48 Spruce Street
Oakland, NJ 07436
Phone: (201)-951-3869
Tom Kincaid
Real Estate Consultant

July 21, 2014

Hand Delivered

Ms. Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

CC to Property Owner:
JOHN C MATULIS JR
260 BECKLEY RD
BERLIN, CT 06037

RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 260 Beckley Road. Kinsington, CT 06037. Known to Sprint Spectrum L.P. as site CT03XC088.

Dear Ms. Bachman:

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.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint's operations at the site. Also included is 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 Statues ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for the R.C.S.A. Section 16-50j-72(b)(2).

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

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

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

Sincerely,

Jennifer Palumbo
Real Estate Consultant

EBI Consulting
environmental | engineering | due diligence

RADIO FREQUENCY FCC REGULATORY COMPLIANCE MAXIMUM PERMISSIBLE EXPOSURE (MPE) ASSESSMENT

Sprint Existing Facility

Site ID: CT03XC088

Berlin

260 Beckley Road
Kinsington, CT 06037

July 18, 2014

EBI Project Number: 62143808

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

EBI Consulting
environmental | engineering | due diligence

July 18, 2014

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

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:
CT03XC088 - Berlin

Site Total: 69.75% - MPE% in full compliance

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 260 Beckley Road, Kinsington, CT, for the purpose of determining whether the radio frequency (RF) exposure levels 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (µW/cm2). The number of µW/cm2 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 ($\mu W/cm^2$). The general population exposure limit for the cellular band (850 MHz Band) is approximately 567 $\mu W/cm^2$, and the general population exposure limit for the 1900 MHz and 2500 MHz bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at 260 Beckley Road, Kinsington, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

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

1) 5 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
3) 2 channels in the 2500 MHz Band were considered for each sector of the proposed installation.
4) 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.
5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

6) The antennas used in this modeling are the RFS APXVSPP18-C-A20, RFS APXV9ERR18-C-A20 and the RFS APXVTM14-C-I20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-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. The RFS APXVTM14-C-I20 has a 15.9 dBd gain value at its main lobe at 2500 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
7) The antenna mounting height centerline for the proposed antennas is **127 feet** above ground level (AGL).
8) 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

Site ID	CT03XC088 - Berlin
Site Addresss	260 Beckley Road, Kinsington, CT, 06037
Site Type	Monopole

Sector 1

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXV9ERR18-C-A20	RRH	1900 MHz	CDMA / LTE	20	5	100	4.9	127	121	1/2 "	0.5	0	275.42	0.68%
1a	RFS	APXV9ERR18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	1.9	127	121	1/2 "	0.5	0	27.61	0.12%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	127	121	1/2 "	0.5	0	138.69	0.60%
														Sector total Power Density Value:		1.40%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	5	100	5.9	127	121	1/2 "	0.5	0	346.74	0.85%
2a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	127	121	1/2 "	0.5	0	39.00	0.17%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	127	121	1/2 "	0.5	0	138.69	0.60%
														Sector total Power Density Value:		1.62%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	5	100	5.9	127	121	1/2 "	0.5	0	346.74	0.85%
3a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	127	121	1/2 "	0.5	0	39.00	0.17%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	127	121	1/2 "	0.5	0	138.69	0.60%
														Sector total Power Density Value:		1.62%

Site Composite MPE %	
Carrier	MPE %
Sprint	4.64%
AT&T	13.92%
MetroPCS	6.03%
Berlin FD	0.16%
Verizon Wireless	31.86%
T-Mobile	3.75%
Nextel	9.39%
Total Site MPE %	**69.75%**

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Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public Maximum Permissible Exposure (MPE) to radio frequency energy.

The anticipated Maximum Composite contributions from the Sprint facility are **4.64% (1.40% from sector 1, 1.62% from sector 2 and 1.62% from sector 3)** 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 **69.75%** of the allowable FCC established general public limit sampled at 6 feet above ground level. This total composite site value is based upon MPE 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

Sprint

AMERICAN TOWER CORPORATION

PROJECT:	2.5 EQUIPMENT DEPLOYMENT
SITE NAME:	BRLN - BERLIN
SITE CASCADE:	CT03XC088
SITE NUMBER:	302483
SITE ADDRESS:	260 BECKLEY ROAD KINSINGTON, CT 06037
SITE TYPE:	MONOPOLE TOWER
MARKET:	NORTHERN CONNECTICUT

SITE INFORMATION

PROPERTY OWNER:
AMERICAN TOWERS CORP.
10 PRESIDENTIAL WAY
WOBURN, MA 01801

LATITUDE (NAD83):
41° 37' 54.2" N
41.631722°

LONGITUDE (NAD83):
72° 43' 47.7" W
-72.729917°

COUNTY:
HARTFORD

ZONING JURISDICTION:
CONNECTICUT SITING COUCIL

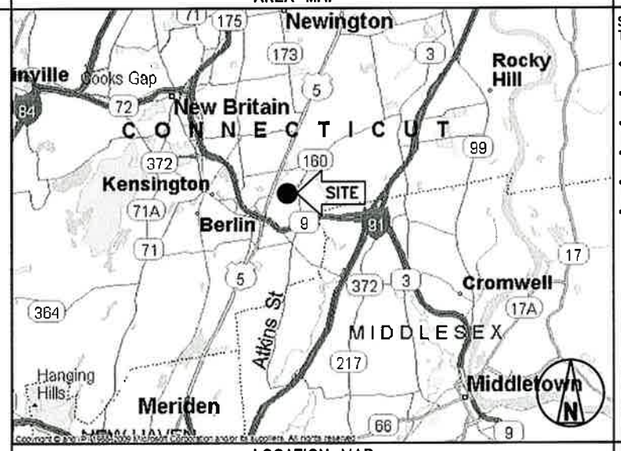
ZONING DISTRICT:
TBD

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

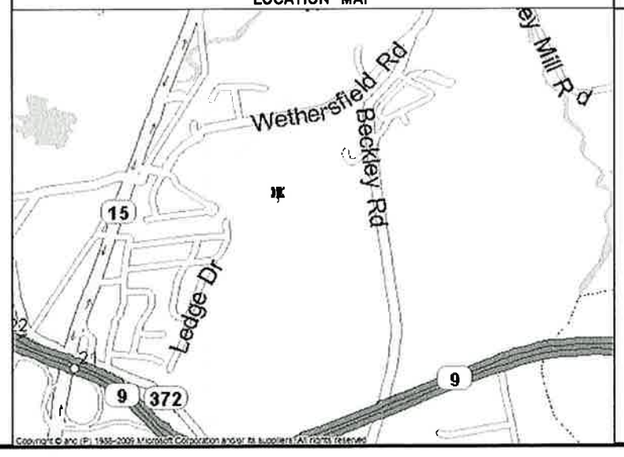
AAV PROVIDER:
AT&T
(800) 246-2020

SPRINT CM:
TBD

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL 2.5 EQUIPMENT IN EXISTING NV MMBS CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRU'S TO TOWER
- INSTALL (27) JUMPER CABLES
- INSTALL (1) FIBER CABLE
- INSTALL (4) BATTERIES IN EXISTING BBU CABINET

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

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE (2012 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 – LIGHTNING PROTECTION CODE
4. 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. CT BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

811 Know what's below. Call before you dig. www.call811.com

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A-3	ANTENNA LAYOUT & MOUNTING DETAILS	A
A-4	COLOR CODING & NOTES	A
A-5	EQUIPMENT & MOUNTING DETAILS	A
A-6	CIVIL DETAILS	A
A-7	PLUMBING DIAGRAM	A
E-1	ELECTRICAL & GROUNDING PLAN	A
E-2	ELECTRICAL & GROUNDING DETAILS	A

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:
BRLN - BERLIN

SITE CASCADE:
CT03XC088

SITE ADDRESS:
260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:
TITLE SHEET
& PROJECT DATA

SHEET NUMBER:
T-1

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT CONSTRUCTION STANDARDS FOR WIRELESS SITES, CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

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

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

1.3 PRECEDENCE: SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE. NOTIFY SPRINT CONSTRUCTION MANAGER IF THIS OCCURS.

1.4 NATIONALLY RECOGNIZED CODES AND STANDARDS:

A. THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:

1. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
5. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
3. GR-1089 CORE, ELECTROMAGNETIC COMPATIBILITY AND ELECTRICAL SAFETY –GENERIC CRITERIA FOR NETWORK TELECOMMUNICATIONS EQUIPMENT.
4. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC") AND NFPA 101 (LIFE SAFETY CODE).
5. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
6. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE)
7. AMERICAN CONCRETE INSTITUTE (ACI)
8. AMERICAN WIRE PRODUCERS ASSOCIATION (AWPA)
9. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
10. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
11. PORTLAND CEMENT ASSOCIATION (PCA)
12. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
13. BRICK INDUSTRY ASSOCIATION (BIA)
14. AMERICAN WELDING SOCIETY (AWS)
15. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
16. SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
17. DOOR AND HARDWARE INSTITUTE (DHI)
18. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
19. APPLICABLE BUILDING CODES INCLUDING UNIFORM BUILDING CODE, SOUTHERN BUILDING CODE, BOCA, AND THE INTERNATIONAL BUILDING CODE.

1.5 DEFINITIONS:

A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.

B. COMPANY: SPRINT CORPORATION

C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.

D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.

E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

F. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.

G. CONSTRUCTION MANAGER – ALL PROJECTS RELATED COMMUNICATION TO FLOW THROUGH SPRINT REPRESENTATIVE IN CHARGE OF PROJECT...

1.6 SITE FAMILIARITY: CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SPRINT CONSTRUCTION MANAGER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OR FIELD CONDITIONS.

1.7 POINT OF CONTACT: COMMUNICATION BETWEEN SPRINT AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE SPRINT CONSTRUCTION MANAGER APPOINTED TO MANAGE THE PROJECT FOR SPRINT.

1.8 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.9 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN RED PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

B. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.

C. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. SPACING BETWEEN EQUIPMENT IS THE REQUIRED CLEARANCE. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE SPRINT CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.

1.10 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.11 UTILITIES SERVICES: WHERE NECESSARY TO CUT EXISTING PIPES, ELECTRICAL WIRES, CONDUITS, CABLES, ETC., OF UTILITY SERVICES, OR OF FIRE PROTECTION OR COMMUNICATIONS SYSTEMS, THEY SHALL BE CUT AND CAPPED AT SUITABLE PLACES OR WHERE SHOWN. ALL SUCH ACTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY INVOLVED:

1.12 PERMITS / FEES: WHEN REQUIRED THAT A PERMIT OR CONNECTION FEE BE PAID TO A PUBLIC UTILITY PROVIDER FOR NEW SERVICE TO THE CONSTRUCTION PROJECT, PAYMENT OF SUCH FEE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.13 CONTRACTOR SHALL TAKE ALL MEASURES AND PROVIDE ALL MATERIAL NECESSARY FOR PROTECTING EXISTING EQUIPMENT AND PROPERTY.

1.14 METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION: CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

NOTE: IN SHORT-FORM SPECIFICATIONS ON THE DRAWINGS, A/E TO INSERT LIST OF APPLICABLE MOPS INCLUDING EN-2012-001, EN-2013-002, EL-0568, AND TS-0193

1.15 USE OF ELECTRONIC PROJECT MANAGEMENT SYSTEMS:

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

3.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

3.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

3.4 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

3.5 EXISTING CONDITIONS: NOTIFY THE SPRINT CONSTRUCTION MANAGER OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

PART 1 – GENERAL

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

1.2 RELATED DOCUMENTS:

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

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

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 RECEIPT OF MATERIAL AND EQUIPMENT:

A. A COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DOCUMENTS.

B. THE CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:

1 ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
2. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
3. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
4. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO SPRINT OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
5. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
6. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

3.2 DELIVERABLES:

A. COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

B. IF APPLICABLE, COMPLETE LOST/STOLEN/DAMAGED DOCUMENTATION REPORT AS NECESSARY IN ACCORDANCE WITH COMPANY PRACTICE, AND AS DIRECTED BY COMPANY.

C. UPLOAD DOCUMENTATION INTO SPRINT SITE MANAGEMENT SYSTEM (SMS) AND/OR PROVIDE HARD COPY DOCUMENTATION AS REQUESTED.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

PART 1 – GENERAL

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

1.2 RELATED DOCUMENTS:

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

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

1.3 NOTICE TO PROCEED

A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF THE WORK ORDER.

B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 FUNCTIONAL REQUIREMENTS:

A. THE ACTIVITIES DESCRIBED IN THIS PARAGRAPH REPRESENT MINIMUM ACTIONS AND PROCESSES REQUIRED TO SUCCESSFULLY COMPLETE THE WORK. THE ACTIVITIES DESCRIBED ARE NOT EXHAUSTIVE, AND CONTRACTOR SHALL TAKE ANY AND ALL ACTIONS AS NECESSARY TO SUCCESSFULLY COMPLETE THE CONSTRUCTION OF A FULLY FUNCTIONING WIRELESS FACILITY AT THE SITE IN ACCORDANCE WITH COMPANY PROCESSES.

B. SUBMIT SPECIFIC DOCUMENTATION AS INDICATED HEREIN, AND OBTAIN REQUIRED APPROVALS WHILE THE WORK IS BEING PERFORMED.

C. MANAGE AND CONDUCT ALL FIELD CONSTRUCTION SERVICE RELATED ACTIVITIES

D. PROVIDE CONSTRUCTION ACTIVITIES TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

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

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:
BRLN - BERLIN

SITE CASCADE:
CT03XC088

SITE ADDRESS:
260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:
SPRINT SPECIFICATIONS

SHEET NUMBER:
SP-1

CONTINUE FROM SP-1

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

3.2 GENERAL REQUIREMENTS FOR CIVIL CONSTRUCTION:

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

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

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

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

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

E. CONDUCT TESTING AS REQUIRED HEREIN.

3.3 DELIVERABLES:

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

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

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

SECTION 01 400 - SUBMITTALS & TESTS

PART 1 - GENERAL

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

1.2 RELATED DOCUMENTS:

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

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

1.3 SUBMITTALS:

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

B. SUBMIT THE FOLLOWING TO COMPANY REPRESENTATIVE FOR APPROVAL.

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

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

1.4 TESTS AND INSPECTIONS:

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

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

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

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

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

1.5 COMMISSIONING: PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPs

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

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 REQUIREMENTS FOR TESTING:

A. THIRD PARTY TESTING AGENCY:

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

3.2 REQUIRED TESTS:

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

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

3.3 REQUIRED INSPECTIONS

A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.

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

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

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:

BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-2

CONTINUE FROM SP-2

7. VERIFICATION DOCUMENTED WITH THE ANTENNA CHECKLIST REPORT, BY A&E, SITE DEVELOPMENT REP, OR RF REP.
8. FINAL INSPECTION CHECKLIST AND HANDOFF WALK (HOC.). SIGNED FORM SHOWING ACCEPTANCE BY FIELD OPS IS TO BE UPLOADED INTO SMS.
9. COAX SWEEP AND FIBER TESTING DOCUMENTS SUBMITTED VIA SMS FOR RF APPROVAL.
10. SCAN-ABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
11. ALL AVAILABLE JURISDICTIONAL INFORMATION
12. PDF SCAN OF REDLINES PRODUCED IN FIELD

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.

D. CONSTRUCTION INSPECTIONS AND CORRECTIVE MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR WITH WRITTEN REPORTS AND PHOTOGRAPHS. PHOTOGRAPHS MUST BE DIGITAL AND OF SUFFICIENT QUALITY TO CLEARLY SHOW THE SITE CONSTRUCTION. PHOTOGRAPHS MUST CLEARLY IDENTIFY THE PHOTOGRAPHED ITEM AND BE LABELED WITH THE SITE CASCADE NUMBER, SITE NAME, DESCRIPTION, AND DATE.

3.4 DELIVERABLES: TEST AND INSPECTION REPORTS AND CLOSEOUT DOCUMENTATION SHALL BE UPLOADED TO THE SMS AND/OR FORWARDED TO SPRINT FOR INCLUSION INTO THE PERMANENT SITE FILES.

A. THE FOLLOWING TEST AND INSPECTION REPORTS SHALL BE PROVIDED AS APPLICABLE.

1. CONCRETE MIX AND CYLINDER BREAK REPORTS.
2. STRUCTURAL BACKFILL COMPACTION REPORTS.
3. SITE RESISTANCE TO EARTH TEST.
4. ANTENNA AZIMUTH AND DOWN TILT VERIFICATION
5. TOWER ERECTION INSPECTIONS AND MEASUREMENTS DOCUMENTING TOWER INSTALLED PER SUPPLIER'S REQUIREMENTS AND THE APPLICABLE SECTIONS HEREIN.
6. COAX CABLE SWEEP TESTS PER COMPANY'S "ANTENNA LINE ACCEPTANCE STANDARDS".

B. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES THE FOLLOWING;

1. TEST WELLS AND TRENCHES: PHOTOGRAPHS OF ALL TEST WELLS; PHOTOGRAPHS SHOWING ALL OPEN EXCAVATIONS AND TRENCHING PRIOR TO BACKFILLING SHOWING A TAPE MEASURE VISIBLE IN THE EXCAVATIONS INDICATING DEPTH.
2. CONDUITS, CONDUCTORS AND GROUNDING: PHOTOGRAPHS SHOWING TYPICAL INSTALLATION OF CONDUCTORS AND CONNECTORS; PHOTOGRAPHS SHOWING TYPICAL BEND RADIUS OF INSTALLED GROUND WIRES AND GROUND ROD SPACING;
3. CONCRETE FORMS AND REINFORCING: CONCRETE FORMING AT TOWER AND EQUIPMENT/SHELTER PAD/FOUNDATIONS – PHOTOGRAPHS SHOWING ALL REINFORCING STEEL, UTILITY AND CONDUIT STUB OUTS; PHOTOGRAPHS SHOWING CONCRETE POUR OF SHELTER SLAB/FOUNDATION, TOWER FOUNDATION AND GUY ANCHORS WITH VIBRATOR IN USE; PHOTOGRAPHS SHOWING EACH ANCHOR ON GUYED TOWERS, BEFORE CONCRETE POUR.
4. TOWER, ANTENNAS AND MAINLINE: INSPECTION AND PHOTOGRAPHS OF SECTION STACKING; INSPECTION AND PHOTOGRAPHS OF PLATFORM COMPONENT ATTACHMENT POINTS; PHOTOGRAPHS OF TOWER TOP GROUNDING; PHOTOS OF TOWER COAX LINE COLOR CODING AT THE TOP AND AT GROUND LEVEL; INSPECTION AND PHOTOGRAPHS OF OPERATIONAL OF TOWER LIGHTING, AND PLACEMENT OF FAA REGISTRATION SIGN; PHOTOGRAPHS SHOWING ADDITIONAL GROUNDING POINTS FOR TOWERS GREATER THAN 200 FEET.; PHOTOS OF ANTENNA GROUND BAR, EQUIPMENT GROUND BAR, AND MASTER GROUND BAR; PHOTOS OF GPS ANTENNA(S); PHOTOS OF EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA; PHOTOS OF COAX WEATHERPROOFING – TOP AND BOTTOM; PHOTOS OF COAX GROUNDING--TOP AND BOTTOM; PHOTOS OF ANTENNA AND MAST GROUNDING; PHOTOS OF COAX CABLE ENTRY INTO SHELTER; PHOTOS OF PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
5. ROOF TOPS: PRE-CONSTRUCTION AND POST-CONSTRUCTION VISUAL INSPECTION AND PHOTOGRAPHS OF THE ROOF AND INTERIOR TO DETERMINE AND DOCUMENT CONDITIONS; ROOF TOP CONSTRUCTION INSPECTIONS AS REQUIRED BY THE JURISDICTION; PHOTOGRAPHS OF CABLE TRAY AND/OR ICE BRIDGE; PHOTOGRAPHS OF DOGHOUSE/CABLE EXIT FROM ROOF;
6. SITE LAYOUT – PHOTOGRAPHS OF THE OVERALL COMPOUND, INCLUDING EQUIPMENT PLATFORM FROM ALL FOUR CORNERS.
7. FINISHED UTILITIES: CLOSE-UP PHOTOGRAPHS OF THE PPC BREAKER PANEL; CLOSE-UP PHOTOGRAPH OF THE INSIDE OF THE TELCO PANEL AND NIU; CLOSE-UP PHOTOGRAPH OF THE POWER METER AND DISCONNECT; PHOTOS OF POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE; PHOTOGRAPHS AT METER BOX AND/OR FACILITY DISTRIBUTION PANEL.
8. REQUIRED MATERIALS CERTIFICATIONS: CONCRETE MIX DESIGNS; MILL CERTIFICATION FOR ALL REINFORCING AND STRUCTURAL STEEL; AND ASPHALT PAVING MIX DESIGN.
9. ANY AND ALL SUBMITTALS BY THE JURISDICTION OR COMPANY.

SECTION 01 400 – SUBMITTALS & TESTS

PART 1 – GENERAL

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

1.2 RELATED DOCUMENTS:

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

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

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 WEEKLY REPORTS:

A. CONTRACTOR SHALL PROVIDE SPRINT WITH WEEKLY REPORTS SHOWING PROJECT STATUS. THIS STATUS REPORT FORMAT WILL BE PROVIDED TO THE CONTRACTOR BY SPRINT. THE REPORT WILL CONTAIN SITE ID NUMBER, THE MILESTONES FOR EACH SITE, INCLUDING THE BASELINE DATE, ESTIMATED COMPLETION DATE AND ACTUAL COMPLETION DATE.

B. REPORT INFORMATION WILL BE TRANSMITTED TO SPRINT VIA ELECTRONIC MEANS AS REQUIRED. THIS INFORMATION WILL PROVIDE A BASIS FOR PROGRESS MONITORING AND PAYMENT.

3.2 PROJECT CONFERENCE CALLS:

A. SPRINT MAY HOLD WEEKLY PROJECT CONFERENCE CALLS. CONTRACTOR WILL BE REQUIRED TO COMMUNICATE SITE STATUS, MILESTONE COMPLETIONS AND UPCOMING MILESTONE PROJECTIONS, AND ANSWER ANY OTHER SITE STATUS QUESTIONS AS NECESSARY.

3.3 PROJECT TRACKING IN SMS:

A. CONTRACTOR SHALL PROVIDE SCHEDULE UPDATES AND PROJECTIONS IN THE SMS SYSTEM ON A WEEKLY BASIS.

3.4 ADDITIONAL REPORTING:

A. ADDITIONAL OR ALTERNATE REPORTING REQUIREMENTS MAY BE ADDED TO THE REPORT AS DETERMINED TO BE REASONABLY NECESSARY BY COMPANY.

