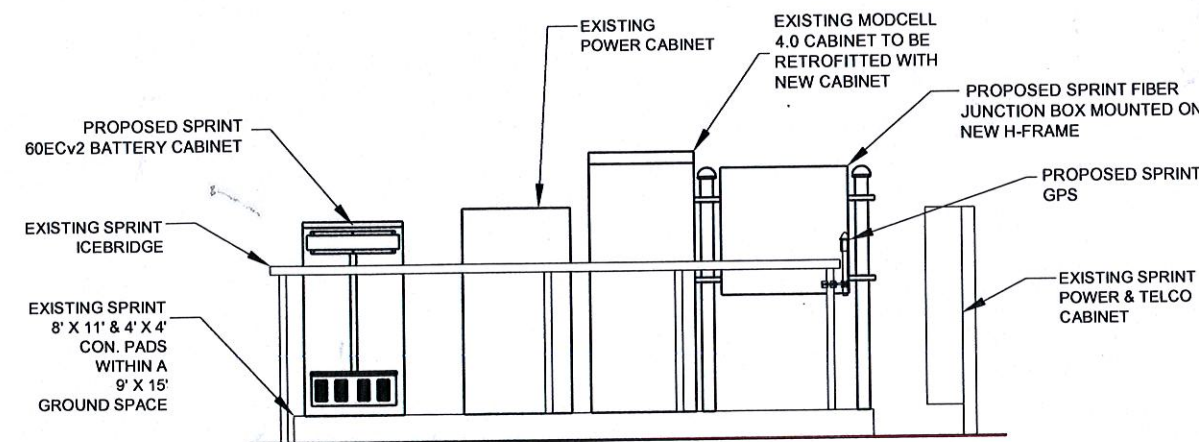
SHEET NUMBER:	REV. #
<b>A-3</b>	<b>0</b>



**1 EXISTING CABINETS PLAN**  
SCALE: 1" = 5'-0" (11 X 17)  
1" = 2'-6" (24 X 36)

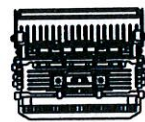


**2 FINAL CABINETS PLAN**  
SCALE: 1" = 5'-0" (11 X 17)  
1" = 2'-6" (24 X 36)



NOTE:  
EXISTING GPS ANTENNA TO BE REPLACED WITH NEW GPS ANTENNA.  
COORDINATE IN FIELD WITH SPRINT CONSTRUCTION MANAGER





TOP VIEW

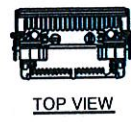


FRONT VIEW

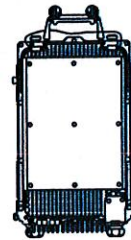


SIDE VIEW

1 800 mhz REMOTE RADIO HEAD  
SCALE: NOT TO SCALE



TOP VIEW

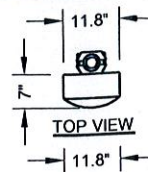


FRONT VIEW

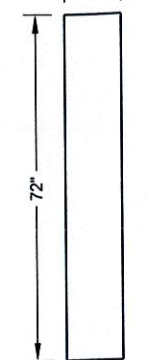


SIDE VIEW

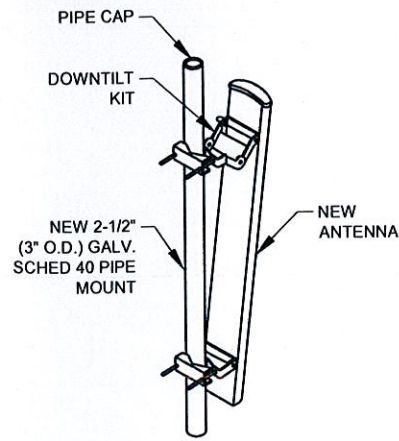
2 1900 mhz REMOTE RADIO HEAD  
SCALE: NOT TO SCALE



TOP VIEW



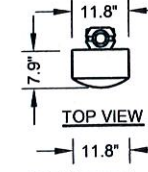
FRONT VIEW



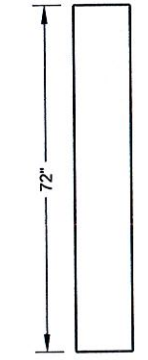
ISOMETRIC VIEW

APXVSP18-C

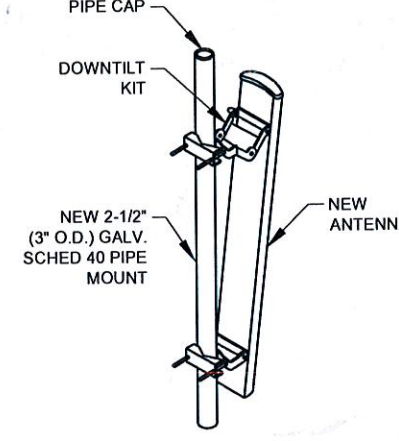
3 800/1900 ANTENNA DETAILS  
SCALE: NOT TO SCALE



TOP VIEW



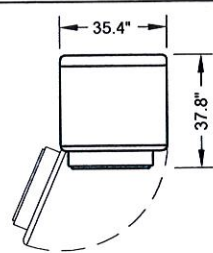
FRONT VIEW



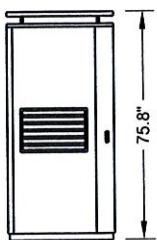
ISOMETRIC VIEW

APXV9ERR18-C

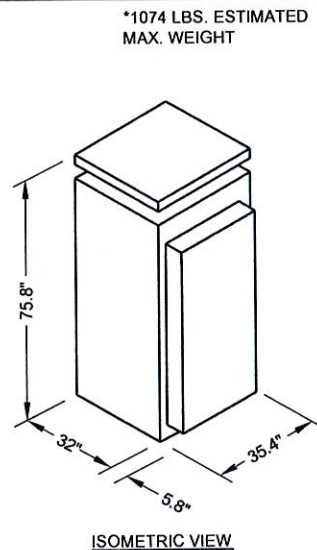
4 800/1900 ANTENNA DETAILS  
SCALE: NOT TO SCALE



TOP VIEW



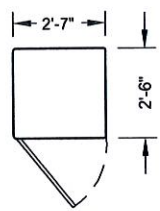
FRONT VIEW



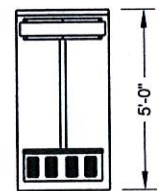
ISOMETRIC VIEW

\*1074 LBS. ESTIMATED  
MAX. WEIGHT

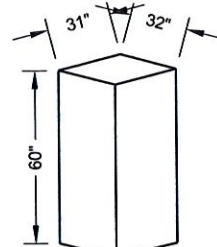
5 ALCATEL-LUCENT 9928 DETAILS  
SCALE: NOT TO SCALE