3.5 PROJECT PHOTOGRAPHS:

A. FILE DIGITAL PHOTOGRAPHS OF COMPLETED SITE IN JPEG FORMAT IN THE SMS PHOTO LIBRARY FOR THE RESPECTIVE SITE. PHOTOGRAPHS SHALL BE CLEARLY LABELED WITH SITE NUMBER, NAME AND DESCRIPTION, AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING AS APPLICABLE:

1. 1SHELTER AND TOWER OVERVIEW.
2. TOWER FOUNDATION(S) – FORMS AND STEEL BEFORE POUR (EACH ANCHOR ON GUYED TOWERS).
3. TOWER FOUNDATION(S) POUR WITH VIBRATOR IN USE (EACH ANCHOR ON GUYED TOWERS).
4. TOWER STEEL AS BEING INSTALLED INTO HOLE (SHOW ANCHOR STEEL ON GUYED TOWERS).
5. PHOTOS OF TOWER SECTION STACKING.
6. CONCRETE TESTING / SAMPLES.
7. PLACING OF ANCHOR BOLTS IN TOWER FOUNDATION.
8. BUILDING/WATER TANK FROM ROAD FOR TENANT IMPROVEMENTS OR COMMENTS.
9. SHELTER FOUNDATION--FORMS AND STEEL BEFORE POURING.
10. SHELTER FOUNDATION POUR WITH VIBRATOR IN USE.
11. COAX CABLE ENTRY INTO SHELTER.
12. PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
13. ROOFTOP PRE AND POST CONSTRUCTION PHOTOS TO INCLUDE PENETRATIONS AND INTERIOR CEILING.
14. PHOTOS OF TOWER TOP COAX LINE COLOR CODING AND COLOR CODING AT GROUND LEVEL.
15. PHOTOS OF ALL APPROPRIATE COMPANY OR REGULATORY SIGNAGE.
16. PHOTOS OF EQUIPMENT BOLT DOWN INSIDE SHELTER.
17. POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE AND POWER AND TELCO SUPPLY LOCATIONS INCLUDING METER/DISCONNECT.
18. ELECTRICAL TRENCH(S) WITH ELECTRICAL / CONDUIT BEFORE BACKFILL.
19. ELECTRICAL TRENCH(S) WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
20. TELCO TRENCH WITH TELEPHONE / CONDUIT BEFORE BACKFILL.
21. TELCO TRENCH WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
22. SHELTER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
23. TOWER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
24. FENCE GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
25. ALL BTS GROUND CONNECTIONS.
26. ALL GROUND TEST WELLS.
27. ANTENNA GROUND BAR AND EQUIPMENT GROUND BAR.
28. ADDITIONAL GROUNDING POINTS ON TOWERS ABOVE 200'.
29. HVAC UNITS INCLUDING CONDENSERS ON SPLIT SYSTEMS.
30. GPS ANTENNAS.
31. CABLE TRAY AND/OR WAVEGUIDE BRIDGE.
32. DOGHOUSE/CABLE EXIT FROM ROOF.
33. EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA.
34. MASTER BUS BAR.
35. TELCO BOARD AND NIU.
36. ELECTRICAL DISTRIBUTION WALL.
37. CABLE ENTRY WITH SURGE SUPPRESSION.
38. ENTRANCE TO EQUIPMENT ROOM.
39. COAX WEATHERPROOFING-TOP AND BOTTOM OF TOWER.
40. COAX GROUNDING -TOP AND BOTTOM OF TOWER.
41. ANTENNA AND MAST GROUNDING.
42. LANDSCAPING – WHERE APPLICABLE.

3.6 FINAL PROJECT ACCEPTANCE: COMPLETE ALL REQUIRED REPORTING TASKS PER CONTRACT, CONTRACT DOCUMENTS OR THE SPRINT INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES AND UPLOAD INTO SITERRA.

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:

BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

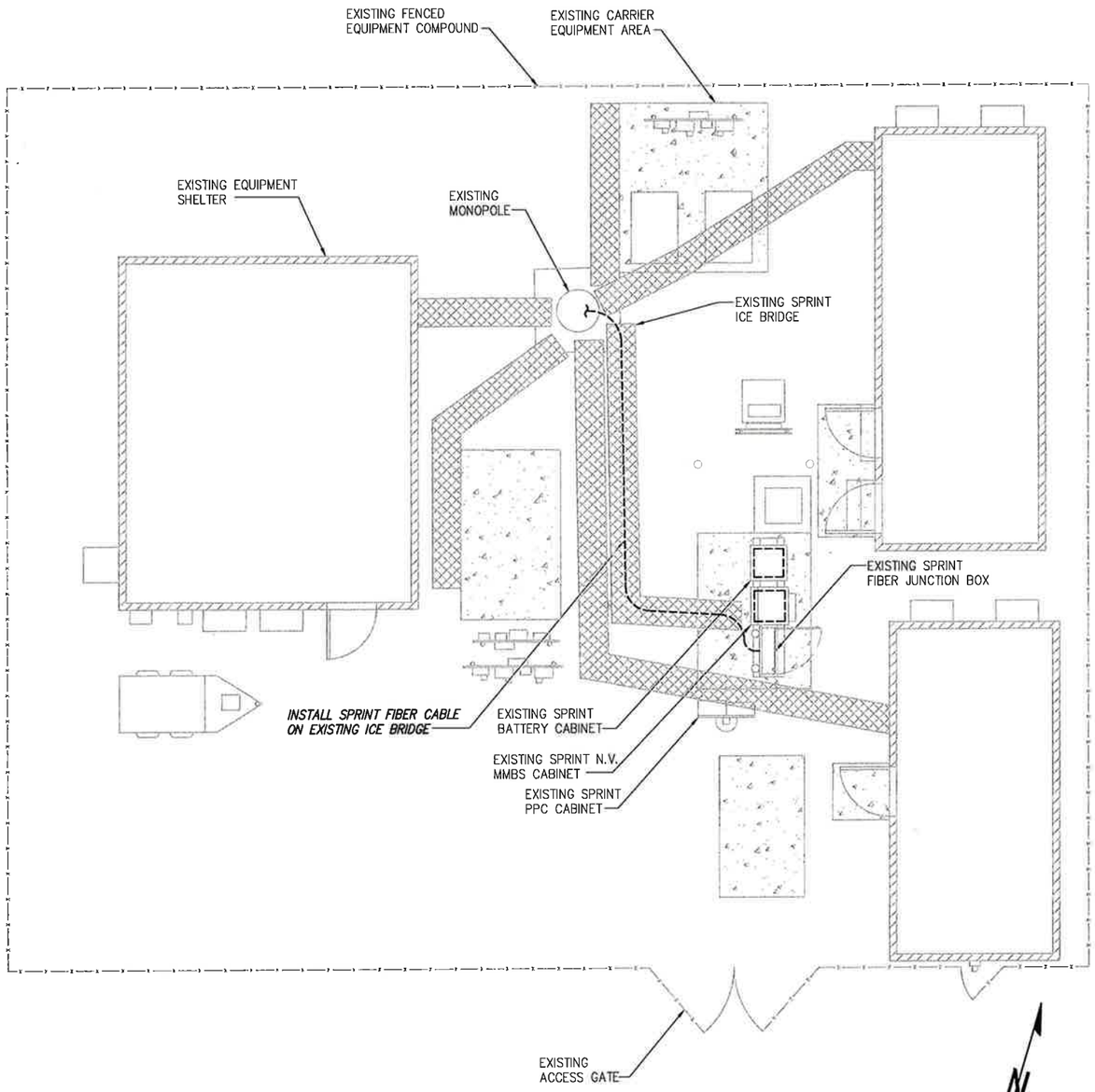
SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

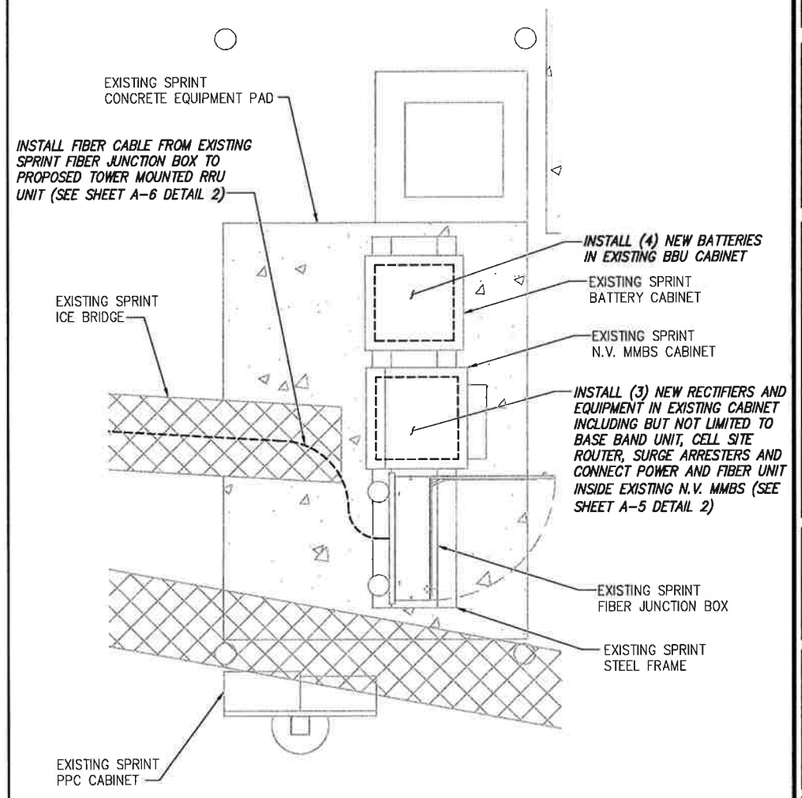
SHEET NUMBER:

SP-3

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



OVERALL SITE PLAN | SCALE: AS NOTED | 1



SPRINT EQUIPMENT PLAN | SCALE: AS NOTED | 2

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

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AMERICAN TOWER CORPORATION

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BRLN - BERLIN

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CT03XC088

SITE ADDRESS:

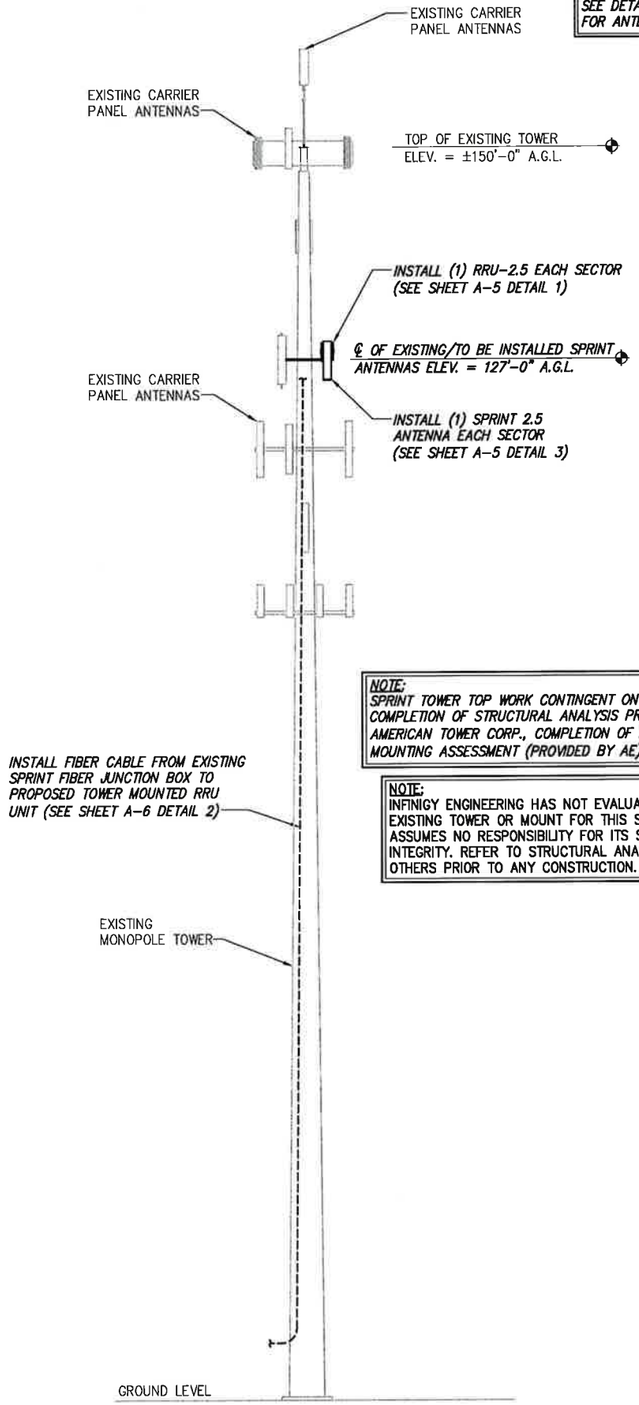
260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

SITE PLAN

SHEET NUMBER:

A-1



NOTE:
SEE DETAIL 2 ON A-3 FOR ANTENNA LAYOUT

NOTE:
SPRINT TOWER TOP WORK CONTINGENT ON FOLLOWING: COMPLETION OF STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER CORP., COMPLETION OF ANTENNA/RRH MOUNTING ASSESSMENT (PROVIDED BY AE)

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING TOWER OR MOUNT FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

TOWER ELEVATION | NO SCALE | 1

DETAIL NOT USED | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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CT03XC088

SITE ADDRESS:

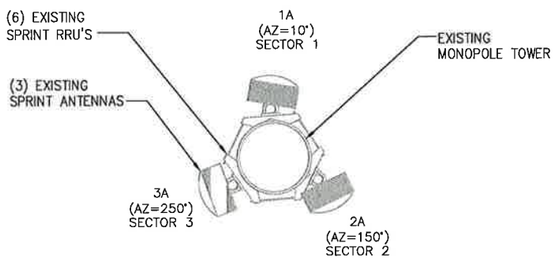
260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

TOWER ELEVATION & CABLE PLAN

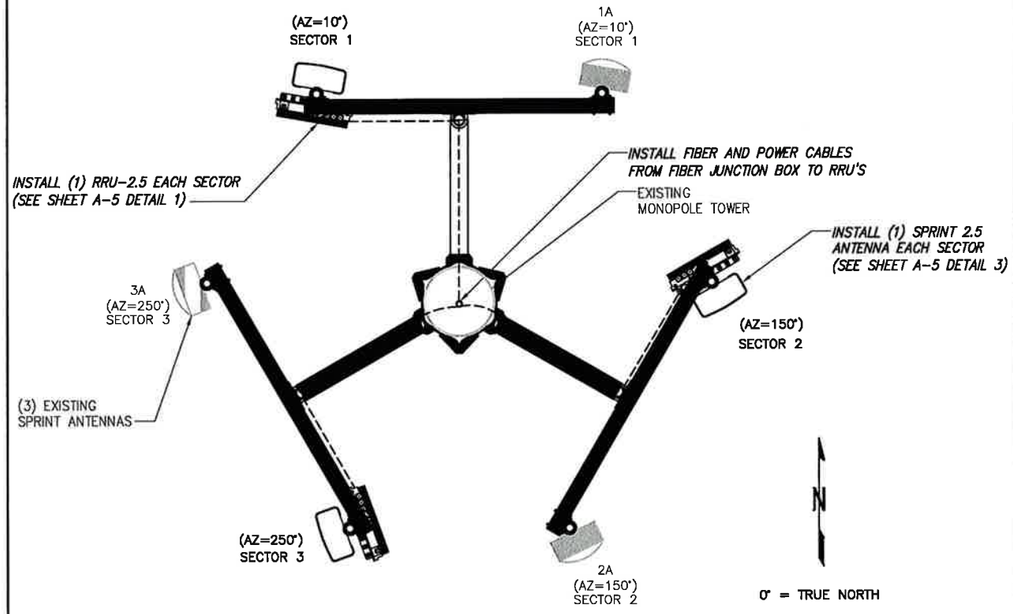
SHEET NUMBER:

A-2



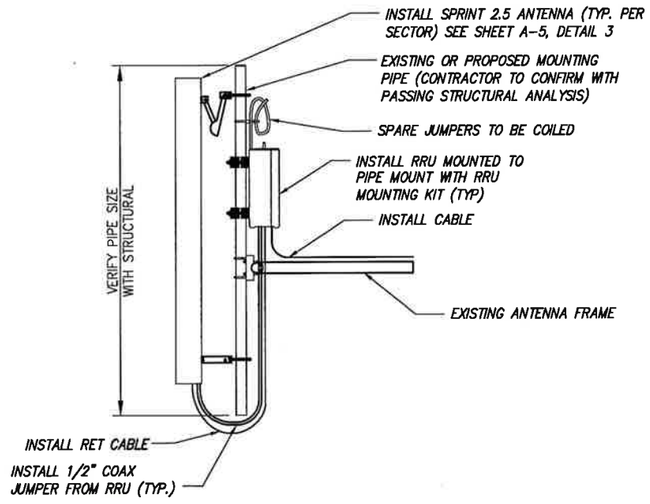
EXISTING ANTENNA & RRU LAYOUT | NO SCALE | 1

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



FINAL ANTENNA LAYOUT | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3



NOTES:

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

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

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

TYPICAL ANTENNA & RRU MOUNTING DETAILS | NO SCALE | 4

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JOHN S. STEVENS
No. 24705
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PROFESSIONAL ENGINEER

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BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

ANTENNA LAYOUT
& MOUNTING DETAILS

SHEET NUMBER:

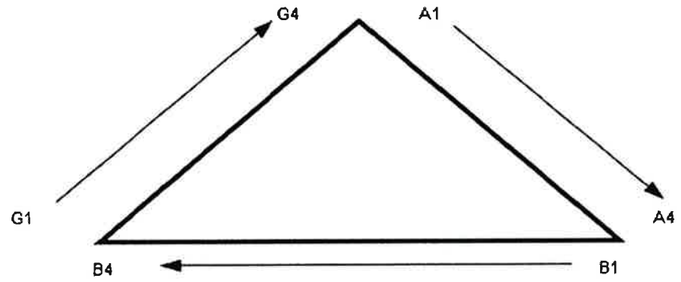
A-3

NV CABLES				
BAND	INDICATOR		PORT	COLOR
800-1	YEL	GRN	NV-1	GRN
1900-1	YEL	RED	NV-2	BLU
1900-2	YEL	BRN	NV-3	BRN
1900-3	YEL	BLU	NV-4	WHT
1900-4	YEL	SLT	NV-5	RED
800-2	YEL	ORG	NV-6	SLT
SPARE	YEL	WHT	NV-7	PPL
2500	YEL	PPL	NV-8	ORG

HYBRID	
HYBRID	COLOR
1	GRN
2	BLU
3	BRN
4	WHT
5	RED
6	SLT
7	PPL
8	ORG

2.5 Band		
2500 Radio 1		COLOR
YEL	WHT	GRN
YEL	WHT	BLU
YEL	WHT	BRN
YEL	WHT	WHT
YEL	WHT	RED
YEL	WHT	SLT
YEL	WHT	PPL
YEL	WHT	ORG

Figure 1: Antenna Orientation



NOTES:

1. ALL CABLES SHALL BE MARKED WITH 2" WIDE, UV STABILIZED, UL APPROVED TAPE.
2. THE FIRST RING SHALL BE CLOSEST TO THE END OF THE CABLE AND SPACED APPROXIMATELY 2" FROM THE END CONNECTOR, WEATHERPROOFING, OR BREAK-OUT CYLINDER. THERE SHALL BE A 1" SPACE BETWEEN EACH RING FOR THE CABLE IDENTIFIER, AND NO SPACES BETWEEN THE FREQUENCY BANDS.
3. A 2" GAP SHALL SEPARATE THE CABLE COLOR CODE FROM THE FREQUENCY COLOR CODE. THE 2" COLOR RINGS FOR THE FREQUENCY CODE SHALL BE PLACED NEXT TO EACH OTHER WITH NO SPACES.
4. THE 2" COLORED TAPE(S) SHALL EACH BE WRAPPED A MINIMUM OF 3 TIMES AROUND THE INDIVIDUAL CABLES, AND THE TAPE SHALL BE KEPT IN THE SAME LOCATION AS MUCH AS POSSIBLE.
5. SITES WITH MORE THAN FOUR (4) SECTORS WILL REQUIRE ADDITIONAL RINGS FOR EACH SECTOR, FOLLOWING THE PATTERN. HIGH CAPACITY SITES WILL USE THE NEXT COLOR IN THE SEQUENCE FOR ADDITIONAL CABLES IN EACH SECTOR.
6. HYBRID FIBER CABLE SHALL BE SECTOR IDENTIFIED INSIDE THE CABINET ON FREQUENCY BUNDLES, ON THE SEALTITE, ON THE MAIN LINE UPON EXIT OF SEALTITE, AND BEFORE AND AFTER THE BREAKOUT UNIT (MEDUSA), AS WELL AS BEFORE AND AFTER ANY ENTRANCE OR EXIT.
7. HFC "MAIN TRUNK" WILL NOT BE MARKED WITH THE FREQUENCY CODES, AS IT CONTAINS ALL FREQUENCIES.
8. INDIVIDUAL POWER PAIRS AND FIBER BUNDLES SHALL BE LABELED WITH BOTH THE CABLE AND FREQUENCY.

Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1	Green	No Tape	No Tape
1	2	Blue	No Tape	No Tape
1	3	Brown	No Tape	No Tape
1	4	White	No Tape	No Tape
1	5	Red	No Tape	No Tape
1	6	Grey	No Tape	No Tape
1	7	Purple	No Tape	No Tape
1	8	Orange	No Tape	No Tape
2 Beta	1	Green	Green	No Tape
2	2	Blue	Blue	No Tape
2	3	Brown	Brown	No Tape
2	4	White	White	No Tape
2	5	Red	Red	No Tape
2	6	Grey	Grey	No Tape
2	7	Purple	Purple	No Tape
2	8	Orange	Orange	No Tape
3 Gamma	1	Green	Green	Green
3	2	Blue	Blue	Blue
3	3	Brown	Brown	Brown
3	4	White	White	White
3	5	Red	Red	Red
3	6	Grey	Grey	Grey
3	7	Purple	Purple	Purple
3	8	Orange	Orange	Orange

NV FREQUENCY	INDICATOR	ID
800-1	YEL	GRN
1900-1	YEL	RED
1900-2	YEL	BRN
1900-3	YEL	BLU
1900-4	YEL	SLT
800-1	YEL	ORG
RESERVED	YEL	WHT
RESERVED	YEL	PPL

2.5 FREQUENCY	INDICATOR		ID
2500 -1	YEL	WHT	GRN
2500 -2	YEL	WHT	RED
2500 -3	YEL	WHT	BRN
2500 -4	YEL	WHT	BLU
2500 -5	YEL	WHT	SLT
2500 -6	YEL	WHT	ORG
2500 -7	YEL	WHT	WHT
2500 -8	YEL	WHT	PPL

Example – Sector 2, Cable 2, 800mhz Radio #1

Example – Sector 3, Cable 1, 1900mhz Radio #1

Example – Sector 1, Cable 4, 800 mhz Radio #1 and 1900mhz Radio #1

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JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

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

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SITE NAME:
BRLN - BERLIN

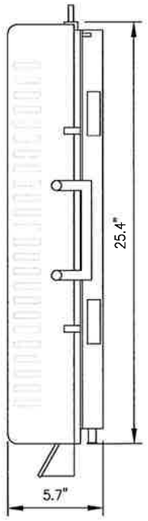
SITE CASCADE:
CT03XC088

SITE ADDRESS:
260 BECKLEY ROAD
KINSINGTON, CT 06037

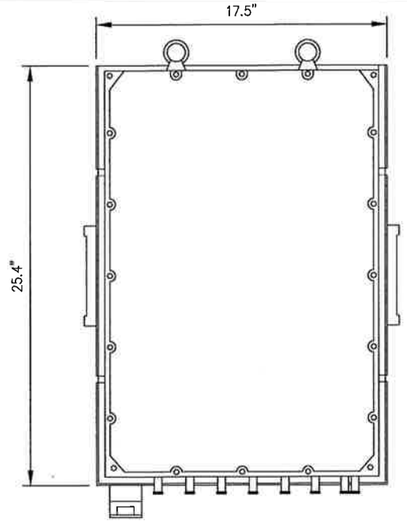
SHEET DESCRIPTION:
COLOR CODING AND NOTES

SHEET NUMBER:
A-4

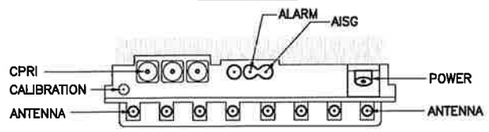
RRU: ALCATEL LUCENT TD-RRH8X20



SIDE VIEW



FRONT VIEW

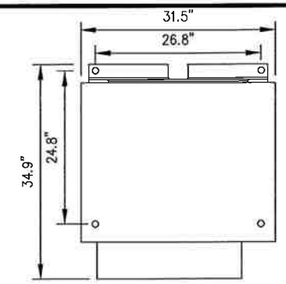


PLAN VIEW

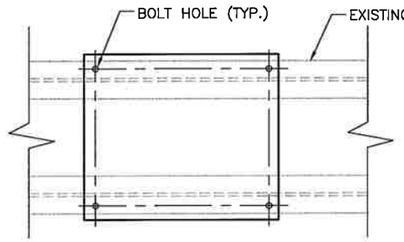
NOTES

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

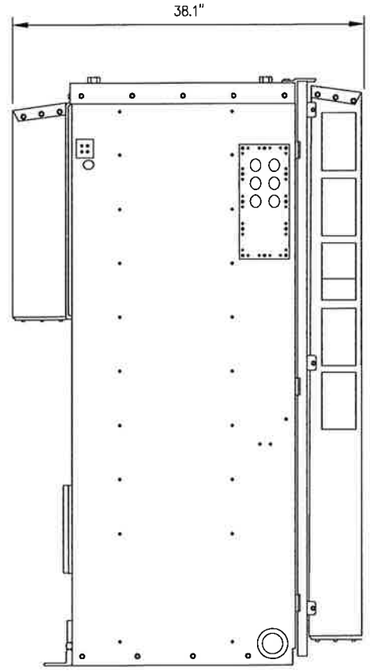
2.5 RRU | NO SCALE | 1



BOTTOM VIEW



1. VERIFY BOLT HOLE SPACING WITH EQUIPMENT CUT SHEETS.
2. NEW EQUIPMENT CABINET TO BE MOUNTED TO EXISTING SUPPORT SURFACE WITH BOLT-DOWN SYSTEM PER MANUFACTURER'S SPECIFICATION AND FIELD DRILL HOLES THROUGH EXISTING STEEL BEAMS AS REQUIRED.
3. MAINTAIN A MINIMUM OF 1" DISTANCE FROM CENTER OF BOLT HOLE TO EDGE OF FLANGE.

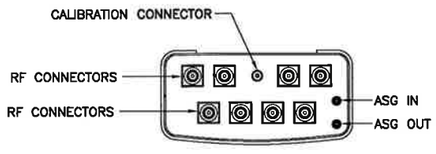


SIDE VIEW

2.5 9929 GROWTH CABINET | NO SCALE | 2

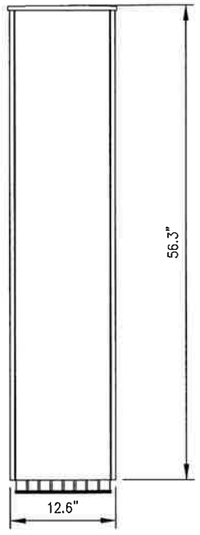
ANTENNA: RFS APXVTM14-C-I20

RADOME MATERIAL:	ASA
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.In(mim):	56.3"x12.6"x6.3" (1430x320x160mm)
WEIGHT:	52.9 lbs
CONNECTORS:	(8) 4.1/9.5 DIN FEMALE (1) NF – CALIBRATION CONNECTOR



PLAN VIEW

SIDE VIEW



FRONT VIEW

2.5 ANTENNA | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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SHEET DESCRIPTION:

EQUIPMENT & MOUNTING DETAILS

SHEET NUMBER:

A-5

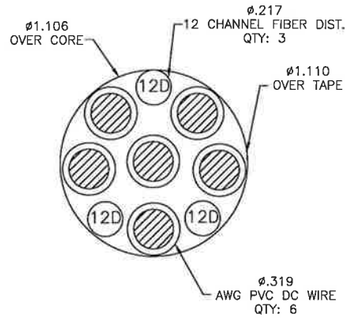
RFS HYBRIFLEX RISER CABLE SCHEDULE

Fiber Only (Existing DC Power)	**Hybrid cable** MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	175 ft
	MN: HB058-M12-200F	200 ft
8 AWG Power	**Hybrid cable** MN: HB114-08U3M12-050F 3x8 AWG power pairs, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 50 ft	50 ft
	MN: HB114-08U3M12-075F	75 ft
	MN: HB114-08U3M12-100F	100 ft
	MN: HB114-08U3M12-125F	125 ft
	MN: HB114-08U3M12-150F	150 ft
	MN: HB114-08U3M12-175F	175 ft
	MN: HB114-08U3M12-200F	200 ft
6 AWG Power	**Hybrid cable** MN: HB114-13U3M12-225F 3x6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 225 ft	225 ft
	MN: HB114-13U3M12-250F	250 ft
	MN: HB114-13U3M12-275F	275 ft
	MN: HB114-13U3M12-300F	300 ft
4 AWG Power	**Hybrid cable** MN: HB114-21U3M12-325F 3x4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 325 ft	325 ft
	MN: HB114-21U3M12-350F	350 ft
	MN: HB114-21U3M12-375F	375 ft

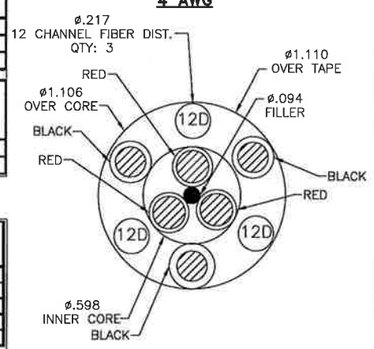
RFS HYBRIFLEX JUMPER CABLE SCHEDULE

Fiber Only	**Hybrid Jumper cable** MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	**Hybrid Jumper cable** MN: HBF058-08U1M3-5F1 5 ft, 1x 8 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-08U1M3-10F1	10 ft
	MN: HBF058-08U1M3-15F1	15 ft
	MN: HBF058-08U1M3-20F1	20 ft
	MN: HBF058-08U1M3-25F1	25 ft
	MN: HBF058-08U1M3-30F1	30 ft
6 AWG Power	**Hybrid Jumper cable** MN: HBF058-13U1M3-5F1 5 ft, 1x 6 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-13U1M3-10F1	10 ft
	MN: HBF058-13U1M3-15F1	15 ft
	MN: HBF058-13U1M3-20F1	20 ft
	MN: HBF058-13U1M3-25F1	25 ft
	MN: HBF058-13U1M3-30F1	30 ft
4 AWG Power	**Hybrid Jumper cable** MN: HBF078-21U1M3-5F1 5 ft, 1x 4 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 7/8 cable	5 ft
	MN: HBF078-21U1M3-10F1	10 ft
	MN: HBF078-21U1M3-15F1	15 ft
	MN: HBF078-21U1M3-20F1	20 ft
	MN: HBF078-21U1M3-25F1	25 ft
	MN: HBF078-21U1M3-30F1	30 ft

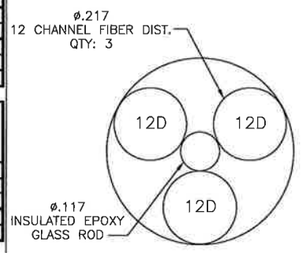
NOTE:
SPRINT CM TO CONFIRM HYBRID OR FIBER RISER CABLE AND HYBRID OR FIBER JUMPER CABLE MODEL NUMBERS IF HYBRID CABLES ARE REQUIRED BEFORE PREPARING BOM.



4 AWG

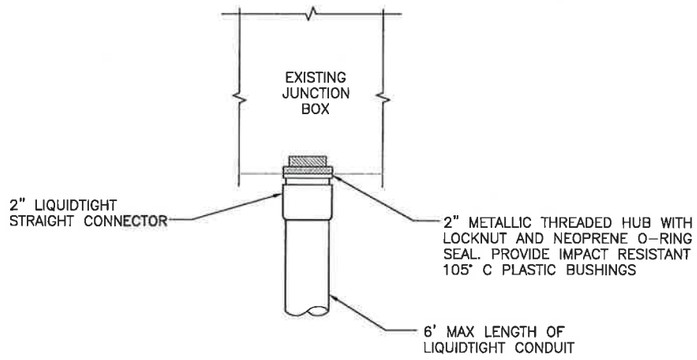


8 & 6 AWG



FIBER ONLY

2.5 CABLE CROSS SECTION DATA | NO SCALE | 1



FIBER JUNCTION BOX PENETRATION | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

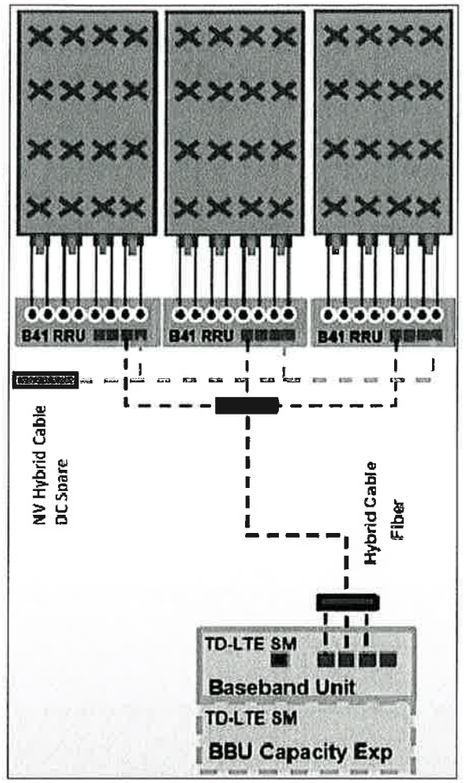
SITE NAME:
BRLN - BERLIN

SITE CASCADE:
CT03XC088

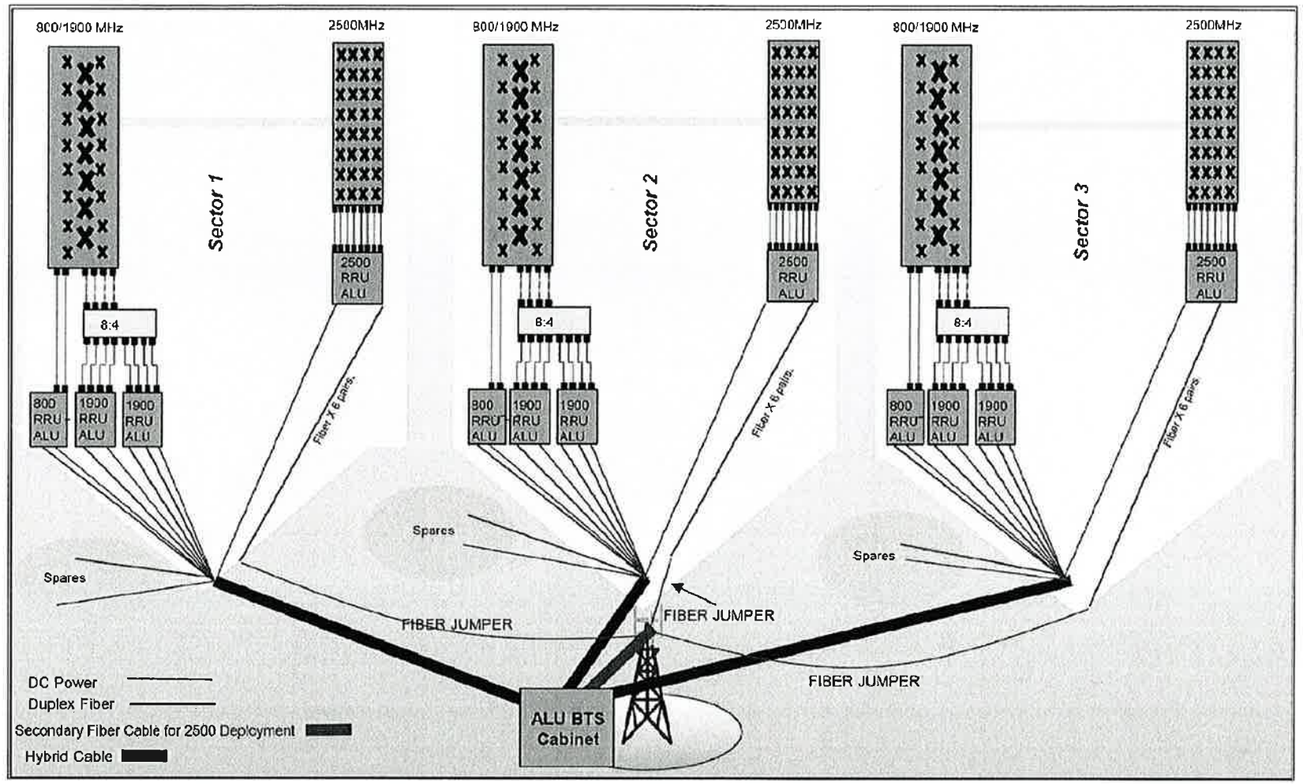
SITE ADDRESS:
260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:
CIVIL DETAILS

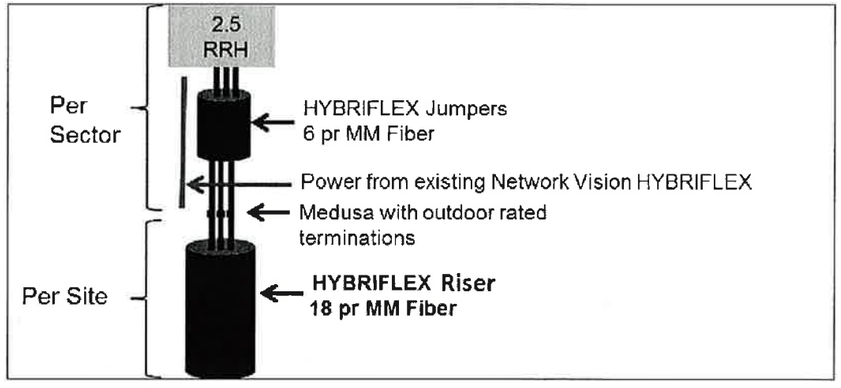
SHEET NUMBER:
A-6



ALU 2.5 ALU SCENARIO 1



RAN WIRING DIAGRAM



RF 2.5 ALU SCENARIO 1

PLUMBING DIAGRAM | NO SCALE | 1

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:

BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

PLUMBING DIAGRAM

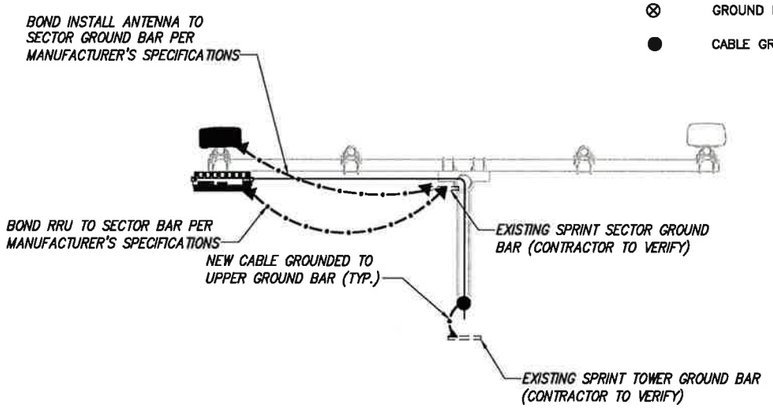
SHEET NUMBER:

A-7

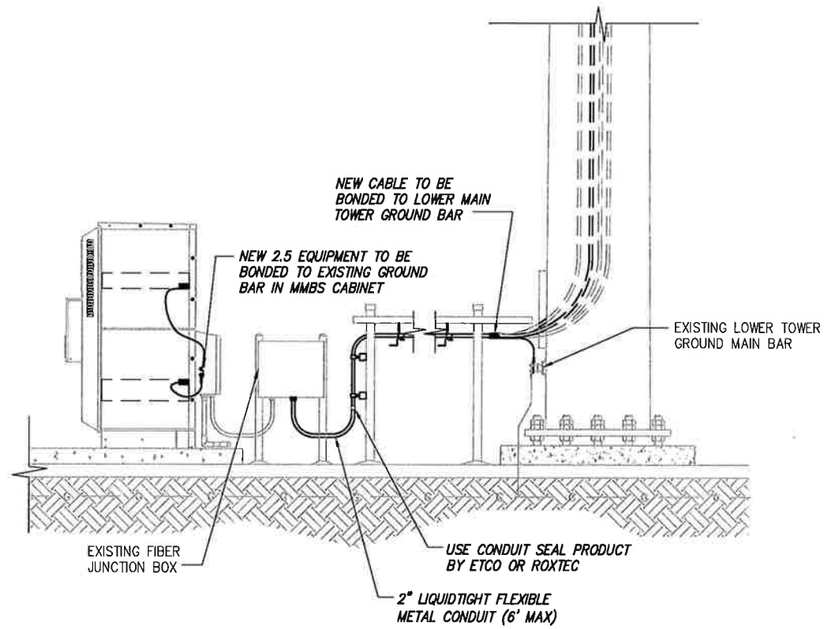
PLAN NOT USED | NO SCALE | 1

LEGEND:

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



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 2



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

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:

BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

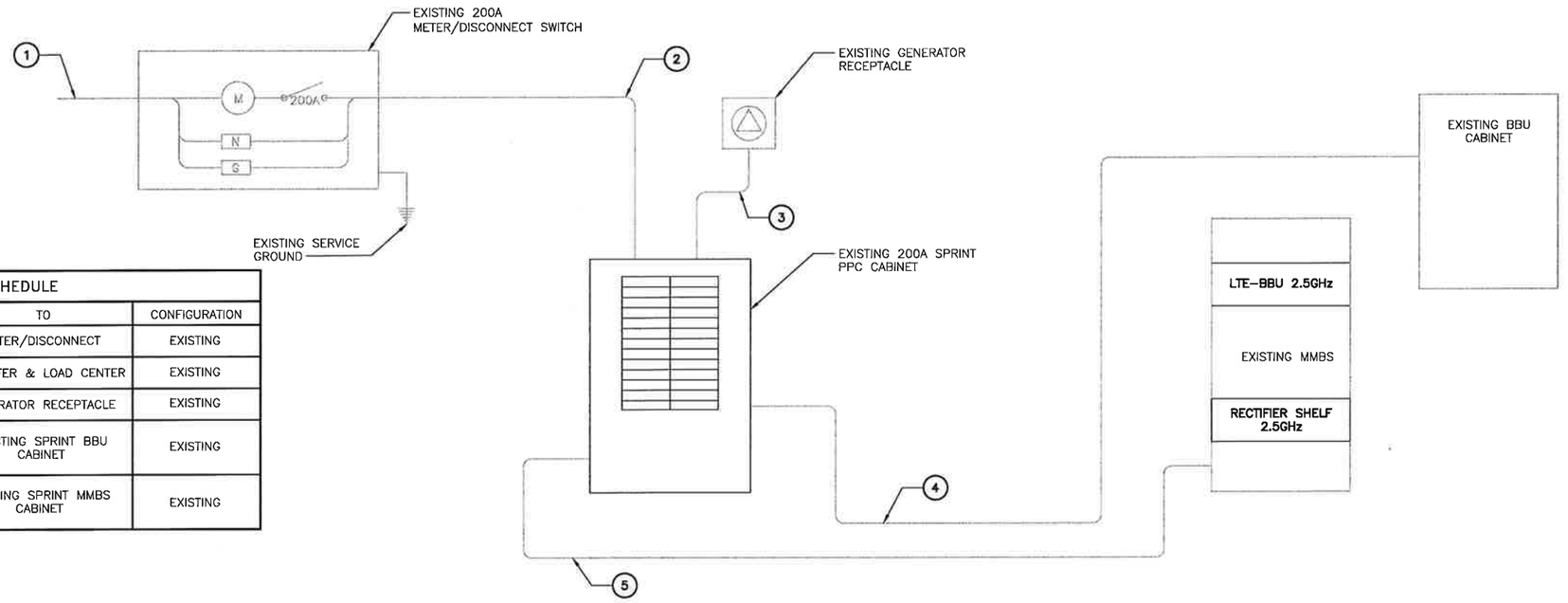
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:

E-1

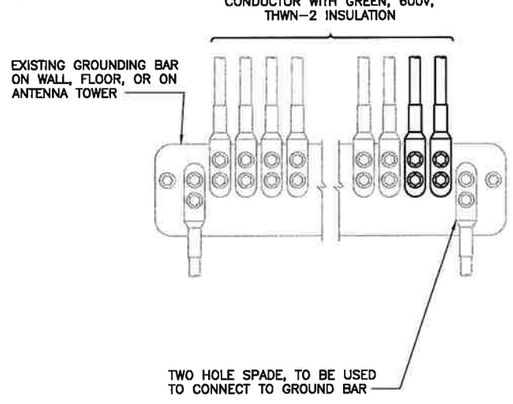
NOTES

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



CIRCUIT SCHEDULE			
NO	FROM	TO	CONFIGURATION
1	UTILITY SOURCE	METER/DISCONNECT	EXISTING
2	METER/DISCONNECT	TRANSFER & LOAD CENTER	EXISTING
3	TRANSFER & LOAD CENTER	GENERATOR RECEPTACLE	EXISTING
4	TRANSFER & LOAD CENTER	EXISTING SPRINT BBU CABINET	EXISTING
5	TRANSFER & LOAD CENTER	EXISTING SPRINT MMBS CABINET	EXISTING