TOP VIEW



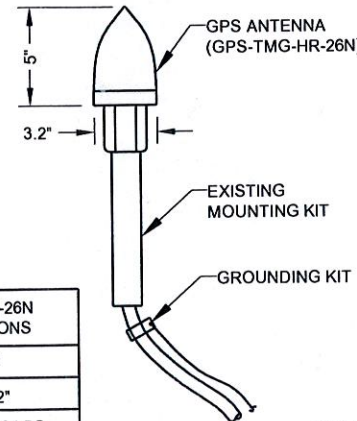
FRONT VIEW



ISOMETRIC VIEW

60ECv2 CABINET SPECIFICATIONS	
HEIGHT	60"
WIDTH	31"
DEPTH	30"
WEIGHT W/ BATTERIES	2830 LBS

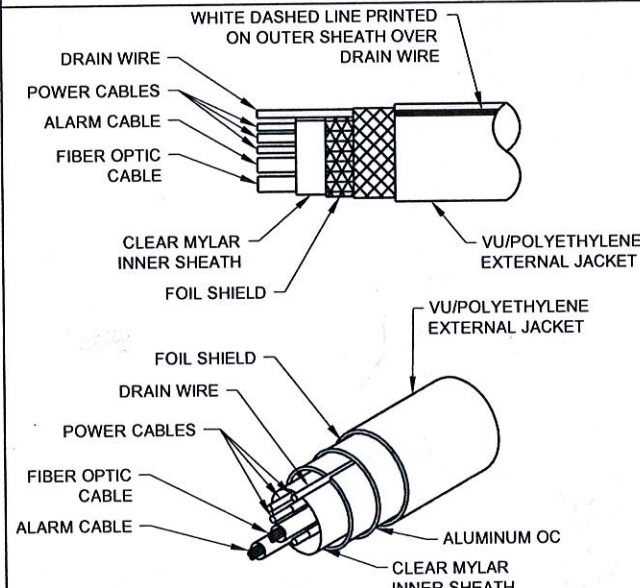
6 BATTERY CABINET DETAILS  
SCALE: NOT TO SCALE



NOTE:  
INCLUDE SURGE  
ARRESTOR KS-2457

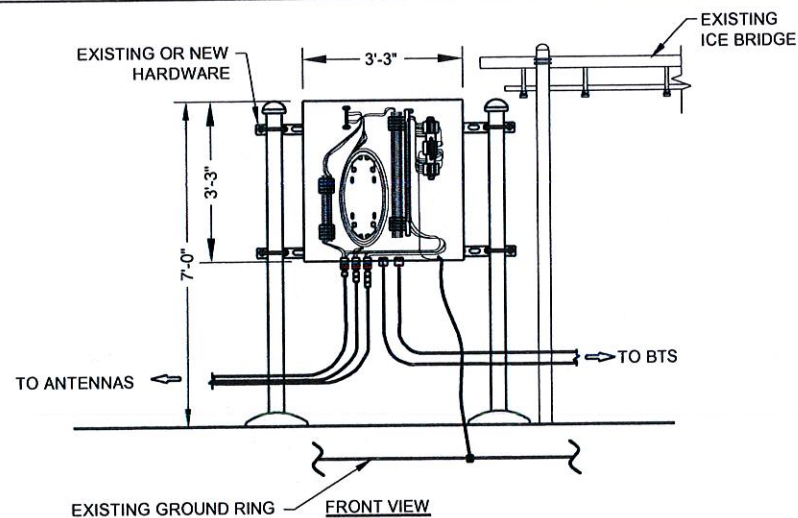
GPS-TMG-HR-26N SPECIFICATIONS	
HEIGHT	5"
WIDTH	32"
WEIGHT	0.6 LBS

7 GPS DETAIL  
SCALE: NOT TO SCALE

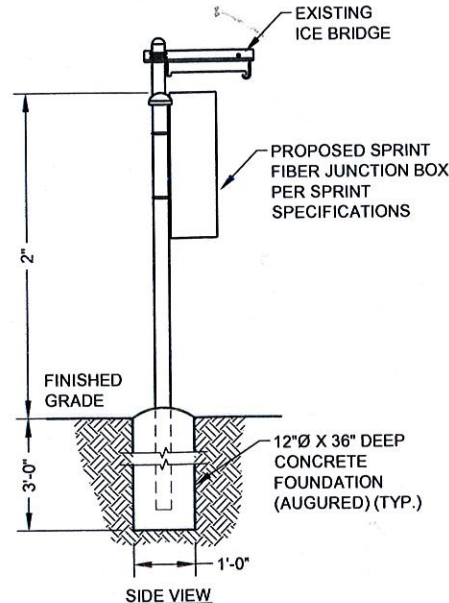


8 HYBRID CABLE DETAIL  
SCALE: NOT TO SCALE

\*FRONT VIEW-DOOR  
REMOVED TO SHOW  
DETAIL



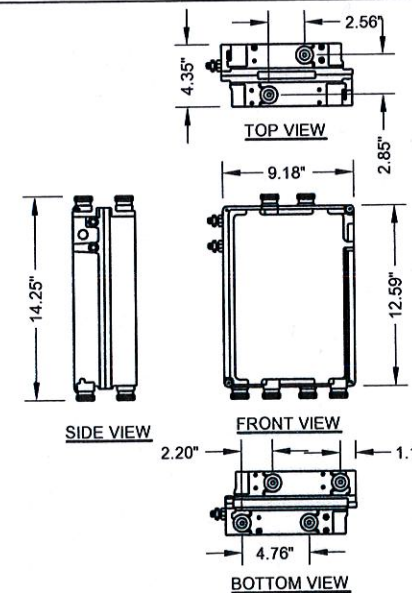
FRONT VIEW



SIDE VIEW

FIBER DISTRIBUTION BOX SPECIFICATIONS	
HEIGHT	3'-3"
WIDTH	3'-3"
DEPTH	1'-0"

9 FIBER JUNCTION BOX DETAILS  
SCALE: NOT TO SCALE



10 IBC1900HG-2A/IBC1900BB-1 DETAILS  
SCALE: NOT TO SCALE

**Sprint**  
VISION

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NYSE AMT

SPRINT CASCADE NUMBER:  
**CT03XC088**

SPRINT SITE NAME:  
**N/A**

ATC SITE NUMBER:  
**302483**



STAMP HERE:

DRAWN BY: AD  
CHECKED BY: SAE  
DATE DRAWN: 12-03-12  
JOB NO: 515898K3

SHEET TITLE:

**EQUIPMENT  
DETAILS**

SHEET NUMBER:

**A-4**

REV. #

**0**



NOTE TO GC:  
REFER TO FST FOR MOST RECENT RFDS  
PRIOR TO TOWER TOP CONSTRUCTION  
START.