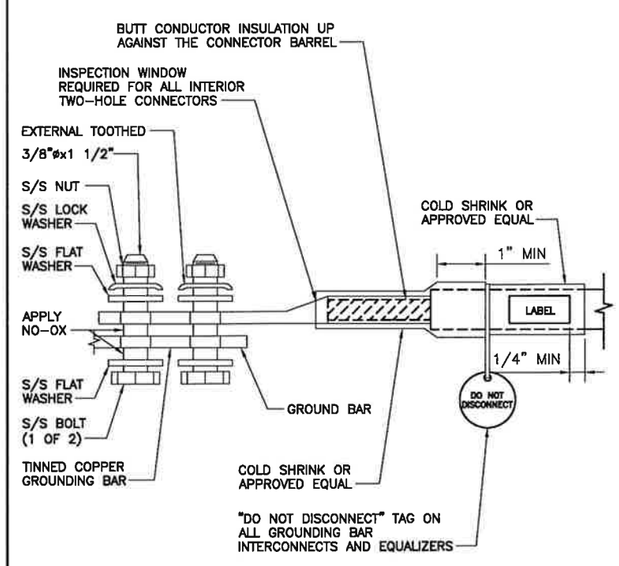
ELECTRICAL ONE–LINE DIAGRAM — NO SCALE — 1



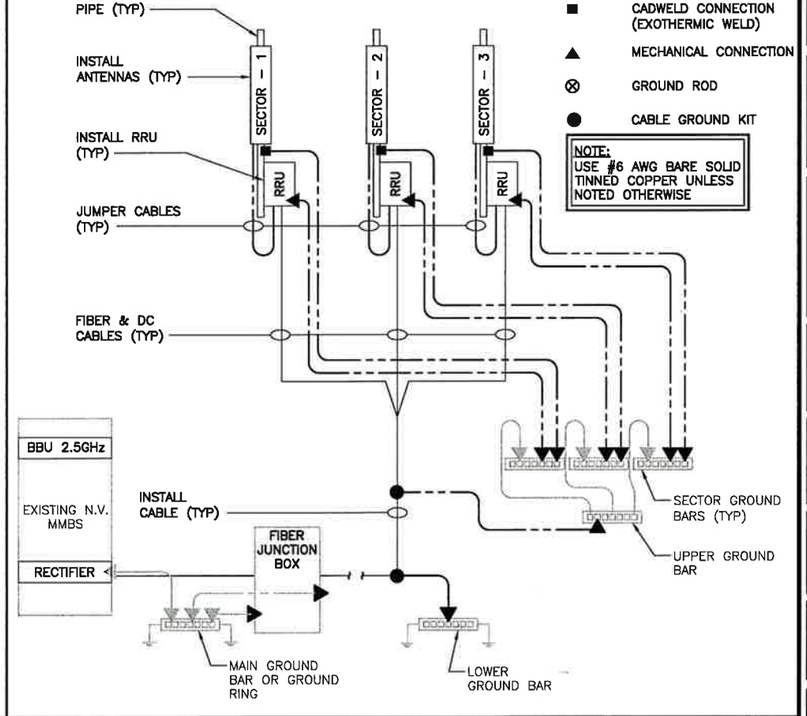
NOTES

1. APPLY NO–OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

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



TWO HOLE LUG — NO SCALE — 3



GROUNDING RISER DIAGRAM — NO SCALE — 4

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design. Build. Deliver.

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340–000

MLA PARTNER:

AMERICAN TOWER CORPORATION

10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	5/15/14	SKB	A

SITE NAME:

BRLN - BERLIN

SITE CASCADE:

CT03XC088

SITE ADDRESS:

260 BECKLEY ROAD
KINSINGTON, CT 06037

SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**162 ft Monopole**
ATC Site Name	:	**Brln - Berlin, CT**
ATC Site Number	:	**302483**
Engineering Number	:	**58883021**
Proposed Carrier	:	**Sprint Nextel**
Carrier Site Name	:	**Brln - Berlin**
Carrier Site Number	:	**CT03XC088**
Site Location	:	**260 Beckley Road** **Kensington, CT 06037-2419** **41.631722,-72.729900**
County	:	**Hartford**
Date	:	**June 2, 2014**
Max Usage	:	**100%**
Result	:	**Pass**

Najaf Ali

Jun 2 2014 4:06 PM

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 162 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	ITT Meyer Type "B", dated July 21, 2001 Smith Cullum Mapping Acq. #CT-0019, dated July 21, 2001
Foundation Drawing	SpectraSite Project #CT-0019, dated May 29, 2003
Geotechnical Report	Daniel G. Loucks Project #CT-0019, dated December 21, 2001
Modifications	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.

Basic Wind Speed:	80 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	69 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

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

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
163.0	163.0	3	Ericsson AIR 21, 1.3M, B2A B4P	Flush	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile
		3	Ericsson KRY 112 144/1			
		1	Concealment Canister			
152.0	152.0	6	Powerwave LGP21401	Platform w/ Handrails	(12) 1 1/4" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Cable (1) 3" Conduit	AT&T Mobility
		1	Raycap DC6-48-60-18-8F			
		6	Ericsson RRUS 11			
		3	Powerwave 7770.00			
		6	KMW AM-X-CD-16-65-00T-RET			
142.0	142.0	3	RFS APXV18-206517LS-C	Flush	(6) 1 5/8" Coax	Metropcs
127.0	127.0	3	Alcatel-Lucent 800MHz 2X50W RRH w/ Filter	Low Profile Platform	(3) 1 1/4" Hybriflex	Sprint Nextel
		6	Alcatel-Lucent 4X40W RRH			
		1	RFS APXV9ERR18-C-A20			
		2	RFS APXVSPP18-C-A20			
116.0	116.0	3	Alcatel-Lucent RRH2x40-AWS	Low Profile Platform	(19) 1 5/8" Coax (1) 1 1/4" Hybriflex	Verizon
		6	Antel BXA-171063-8BF-EDIN-X			
		1	RFS DB-T1-6Z-8AB-0Z			
		2	Andrew LNX-6514DS-T4M			
		1	RFS APX75-866514-CT0			
		6	Antel LPA-80063-6CF-EDIN-X			
106.0	109.0	3	48" x 6" Panel	Low Profile Platform	(6) 1 1/4" Coax	AT&T Mobility
96.0	96.0	12	Decibel 844G65VTZASX	Low Profile Platform	(15) 1 5/8" Coax	Sprint Nextel

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
127.0	127.0	3	Powerwave Allgon 7184.14 / M-1900-90-16.5I-2-D	-	(6) 1 5/8" Coax	Sprint Nextel
		3	RFS IBC1900BB-1			
		3	RFS IBC1900HG-2A			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
127.0	127.0	3	Alcatel-Lucent TD-RRH8x20	Low Profile Platform	(1) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS APXVTM14-C-I20			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	83%	Pass
Shaft	98%	Pass
Base Plate	100%	Pass
Flanges	37%	Pass

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	3,714.1
Axial (Kips)	62.9
Shear (Kips)	37.6

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	1.480	1.276

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

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CORPORATION

Standard Conditions

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

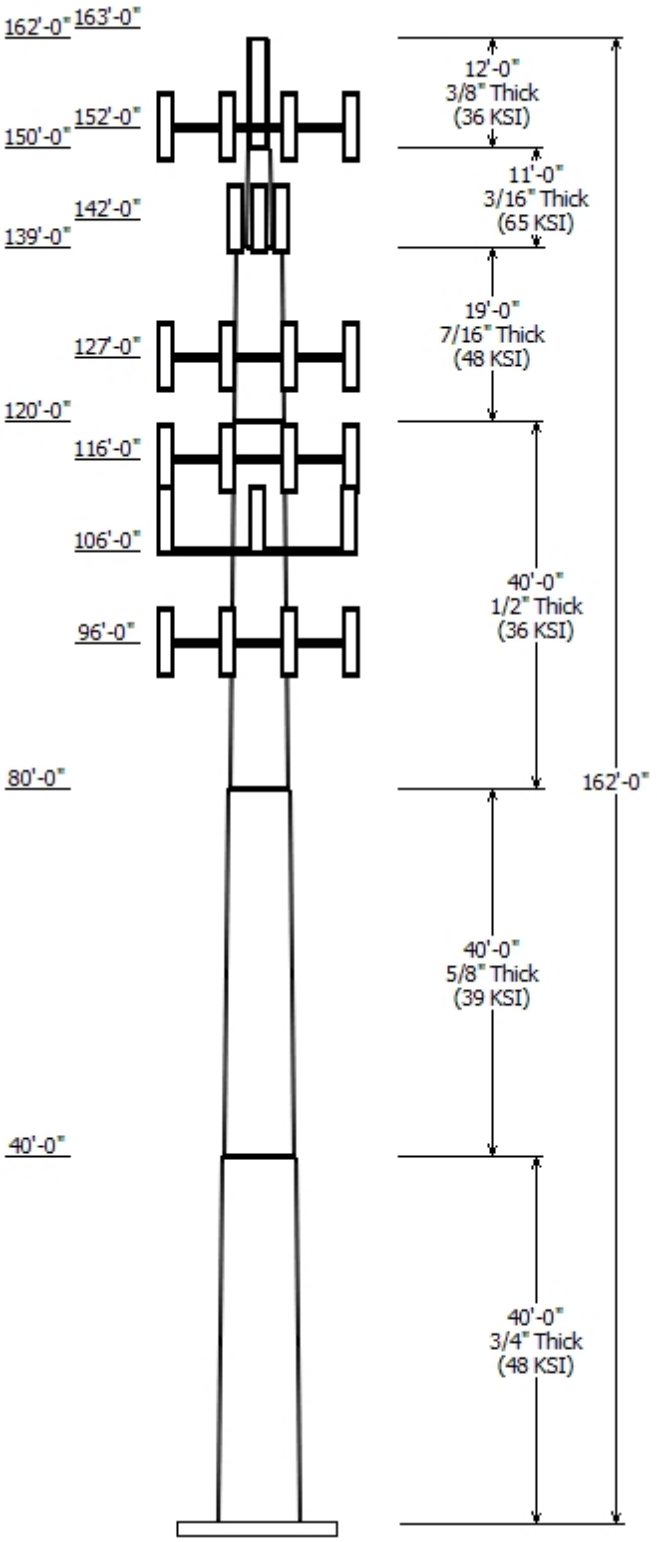
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. 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 Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole :	302483
Code:	TIA/EIA-222 Rev F
Description :	150 ft ITT Meyer Monopole
Client :	Sprint Nextel
Location :	Brln - Berlin, CT
Shape :	12 Sides
Height :	162.00 (ft)
Base Elev (ft):	0.00
Taper:	0.18970 (in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	40.000	43.71	51.30	0.750		0.000	0.189701	48
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
6	12.000	12.00	12.00	0.375	Butt Joint	0.000	0.000000	36

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
163.000	163.000	1	Concealment Canister
163.000	163.000	3	Ericsson AIR 21, 1.3M, B2A B4P
163.000	163.000	3	Ericsson KRY 112 144/1
152.000	152.000	6	Powerwave LGP21401
152.000	152.000	3	Powerwave 7770.00
152.000	152.000	1	Flat Platform w/ Handrails
152.000	152.000	6	KMW AM-X-CD-16-65-00T-RET
152.000	152.000	6	Ericsson RRUS 11
152.000	152.000	1	Raycap DC6-48-60-18-8F
142.000	142.000	3	RFS APXV18-206517LS-C
127.000	127.000	3	RFS APXVTM14-C-I20
127.000	127.000	3	Alcatel-Lucent TD-RRH8x20
127.000	127.000	1	Flat Low Profile Platform
127.000	127.000	1	RFS APXV9ERR18-C-A20
127.000	127.000	2	RFS APXVSPP18-C-A20
127.000	127.000	6	Alcatel-Lucent 4X40W RRH
127.000	127.000	3	Alcatel-Lucent 800 MHz 2X50W
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 BXA-171063-8BF-EDIN-X
116.000	116.000	1	Round Low Profile Platform
106.000	106.000	1	Flat Low Profile Platform
106.000	109.000	3	48" x 6" Panel
96.000	96.000	1	Flat Low Profile Platform
96.000	96.000	12	Decibel 844G65VTZASX

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
5.000	96.000	1 5/8" Coax	Yes
5.000	96.000	1 5/8" Coax	No
5.000	106.0	1 1/4" Coax	No
5.000	116.0	1 1/4" Hybriflex	Yes
5.000	116.0	1 5/8" Coax	Yes
5.000	127.0	1 1/4" Hybriflex	Yes
5.000	127.0	1 1/4" Hybriflex	No

5.000	142.0	1 5/8" Coax	Yes
5.000	152.0	0.39" Cable	No
5.000	152.0	0.78" 8 AWG 6	No
5.000	152.0	1 1/4" Coax	No
5.000	152.0	3" Conduit	No
5.000	163.0	1 5/8" Coax	No
5.000	163.0	1 5/8" Fiber Cable	Yes

Load Cases

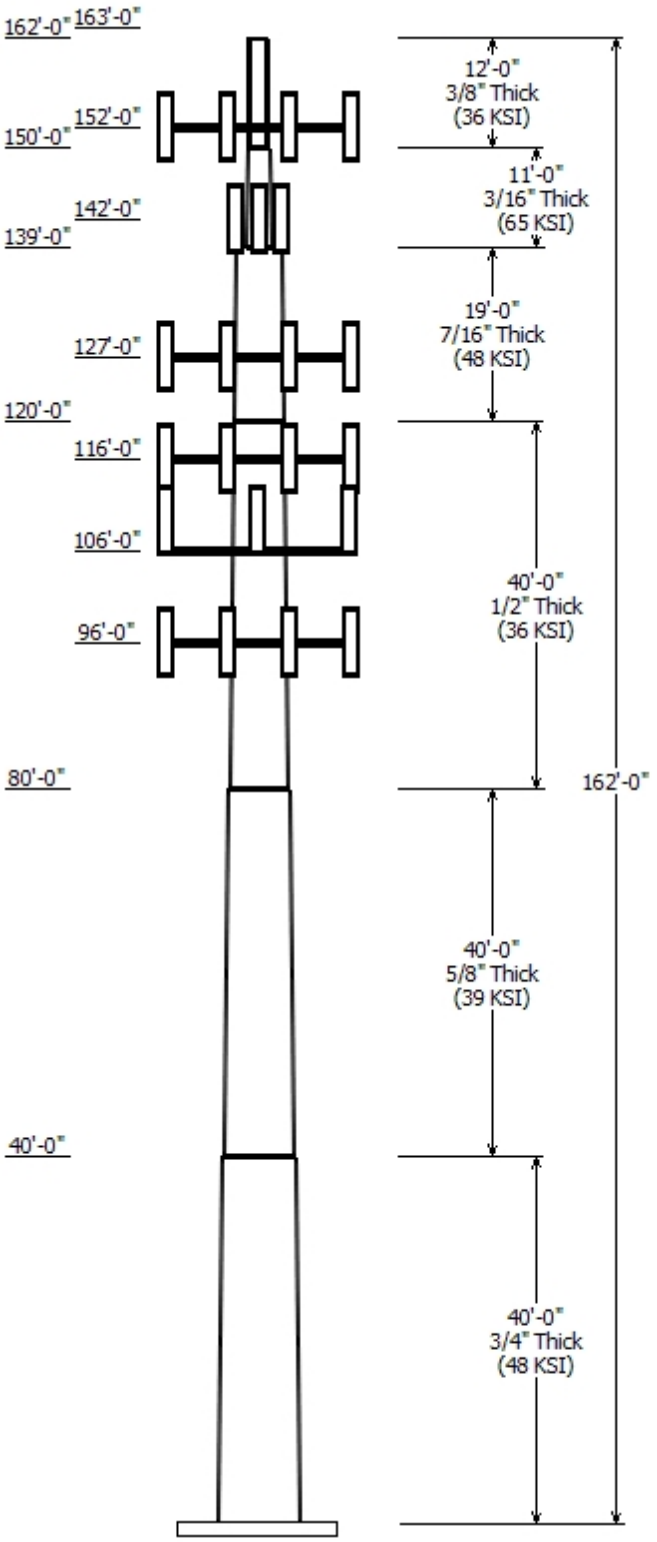
No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

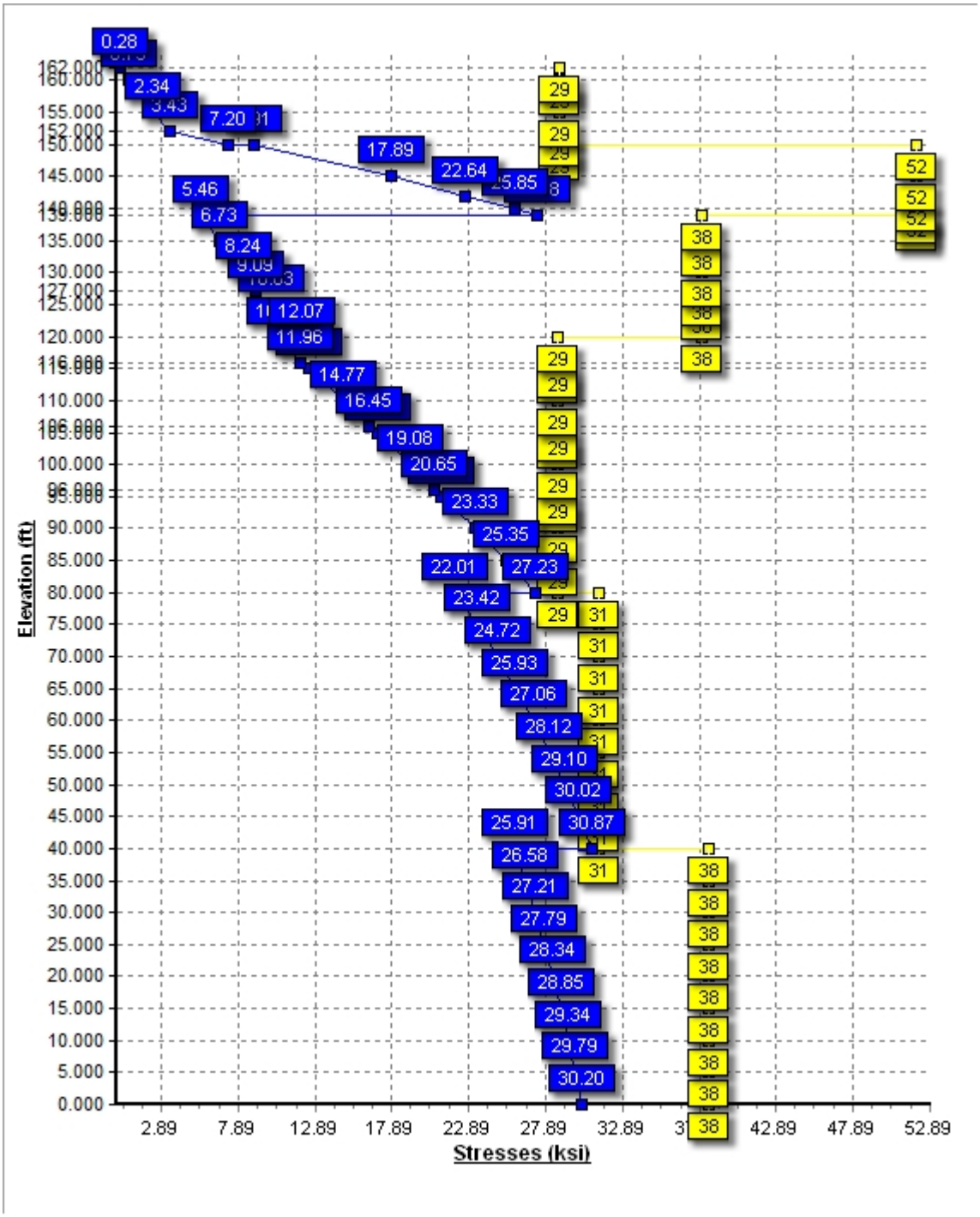
Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	3714.07	37.58	55.93
Ice	3152.02	30.97	62.88
Twist/Sway	1451.98	14.68	55.96

Dish Deflections

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

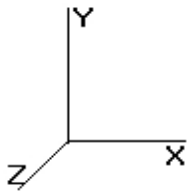



Elevation (ft)
Stresses (ksi)
0.28
2.34
3.43
7.20
17.89
22.64
25.85
5.46
6.73
8.24
12.07
11.96
14.77
16.45
19.08
20.65
23.33
25.35
22.01
27.23
23.42
24.72
25.93
27.06
28.12
29.10
30.02
25.91
30.87
26.58
27.21
27.79
28.34
28.85
29.34
29.79
30.20
29
31
38
52
2.89
7.89
12.89
17.89
22.89
27.89
32.89
42.89
47.89
52.89

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



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Page: 1

Shaft Section Properties

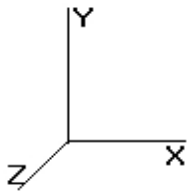
Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-12	40.000	0.7500	48		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
6-12	12.000	0.3750	36	Butt	0.00	573	12.00	150.00	14.04	242.1	6.43	32.00	12.00	162.00	14.04	242.1	6.43	32.00	0.000000
				Shaft Weight		36,411													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
163.00	Concealment Canister	1	200.00	15.000	1.00	300.00	20.000	1.00	0.000	0.000
163.00	Ericsson AIR 21, 1.3M, B2A	3	83.00	0.000	0.71	132.60	7.200	0.71	0.000	0.000
163.00	Ericsson KRY 112 144/1	3	11.00	0.000	0.50	14.10	0.550	0.50	0.000	0.000
152.00	Ericsson RRUS 11	6	55.00	2.520	0.50	74.30	3.290	0.50	0.000	0.000
152.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	2,450.00	48.400	1.00	0.000	0.000
152.00	KMW AM-X-CD-16-65-00T-	6	48.50	8.020	0.67	95.00	9.080	0.67	0.000	0.000
152.00	Powerwave 7770.00	3	35.00	5.510	0.65	67.75	6.530	0.65	0.000	0.000
152.00	Powerwave LGP21401	6	14.10	1.100	0.50	21.26	1.530	0.50	0.000	0.000
152.00	Raycap DC6-48-60-18-8F	1	20.00	1.110	1.00	35.10	1.460	1.00	0.000	0.000
142.00	RFS APXV18-206517LS-C	3	22.00	5.020	0.68	48.13	5.700	0.68	0.000	0.000
127.00	Alcatel-Lucent 4X40W RRH	6	59.50	3.260	0.50	82.60	3.070	0.50	0.000	0.000
127.00	Alcatel-Lucent 800 MHz	3	64.00	2.060	0.50	86.10	2.720	0.50	0.000	0.000
127.00	Alcatel-Lucent TD-RRH8x20	3	66.10	3.690	0.67	77.40	2.430	0.67	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	0.71	113.90	9.080	0.71	0.000	0.000
127.00	RFS APXVSPP18-C-A20	2	57.00	8.020	0.69	106.50	9.080	0.69	0.000	0.000
127.00	RFS APXVTM14-C-I20	3	52.90	6.340	0.66	92.40	7.580	0.66	0.000	0.000
116.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.160	0.50	61.40	2.870	0.50	0.000	0.000
116.00	Andrew LNX-6514DS-T4M	2	38.40	8.170	0.69	88.90	9.240	0.69	0.000	0.000
116.00	Antel BXA-171063-8BF-EDIN-X	6	10.50	2.940	0.71	29.30	3.410	0.71	0.000	0.000
116.00	Antel LPA-80063-6CF-EDIN-X	6	27.00	9.730	0.75	101.90	11.350	0.75	0.000	0.000
116.00	RFS APX75-866514-CT0	1	30.80	9.640	0.64	81.10	10.690	0.64	0.000	0.000
116.00	RFS DB-T1-6Z-8AB-0Z	1	110.00	4.800	1.00	144.50	6.080	1.00	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	48" x 6" Panel	3	20.00	2.870	0.67	40.00	4.000	0.67	0.000	3.000
106.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	0.00	0.000	1.00	0.000	0.000
96.00	Decibel 844G65VTZASX	12	16.00	5.310	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	89	11287.20			13,561.19			Number of Loadings :	28

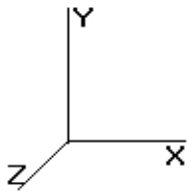
Linear Appurtenance Properties

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
5.00	163.00	(12) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
5.00	163.00	(1) 1 5/8" Fiber Cable	1.61	0.00	0.00	0.00	Y
5.00	152.00	(1) 0.39" Cable	0.07	0.00	0.00	0.00	N
5.00	152.00	(2) 0.78" 8 AWG 6	1.18	0.00	0.00	0.00	N
5.00	152.00	(12) 1 1/4" Coax	12.00	0.00	0.00	0.00	N



5.00	152.00	(1) 3" Conduit	7.58	0.00	0.00	0.00	N
5.00	142.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
5.00	127.00	(3) 1 1/4" Hybriflex	3.00	0.16	3.77	0.21	Y
5.00	127.00	(1) 1 1/4" Hybriflex	1.00	0.00	0.00	0.00	N
5.00	116.00	(1) 1 1/4" Hybriflex	1.00	0.00	0.00	0.00	Y
5.00	116.00	(19) 1 5/8" Coax	15.58	0.59	18.93	0.64	Y
5.00	106.00	(6) 1 1/4" Coax	0.63	0.00	0.00	0.00	N
5.00	96.00	(6) 1 5/8" Coax	4.92	0.39	9.46	0.44	Y
5.00	96.00	(9) 1 5/8" Coax	7.38	0.00	0.00	0.00	N
		Total Weight	8,279.10 (lb)		4,718.05 (lb)		

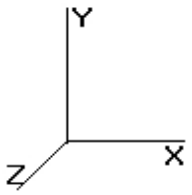
Pole :	**302483**	**Code: TIA/EIA-222 Rev F**	**6/2/2014 3:55:22 PM**
Location :	**Brln - Berlin, CT**		**Page: 3**
Height :	**162.0 (ft)**		
Base Dia :	**51.30 (in)**		
Top Dia :	**12.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**12 Sides**		
Taper :	**0.189701 (in/ft)**		



Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.7500	51.300	122.078	39,816.6	16.18	68.40	48	38	0.0
5.00		0.7500	50.351	119.787	37,617.1	15.85	67.14	48	38	2,057.5
10.00		0.7500	49.403	117.497	35,500.1	15.51	65.87	48	38	2,018.6
15.00		0.7500	48.454	115.206	33,464.0	15.17	64.61	48	38	1,979.6
20.00		0.7500	47.506	112.915	31,507.4	14.83	63.34	48	38	1,940.6
25.00		0.7500	46.557	110.625	29,628.5	14.49	62.08	48	38	1,901.6
30.00		0.7500	45.609	108.334	27,825.8	14.15	60.81	48	38	1,862.7
35.00		0.7500	44.660	106.044	26,097.8	13.81	59.55	48	38	1,823.7
40.00	Top - Section 1	0.7500	43.712	103.753	24,442.9	13.47	58.28	48	38	1,784.7
40.00	Bot - Section 2	0.6250	43.680	86.648	20,501.8	16.58	69.89	39	31	
45.00		0.6250	42.731	84.739	19,176.5	16.18	68.37	39	31	1,458.0
50.00		0.6250	41.783	82.830	17,909.5	15.77	66.85	39	31	1,425.5
55.00		0.6250	40.834	80.922	16,699.7	15.36	65.34	39	31	1,393.0
60.00		0.6250	39.886	79.013	15,545.5	14.96	63.82	39	31	1,360.6
65.00		0.6250	38.937	77.104	14,445.8	14.55	62.30	39	31	1,328.1
70.00		0.6250	37.989	75.195	13,399.3	14.14	60.78	39	31	1,295.6
75.00		0.6250	37.040	73.286	12,404.5	13.74	59.26	39	31	1,263.1
80.00	Top - Section 2	0.6250	36.092	71.377	11,460.3	13.33	57.75	39	31	1,230.6
80.00	Bot - Section 3	0.5000	36.092	57.303	9,265.7	17.20	72.18	36	29	
85.00		0.5000	35.144	55.776	8,544.5	16.69	70.29	36	29	962.0
90.00		0.5000	34.195	54.249	7,861.7	16.18	68.39	36	29	936.0
95.00		0.5000	33.247	52.722	7,216.3	15.67	66.49	36	29	910.0
96.00		0.5000	33.057	52.417	7,091.6	15.57	66.11	36	29	178.9
100.0		0.5000	32.298	51.195	6,607.2	15.16	64.60	36	29	705.1
105.0		0.5000	31.350	49.668	6,033.4	14.66	62.70	36	29	858.0
106.0		0.5000	31.160	49.363	5,922.8	14.55	62.32	36	29	168.5
110.0		0.5000	30.401	48.141	5,493.9	14.15	60.80	36	29	663.6
115.0		0.5000	29.453	46.614	4,987.4	13.64	58.91	36	29	806.1
116.0		0.5000	29.263	46.308	4,890.0	13.54	58.53	36	29	158.1
120.0	Top - Section 3	0.5000	28.504	45.087	4,513.2	13.13	57.01	36	29	622.0
120.0	Bot - Section 4	0.4375	28.504	39.539	3,975.5	15.31	65.15	48	38	
125.0		0.4375	27.556	38.203	3,585.9	14.73	62.98	48	38	661.3
127.0		0.4375	27.176	37.668	3,437.5	14.50	62.12	48	38	258.2
130.0		0.4375	26.607	36.866	3,222.6	14.15	60.82	48	38	380.4
135.0		0.4375	25.659	35.530	2,884.8	13.57	58.65	48	38	615.9
139.0	Top - Section 4	0.4375	24.900	34.461	2,632.2	13.11	56.91	48	38	476.3
139.0	Bot - Section 5	0.1875	16.720	9.981	348.2	21.75	89.17	65	52	
140.0		0.1875	16.564	9.887	338.4	21.53	88.34	65	52	33.8
142.0		0.1875	16.251	9.698	319.4	21.08	86.67	65	52	66.6
145.0		0.1875	15.782	9.415	292.2	20.41	84.17	65	52	97.6
150.0	Top - Section 5	0.1875	15.000	8.943	250.4	19.29	80.00	65	52	156.2
150.0	Bot - Section 6	0.3750	12.000	14.037	242.1	6.43	32.00	36	29	
152.0		0.3750	12.000	14.037	242.1	6.43	32.00	36	29	95.5
155.0		0.3750	12.000	14.037	242.1	6.43	32.00	36	29	143.3
160.0		0.3750	12.000	14.037	242.1	6.43	32.00	36	29	238.8
162.0		0.3750	12.000	14.037	242.1	6.43	32.00	36	29	95.5
										36,411.3

Pole :	**302483**	**Code: TIA/EIA-222 Rev F**	**6/2/2014 3:55:22 PM**
Location :	**Brln - Berlin, CT**		**Page: 4**
Height :	**162.0 (ft)**		
Base Dia :	**51.30 (in)**		
Top Dia :	**12.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**12 Sides**		
Taper :	**0.189701 (in/ft)**		



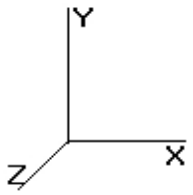
Load Case: **No Ice** — **80.00 mph Wind with No Ice** — **23 Iterations**

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)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	16.384	27.68	341.99	1.030	0.000	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	2,057.5
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	2,018.6
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	1,979.6
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	1,940.6
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	1,901.6
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	1,862.7
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	1,823.7
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	1,784.7
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	1,458.0
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	1,425.5
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	1,393.0
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	1,360.6
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	1,328.1
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	1,295.6
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	1,263.1
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	1,230.6
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	962.0
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	936.0
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	910.0
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
100.0		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
105.0		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
106.0	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
110.0		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
115.0		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
116.0	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
120.0	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
125.0		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
127.0	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
130.0		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
135.0		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
139.0	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
140.0		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
142.0	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
145.0		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
150.0	Top - Section 5	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
152.0	Appertunance(s)	0.00	1.54	25.348	42.83	99.506	1.030	0.000	2.00	2.000	2.06	88.2	0.0	95.5
155.0		0.00	1.55	25.490	43.07	99.785	1.030	0.000	3.00	3.000	3.09	133.1	0.0	143.3
160.0		0.00	1.57	25.722	43.47	100.23	1.030	0.000	5.00	5.000	5.15	223.9	0.0	238.8
162.0	Appertunance(s)	0.00	1.57	25.814	43.62	100.41	1.030	0.000	2.00	2.000	2.06	89.9	0.0	95.5
							Totals:		162.00			16,261.7	0.0	36,411.3

Pole :	302483	Code: TIA/EIA-222 Rev F	6/2/2014 3:55:22 PM
Location :	Brln - Berlin, CT		Page: 5
Height :	162.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	12.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

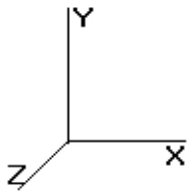
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (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	45.24	0.000	0.000	1,699.58	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	48" x 6" Panel	3	23.051	38.955	0.67	5.77	0.000	3.000	224.72	0.00	674.17	60.00
106.0	Flat Low Profile Pla	1	22.867	38.646	1.00	26.10	0.000	0.000	1,008.66	0.00	0.00	1,500.00
116.0	Round Low Profile Pl	1	23.464	39.654	1.00	21.70	0.000	0.000	860.50	0.00	0.00	1,500.00
116.0	Antel BXA-171063-8BF	6	23.464	39.654	0.71	12.52	0.000	0.000	496.65	0.00	0.00	63.00
116.0	Andrew LNX-6514DS-	2	23.464	39.654	0.69	11.27	0.000	0.000	447.09	0.00	0.00	76.80
116.0	RFS APX75-866514-	1	23.464	39.654	0.64	6.17	0.000	0.000	244.65	0.00	0.00	30.80
116.0	Antel LPA-80063-6CF-	6	23.464	39.654	0.75	43.78	0.000	0.000	1,736.27	0.00	0.00	162.00
116.0	RFS DB-T1-6Z-8AB-0Z	1	23.464	39.654	1.00	4.80	0.000	0.000	190.34	0.00	0.00	110.00
116.0	Alcatel-Lucent RRH2x	3	23.464	39.654	0.50	3.24	0.000	0.000	128.48	0.00	0.00	132.00
127.0	Alcatel-Lucent 800 M	3	24.079	40.694	0.50	3.09	0.000	0.000	125.75	0.00	0.00	192.00
127.0	Alcatel-Lucent 4X40W	6	24.079	40.694	0.50	9.78	0.000	0.000	397.99	0.00	0.00	357.00
127.0	RFS APXVSPP18-C-	2	24.079	40.694	0.69	11.07	0.000	0.000	450.39	0.00	0.00	114.00
127.0	RFS APXV9ERR18-C-	1	24.079	40.694	0.71	5.69	0.000	0.000	231.72	0.00	0.00	62.00
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	Alcatel-Lucent TD-RR	3	24.079	40.694	0.67	7.42	0.000	0.000	301.82	0.00	0.00	198.30
127.0	RFS APXVTM14-C-I20	3	24.079	40.694	0.66	12.55	0.000	0.000	510.84	0.00	0.00	158.70
142.0	RFS APXV18-	3	24.860	42.013	0.68	10.24	0.000	0.000	430.25	0.00	0.00	66.00
152.0	Raycap DC6-48-60-18-	1	25.348	42.838	1.00	1.11	0.000	0.000	47.55	0.00	0.00	20.00
152.0	Ericsson RRUS 11	6	25.348	42.838	0.50	7.56	0.000	0.000	323.86	0.00	0.00	330.00
152.0	KMW AM-X-CD-16-65-	6	25.348	42.838	0.67	32.24	0.000	0.000	1,381.12	0.00	0.00	291.00
152.0	Flat Platform w/ Han	1	25.348	42.838	1.00	42.40	0.000	0.000	1,816.33	0.00	0.00	2,000.00
152.0	Powerwave 7770.00	3	25.348	42.838	0.65	10.74	0.000	0.000	460.27	0.00	0.00	105.00
152.0	Powerwave LGP21401	6	25.348	42.838	0.50	3.30	0.000	0.000	141.37	0.00	0.00	84.60
163.0	Ericsson KRY 112 144	3	25.859	43.702	0.50	0.00	0.000	0.000	0.00	0.00	0.00	33.00
163.0	Ericsson AIR 21, 1.3	3	25.859	43.702	0.71	0.00	0.000	0.000	0.00	0.00	0.00	249.00
163.0	Concealment Canister	1	25.859	43.702	1.00	15.00	0.000	0.000	655.53	0.00	655.53	200.00
									16,354.33			11,287.20

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

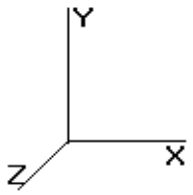


Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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)
10.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.384	0.00	8.05
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.384	22.15	15.00
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.384	0.00	5.00
10.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.384	81.68	77.90
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
15.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.384	0.00	8.05
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.384	22.15	15.00
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.384	0.00	5.00
15.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.384	81.68	77.90
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
20.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.384	0.00	8.05
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.384	22.15	15.00
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.384	0.00	5.00
20.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.384	81.68	77.90
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
25.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.384	0.00	8.05
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.384	22.15	15.00
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.384	0.00	5.00
25.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.384	81.68	77.90
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
30.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.384	0.00	8.05
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.384	22.15	15.00
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.384	0.00	5.00
30.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.384	81.68	77.90
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.384	53.99	24.60
35.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	16.662	0.00	8.05
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.662	28.16	24.60
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	16.662	22.53	15.00
35.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	16.662	0.00	5.00
35.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	16.662	83.07	77.90
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	16.662	54.91	24.60
40.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	17.310	0.00	8.05
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.310	29.25	24.60
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	17.310	23.40	15.00
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	17.310	0.00	5.00
40.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	17.310	86.30	77.90
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	17.310	57.04	24.60
45.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	17.902	0.00	8.05
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.902	30.25	24.60
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	17.902	24.20	15.00
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	17.902	0.00	5.00
45.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	17.902	89.25	77.90
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	17.902	59.00	24.60
50.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	18.449	0.00	8.05
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.449	31.18	24.60
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	18.449	24.94	15.00



Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

50.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	18.449	0.00	5.00
50.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	18.449	91.98	77.90
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	18.449	60.80	24.60
55.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	18.959	0.00	8.05
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.959	32.04	24.60
55.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	18.959	25.63	15.00
55.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	18.959	0.00	5.00
55.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	18.959	94.52	77.90
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	18.959	62.48	24.60
60.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	19.436	0.00	8.05
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.436	32.85	24.60
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	19.436	26.28	15.00
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	19.436	0.00	5.00
60.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	19.436	96.90	77.90
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	19.436	64.05	24.60
65.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	19.885	0.00	8.05
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.885	33.61	24.60
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	19.885	26.89	15.00
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	19.885	0.00	5.00
65.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	19.885	99.14	77.90
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	19.885	65.53	24.60
70.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	20.311	0.00	8.05
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.311	34.33	24.60
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	20.311	27.46	15.00
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	20.311	0.00	5.00
70.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	20.311	101.26	77.90
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	20.311	66.93	24.60
75.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	20.715	0.00	8.05
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.715	35.01	24.60
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	20.715	28.01	15.00
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	20.715	0.00	5.00
75.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	20.715	103.28	77.90
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	20.715	68.27	24.60
80.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	21.101	0.00	8.05
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.101	35.66	24.60
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	21.101	28.53	15.00
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	21.101	0.00	5.00
80.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	21.101	105.20	77.90
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.101	69.54	24.60
85.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	21.469	0.00	8.05
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.469	36.28	24.60
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	21.469	29.03	15.00
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	21.469	0.00	5.00
85.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	21.469	107.04	77.90
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.469	70.75	24.60
90.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	21.823	0.00	8.05
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.823	36.88	24.60
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	21.823	29.50	15.00
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	21.823	0.00	5.00
90.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	21.823	108.80	77.90
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	21.823	71.92	24.60
95.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	22.163	0.00	8.05
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.163	37.45	24.60
95.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	22.163	29.96	15.00
95.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	22.163	0.00	5.00
95.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	22.163	110.49	77.90
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	22.163	73.04	24.60

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
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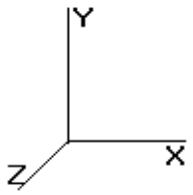
Code: TIA/EIA-222 Rev F

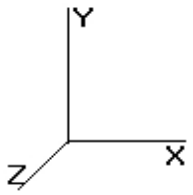
Base Elev : 0.000 (ft)



Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

96.00	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	22.229	0.00	1.61
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.229	7.51	4.92
96.00	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	22.229	6.01	3.00
96.00	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	22.229	0.00	1.00
96.00	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	22.229	22.16	15.58
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.39	22.229	14.65	4.92
100.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	22.490	0.00	6.44
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	22.490	30.41	19.68
100.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	22.490	24.33	12.00
100.0	(1) 1 1/4" Hybriflex	Yes	4.00	1.00	0.00	22.490	0.00	4.00
100.0	(19) 1 5/8" Coax	Yes	4.00	15.58	0.59	22.490	89.70	62.32
105.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	22.806	0.00	8.05
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.806	38.54	24.60
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	22.806	30.83	15.00
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	22.806	0.00	5.00
105.0	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	22.806	113.70	77.90
106.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	22.867	0.00	1.61
106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.867	7.73	4.92
106.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	22.867	6.18	3.00
106.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	22.867	0.00	1.00
106.0	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	22.867	22.80	15.58
110.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	23.111	0.00	6.44
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	23.111	31.25	19.68
110.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	23.111	25.00	12.00
110.0	(1) 1 1/4" Hybriflex	Yes	4.00	1.00	0.00	23.111	0.00	4.00
110.0	(19) 1 5/8" Coax	Yes	4.00	15.58	0.59	23.111	92.17	62.32
115.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	23.406	0.00	8.05
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	23.406	39.56	24.60
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	23.406	31.65	15.00
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	23.406	0.00	5.00
115.0	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	23.406	116.69	77.90
116.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	23.464	0.00	1.61
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	23.464	7.93	4.92
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	23.464	6.34	3.00
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	23.464	0.00	1.00
116.0	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	23.464	23.40	15.58
120.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	23.692	0.00	6.44
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	23.692	32.03	19.68
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	23.692	25.63	12.00
125.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	23.970	0.00	8.05
125.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	23.970	40.51	24.60
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	23.970	32.41	15.00
127.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	24.079	0.00	3.22
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.079	16.28	9.84
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	3.00	0.16	24.079	13.02	6.00
130.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	24.241	0.00	4.83
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	24.241	24.58	14.76
135.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	24.503	0.00	8.05
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	24.503	41.41	24.60
139.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	24.709	0.00	6.44
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	24.709	33.41	19.68
140.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	24.759	0.00	1.61
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	24.759	8.37	4.92
142.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	24.860	0.00	3.22
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.860	16.81	9.84
145.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	25.009	0.00	4.83
150.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	25.252	0.00	8.05

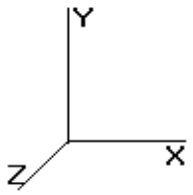


Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

152.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	25.348		0.00	3.22
155.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	25.490		0.00	4.83
160.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	25.722		0.00	8.05
162.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	25.814		0.00	3.22
							Totals:	4,901.34	3,580.91

Pole :	**302483**	**Code: TIA/EIA-222 Rev F**	**6/2/2014 3:55:22 PM**
Location :	**Brln - Berlin, CT**		**Page: 10**
Height :	**162.0 (ft)**		
Base Dia :	**51.30 (in)**		
Top Dia :	**12.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**12 Sides**		
Taper :	**0.189701 (in/ft)**		