		Market Northern Connecticut		
		Cascade ID CT03XC088		
		SECTOR 1	SECTOR 2	SECTOR 3
Split sector present		NO	NO	NO
1900	1900MHz_Azimuth	10	150	250
	1900MHz_No_of_Antennas	1	1	1
	1900MHz_RADCenter(ft)	127	127	127
	1900MHz_Antenna Make	RFS	RFS	RFS
	1900MHz_Antenna Model	APXV9ERR18-C-A20	APXVSPP18-C-A20	APXVSPP18-C-A20
	1900MHz_Horizontal_Beamwidth	80	65	65
	1900MHz_Vertical_Beamwidth	5.5	5.5	5.5
	1900MHz_AntennaHeight (ft)	6	6	6
	1900MHz_AntennaGain(dBd)	14.9	15.9	15.9
	1900MHz_E_Tilt	-6	-1	-1
	1900MHz_M_Tilt	0	0	0
	1900MHz_Carrier_Forecast_Year_2013	5	5	5
	1900MHz_RRH Manufacturer	ALU	ALU	ALU
	1900MHz_RRH Model	RRH 1900 4X45 65MHz	RRH 1900 4X45 65MHz	RRH 1900 4X45 65MHz
	1900MHz_RRH Count	2	2	2
	1900MHz_RRH Location	Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower
	1900MHz_Combiner Model	IBC1900BB-1 & IBC1900HG-2A	IBC1900BB-1 & IBC1900HG-2A	IBC1900BB-1 & IBC1900HG-2A
	1900MHz_Top_Jumper #1_Length (RRH or Combiner-to-Antenna, ft)	10	10	10
	1900MHz_Top_Jumper #1_Cable_Model (RRH or Combiner-to-Antenna)	LCF12-50J	LCF12-50J	LCF12-50J
	1900MHz_Top_Jumper #2_Length (RRH-to-Combiner, ft)	6	6	6
	1900MHz_Top_Jumper #2_Cable_Model (RRH-to-Combiner)	LCF12-50J	LCF12-50J	LCF12-50J
	1900MHz_Main_Coax_Cable_Length (ft)	N/A	N/A	N/A
	1900MHz_Main_Coax_Cable_Model	N/A	N/A	N/A
	1900MHz_Bottom_Jumper #1_Length (Ground-based-RRH-OR_Combiner-to-Main-Coax, ft)	N/A	N/A	N/A
	1900MHz_Bottom_Jumper #1_Cable_Model (Ground-based-RRH-OR_Combiner-to-Main-Coax)	N/A	N/A	N/A
	1900MHz_Bottom_Jumper #2_Length (Ground-based-Combiner-to-Main-Coax)	N/A	N/A	N/A
1900MHz_Bottom_Jumper #2_Cable_Model (Ground-based-Combiner-to-Main-Coax)	N/A	N/A	N/A	
800	800MHz_Azimuth	10	150	250
	800MHz_No_of_Antennas	0	0	0
	800MHz_RADCenter(ft)	127	127	127
	800MHz_AntennaMake	RFS	RFS	RFS
	800MHz_AntennaModel	APXV9ERR18-C-A20 (Shared w/1900)	APXVSPP18-C-A20 (Shared w/1900)	APXVSPP18-C-A20 (Shared w/1900)
	800MHz_Horizontal_Beamwidth	80	65	65
	800MHz_Vertical_Beamwidth	10.5	11.5	11.5
	800MHz_AntennaHeight (ft)	6	6	6
	800MHz_AntennaGain (dBd)	11.9	13.4	13.4
	800MHz_E_Tilt	-8	-8	-8
	800MHz_M_Tilt	0	0	0
	800MHz_RRH Manufacturer	ALU	ALU	ALU
	800MHz_RRH Model	800 MHz RRH 2x50W	800 MHz RRH 2x50W	800 MHz RRH 2x50W
	800MHz_RRH Count	1	1	1
	800MHz_RRH Location	Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower
	800MHz_Top_Jumper #1_Length (RRH or Combiner-to-Antenna, ft)	10	10	10
	800MHz_Top_Jumper_Cable_Model (RRH or Combiner-to-Antenna)	LCF12-50J	LCF12-50J	LCF12-50J
	800MHz_Main_Coax_Cable_Length (ft)	N/A	N/A	N/A
	800MHz_Main_Coax_Cable_Model	N/A	N/A	N/A
	800MHz_Bottom_Jumper #1_Length (Ground-based-RRH-Main-Coax, ft)	N/A	N/A	N/A
800MHz_Bottom_Jumper #1_Cable_Model (Ground-based-RRH-OR_Combiner-to-Main-Coax)	N/A	N/A	N/A	
Comments	9/7/2012			

NOTE:  
THE INFORMATION ON THIS SHEET WAS  
PROVIDED BY SPRINT FOR REFERENCE  
PURPOSE ONLY.

1 FINAL RADIO FREQUENCY DATA SHEET CONFIGURATION  
SCALE: NOT TO SCALE

NOTE:  
COORDINATE RF ANTENNA  
INSTALLATION WITH FINAL  
SPRINT RFDS.



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COLUMBIA, MD 21046  
OFFICE: (410) 290-5509  
FAX: (410) 290-3362

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PHONE: (972) 999-8900  
FAX: (972) 999-8940  
NYSE AMT

SPRINT CASCADE NUMBER:  
CT03XC088

SPRINT SITE NAME:  
N/A

ATC SITE NUMBER:  
302483



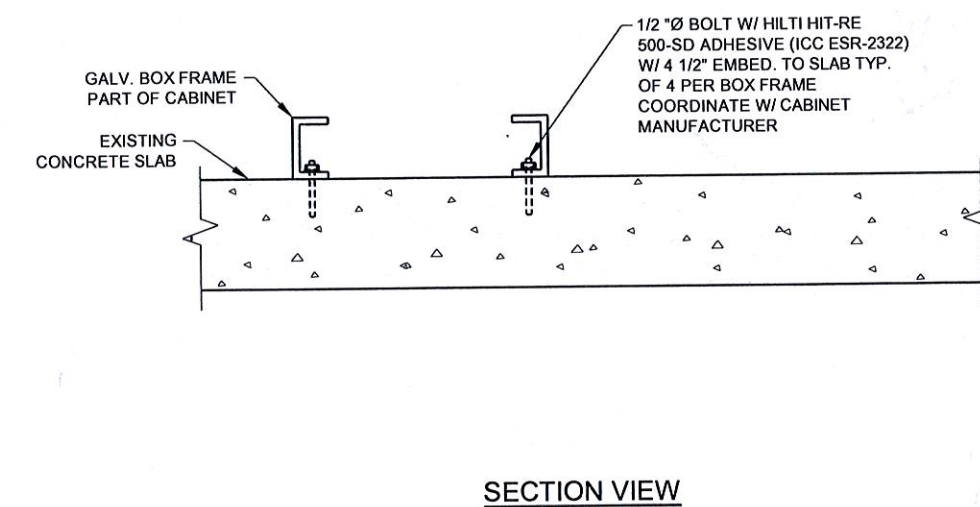
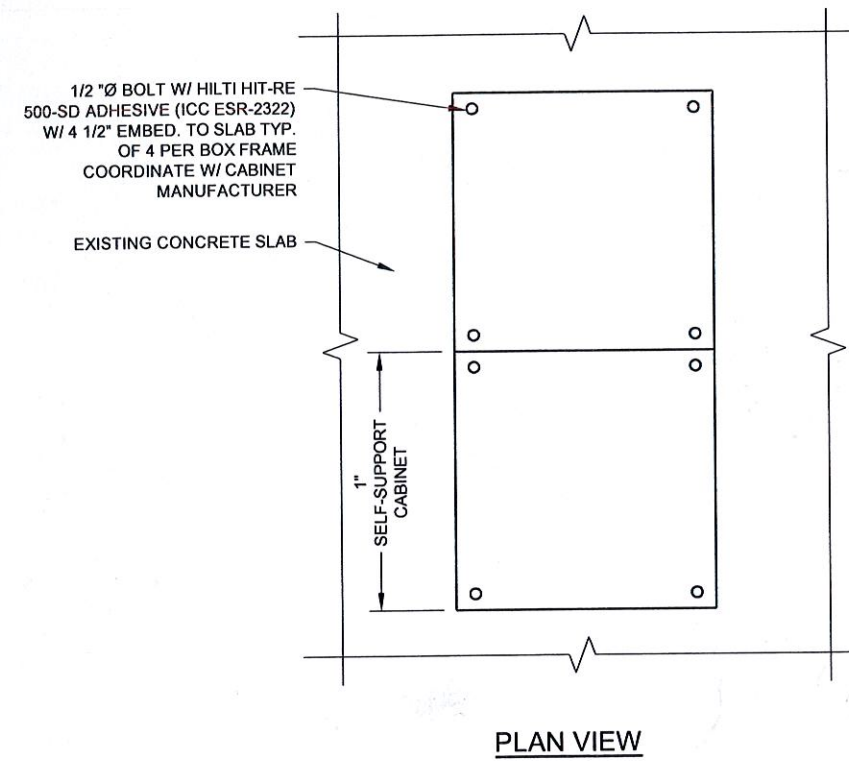
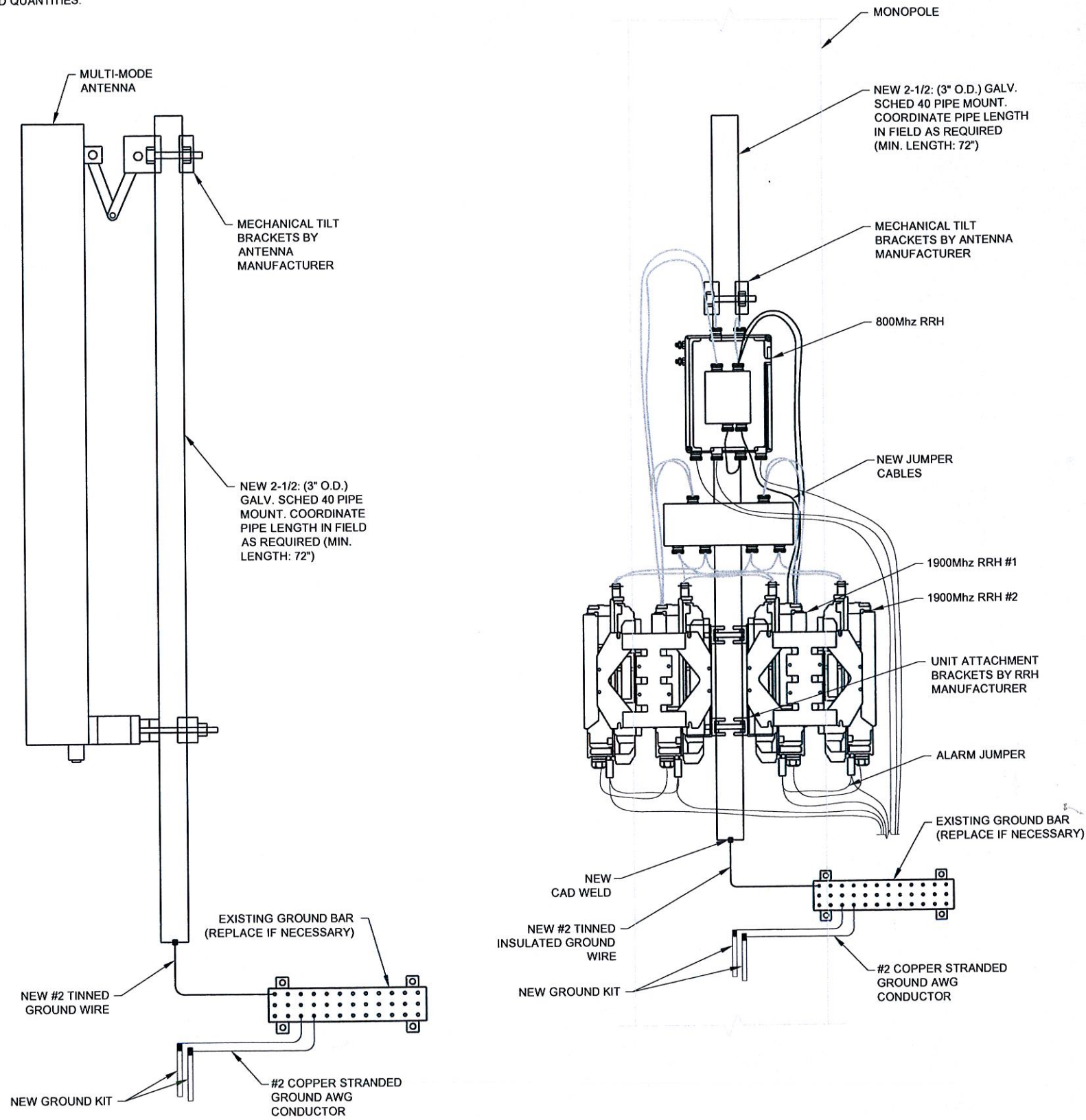
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CHECKED BY: SAE  
DATE DRAWN: 12-03-12  
JOB NO: 515898K3  
SHEET TITLE:

SPRINT RADIO  
FREQUENCY DATA  
SHEET

SHEET NUMBER: A-5  
REV. # 0



NOTE:  
THIS PAGE FOR REFERENCE  
ONLY. REFER TO RF SYSTEM  
SCHEDULE FOR RRH SPECS  
AND QUANTITIES.



1 ANTENNA MOUNTING DETAILS  
SCALE: NOT TO SCALE

2 REMOTE RADIO HEAD MOUNTING DETAILS  
SCALE: NOT TO SCALE

3 EXISTING CONCRETE SLAB  
SCALE: NOT TO SCALE

**Sprint**  
VISION  
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SHEET TITLE:  
**MOUNTING DETAILS**

SHEET NUMBER:	REV. #
<b>A-6</b>	<b>0</b>

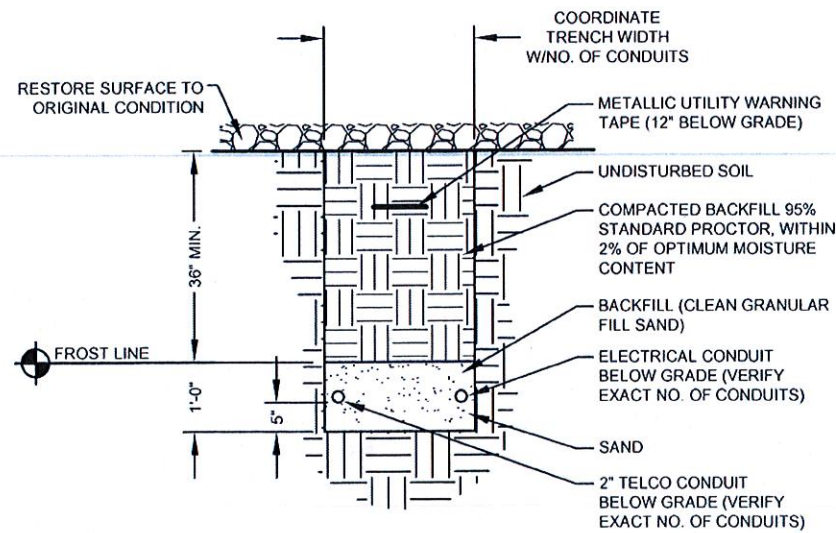


**GENERAL NOTES:**

- ALL WIRING SHALL BE STRANDED COPPER WITH THHN OR EQUIVALENT INSULATION. #12 AWG MINIMUM INSTALLED IN 1/2" MINIMUM CONDUIT. SIGNAL WIRING SHALL BE INSULATED #22 AWG. NO BX OR ROMEX CABLE IS PERMITTED. CONDUITS SHALL BE SURFACE MOUNTED.
- WIRING DEVICES AND EQUIPMENT SHALL BE UL LISTED SPECIFICATIONS GRADE.
- MATERIALS SHALL BE NEW AND CONFORM TO THE APPLICABLE STANDARDS ESTABLISHED FOR EACH ITEM BY THE ORGANIZATIONS LISTED BELOW.
  - AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
  - UNDERWRITER'S LABORATORY (UL)
  - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
  - AMERICAN STANDARDS ASSOCIATION (ASA)
  - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- INSTALLATION SHALL COMPLY WITH APPLICABLE VERSIONS OF:
  - THE NATIONAL ELECTRIC CODE (NFPA 70)
  - THE NATIONAL ELECTRICAL SAFETY CODE (ANSI C-2)
  - LOCAL BUILDING CODES.
- THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING LOCKNUTS AND BONDING NUTS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTOR. ALL FEEDER AND BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC 250 RUN WITH THE CIRCUIT WIRING.
- DEVICE AND JUNCTION BOXES SHALL BE ZINC-COATED OR CADMIUM PLATED STEEL NOT LESS THAN 4" SQUARE AND SUITABLE FOR THE APPLICATION AND SERVICE AND DEVICE. DEVICE AND JUNCTION BOXES SHALL BE SURFACE MOUNTED AND LABELED WITH BRANCH CIRCUIT PANEL DESIGNATION AND CIRCUIT NUMBER.
- LABEL ALL EQUIPMENT SERVED WITH PHENOLIC LABELS SIZED IN RELATION TO USAGE TO INDICATE PANEL AND CIRCUIT SUPPLY.
- INDOOR CONDUCTORS SHALL BE INSTALLED IN EMT UNLESS NOTED OTHERWISE. OUTDOOR CONDUCTORS SHALL BE INSTALLED IN RIGID GALVANIZED STEEL UNLESS NOTED OTHERWISE. WHERE EMT IS USED, IT SHALL BE WITH ONLY LISTED STEEL COMPRESSION FITTINGS. NO SET SCREW FITTINGS SHALL BE ALLOWED.
- CONTRACTOR TO PROVIDE AND INSTALL ENGRAVED LABEL WITH CARRIER NAME ON THE METER SOCKET ENCLOSURE.

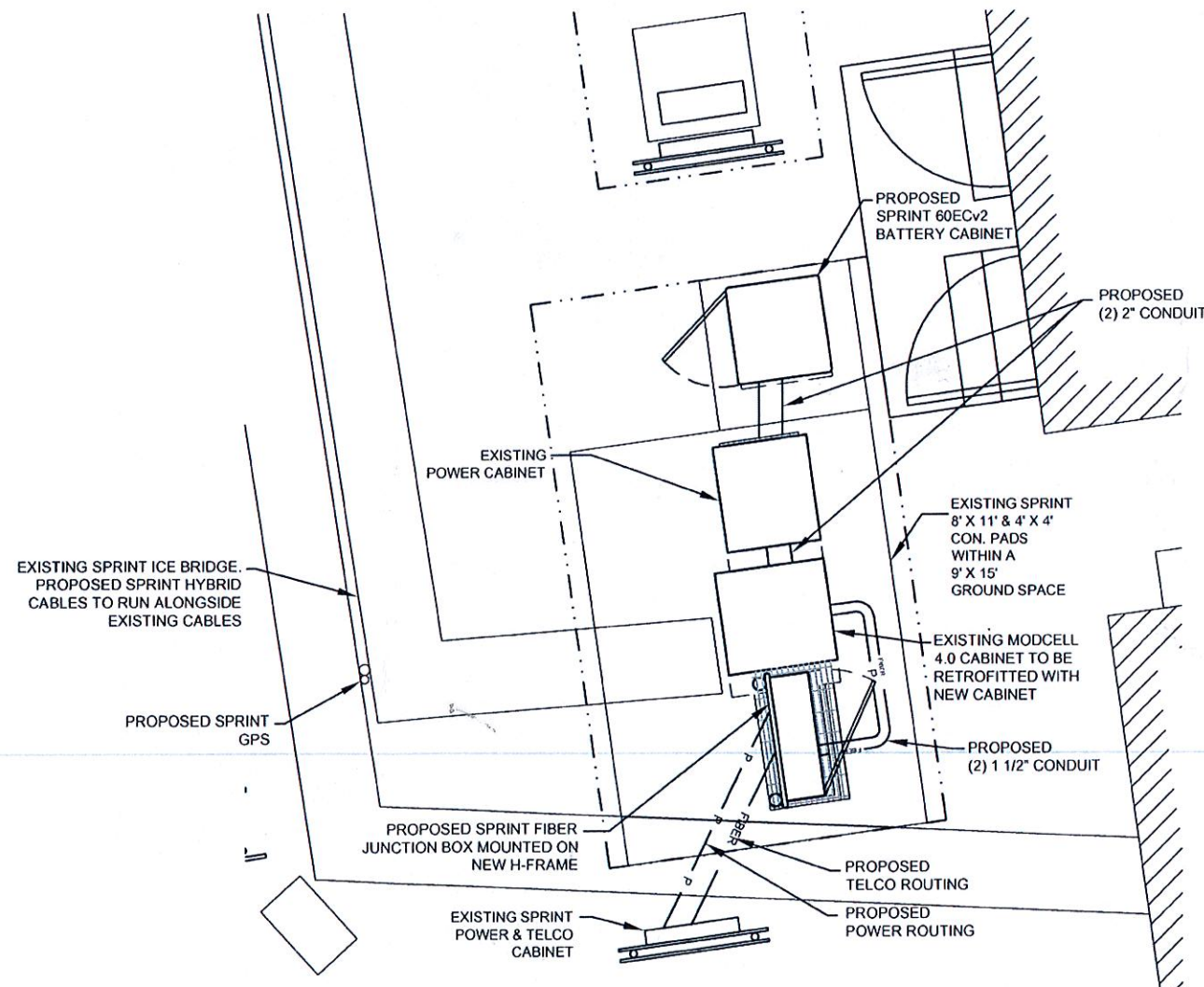
**NOTES:**

- SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS WHERE APPLICABLE.
- COORDINATE UTILITY. LOCATE BEFORE DIGGING



NOTE:  
CONDUIT TRENCHING (36" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER)

2 TRENCH DETAIL  
SCALE: NOT TO SCALE



1 ELECTRICAL SITE PLAN  
SCALE: NOT TO SCALE

**LEGEND**

- X—X— CHAIN LINK FENCE
- PROPERTY LINE
- - - - - LEASE AREA
- UNDERGROUND UTILITY LINES
- UTILITY EASEMENT
- ||||| GRAVEL
- ////// BUILDING



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DATE DRAWN:	12-03-12
JOB NO.:	515898K3

SHEET TITLE:

ELECTRICAL  
PLAN

SHEET NUMBER:	REV. #
E-1	0



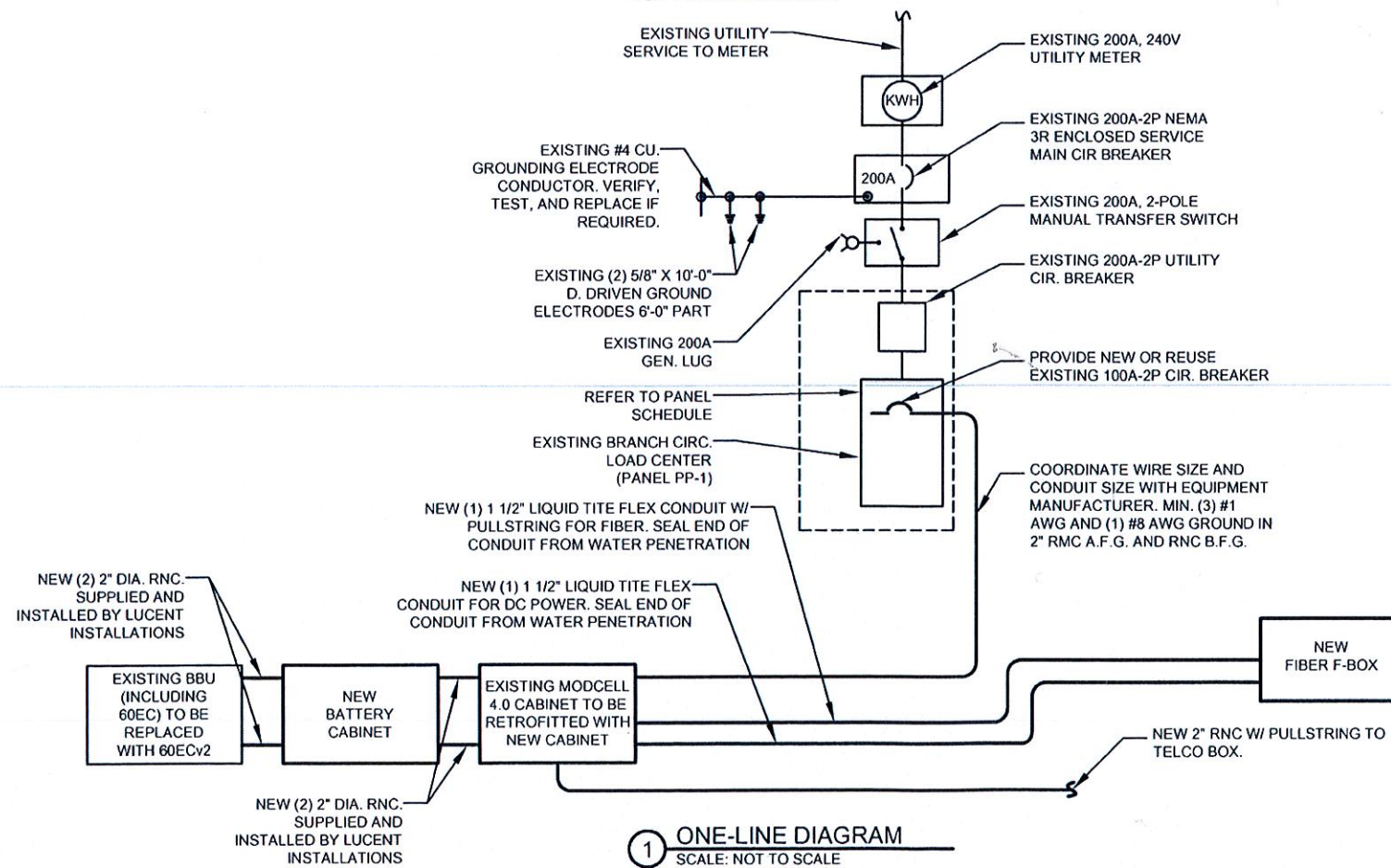
CONNECTED LOAD (kVA)		BRIEF DESCRIPTION	FEEDER OR BRANCH CIRCUIT					CIRC. NO.	CIRC. NOTES	FEEDER OR BRANCH CIRCUIT					BRIEF DESCRIPTION	CONNECTED LOAD (kVA)	
A	B		BREAKER	CIRCUIT	POLE	CIR. NO.	CIRC. NOTES			POLE	CIRCUIT	BREAKER	CIR. NO.	CIRC. NOTES		A	B
0.00	0.00	SPARE	100	2			1				2		EXISTING SURGE SUP. (TVSS)	0.00	0.00		
0.18	0.40	EXISTING GFI RECEPTACLE	20	1	2-#12	#12	3/4"	5			6		SPARE				
		EXISTING LIGHT	20	1	2-#12	#12	3/4"	7			8		SPARE				
0.18	6.00	EXISTING GFI RECEPTACLE	20	1	2-#12	#12	3/4"	9			10		SPARE				
6.00		PROPOSED LUCENT CABINET	100	2	3-#1	#8	2"	11			12		SPARE				
								13			14						
								15			16						
								17			18						
								19			20						
								29			30						
								31			32						
								33			34						
								35			36						
								37			38						
								39			40						
6.4	6.4							A	B	TOTAL				0.0	0.0		
								6.4	6.4	12.8			CONNECTED LOAD (kVA)				
								6.4	6.4	12.8			DEMAND LOAD (kVA)				

DERATING FACTOR (100%)  
DEMAND LOAD SIZING: 53.2 AMPS

NOTE:

- ALL WIRES AND CONDUIT SIZES SHOWN TO BE COORDINATED WITH THE EQUIPMENT CABINET MANUFACTURER SPECS PRIOR TO INSTALLATION.
- PANEL SCHEDULE IS FOR REFERENCE ONLY. EXACT BREAKER POSITIONS MAY VARY ON-SITE.

2 PANEL SCHEDULE PP-1  
SCALE: NOT TO SCALE



NOTE: (APPLY TO SINGLE LINE DIAGRAM)

- CONTRACTOR SHALL PROVIDE 100A, 240V, 2P CIRCUIT BREAKER AS NECESSARY IN THE EXISTING PANEL PP1. BREAKER SHALL MATCH EXISTING BREAKERS WHERE POSSIBLE AND SHALL BE LISTED FOR THE APPLICATION.
- CONTRACTOR SHALL FIELD VERIFY THE ACTUAL VOLTAGE AND ORDER THE SPRINT EQUIPMENT WITH CORRECT VOLTAGE SETTINGS.

GROUNDING NOTE:

IN ADDITION TO POWER SERVICE GROUNDING AS REQUIRED BY NEC, CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND INSTALL ALL SURGE AND LIGHTING PROTECTION GROUNDING AS REQUIRED AND SPECIFIED BY SPRINT.

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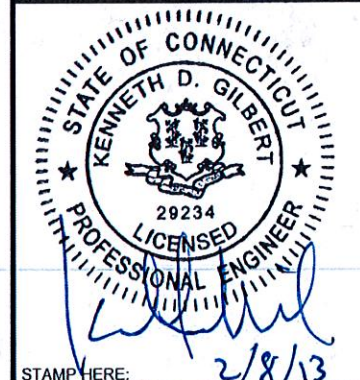