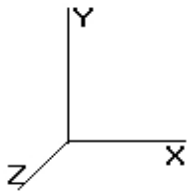


Load Case: **No Ice** — **80.00 mph Wind with No Ice** — **23 Iterations**

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	603.97	2,057.54	0.00	0.00
10.00	778.22	2,347.51	0.00	0.00
15.00	766.94	2,308.54	0.00	0.00
20.00	755.67	2,269.57	0.00	0.00
25.00	744.40	2,230.59	0.00	0.00
30.00	733.13	2,191.62	0.00	0.00
35.00	734.10	2,152.65	0.00	0.00
40.00	750.74	2,113.68	0.00	0.00
45.00	763.70	1,786.93	0.00	0.00
50.00	774.35	1,754.46	0.00	0.00
55.00	782.68	1,721.98	0.00	0.00
60.00	789.01	1,689.50	0.00	0.00
65.00	793.59	1,657.03	0.00	0.00
70.00	796.60	1,624.55	0.00	0.00
75.00	798.20	1,592.07	0.00	0.00
80.00	798.54	1,559.59	0.00	0.00
85.00	797.73	1,290.91	0.00	0.00
90.00	795.85	1,264.93	0.00	0.00
95.00	792.99	1,238.95	0.00	0.00
96.00	2,837.33	1,936.67	0.00	0.00
100.0	570.85	919.10	0.00	0.00
105.0	709.46	1,125.49	0.00	0.00
106.0	1,373.77	1,781.98	0.00	674.17
110.0	561.17	875.01	0.00	0.00
115.0	695.94	1,070.37	0.00	0.00
116.0	4,241.56	2,285.56	0.00	0.00
120.0	454.73	767.11	0.00	0.00
125.0	560.23	842.74	0.00	0.00
127.0	3,301.10	2,912.73	0.00	0.00
130.0	308.26	477.28	0.00	0.00
135.0	505.85	777.27	0.00	0.00
139.0	395.83	605.45	0.00	0.00
140.0	68.14	66.08	0.00	0.00
142.0	565.39	197.20	0.00	0.00
145.0	174.31	179.64	0.00	0.00
150.0	281.89	292.97	0.00	0.00
152.0	4,258.73	2,980.85	0.00	0.00
155.0	133.11	162.89	0.00	0.00
160.0	223.87	271.48	0.00	0.00
162.0	745.39	590.59	0.00	655.53
Totals:	**37,517.32**	**55,971.07**	**0.00**	**1,329.69**



Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

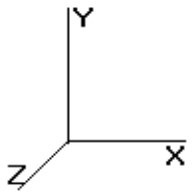
Calculated Shaft Forces and Deflections

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	-37.581	-55.927	0.000	0.000	0.000	-3,714.074	0.000	0.000	0.000	0.000
5.00	-37.096	-53.787	0.000	0.000	0.000	-3,526.173	-0.070	0.000	0.070	-0.129
10.00	-36.427	-51.359	0.000	0.000	0.000	-3,340.695	-0.275	0.000	0.275	-0.259
15.00	-35.758	-48.974	0.000	0.000	0.000	-3,158.565	-0.616	0.000	0.616	-0.389
20.00	-35.091	-46.631	0.000	0.000	0.000	-2,979.777	-1.094	0.000	1.094	-0.520
25.00	-34.425	-44.330	0.000	0.000	0.000	-2,804.326	-1.709	0.000	1.709	-0.650
30.00	-33.760	-42.071	0.000	0.000	0.000	-2,632.206	-2.461	0.000	2.461	-0.781
35.00	-33.085	-39.854	0.000	0.000	0.000	-2,463.408	-3.349	0.000	3.349	-0.911
40.00	-32.383	-37.681	0.000	0.000	0.000	-2,297.988	-4.373	0.000	4.373	-1.041
45.00	-31.673	-35.831	0.000	0.000	0.000	-2,136.075	-5.532	0.000	5.532	-1.170
50.00	-30.951	-34.012	0.000	0.000	0.000	-1,977.710	-6.840	0.000	6.840	-1.323
55.00	-30.211	-32.230	0.000	0.000	0.000	-1,822.956	-8.306	0.000	8.306	-1.473
60.00	-29.455	-30.487	0.000	0.000	0.000	-1,671.902	-9.930	0.000	9.930	-1.622
65.00	-28.686	-28.782	0.000	0.000	0.000	-1,524.628	-11.708	0.000	11.708	-1.769
70.00	-27.904	-27.115	0.000	0.000	0.000	-1,381.200	-13.637	0.000	13.637	-1.912
75.00	-27.113	-25.487	0.000	0.000	0.000	-1,241.680	-15.714	0.000	15.714	-2.051
80.00	-26.312	-23.897	0.000	0.000	0.000	-1,106.120	-17.935	0.000	17.935	-2.186
85.00	-25.520	-22.576	0.000	0.000	0.000	-974.562	-20.293	0.000	20.293	-2.315
90.00	-24.726	-21.282	0.000	0.000	0.000	-846.965	-22.800	0.000	22.800	-2.466
95.00	-23.909	-20.045	0.000	0.000	0.000	-723.334	-25.460	0.000	25.460	-2.608
96.00	-21.007	-18.215	0.000	0.000	0.000	-699.426	-26.009	0.000	26.009	-2.636
100.0	-20.428	-17.283	0.000	0.000	0.000	-615.399	-28.263	0.000	28.263	-2.742
105.0	-19.685	-16.170	0.000	0.000	0.000	-513.259	-31.201	0.000	31.201	-2.863
106.0	-18.237	-14.441	0.000	0.000	0.000	-492.901	-31.803	0.000	31.803	-2.887
110.0	-17.654	-13.567	0.000	0.000	0.000	-419.952	-34.259	0.000	34.259	-2.975
115.0	-16.915	-12.518	0.000	0.000	0.000	-331.682	-37.428	0.000	37.428	-3.072
116.0	-12.565	-10.455	0.000	0.000	0.000	-314.767	-38.073	0.000	38.073	-3.091
120.0	-12.081	-9.698	0.000	0.000	0.000	-264.508	-40.691	0.000	40.691	-3.158
125.0	-11.483	-8.878	0.000	0.000	0.000	-204.104	-44.038	0.000	44.038	-3.232
127.0	-8.026	-6.152	0.000	0.000	0.000	-181.139	-45.398	0.000	45.398	-3.262
130.0	-7.696	-5.686	0.000	0.000	0.000	-157.063	-47.460	0.000	47.460	-3.304
135.0	-7.150	-4.933	0.000	0.000	0.000	-118.584	-50.953	0.000	50.953	-3.365
139.0	-6.721	-4.349	0.000	0.000	0.000	-89.984	-53.789	0.000	53.789	-3.406
140.0	-6.655	-4.279	0.000	0.000	0.000	-83.263	-54.503	0.000	54.503	-3.416
142.0	-6.089	-4.101	0.000	0.000	0.000	-69.954	-55.962	0.000	55.962	-3.545
145.0	-5.916	-3.914	0.000	0.000	0.000	-51.688	-58.243	0.000	58.243	-3.707
150.0	-5.621	-3.631	0.000	0.000	0.000	-22.110	-62.231	0.000	62.231	-3.887
152.0	-1.170	-0.947	0.000	0.000	0.000	-10.867	-63.867	0.000	63.867	-3.924
155.0	-1.026	-0.793	0.000	0.000	0.000	-7.357	-66.342	0.000	66.342	-3.956
160.0	-0.785	-0.537	0.000	0.000	0.000	-2.225	-70.499	0.000	70.499	-3.984
162.0	-0.745	0.000	0.000	0.000	0.000	-0.656	-72.168	0.000	72.168	-3.988

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 80.00 mph Wind with No Ice — 23 Iterations

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

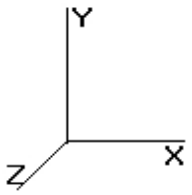
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.46	0.63	0.00	0.00	0.00	29.72	30.20	38.5	0.0	0.785
5.00	0.45	0.63	0.00	0.00	0.00	29.32	29.79	38.5	0.0	0.774
10.00	0.44	0.63	0.00	0.00	0.00	28.88	29.34	38.5	0.0	0.762
15.00	0.43	0.63	0.00	0.00	0.00	28.41	28.85	38.5	0.0	0.750
20.00	0.41	0.63	0.00	0.00	0.00	27.91	28.34	38.5	0.0	0.737
25.00	0.40	0.63	0.00	0.00	0.00	27.37	27.79	38.5	0.0	0.722
30.00	0.39	0.63	0.00	0.00	0.00	26.80	27.21	38.5	0.0	0.707
35.00	0.38	0.63	0.00	0.00	0.00	26.19	26.58	38.5	0.0	0.691
40.00	0.36	0.63	0.00	0.00	0.00	25.53	25.91	38.5	0.0	0.673
40.00	0.43	0.76	0.00	0.00	0.00	30.41	30.87	31.4	0.0	0.985
45.00	0.42	0.76	0.00	0.00	0.00	29.57	30.02	31.4	0.0	0.957
50.00	0.41	0.76	0.00	0.00	0.00	28.66	29.10	31.4	0.0	0.928
55.00	0.40	0.76	0.00	0.00	0.00	27.69	28.12	31.4	0.0	0.897
60.00	0.39	0.76	0.00	0.00	0.00	26.65	27.06	31.4	0.0	0.863
65.00	0.37	0.76	0.00	0.00	0.00	25.53	25.93	31.4	0.0	0.827
70.00	0.36	0.75	0.00	0.00	0.00	24.32	24.72	31.4	0.0	0.788
75.00	0.35	0.75	0.00	0.00	0.00	23.03	23.42	31.4	0.0	0.747
80.00	0.33	0.75	0.00	0.00	0.00	21.64	22.01	31.4	0.0	0.702
80.00	0.42	0.93	0.00	0.00	0.00	26.76	27.23	28.7	0.0	0.948
85.00	0.40	0.93	0.00	0.00	0.00	24.90	25.35	28.7	0.0	0.883
90.00	0.39	0.93	0.00	0.00	0.00	22.88	23.33	28.7	0.0	0.812
95.00	0.38	0.92	0.00	0.00	0.00	20.70	21.14	28.7	0.0	0.736
96.00	0.35	0.81	0.00	0.00	0.00	20.25	20.65	28.7	0.0	0.719
100.00	0.34	0.81	0.00	0.00	0.00	18.69	19.08	28.7	0.0	0.664
105.00	0.33	0.81	0.00	0.00	0.00	16.57	16.95	28.7	0.0	0.590
106.00	0.29	0.75	0.00	0.00	0.00	16.11	16.45	28.7	0.0	0.573
110.00	0.28	0.75	0.00	0.00	0.00	14.44	14.77	28.7	0.0	0.514
115.00	0.27	0.74	0.00	0.00	0.00	12.17	12.50	28.7	0.0	0.435
116.00	0.23	0.55	0.00	0.00	0.00	11.70	11.96	28.7	0.0	0.417
120.00	0.22	0.54	0.00	0.00	0.00	10.38	10.63	28.7	0.0	0.370
120.00	0.25	0.62	0.00	0.00	0.00	11.78	12.07	38.1	0.0	0.317
125.00	0.23	0.61	0.00	0.00	0.00	9.74	10.03	38.1	0.0	0.263
127.00	0.16	0.43	0.00	0.00	0.00	8.90	9.09	38.1	0.0	0.239
130.00	0.15	0.42	0.00	0.00	0.00	8.06	8.24	38.1	0.0	0.216
135.00	0.14	0.41	0.00	0.00	0.00	6.55	6.73	38.1	0.0	0.177
139.00	0.13	0.40	0.00	0.00	0.00	5.29	5.46	38.1	0.0	0.143
139.00	0.44	1.37	0.00	0.00	0.00	26.84	27.38	52.0	0.0	0.526
140.00	0.43	1.37	0.00	0.00	0.00	25.31	25.85	52.0	0.0	0.497
142.00	0.42	1.28	0.00	0.00	0.00	22.11	22.64	52.0	0.0	0.435
145.00	0.42	1.28	0.00	0.00	0.00	17.34	17.89	52.0	0.0	0.344
150.00	0.41	1.28	0.00	0.00	0.00	8.23	8.91	52.0	0.0	0.171
150.00	0.26	0.81	0.00	0.00	0.00	6.81	7.20	28.8	0.0	0.250
152.00	0.07	0.17	0.00	0.00	0.00	3.35	3.43	28.8	0.0	0.119
155.00	0.06	0.15	0.00	0.00	0.00	2.26	2.34	28.8	0.0	0.081
160.00	0.04	0.11	0.00	0.00	0.00	0.68	0.75	28.8	0.0	0.026
162.00	0.00	0.11	0.00	0.00	0.00	0.20	0.28	28.8	0.0	0.010

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

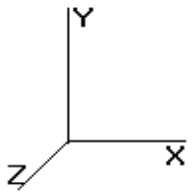
Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (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
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
100.0		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
105.0		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
106.0	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
110.0		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
115.0		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
116.0	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
120.0	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
125.0		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
127.0	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
130.0		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
135.0		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
139.0	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
140.0		0.00	1.51	18.568	31.38	117.55	1.030	0.500	1.00	1.470	1.51	47.5	10.7	44.5
142.0	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
145.0		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
150.0	Top - Section 5	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
152.0	Appertunance(s)	0.00	1.54	19.010	32.12	86.173	1.030	0.500	2.00	2.167	2.23	71.7	15.7	111.2
155.0		0.00	1.55	19.116	32.30	86.414	1.030	0.500	3.00	3.250	3.35	108.1	23.5	166.8
160.0		0.00	1.57	19.290	32.60	86.806	1.030	0.500	5.00	5.417	5.58	181.9	39.1	278.0
162.0	Appertunance(s)	0.00	1.57	19.359	32.71	86.961	1.030	0.500	2.00	2.167	2.23	73.0	15.7	111.2
							Totals:		162.00			12,564.8	3,524.5	39,935.8

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

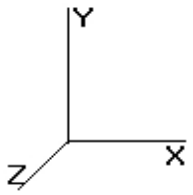
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (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	48" x 6" Panel	3	17.287	29.215	0.67	8.04	0.000	3.000	234.89	0.00	704.66	120.00
106.0	Flat Low Profile Pla	1	17.150	28.983	1.00	0.00	0.000	0.000	0.00	0.00	0.00	0.00
116.0	Round Low Profile Pl	1	17.597	29.739	1.00	27.20	0.000	0.000	808.90	0.00	0.00	1,700.00
116.0	Antel BXA-171063-8BF	6	17.597	29.739	0.71	14.53	0.000	0.000	432.01	0.00	0.00	175.80
116.0	Andrew LNX-6514DS-	2	17.597	29.739	0.69	12.75	0.000	0.000	379.21	0.00	0.00	177.80
116.0	RFS APX75-866514-	1	17.597	29.739	0.64	6.84	0.000	0.000	203.46	0.00	0.00	81.10
116.0	Antel LPA-80063-6CF-	6	17.597	29.739	0.75	51.08	0.000	0.000	1,518.92	0.00	0.00	611.40
116.0	RFS DB-T1-6Z-8AB-0Z	1	17.597	29.739	1.00	6.08	0.000	0.000	180.81	0.00	0.00	144.50
116.0	Alcatel-Lucent RRH2x	3	17.597	29.739	0.50	4.30	0.000	0.000	128.03	0.00	0.00	184.20
127.0	Alcatel-Lucent 800 M	3	18.058	30.519	0.50	4.08	0.000	0.000	124.52	0.00	0.00	258.30
127.0	Alcatel-Lucent 4X40W	6	18.058	30.519	0.50	9.21	0.000	0.000	281.08	0.00	0.00	495.60
127.0	RFS APXVSPP18-C-	2	18.058	30.519	0.69	12.53	0.000	0.000	382.41	0.00	0.00	213.00
127.0	RFS APXV9ERR18-C-	1	18.058	30.519	0.71	6.45	0.000	0.000	196.75	0.00	0.00	113.90
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	Alcatel-Lucent TD-RR	3	18.058	30.519	0.67	4.88	0.000	0.000	149.06	0.00	0.00	232.20
127.0	RFS APXVTM14-C-I20	3	18.058	30.519	0.66	15.01	0.000	0.000	458.04	0.00	0.00	277.20
142.0	RFS APXV18-	3	18.644	31.508	0.68	11.63	0.000	0.000	366.38	0.00	0.00	144.39
152.0	Raycap DC6-48-60-18-	1	19.010	32.127	1.00	1.46	0.000	0.000	46.90	0.00	0.00	35.10
152.0	Ericsson RRUS 11	6	19.010	32.127	0.50	9.87	0.000	0.000	317.09	0.00	0.00	445.80
152.0	KMW AM-X-CD-16-65-	6	19.010	32.127	0.67	36.50	0.000	0.000	1,172.67	0.00	0.00	570.00
152.0	Flat Platform w/ Han	1	19.010	32.127	1.00	48.40	0.000	0.000	1,554.93	0.00	0.00	2,450.00
152.0	Powerwave 7770.00	3	19.010	32.127	0.65	12.73	0.000	0.000	409.08	0.00	0.00	203.24
152.0	Powerwave LGP21401	6	19.010	32.127	0.50	4.59	0.000	0.000	147.46	0.00	0.00	127.56
163.0	Ericsson KRY 112 144	3	19.393	32.774	0.50	0.83	0.000	0.000	27.04	0.00	27.04	42.30
163.0	Ericsson AIR 21, 1.3	3	19.393	32.774	0.71	15.34	0.000	0.000	502.63	0.00	502.63	397.80
163.0	Concealment Canister	1	19.393	32.774	1.00	20.00	0.000	0.000	655.49	0.00	655.49	300.00
									14,092.70			13,561.19

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

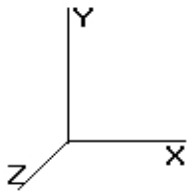


Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

Linear Appurtenance Segment Forces

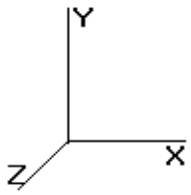
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
10.00	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	12.287	21.80	18.85
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.287	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.287	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.287	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.287	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.287	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.496	0.00	0.00
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.496	26.40	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.496	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	12.982	0.00	0.00
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.982	27.42	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	12.982	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	13.426	0.00	0.00
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.426	28.36	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	13.426	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	13.836	0.00	0.00
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.836	29.23	47.30
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	13.836	24.55	18.85



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

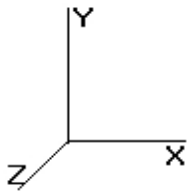
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	13.836	0.00	0.00
50.00	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	13.836	74.83	94.65
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.44	13.836	51.44	47.30
55.00	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	14.218	0.00	0.00
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.218	30.04	47.30
55.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	14.218	25.23	18.85
55.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	14.218	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	14.576	0.00	0.00
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.576	30.79	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	14.576	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	14.913	0.00	0.00
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.913	31.50	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	14.913	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	15.232	0.00	0.00
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.232	32.18	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	15.232	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	15.536	0.00	0.00
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.536	32.82	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	15.536	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	15.825	0.00	0.00
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.825	33.43	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	15.825	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	16.101	0.00	0.00
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.101	34.01	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	16.101	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	16.366	0.00	0.00
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.366	34.57	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	16.366	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	16.621	0.00	0.00
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.621	35.11	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	16.621	0.00	0.00
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



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

96.00	(1) 1 5/8" Fiber Cable	Yes	1.00	0.00	0.00	16.671	0.00	0.00
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	16.671	7.04	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) 1 1/4" Hybriflex	Yes	1.00	0.00	0.00	16.671	0.00	0.00
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	(1) 1 5/8" Fiber Cable	Yes	4.00	0.00	0.00	16.866	0.00	0.00
100.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	16.866	28.50	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) 1 1/4" Hybriflex	Yes	4.00	0.00	0.00	16.866	0.00	0.00
100.0	(19) 1 5/8" Coax	Yes	4.00	18.93	0.64	16.866	72.97	75.72
105.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	17.103	0.00	0.00
105.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.103	36.13	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	17.103	0.00	0.00
105.0	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	17.103	92.49	94.65
106.0	(1) 1 5/8" Fiber Cable	Yes	1.00	0.00	0.00	17.150	0.00	0.00
106.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.150	7.25	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) 1 1/4" Hybriflex	Yes	1.00	0.00	0.00	17.150	0.00	0.00
106.0	(19) 1 5/8" Coax	Yes	1.00	18.93	0.64	17.150	18.55	18.93
110.0	(1) 1 5/8" Fiber Cable	Yes	4.00	0.00	0.00	17.332	0.00	0.00
110.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	17.332	29.29	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) 1 1/4" Hybriflex	Yes	4.00	0.00	0.00	17.332	0.00	0.00
110.0	(19) 1 5/8" Coax	Yes	4.00	18.93	0.64	17.332	74.99	75.72
115.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	17.554	0.00	0.00
115.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.554	37.08	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) 1 1/4" Hybriflex	Yes	5.00	0.00	0.00	17.554	0.00	0.00
115.0	(19) 1 5/8" Coax	Yes	5.00	18.93	0.64	17.554	94.93	94.65
116.0	(1) 1 5/8" Fiber Cable	Yes	1.00	0.00	0.00	17.597	0.00	0.00
116.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.597	7.43	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) 1 1/4" Hybriflex	Yes	1.00	0.00	0.00	17.597	0.00	0.00
116.0	(19) 1 5/8" Coax	Yes	1.00	18.93	0.64	17.597	19.03	18.93
120.0	(1) 1 5/8" Fiber Cable	Yes	4.00	0.00	0.00	17.768	0.00	0.00
120.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	17.768	30.03	37.84
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.77	0.21	17.768	25.22	15.08
125.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	17.977	0.00	0.00
125.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.977	37.98	47.30
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.77	0.21	17.977	31.90	18.85
127.0	(1) 1 5/8" Fiber Cable	Yes	2.00	0.00	0.00	18.058	0.00	0.00
127.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.058	15.26	18.92
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	3.77	0.21	18.058	12.82	7.54
130.0	(1) 1 5/8" Fiber Cable	Yes	3.00	0.00	0.00	18.179	0.00	0.00
130.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	18.179	23.04	28.38
135.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	18.376	0.00	0.00
135.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	18.376	38.82	47.30
139.0	(1) 1 5/8" Fiber Cable	Yes	4.00	0.00	0.00	18.530	0.00	0.00
139.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	18.530	31.32	37.84
140.0	(1) 1 5/8" Fiber Cable	Yes	1.00	0.00	0.00	18.568	0.00	0.00
140.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	18.568	7.85	9.46
142.0	(1) 1 5/8" Fiber Cable	Yes	2.00	0.00	0.00	18.644	0.00	0.00
142.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.644	15.75	18.92
145.0	(1) 1 5/8" Fiber Cable	Yes	3.00	0.00	0.00	18.755	0.00	0.00
150.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	18.938	0.00	0.00

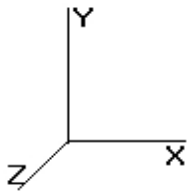


Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

152.0	(1) 1 5/8" Fiber Cable	Yes	2.00	0.00	0.00	19.010		0.00	0.00
155.0	(1) 1 5/8" Fiber Cable	Yes	3.00	0.00	0.00	19.116		0.00	0.00
160.0	(1) 1 5/8" Fiber Cable	Yes	5.00	0.00	0.00	19.290		0.00	0.00
162.0	(1) 1 5/8" Fiber Cable	Yes	2.00	0.00	0.00	19.359		0.00	0.00
							Totals:	4,254.02	4,718.05

Pole :	**302483**	**Code: TIA/EIA-222 Rev F**	**6/2/2014 3:55:23 PM**
Location :	**Brln - Berlin, CT**		**Page: 19**
Height :	**162.0 (ft)**		
Base Dia :	**51.30 (in)**		
Top Dia :	**12.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**12 Sides**		
Taper :	**0.189701 (in/ft)**		