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JOB NO: 515898K3

SHEET TITLE:  
**ONE-LINE  
DIAGRAM AND  
PANEL SCHEDULE**

SHEET NUMBER: **E-2** REV. # **0**

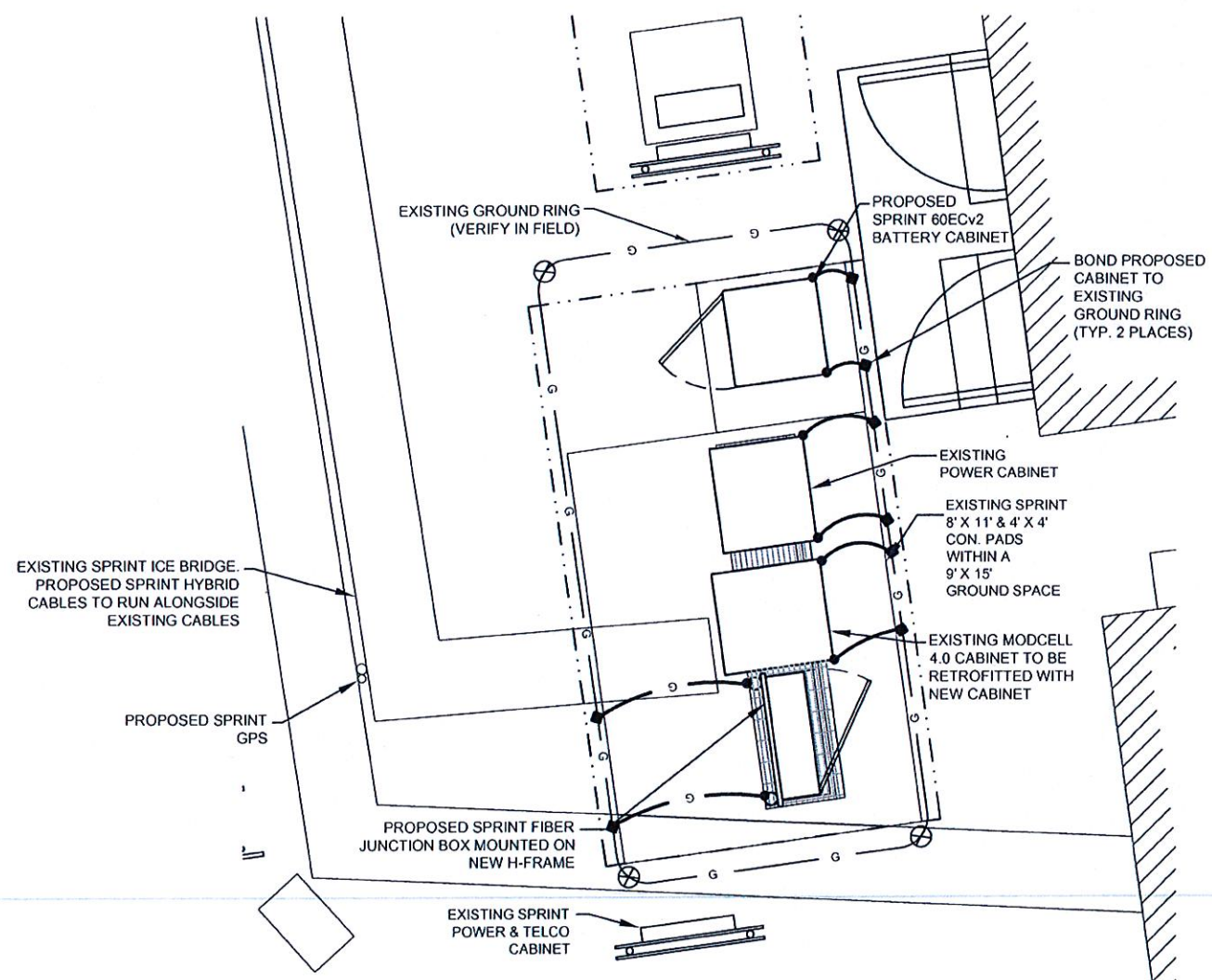






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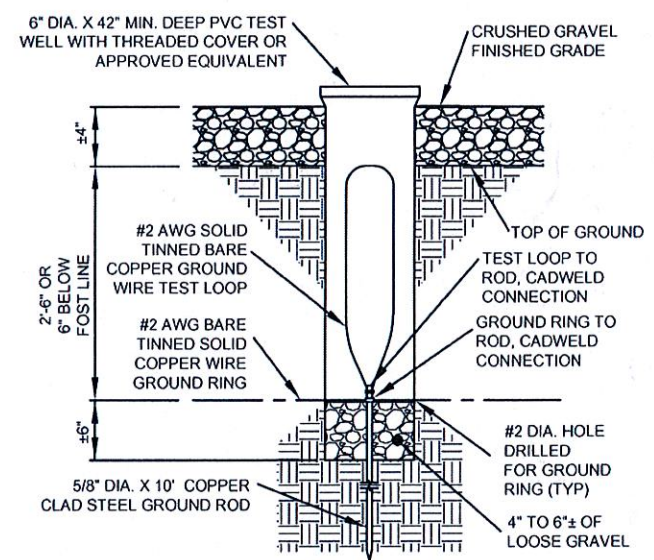
- CADWELD
- ⊗ PROPOSED GROUND ROD BONDED TO GROUND RING



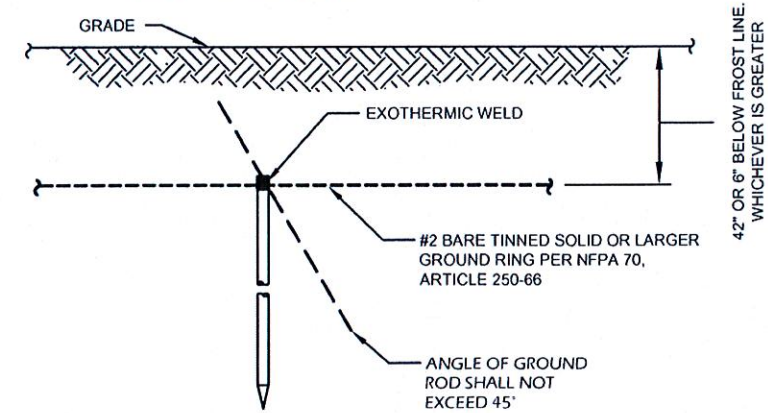
**1 GROUNDING PLAN**  
SCALE: NOT TO SCALE

**GROUNDING NOTES:**

1. GROUNDING SHALL COMPLY WITH NEC ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED AND LISTED FOR THEIR INTENDED USE.
3. GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID CU UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC (CADWELD) UNLESS NOTED OTHERWISE. CLEAN SURFACES TO BARE METAL. WHERE GROUND WIRES ARE CADWELD TO GALVANIZED SURFACE. SPRAY COMPLETED CADWELD WITH GALVANIZING PAINT.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
6. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETSS KOPR-SHIELD (TM OF JET LUB INC.), PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
7. GROUNDING WIRE CONNECTIONS SHALL BE 3-CRIMP C-TAP COMPRESSION TYPE. SPLIT BOLTS ARE NOT ACCEPTABLE. CONNECTORS SHALL BE CRIMPED USING HYDRAULIC CRIMPING TOOLS.
8. GROUND RODS SHALL BE COPPER CLAD STEEL 5/8" X 10' SPACE NOT LESS THAN 10' O.C.
9. SURFACE CONNECTIONS SHALL BE MADE TO BARE METAL. PAINTED SURFACES SHALL BE FILED TO ENSURE PROPER CONTACT. APPLY NON-OXIDIZING AGENT TO CONNECTIONS.
10. COPPER BUSES SHALL BE CLEANED, POLISHED AND A NON-OXODIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
11. HARDWARE (I.E. NUTS, BOLTS, WASHER, ETC.) SHALL BE STAINLESS STEEL.
12. EXOTHERMIC WELDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.



**2 GROUNDING TEST WELL (WHERE APPLICABLE)**  
SCALE: NOT TO SCALE



**3 GROUNDING ROD (WHERE APPLICABLE)**  
SCALE: NOT TO SCALE

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STATE OF CONNECTICUT  
KENNETH D. GILBERT  
29234  
LICENSED PROFESSIONAL ENGINEER  
2/8/13

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JOB NO:	515898K3

SHEET TITLE:  
**GROUNDING PLAN**

SHEET NUMBER:	REV. #
<b>G-1</b>	<b>0</b>



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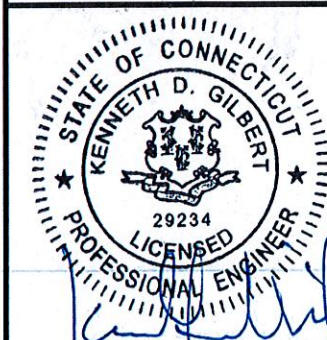


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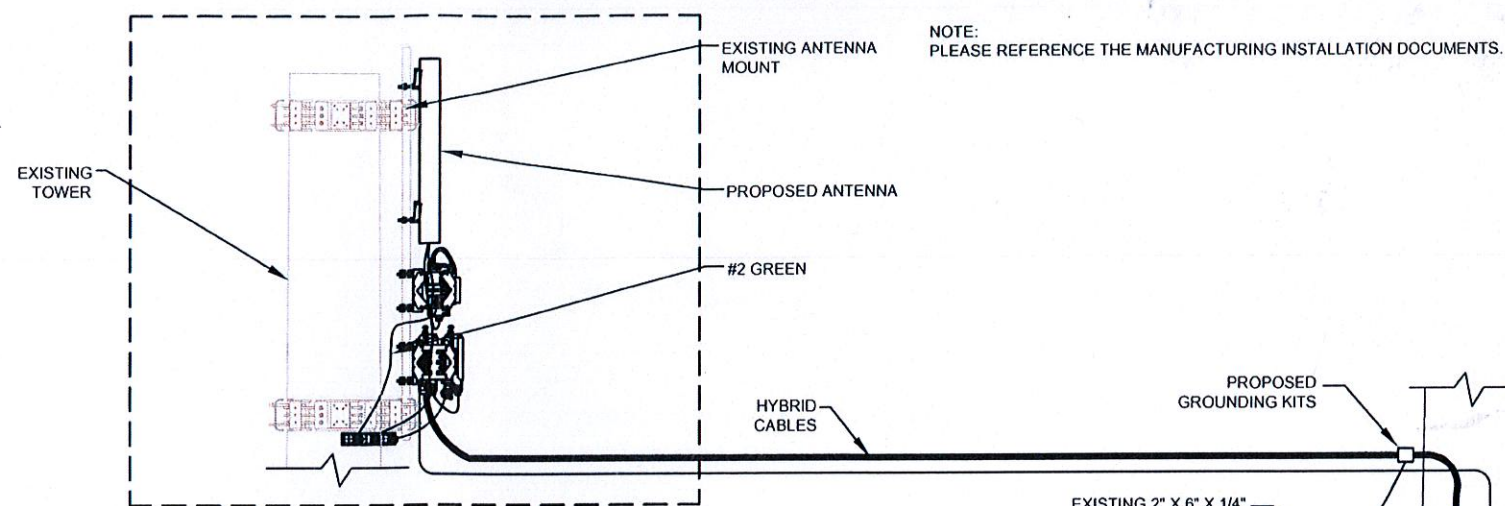


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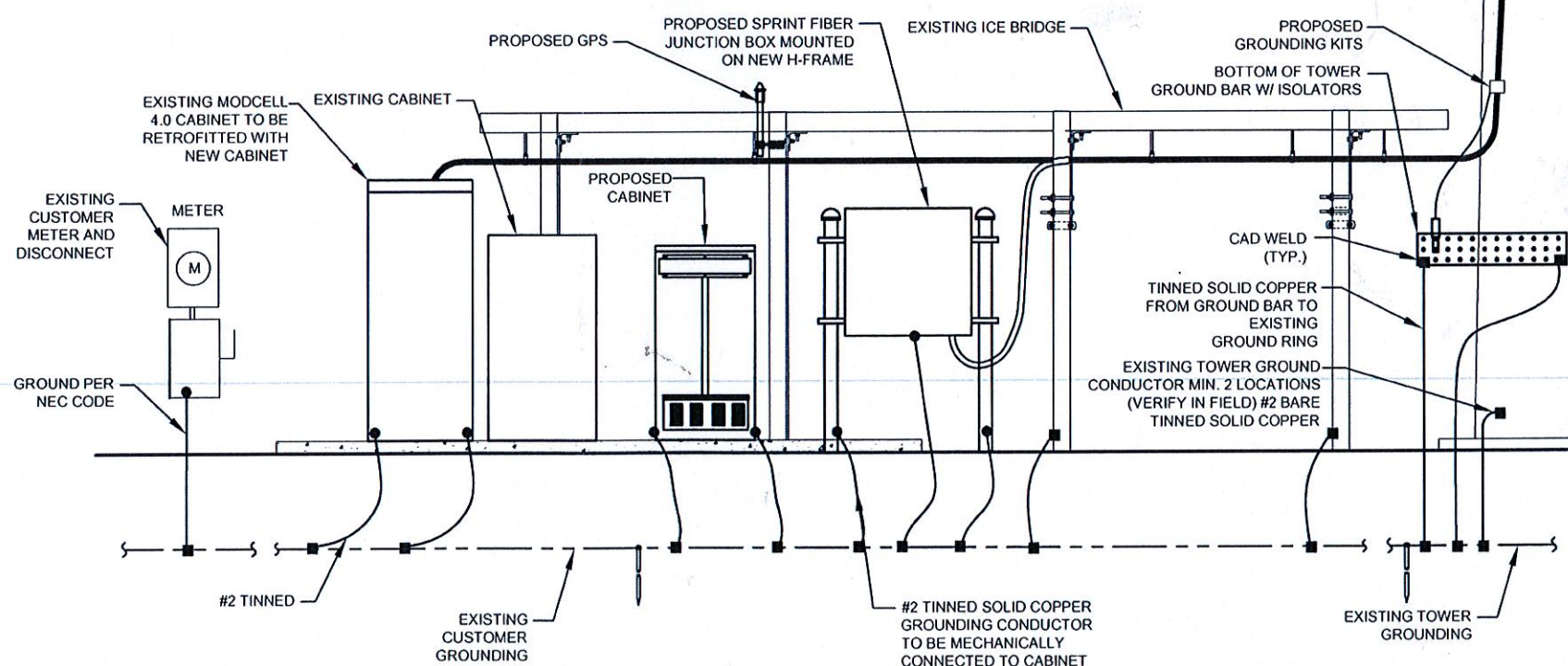
**GROUNDING  
DETAILS**

SHEET NUMBER: **G-2**      REV. # **0**

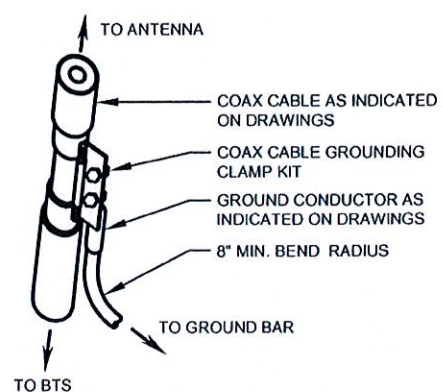


NOTE:  
HAND DIG AS REQUIRED TO PROTECT ALL EXISTING UNDERGROUND UTILITIES (VERIFY IN FIELD)

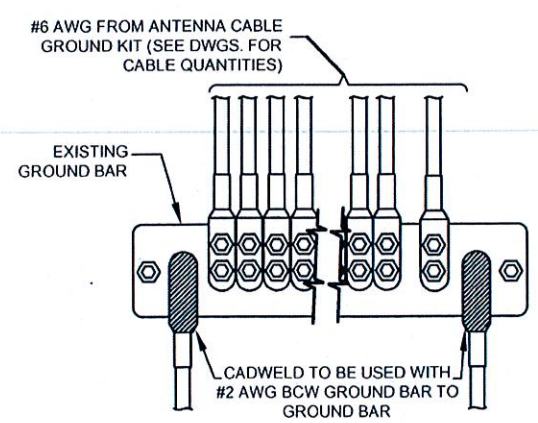
NOTE:  
THIS DETAIL IS FOR GROUNDING REPRESENTATION ONLY, THE NUMBER OF DISHES AND COAX SHOULD BE DETERMINED BY REFERENCING THE FINAL RF CONFIGURATION CHART ON PAGE A-5.



**1** GROUNDING SCHEMATIC DIAGRAM  
SCALE: NOT TO SCALE



**3** HYBRIFLEX GROUNDING DETAIL  
SCALE: NOT TO SCALE



**2** GROUNDING BAR DETAIL  
SCALE: NOT TO SCALE



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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

March 18, 2013

The Honorable Adam P. Salina  
Mayor  
Town of Berlin  
240 Kensington Road  
Kensington, CT 06037

RE: **EM-SPRINT-007-130314** – Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 260 Beckley Road, Kensington, Connecticut.

Dear Mayor Salina:

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 April 1, 2013.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts  
Executive Director

LR/cm

c: Arthur Simonian, Town Engineer, Town of Berlin