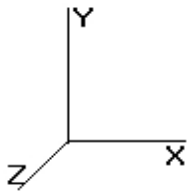


Load Case: **Ice** **69.28 mph Wind with Ice** **23 Iterations**

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	461.86	2,216.73	0.00	0.00
10.00	613.30	2,556.69	0.00	0.00
15.00	604.85	2,514.74	0.00	0.00
20.00	596.40	2,472.80	0.00	0.00
25.00	587.95	2,430.86	0.00	0.00
30.00	579.49	2,388.92	0.00	0.00
35.00	580.72	2,346.98	0.00	0.00
40.00	594.37	2,305.03	0.00	0.00
45.00	605.17	1,975.22	0.00	0.00
50.00	614.15	1,939.78	0.00	0.00
55.00	621.32	1,904.33	0.00	0.00
60.00	626.93	1,868.88	0.00	0.00
65.00	631.17	1,833.44	0.00	0.00
70.00	634.20	1,797.99	0.00	0.00
75.00	636.14	1,762.54	0.00	0.00
80.00	637.09	1,727.10	0.00	0.00
85.00	637.15	1,455.45	0.00	0.00
90.00	636.38	1,426.50	0.00	0.00
95.00	634.85	1,397.55	0.00	0.00
96.00	2,576.53	2,636.27	0.00	0.00
100.0	455.00	1,025.44	0.00	0.00
105.0	566.15	1,255.44	0.00	0.00
106.0	347.01	367.85	0.00	704.66
110.0	448.49	976.60	0.00	0.00
115.0	556.91	1,194.39	0.00	0.00
116.0	3,761.54	3,310.44	0.00	0.00
120.0	363.35	854.55	0.00	0.00
125.0	448.38	949.07	0.00	0.00
127.0	2,732.94	3,662.99	0.00	0.00
130.0	243.70	536.98	0.00	0.00
135.0	400.45	873.82	0.00	0.00
139.0	313.87	680.78	0.00	0.00
140.0	55.36	79.70	0.00	0.00
142.0	476.28	302.43	0.00	0.00
145.0	138.89	205.39	0.00	0.00
150.0	225.14	333.44	0.00	0.00
152.0	3,719.84	3,994.38	0.00	0.00
155.0	108.15	181.54	0.00	0.00
160.0	181.89	302.56	0.00	0.00
162.0	1,258.17	861.12	0.00	1,185.16
Totals:	**30,911.52**	**62,906.71**	**0.00**	**1,889.82**



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

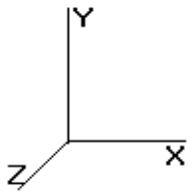
Calculated Shaft Forces and Deflections

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	-30.972	-62.876	0.000	0.000	0.000	-3,152.024	0.000	0.000	0.000	0.000
5.00	-30.625	-60.601	0.000	0.000	0.000	-2,997.166	-0.059	0.000	0.059	-0.110
10.00	-30.116	-57.988	0.000	0.000	0.000	-2,844.046	-0.233	0.000	0.233	-0.220
15.00	-29.607	-55.419	0.000	0.000	0.000	-2,693.468	-0.524	0.000	0.524	-0.331
20.00	-29.097	-52.894	0.000	0.000	0.000	-2,545.437	-0.931	0.000	0.931	-0.443
25.00	-28.586	-50.413	0.000	0.000	0.000	-2,399.957	-1.454	0.000	1.454	-0.554
30.00	-28.074	-47.975	0.000	0.000	0.000	-2,257.031	-2.095	0.000	2.095	-0.666
35.00	-27.553	-45.582	0.000	0.000	0.000	-2,116.661	-2.852	0.000	2.852	-0.778
40.00	-27.009	-43.234	0.000	0.000	0.000	-1,978.898	-3.727	0.000	3.727	-0.889
45.00	-26.459	-41.212	0.000	0.000	0.000	-1,843.853	-4.718	0.000	4.718	-1.001
50.00	-25.899	-39.225	0.000	0.000	0.000	-1,711.558	-5.837	0.000	5.837	-1.133
55.00	-25.323	-37.277	0.000	0.000	0.000	-1,582.064	-7.094	0.000	7.094	-1.263
60.00	-24.732	-35.368	0.000	0.000	0.000	-1,455.452	-8.487	0.000	8.487	-1.393
65.00	-24.128	-33.498	0.000	0.000	0.000	-1,331.794	-10.014	0.000	10.014	-1.520
70.00	-23.513	-31.667	0.000	0.000	0.000	-1,211.153	-11.674	0.000	11.674	-1.645
75.00	-22.888	-29.876	0.000	0.000	0.000	-1,093.589	-13.463	0.000	13.463	-1.768
80.00	-22.253	-28.125	0.000	0.000	0.000	-979.152	-15.379	0.000	15.379	-1.887
85.00	-21.626	-26.645	0.000	0.000	0.000	-867.887	-17.416	0.000	17.416	-2.001
90.00	-20.996	-25.194	0.000	0.000	0.000	-759.760	-19.586	0.000	19.586	-2.137
95.00	-20.339	-23.795	0.000	0.000	0.000	-654.781	-21.893	0.000	21.893	-2.265
96.00	-17.683	-21.245	0.000	0.000	0.000	-634.443	-22.370	0.000	22.370	-2.290
100.0	-17.223	-20.207	0.000	0.000	0.000	-563.713	-24.330	0.000	24.330	-2.386
105.0	-16.626	-18.958	0.000	0.000	0.000	-477.598	-26.890	0.000	26.890	-2.498
106.0	-16.280	-18.591	0.000	0.000	0.000	-460.267	-27.416	0.000	27.416	-2.521
110.0	-15.816	-17.611	0.000	0.000	0.000	-395.147	-29.563	0.000	29.563	-2.603
115.0	-15.219	-16.429	0.000	0.000	0.000	-316.070	-32.339	0.000	32.339	-2.695
116.0	-11.315	-13.292	0.000	0.000	0.000	-300.851	-32.905	0.000	32.905	-2.712
120.0	-10.927	-12.443	0.000	0.000	0.000	-255.590	-35.205	0.000	35.205	-2.777
125.0	-10.442	-11.508	0.000	0.000	0.000	-200.957	-38.152	0.000	38.152	-2.849
127.0	-7.535	-7.981	0.000	0.000	0.000	-180.073	-39.352	0.000	39.352	-2.879
130.0	-7.271	-7.450	0.000	0.000	0.000	-157.469	-41.174	0.000	41.174	-2.921
135.0	-6.832	-6.592	0.000	0.000	0.000	-121.115	-44.267	0.000	44.267	-2.983
139.0	-6.486	-5.926	0.000	0.000	0.000	-93.787	-46.783	0.000	46.783	-3.025
140.0	-6.434	-5.841	0.000	0.000	0.000	-87.301	-47.418	0.000	47.418	-3.035
142.0	-5.957	-5.548	0.000	0.000	0.000	-74.434	-48.719	0.000	48.719	-3.171
145.0	-5.825	-5.331	0.000	0.000	0.000	-56.562	-50.769	0.000	50.769	-3.346
150.0	-5.591	-5.000	0.000	0.000	0.000	-27.436	-54.392	0.000	54.392	-3.550
152.0	-1.630	-1.245	0.000	0.000	0.000	-16.255	-55.891	0.000	55.891	-3.600
155.0	-1.512	-1.069	0.000	0.000	0.000	-11.365	-58.167	0.000	58.167	-3.649
160.0	-1.311	-0.778	0.000	0.000	0.000	-3.807	-62.013	0.000	62.013	-3.693
162.0	-1.258	0.000	0.000	0.000	0.000	-1.185	-63.561	0.000	63.561	-3.699

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 23 Iterations

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

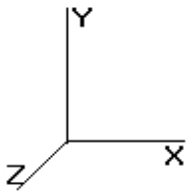
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.52	0.52	0.00	0.00	0.00	25.23	25.76	38.5	0.0	0.669
5.00	0.51	0.52	0.00	0.00	0.00	24.92	25.44	38.5	0.0	0.661
10.00	0.49	0.52	0.00	0.00	0.00	24.58	25.09	38.5	0.0	0.652
15.00	0.48	0.52	0.00	0.00	0.00	24.23	24.72	38.5	0.0	0.643
20.00	0.47	0.52	0.00	0.00	0.00	23.84	24.33	38.5	0.0	0.632
25.00	0.46	0.53	0.00	0.00	0.00	23.43	23.90	38.5	0.0	0.621
30.00	0.44	0.53	0.00	0.00	0.00	22.98	23.44	38.5	0.0	0.609
35.00	0.43	0.53	0.00	0.00	0.00	22.50	22.95	38.5	0.0	0.596
40.00	0.42	0.53	0.00	0.00	0.00	21.98	22.42	38.5	0.0	0.583
40.00	0.50	0.63	0.00	0.00	0.00	26.19	26.71	31.4	0.0	0.852
45.00	0.49	0.63	0.00	0.00	0.00	25.52	26.03	31.4	0.0	0.830
50.00	0.47	0.64	0.00	0.00	0.00	24.80	25.30	31.4	0.0	0.807
55.00	0.46	0.64	0.00	0.00	0.00	24.03	24.52	31.4	0.0	0.782
60.00	0.45	0.64	0.00	0.00	0.00	23.20	23.67	31.4	0.0	0.755
65.00	0.43	0.64	0.00	0.00	0.00	22.30	22.76	31.4	0.0	0.726
70.00	0.42	0.64	0.00	0.00	0.00	21.33	21.78	31.4	0.0	0.694
75.00	0.41	0.63	0.00	0.00	0.00	20.28	20.72	31.4	0.0	0.661
80.00	0.39	0.63	0.00	0.00	0.00	19.15	19.58	31.4	0.0	0.624
80.00	0.49	0.79	0.00	0.00	0.00	23.69	24.22	28.7	0.0	0.843
85.00	0.48	0.79	0.00	0.00	0.00	22.17	22.69	28.7	0.0	0.790
90.00	0.46	0.79	0.00	0.00	0.00	20.53	21.04	28.7	0.0	0.732
95.00	0.45	0.78	0.00	0.00	0.00	18.74	19.24	28.7	0.0	0.670
96.00	0.41	0.69	0.00	0.00	0.00	18.37	18.81	28.7	0.0	0.655
100.00	0.39	0.68	0.00	0.00	0.00	17.12	17.55	28.7	0.0	0.611
105.00	0.38	0.68	0.00	0.00	0.00	15.41	15.84	28.7	0.0	0.552
106.00	0.38	0.67	0.00	0.00	0.00	15.04	15.46	28.7	0.0	0.538
110.00	0.37	0.67	0.00	0.00	0.00	13.58	14.00	28.7	0.0	0.487
115.00	0.35	0.66	0.00	0.00	0.00	11.59	12.00	28.7	0.0	0.418
116.00	0.29	0.50	0.00	0.00	0.00	11.18	11.50	28.7	0.0	0.401
120.00	0.28	0.49	0.00	0.00	0.00	10.03	10.34	28.7	0.0	0.360
120.00	0.31	0.56	0.00	0.00	0.00	11.38	11.74	38.1	0.0	0.308
125.00	0.30	0.56	0.00	0.00	0.00	9.59	9.94	38.1	0.0	0.261
127.00	0.21	0.41	0.00	0.00	0.00	8.84	9.08	38.1	0.0	0.239
130.00	0.20	0.40	0.00	0.00	0.00	8.08	8.31	38.1	0.0	0.218
135.00	0.19	0.39	0.00	0.00	0.00	6.69	6.91	38.1	0.0	0.181
139.00	0.17	0.38	0.00	0.00	0.00	5.51	5.72	38.1	0.0	0.150
139.00	0.59	1.32	0.00	0.00	0.00	27.97	28.66	52.0	0.0	0.551
140.00	0.59	1.32	0.00	0.00	0.00	26.54	27.23	52.0	0.0	0.524
142.00	0.57	1.25	0.00	0.00	0.00	23.52	24.19	52.0	0.0	0.465
145.00	0.57	1.26	0.00	0.00	0.00	18.97	19.66	52.0	0.0	0.378
150.00	0.56	1.27	0.00	0.00	0.00	10.21	10.99	52.0	0.0	0.211
150.00	0.36	0.81	0.00	0.00	0.00	8.45	8.91	28.8	0.0	0.309
152.00	0.09	0.24	0.00	0.00	0.00	5.00	5.11	28.8	0.0	0.177
155.00	0.08	0.22	0.00	0.00	0.00	3.50	3.59	28.8	0.0	0.125
160.00	0.06	0.19	0.00	0.00	0.00	1.17	1.27	28.8	0.0	0.044
162.00	0.00	0.18	0.00	0.00	0.00	0.36	0.48	28.8	0.0	0.017

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



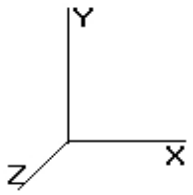
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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)	Ap (sf)	EPAs (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	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
100.0		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
105.0		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
106.0	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
110.0		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
115.0		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
116.0	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
120.0	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
125.0		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
127.0	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
130.0		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
135.0		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
139.0	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
140.0		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
142.0	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
145.0		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
150.0	Top - Section 5	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
152.0	Appertunance(s)	0.00	1.54	9.902	16.73	62.192	1.049	0.000	2.00	2.000	2.10	35.1	0.0	95.5
155.0		0.00	1.55	9.957	16.82	62.365	1.047	0.000	3.00	3.000	3.14	52.9	0.0	143.3
160.0		0.00	1.57	10.048	16.98	62.649	1.044	0.000	5.00	5.000	5.22	88.7	0.0	238.8
162.0	Appertunance(s)	0.00	1.57	10.083	17.04	62.760	1.043	0.000	2.00	2.000	2.09	35.5	0.0	95.5
							Totals:		162.00			6,355.3	0.0	36,411.3

Pole :	302483	Code: TIA/EIA-222 Rev F	6/2/2014 3:55:24 PM
Location :	Brln - Berlin, CT		Page: 23
Height :	162.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	12.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

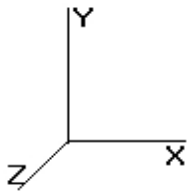
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (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	45.24	0.000	0.000	663.90	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	48" x 6" Panel	3	9.004	15.217	0.67	5.77	0.000	3.000	87.78	0.00	263.35	60.00
106.0	Flat Low Profile Pla	1	8.933	15.096	1.00	26.10	0.000	0.000	394.01	0.00	0.00	1,500.00
116.0	Round Low Profile Pl	1	9.166	15.490	1.00	21.70	0.000	0.000	336.13	0.00	0.00	1,500.00
116.0	Antel BXA-171063-8BF	6	9.166	15.490	0.71	12.52	0.000	0.000	194.00	0.00	0.00	63.00
116.0	Andrew LNX-6514DS-	2	9.166	15.490	0.69	11.27	0.000	0.000	174.64	0.00	0.00	76.80
116.0	RFS APX75-866514-	1	9.166	15.490	0.64	6.17	0.000	0.000	95.57	0.00	0.00	30.80
116.0	Antel LPA-80063-6CF-	6	9.166	15.490	0.75	43.78	0.000	0.000	678.23	0.00	0.00	162.00
116.0	RFS DB-T1-6Z-8AB-0Z	1	9.166	15.490	1.00	4.80	0.000	0.000	74.35	0.00	0.00	110.00
116.0	Alcatel-Lucent RRH2x	3	9.166	15.490	0.50	3.24	0.000	0.000	50.19	0.00	0.00	132.00
127.0	Alcatel-Lucent 800 M	3	9.406	15.896	0.50	3.09	0.000	0.000	49.12	0.00	0.00	192.00
127.0	Alcatel-Lucent 4X40W	6	9.406	15.896	0.50	9.78	0.000	0.000	155.46	0.00	0.00	357.00
127.0	RFS APXVSPP18-C-	2	9.406	15.896	0.69	11.07	0.000	0.000	175.93	0.00	0.00	114.00
127.0	RFS APXV9ERR18-C-	1	9.406	15.896	0.71	5.69	0.000	0.000	90.52	0.00	0.00	62.00
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	Alcatel-Lucent TD-RR	3	9.406	15.896	0.67	7.42	0.000	0.000	117.90	0.00	0.00	198.30
127.0	RFS APXVTM14-C-I20	3	9.406	15.896	0.66	12.55	0.000	0.000	199.55	0.00	0.00	158.70
142.0	RFS APXV18-	3	9.711	16.411	0.68	10.24	0.000	0.000	168.07	0.00	0.00	66.00
152.0	Raycap DC6-48-60-18-	1	9.902	16.734	1.00	1.11	0.000	0.000	18.57	0.00	0.00	20.00
152.0	Ericsson RRUS 11	6	9.902	16.734	0.50	7.56	0.000	0.000	126.51	0.00	0.00	330.00
152.0	KMW AM-X-CD-16-65-	6	9.902	16.734	0.67	32.24	0.000	0.000	539.50	0.00	0.00	291.00
152.0	Flat Platform w/ Han	1	9.902	16.734	1.00	42.40	0.000	0.000	709.50	0.00	0.00	2,000.00
152.0	Powerwave 7770.00	3	9.902	16.734	0.65	10.74	0.000	0.000	179.79	0.00	0.00	105.00
152.0	Powerwave LGP21401	6	9.902	16.734	0.50	3.30	0.000	0.000	55.22	0.00	0.00	84.60
163.0	Ericsson KRY 112 144	3	10.101	17.071	0.50	0.00	0.000	0.000	0.00	0.00	0.00	33.00
163.0	Ericsson AIR 21, 1.3	3	10.101	17.071	0.71	0.00	0.000	0.000	0.00	0.00	0.00	249.00
163.0	Concealment Canister	1	10.101	17.071	1.00	15.00	0.000	0.000	256.07	0.00	256.07	200.00
									6,388.41			11,287.20

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

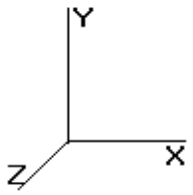


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

Linear Appurtenance Segment Forces

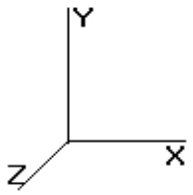
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
10.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.400	0.00	8.05
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.400	8.65	15.00
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.400	0.00	5.00
10.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.400	31.91	77.90
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
15.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.400	0.00	8.05
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.400	8.65	15.00
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.400	0.00	5.00
15.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.400	31.91	77.90
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
20.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.400	0.00	8.05
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.400	8.65	15.00
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.400	0.00	5.00
20.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.400	31.91	77.90
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
25.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.400	0.00	8.05
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.400	8.65	15.00
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.400	0.00	5.00
25.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.400	31.91	77.90
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
30.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.400	0.00	8.05
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.400	8.65	15.00
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.400	0.00	5.00
30.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.400	31.91	77.90
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.400	21.09	24.60
35.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.509	0.00	8.05
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.509	11.00	24.60
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.509	8.80	15.00
35.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.509	0.00	5.00
35.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.509	32.45	77.90
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.509	21.45	24.60
40.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.762	0.00	8.05
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.762	11.43	24.60
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.762	9.14	15.00
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.762	0.00	5.00
40.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.762	33.71	77.90
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.762	22.28	24.60
45.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	6.993	0.00	8.05
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.993	11.82	24.60
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	6.993	9.45	15.00
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	6.993	0.00	5.00
45.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	6.993	34.86	77.90
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	6.993	23.05	24.60
50.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	7.207	0.00	8.05
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.207	12.18	24.60
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	7.207	9.74	15.00



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

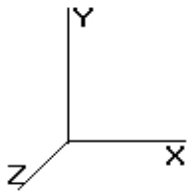
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	7.207	0.00	5.00
50.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	7.207	35.93	77.90
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.207	23.75	24.60
55.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	7.406	0.00	8.05
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.406	12.52	24.60
55.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	7.406	10.01	15.00
55.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	7.406	0.00	5.00
55.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	7.406	36.92	77.90
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.406	24.41	24.60
60.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	7.592	0.00	8.05
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.592	12.83	24.60
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	7.592	10.26	15.00
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	7.592	0.00	5.00
60.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	7.592	37.85	77.90
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.592	25.02	24.60
65.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	7.768	0.00	8.05
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.768	13.13	24.60
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	7.768	10.50	15.00
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	7.768	0.00	5.00
65.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	7.768	38.73	77.90
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.768	25.60	24.60
70.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	7.934	0.00	8.05
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.934	13.41	24.60
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	7.934	10.73	15.00
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	7.934	0.00	5.00
70.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	7.934	39.55	77.90
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	7.934	26.15	24.60
75.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.092	0.00	8.05
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.092	13.68	24.60
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.092	10.94	15.00
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.092	0.00	5.00
75.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.092	40.34	77.90
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.092	26.67	24.60
80.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.242	0.00	8.05
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.242	13.93	24.60
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.242	11.14	15.00
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.242	0.00	5.00
80.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.242	41.09	77.90
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.242	27.16	24.60
85.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.387	0.00	8.05
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.387	14.17	24.60
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.387	11.34	15.00
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.387	0.00	5.00
85.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.387	41.81	77.90
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.387	27.64	24.60
90.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.525	0.00	8.05
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.525	14.41	24.60
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.525	11.53	15.00
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.525	0.00	5.00
90.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.525	42.50	77.90
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.525	28.09	24.60
95.00	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.657	0.00	8.05
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.657	14.63	24.60
95.00	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.657	11.70	15.00
95.00	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.657	0.00	5.00
95.00	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.657	43.16	77.90
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.39	8.657	28.53	24.60



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

96.00	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	8.683	0.00	1.61
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	8.683	2.93	4.92
96.00	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	8.683	2.35	3.00
96.00	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	8.683	0.00	1.00
96.00	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	8.683	8.66	15.58
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.39	8.683	5.72	4.92
100.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	8.785	0.00	6.44
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	8.785	11.88	19.68
100.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	8.785	9.50	12.00
100.0	(1) 1 1/4" Hybriflex	Yes	4.00	1.00	0.00	8.785	0.00	4.00
100.0	(19) 1 5/8" Coax	Yes	4.00	15.58	0.59	8.785	35.04	62.32
105.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	8.908	0.00	8.05
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.908	15.06	24.60
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	8.908	12.04	15.00
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	8.908	0.00	5.00
105.0	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	8.908	44.41	77.90
106.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	8.933	0.00	1.61
106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	8.933	3.02	4.92
106.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	8.933	2.42	3.00
106.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	8.933	0.00	1.00
106.0	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	8.933	8.91	15.58
110.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	9.028	0.00	6.44
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.028	12.21	19.68
110.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	9.028	9.76	12.00
110.0	(1) 1 1/4" Hybriflex	Yes	4.00	1.00	0.00	9.028	0.00	4.00
110.0	(19) 1 5/8" Coax	Yes	4.00	15.58	0.59	9.028	36.01	62.32
115.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	9.143	0.00	8.05
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.143	15.45	24.60
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	9.143	12.36	15.00
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.00	0.00	9.143	0.00	5.00
115.0	(19) 1 5/8" Coax	Yes	5.00	15.58	0.59	9.143	45.58	77.90
116.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	9.166	0.00	1.61
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.166	3.10	4.92
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	3.00	0.16	9.166	2.48	3.00
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.00	0.00	9.166	0.00	1.00
116.0	(19) 1 5/8" Coax	Yes	1.00	15.58	0.59	9.166	9.14	15.58
120.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	9.255	0.00	6.44
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.255	12.51	19.68
120.0	(3) 1 1/4" Hybriflex	Yes	4.00	3.00	0.16	9.255	10.01	12.00
125.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	9.363	0.00	8.05
125.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.363	15.82	24.60
125.0	(3) 1 1/4" Hybriflex	Yes	5.00	3.00	0.16	9.363	12.66	15.00
127.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	9.406	0.00	3.22
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.406	6.36	9.84
127.0	(3) 1 1/4" Hybriflex	Yes	2.00	3.00	0.16	9.406	5.09	6.00
130.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	9.469	0.00	4.83
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	9.469	9.60	14.76
135.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	9.572	0.00	8.05
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.572	16.18	24.60
139.0	(1) 1 5/8" Fiber Cable	Yes	4.00	1.61	0.00	9.652	0.00	6.44
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.652	13.05	19.68
140.0	(1) 1 5/8" Fiber Cable	Yes	1.00	1.61	0.00	9.672	0.00	1.61
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.672	3.27	4.92
142.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	9.711	0.00	3.22
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.711	6.56	9.84
145.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	9.769	0.00	4.83
150.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	9.864	0.00	8.05

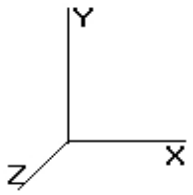


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

152.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	9.902		0.00	3.22
155.0	(1) 1 5/8" Fiber Cable	Yes	3.00	1.61	0.00	9.957		0.00	4.83
160.0	(1) 1 5/8" Fiber Cable	Yes	5.00	1.61	0.00	10.048		0.00	8.05
162.0	(1) 1 5/8" Fiber Cable	Yes	2.00	1.61	0.00	10.083		0.00	3.22
							Totals:	1,914.59	3,580.91

Pole :	**302483**	**Code: TIA/EIA-222 Rev F**	**6/2/2014 3:55:24 PM**
Location :	**Brln - Berlin, CT**		**Page: 28**
Height :	**162.0 (ft)**		
Base Dia :	**51.30 (in)**		
Top Dia :	**12.00 (in)**	**Base Elev : 0.000 (ft)**	
Shape :	**12 Sides**		
Taper :	**0.189701 (in/ft)**		

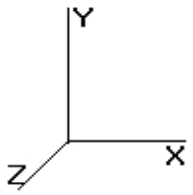


Load Case: **Twist/Sway** **50.00 mph Wind with No Ice** **23 Iterations**

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	235.93	2,057.54	0.00	0.00
10.00	303.99	2,347.51	0.00	0.00
15.00	299.59	2,308.54	0.00	0.00
20.00	295.18	2,269.57	0.00	0.00
25.00	290.78	2,230.59	0.00	0.00
30.00	286.38	2,191.62	0.00	0.00
35.00	286.76	2,152.65	0.00	0.00
40.00	293.26	2,113.68	0.00	0.00
45.00	298.32	1,786.93	0.00	0.00
50.00	302.48	1,754.46	0.00	0.00
55.00	305.74	1,721.98	0.00	0.00
60.00	308.21	1,689.50	0.00	0.00
65.00	309.99	1,657.03	0.00	0.00
70.00	311.17	1,624.55	0.00	0.00
75.00	311.80	1,592.07	0.00	0.00
80.00	311.93	1,559.59	0.00	0.00
85.00	311.61	1,290.91	0.00	0.00
90.00	310.88	1,264.93	0.00	0.00
95.00	309.76	1,238.95	0.00	0.00
96.00	1,108.33	1,936.67	0.00	0.00
100.0	222.99	919.10	0.00	0.00
105.0	277.13	1,125.49	0.00	0.00
106.0	536.63	1,781.98	0.00	263.35
110.0	219.21	875.01	0.00	0.00
115.0	271.85	1,070.37	0.00	0.00
116.0	1,656.86	2,285.56	0.00	0.00
120.0	177.63	767.11	0.00	0.00
125.0	218.84	842.74	0.00	0.00
127.0	1,289.49	2,912.73	0.00	0.00
130.0	120.41	477.28	0.00	0.00
135.0	197.60	777.27	0.00	0.00
139.0	154.62	605.45	0.00	0.00
140.0	26.62	66.08	0.00	0.00
142.0	220.85	197.20	0.00	0.00
145.0	68.09	179.64	0.00	0.00
150.0	110.11	292.97	0.00	0.00
152.0	1,664.20	2,980.85	0.00	0.00
155.0	52.85	162.89	0.00	0.00
160.0	88.65	271.48	0.00	0.00
162.0	291.61	590.59	0.00	256.07
Totals:	**14,658.33**	**55,971.07**	**0.00**	**519.41**



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

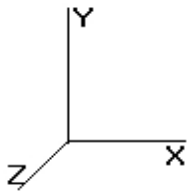
Calculated Shaft Forces and Deflections

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	-14.683	-55.964	0.000	0.000	0.000	-1,451.979	0.000	0.000	0.000	0.000
5.00	-14.494	-53.894	0.000	0.000	0.000	-1,378.564	-0.027	0.000	0.027	-0.051
10.00	-14.233	-51.534	0.000	0.000	0.000	-1,306.096	-0.107	0.000	0.107	-0.101
15.00	-13.972	-49.214	0.000	0.000	0.000	-1,234.934	-0.241	0.000	0.241	-0.152
20.00	-13.711	-46.933	0.000	0.000	0.000	-1,165.077	-0.428	0.000	0.428	-0.203
25.00	-13.451	-44.692	0.000	0.000	0.000	-1,096.522	-0.668	0.000	0.668	-0.254
30.00	-13.192	-42.490	0.000	0.000	0.000	-1,029.266	-0.962	0.000	0.962	-0.305
35.00	-12.929	-40.328	0.000	0.000	0.000	-963.307	-1.309	0.000	1.309	-0.356
40.00	-12.655	-38.205	0.000	0.000	0.000	-898.664	-1.710	0.000	1.710	-0.407
45.00	-12.378	-36.408	0.000	0.000	0.000	-835.390	-2.163	0.000	2.163	-0.457
50.00	-12.097	-34.644	0.000	0.000	0.000	-773.499	-2.674	0.000	2.674	-0.517
55.00	-11.808	-32.913	0.000	0.000	0.000	-713.016	-3.248	0.000	3.248	-0.576
60.00	-11.514	-31.215	0.000	0.000	0.000	-653.976	-3.883	0.000	3.883	-0.634
65.00	-11.214	-29.551	0.000	0.000	0.000	-596.408	-4.578	0.000	4.578	-0.692
70.00	-10.909	-27.920	0.000	0.000	0.000	-540.340	-5.333	0.000	5.333	-0.748
75.00	-10.600	-26.322	0.000	0.000	0.000	-485.795	-6.145	0.000	6.145	-0.802
80.00	-10.288	-24.758	0.000	0.000	0.000	-432.794	-7.014	0.000	7.014	-0.855
85.00	-9.979	-23.462	0.000	0.000	0.000	-381.353	-7.936	0.000	7.936	-0.905
90.00	-9.670	-22.193	0.000	0.000	0.000	-331.456	-8.917	0.000	8.917	-0.965
95.00	-9.351	-20.954	0.000	0.000	0.000	-283.106	-9.957	0.000	9.957	-1.020
96.00	-8.217	-19.034	0.000	0.000	0.000	-273.755	-10.172	0.000	10.172	-1.031
100.0	-7.991	-18.113	0.000	0.000	0.000	-240.888	-11.054	0.000	11.054	-1.072
105.0	-7.701	-16.989	0.000	0.000	0.000	-200.932	-12.204	0.000	12.204	-1.120
106.0	-7.135	-15.215	0.000	0.000	0.000	-192.968	-12.439	0.000	12.439	-1.129
110.0	-6.908	-14.341	0.000	0.000	0.000	-164.428	-13.401	0.000	13.401	-1.164
115.0	-6.619	-13.273	0.000	0.000	0.000	-129.890	-14.640	0.000	14.640	-1.202
116.0	-4.918	-11.022	0.000	0.000	0.000	-123.271	-14.893	0.000	14.893	-1.209
120.0	-4.729	-10.256	0.000	0.000	0.000	-103.601	-15.917	0.000	15.917	-1.235
125.0	-4.495	-9.417	0.000	0.000	0.000	-79.958	-17.227	0.000	17.227	-1.264
127.0	-3.143	-6.533	0.000	0.000	0.000	-70.968	-17.759	0.000	17.759	-1.276
130.0	-3.014	-6.057	0.000	0.000	0.000	-61.541	-18.567	0.000	18.567	-1.293
135.0	-2.800	-5.284	0.000	0.000	0.000	-46.472	-19.934	0.000	19.934	-1.317
139.0	-2.633	-4.682	0.000	0.000	0.000	-35.271	-21.044	0.000	21.044	-1.333
140.0	-2.607	-4.615	0.000	0.000	0.000	-32.639	-21.323	0.000	21.323	-1.336
142.0	-2.386	-4.421	0.000	0.000	0.000	-27.425	-21.895	0.000	21.895	-1.387
145.0	-2.318	-4.240	0.000	0.000	0.000	-20.268	-22.787	0.000	22.787	-1.451
150.0	-2.203	-3.948	0.000	0.000	0.000	-8.676	-24.349	0.000	24.349	-1.521
152.0	-0.460	-1.013	0.000	0.000	0.000	-4.270	-24.990	0.000	24.990	-1.536
155.0	-0.403	-0.851	0.000	0.000	0.000	-2.888	-25.959	0.000	25.959	-1.548
160.0	-0.308	-0.582	0.000	0.000	0.000	-0.871	-27.587	0.000	27.587	-1.559
162.0	-0.292	0.000	0.000	0.000	0.000	-0.256	-28.241	0.000	28.241	-1.561

Pole : 302483
Location : Brln - Berlin, CT
Height : 162.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 12.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

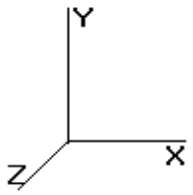


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 23 Iterations

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

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.46	0.24	0.00	0.00	0.00	11.62	12.09	38.5	0.0	0.314
5.00	0.45	0.25	0.00	0.00	0.00	11.46	11.92	38.5	0.0	0.310
10.00	0.44	0.25	0.00	0.00	0.00	11.29	11.74	38.5	0.0	0.305
15.00	0.43	0.25	0.00	0.00	0.00	11.11	11.54	38.5	0.0	0.300
20.00	0.42	0.25	0.00	0.00	0.00	10.91	11.34	38.5	0.0	0.295
25.00	0.40	0.25	0.00	0.00	0.00	10.70	11.12	38.5	0.0	0.289
30.00	0.39	0.25	0.00	0.00	0.00	10.48	10.88	38.5	0.0	0.283
35.00	0.38	0.25	0.00	0.00	0.00	10.24	10.63	38.5	0.0	0.276
40.00	0.37	0.25	0.00	0.00	0.00	9.98	10.36	38.5	0.0	0.269
40.00	0.44	0.30	0.00	0.00	0.00	11.89	12.34	31.4	0.0	0.394
45.00	0.43	0.30	0.00	0.00	0.00	11.56	12.00	31.4	0.0	0.383
50.00	0.42	0.30	0.00	0.00	0.00	11.21	11.64	31.4	0.0	0.371
55.00	0.41	0.30	0.00	0.00	0.00	10.83	11.25	31.4	0.0	0.359
60.00	0.40	0.30	0.00	0.00	0.00	10.42	10.83	31.4	0.0	0.345
65.00	0.38	0.30	0.00	0.00	0.00	9.99	10.38	31.4	0.0	0.331
70.00	0.37	0.29	0.00	0.00	0.00	9.52	9.90	31.4	0.0	0.316
75.00	0.36	0.29	0.00	0.00	0.00	9.01	9.38	31.4	0.0	0.299
80.00	0.35	0.29	0.00	0.00	0.00	8.47	8.83	31.4	0.0	0.282
80.00	0.43	0.36	0.00	0.00	0.00	10.47	10.92	28.7	0.0	0.380
85.00	0.42	0.36	0.00	0.00	0.00	9.74	10.18	28.7	0.0	0.355
90.00	0.41	0.36	0.00	0.00	0.00	8.96	9.39	28.7	0.0	0.327
95.00	0.40	0.36	0.00	0.00	0.00	8.10	8.52	28.7	0.0	0.297
96.00	0.36	0.32	0.00	0.00	0.00	7.93	8.31	28.7	0.0	0.289
100.00	0.35	0.32	0.00	0.00	0.00	7.31	7.69	28.7	0.0	0.268
105.00	0.34	0.32	0.00	0.00	0.00	6.49	6.85	28.7	0.0	0.238
106.00	0.31	0.29	0.00	0.00	0.00	6.31	6.63	28.7	0.0	0.231
110.00	0.30	0.29	0.00	0.00	0.00	5.65	5.97	28.7	0.0	0.208
115.00	0.28	0.29	0.00	0.00	0.00	4.76	5.07	28.7	0.0	0.177
116.00	0.24	0.22	0.00	0.00	0.00	4.58	4.83	28.7	0.0	0.168
120.00	0.23	0.21	0.00	0.00	0.00	4.06	4.31	28.7	0.0	0.150
120.00	0.26	0.24	0.00	0.00	0.00	4.61	4.89	38.1	0.0	0.128
125.00	0.25	0.24	0.00	0.00	0.00	3.82	4.08	38.1	0.0	0.107
127.00	0.17	0.17	0.00	0.00	0.00	3.49	3.67	38.1	0.0	0.096
130.00	0.16	0.17	0.00	0.00	0.00	3.16	3.33	38.1	0.0	0.088
135.00	0.15	0.16	0.00	0.00	0.00	2.57	2.73	38.1	0.0	0.072
139.00	0.14	0.16	0.00	0.00	0.00	2.07	2.22	38.1	0.0	0.058
139.00	0.47	0.54	0.00	0.00	0.00	10.52	11.03	52.0	0.0	0.212
140.00	0.47	0.54	0.00	0.00	0.00	9.92	10.43	52.0	0.0	0.201
142.00	0.46	0.50	0.00	0.00	0.00	8.67	9.16	52.0	0.0	0.176
145.00	0.45	0.50	0.00	0.00	0.00	6.80	7.30	52.0	0.0	0.140
150.00	0.44	0.50	0.00	0.00	0.00	3.23	3.77	52.0	0.0	0.073
150.00	0.28	0.32	0.00	0.00	0.00	2.67	3.00	28.8	0.0	0.104
152.00	0.07	0.07	0.00	0.00	0.00	1.31	1.39	28.8	0.0	0.048
155.00	0.06	0.06	0.00	0.00	0.00	0.89	0.96	28.8	0.0	0.033
160.00	0.04	0.04	0.00	0.00	0.00	0.27	0.32	28.8	0.0	0.011
162.00	0.00	0.04	0.00	0.00	0.00	0.08	0.11	28.8	0.0	0.004



Analysis Summary

	Reactions						Max Stresses			
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	37.6	0.00	55.93	0.00	0.00	3714.07	30.87	31.4	40.00	0.985
Ice	31.0	0.00	62.88	0.00	0.00	3152.02	26.71	31.4	40.00	0.852
Twist/Sway	14.7	0.00	55.96	0.00	0.00	1451.98	12.34	31.4	40.00	0.394

Code Rev.	***G***	**Date**	5/27/2014
		Engineer	NA
		Site #	302483
Moment	3714.1 k-ft	**Carrier**	Sprint Nextel
Axial	55.9 k		

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	51.3	in
	Pole Thickness	0.75	in
	Plate Length	60	in
	Plate Thickness	2	in
	Plate Fy	60	ksi
	Weld Length	0.25	in
	ϕ_s Resistance	960.01	k-in
	Applied	957.05	k-in
Stiffeners	#	***0***	

Bolts	#	***8***	
	Bolt Circle	44	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
●	Diameter	2.25	in
	Hole Diameter	2.375	in
	Type	#18J	
	Fy	75	ksi
	Fu	100	ksi
	ϕ_s Resistance	259.82	k
	Applied	216.28	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***12***	
	Bolt Circle	55.5	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
	Offset Angle	30	°
	Diameter	1.75	in
	Type	R71	
	Fy	390	ksi
	Fu	390	ksi
	ϕ_s Resistance	592.63	k
	Applied	153.20	k

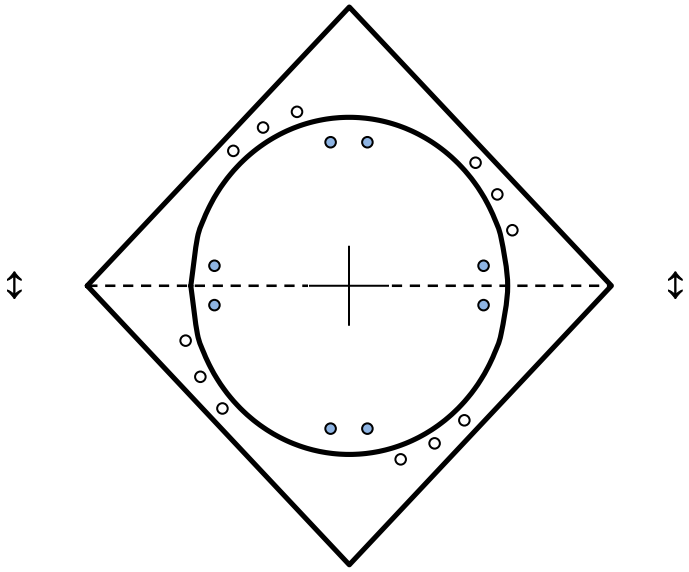


Plate Stress Ratio:
1.00 (Acceptable Overstress)

Bolt Stress Ratio:
0.83 (Pass)

Extra Bolt Stress Ratio:
0.26 (Pass)

Base/Flange Plate	Plate Type	***Flange*** ***@ 151.7 ft***
	Pole Diameter	12 in
	Pole Thickness	0.375 in
	Plate Diameter	27 in
	Plate Thickness	1 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	ϕ_s Resistance	42.41 k-in
	Applied	15.52 k-in
Stiffeners	#	***0***

Bolts	#	***12***
	Bolt Circle	20 in
	(R)adial / (S)quare	R
	Diameter	1 in
	Hole Diameter	1.1875 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	ϕ_s Resistance	54.52 k
	Applied	5.02 k
Reinforcement ●	#	***0***
Extra Bolts O	#	***0***

Code Rev. ***G***

Moment 27.4 k-ft

Axial 5.6 k

Date	5/27/2014
Engineer	NA
Site #	302483
Carrier	Sprint Nextel

Required Flange Thickness:

0.60 in OK

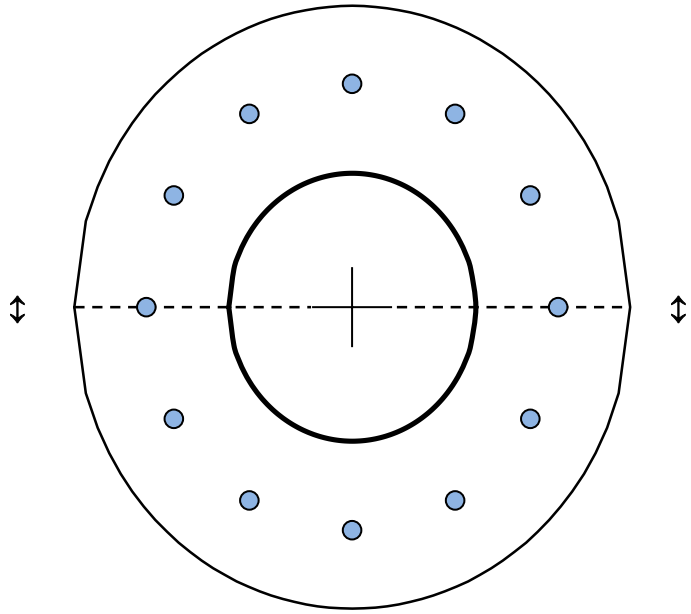


Plate Stress Ratio:

0.37 (Pass)

Bolt Stress Ratio:

0.09 (Pass)

6/2/2014

NA

#302483

Foundation Check

M=3714.07 K-ft

V=37.63 K

P=55.93 K

Sliding Factor of Safety

V=37.63 K

Total Weight = Wt. of Concrete = Wt. of Soil + P = 86.7 + 47.8 + 55.93 = 190.43 K

Ultimate friction resistance = 0.41 x (wt.) = 0.41x 190.43 = 78.076 K

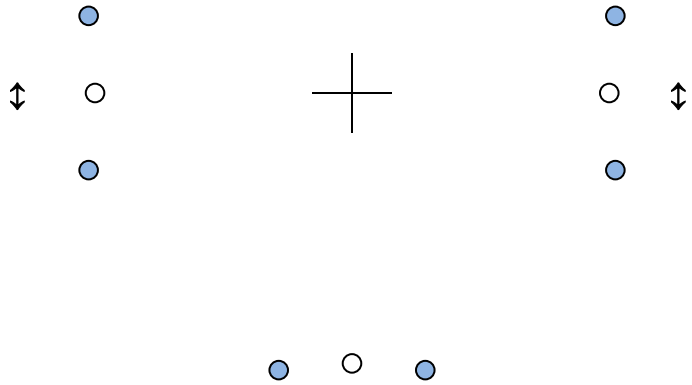
Ultimate passive sliding resistance = 11’ x 2.58’ x 1.33 = 37.7 K

Factor of Safety = 115.77/37.63 = 3.07 ; OK

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

Code Rev.	***F***
A.S.I.	1.33
Moment	3718.9 k-ft
Axial	62.2 k

Date	6/2/2014
Engineer	NA
Site #	302483
Carrier	Sprint Nextel



Bolts	#	***8***	
	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	
	Fy	294	ksi
	Fu	390	ksi
	Allowable	446.75	k
	Applied	328.79	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***4***	
	Bolt Circle	41.63	in
	(R)adial / (S)quare	R	
	Offset Angle	90	°
	Diameter	1.75	in
	Type	R71 William	
	Fy	294	ksi
	Fu	390	ksi
	Allowable	446.75	k
	Applied	344.21	k

Bolt Stress Ratio:
0.74 (Pass)

Extra Bolt Stress Ratio:
0.77 (Pass)